BIG BEND STATION

FLY ASH CARBON BURN-OUT (CBO™)

APPLICATION FOR AIR CONSTRUCTION PERMIT

RECEIVED
AUG 10 2005
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BUREAU OF AIR REGULATION

Prepared for:

TAMPA ELECTRIC
Tampa, Florida

Prepared by:

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

ECT No. 040923-0100

August 2005

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1.0 INTRODUCTION

Tampa Electric Company (Tampa Electric) requests an air construction permit to install fly ash carbon burn-out (CBO™) technology at its Big Bend Station. CBO™ technology is an integral component of the Big Bend Station nitrogen oxides (NO_x) pollution control projects required by the U.S. Environmental Protection Agency (EPA) Consent Decree and Florida Department of Environmental Protection (FDEP) Consent Final Judgment.

Tampa Electric entered into agreements with EPA and FDEP concerning the installation of additional air pollution control systems at the Big Bend Station. These agreements (EPA Consent Decree and FDEP Consent Final Judgment) included requirements to install additional systems for NO_x control on Units 1 through 4. In response to these requirements, Tampa Electric determined that the installation of combustion modifications and SCR systems are the technologies to be used to reduce NO_x emissions from Big Bend Station Units 1 through 4. However, installation of those systems to effect NO_x reductions will necessarily impact Tampa Electric's current beneficial reuse of its fly ash at the Big Bend Station.

An air construction permit application for the Unit 4 SCR control system was submitted to FDEP in February 2005. In response, on May 6, 2005, FDEP issued an air construction permit for the Unit 4 SCR control system project. In June 2005 an air construction permit application for the Unit 3 SCR control system was submitted to FDEP; this permit application is currently being reviewed by FDEP. Air construction permit applications for Units 1 and 2 SCR control systems will be submitted approximately 3 months prior to the commencement of construction activities.

Combustion by-product fly ash generated at Units 1 through 4 is presently transferred offsite and used as a raw material in the production of Portland cement or as a substitute for Portland cement in the production of concrete. The current and planned NO_x control systems for Units 1 through 4 will increase the fly ash carbon and ammonia concentrations to levels that will render the fly ash unusable as a Portland cement raw material or substitute. Big Bend Station generates approximately 280,000 tons of fly ash per year as a

result of its operations; 100 percent of that fly ash is currently transferred offsite for use in the production of either Portland cement or concrete. If the fly ash cannot be used for those purposes, this could potentially result in the landfill disposal of 280,000 tons of fly ash annually.

In addition to reducing NO_x to molecular nitrogen, the SCR control systems will unavoidably increase boiler flue gas sulfur trioxide (SO_3) concentrations due to the oxidation of sulfur dioxide (SO_2) to SO_3 by the SCR catalyst. SO_3 vapor will subsequently condense to form sulfuric acid mist aerosol as the flue gas temperature is reduced in the inlet to the wet flue gas desulfurization (FGD) control system. Sulfuric acid mist aerosol is not efficiently removed by wet FGD control systems. To avoid corrosion downstream of the ductwork and ESP internals, and avoid potential plume opacity problems, ammonia injection systems will be installed at the Big Bend Station to mitigate the environmental impacts of SO_3 formation by the SCR control systems. The ammonia injection systems will further increase the fly ash ammonia concentration to levels that are well above the maximum concentration (i.e., 50 parts per million) required for recycling the fly ash as a Portland cement raw material or substitute.

The SCR and the control measures to mitigate SO_3 formation will alter the quality of the fly ash so that it cannot be recycled in the current manner. Landfill disposal of large quantities of fly ash is not an acceptable alternative or environmentally sound. Therefore, CBO™ technology is a necessary component of the projects required by the FDEP Consent Final Judgment and EPA Consent Decree. CBO™ technology will be installed to produce a low-carbon, low-ammonia, fly ash material suitable for reuse in cement and concrete production (in lieu of landfilling the fly ash). CBO™ technology will also recover a significant portion of the energy contained in the high-carbon fly ash for beneficial use at the Big Bend Station. Heat recovered from the CBO™ process will displace the energy derived from solid fuels that would otherwise be burned in Units 3 and 4, resulting in a fuel savings and corresponding reduction in air emissions. Although the CBO™ process will cause collateral increases in air pollutant emissions, it is an important and necessary element of the significant emission reductions of the Big Bend Station NO_x Pollution Control Project.

The Big Bend Station fly ash CBO™ project is not subject to New Source Review (NSR) permitting requirements pursuant to Section V., Paragraph M of the FDEP Consent Final Judgment and Paragraph 44. of the EPA Consent Decree. The applicable provision of the FDEP Consent Final Judgment states as follows:

> M. TAMPA ELECTRIC COMPANY shall also be protected from triggering NSR requirements with respect to repairs, maintenance and physical or operation changes during the term of the Consent Final Judgment which term shall remain effective until the actions required hereunder have been implemented.
>
> FDEP Consent Final Judgment, Section V, at page 8.

Both the FDEP Consent Final Judgment and the EPA Consent Decree allow projects such as the CBO™ project that are made necessary by and undertaken during pendency of the Consent Final Judgment and Consent Decree to proceed without the need to obtain Prevention of Significant Deterioration (PSD) permits. As set forth above, installation of CBO™ technology at Big Bend Station is a crucial component of the NO_x pollution control projects required by the Consent Final Judgment and Consent Decree, without which approximately 280,000 tons of fly ash would be compromised. Accordingly, this permit application requests a non-PSD air construction permit for the Big Bend Station fly ash CBO™ project.

A pre-application meeting was held with the Bureau of Air Regulation staff in Tallahassee on May 31, 2005. One issue discussed at this meeting was the planned location of the CBO™ return stream at the common duct on Units 3 and 4 downstream of the SCR control systems and upstream of the common flue gas desulfurization (FGD) control system. As the Department was advised, routing the relatively low temperature CBO™ return stream immediately upstream of a SCR control system is problematical due to SCR temperature constraints. The temperature of the SCR inlet stream, with the inclusion of the CBO™ return, could be reduced below the minimum SCR effective operating temperature, particularly at low boiler loads, resulting in possible compliance issues. Tampa Electric also considered routing the CBO™ return to the boiler wind boxes of Unit 3 and 4. However, this option is not feasible due to the risk of boiler operational problems aris-

ing from a CBO™ trip at low boiler loads. This situation could lead to possible compliance issues and/or a boiler trip causing a loss in generation. The planned location of the CBO™ return at the common duct on Units 3 and 4 was selected so as not to jeopardize the safe and effective operation of Units 3 and 4 and their SCR control systems.

Another issue raised during the pre-application meeting was that of potential mercury emissions associated with the CBO™ process. Extensive testing conducted by the CBO™ process vendor, Progress Materials, Inc. (PMI), has confirmed that essentially all of the mercury present in the feed fly ash to the CBO™ process will remain with the CBO™ process product fly ash; therefore, mercury emissions are not an issue with the CBO™ process.

Regarding emissions monitoring, Tampa Electric proposes to conduct initial and annual sampling for NO_x and CO of the CBO™ return prior to entering the common Units 3 and 4 FGD inlet duct in accordance with the requirements of Rule 62-297.310(7)(a)4.b., F.A.C. The existing SO_2 CEMS located downstream of Units 3 and 4 FGD will be used to monitor SO_2 emissions from Units 3 and 4 and the CBO™ return. Consistent with current testing requirements, initial and annual of sampling for particulate matter (PM) will also be conducted downstream of Units 3 and 4 FGD to measure PM from Units 3 and 4 and the CBO™ return.

The fly ash CBO™ project will process fly ash from each of the four Big Bend Station Units following installation of SCR control systems on each unit. Accordingly, construction of the CBO™ project should commence no later than October 1, 2005 in order to be operational prior to completion of the first Big Bend Station SCR installation on Unit 4.

Following this introduction, a description of the CBO™ process and discussion of project emissions are provided in Sections 2.0 and 3.0, respectively. Attachment B provides FDEP's Application for Air Permit—Long Form. Attachment B provides detailed CBO™ technology emission rate calculations.

2.0 PROCESS DESCRIPTION

CBO™ technology is a proprietary, patented, environmentally beneficial technology whose primary function is the production of low-carbon, low-ammonia fly ash material suitable for commercial use as a Portland cement raw material or substitute. Major components of the CBO™ process planned for the Big Bend Station include a feed fly ash silo, feed and product fly ash storage domes, fluidized bed combustor (FBC), hot cyclones for fly ash recycle to the FBC, heat recovery heat exchanger, cold cyclone and fabric filter baghouse for product fly ash recovery, and product fly ash truck loading. A flow diagram of the CBO™ process proposed for the Big Bend Station is provided in Figure 2-1. A process flow diagram for Units 1 through 4, including all air emission control equipment, is shown in Figure 2-2. A plan view of the Big Bend Station showing the locations of the CBO™ process emission points is provided in Figure 2-3.

Fly ash from Units 1 through 4 electrostatic precipitators (ESPs) will be conveyed pneumatically to the CBO™ feed fly ash silo or feed fly ash storage dome. The ESPs are located downstream of the SCR and SO_3 air emission control systems and therefore will collect high-carbon, ammoniated fly ash from Units 1 through 4 combustion gas streams. The feed fly ash silo will vent through a baghouse prior to discharging to the atmosphere (Emission Point ID CBO-001). The feed fly ash storage dome will also vent through a baghouse prior to discharging to the atmosphere (Emission Point ID CBO-002).

Fly ash from the feed silo will then be fed to the FBC for oxidation of carbon contained in the fly ash to carbon dioxide. The high temperature FBC process will also reduce fly ash ammonia compounds to molecular nitrogen (N_2) and water. The CBO™ technology does not require any auxiliary fuel to operate, with the limited exception of a minimal amount of start up fuel to initiate the combustion process. As with any fossil fuel combustion process, the FBC combustion gases will also contain combustion by-products including NO_x, carbon monoxide (CO), SO_2, particulate matter less than or equal to 10 micrometers (PM_{10}), and volatile organic compounds (VOCs). The CBO™ process

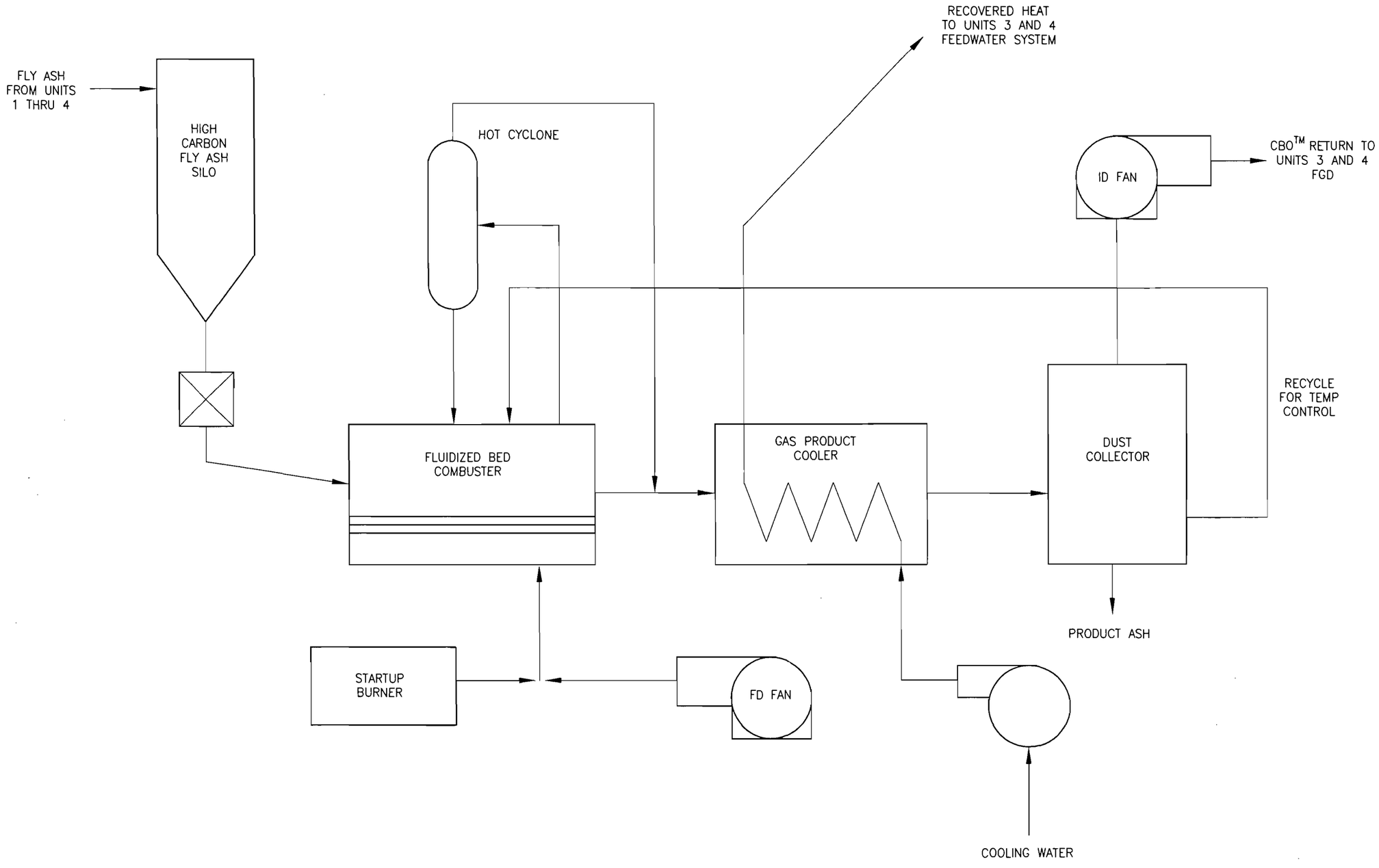

FIGURE 2-1.

CARBON BURN-OUT PROCESS FLOW DIAGRAM

Source: PMI, 2005.

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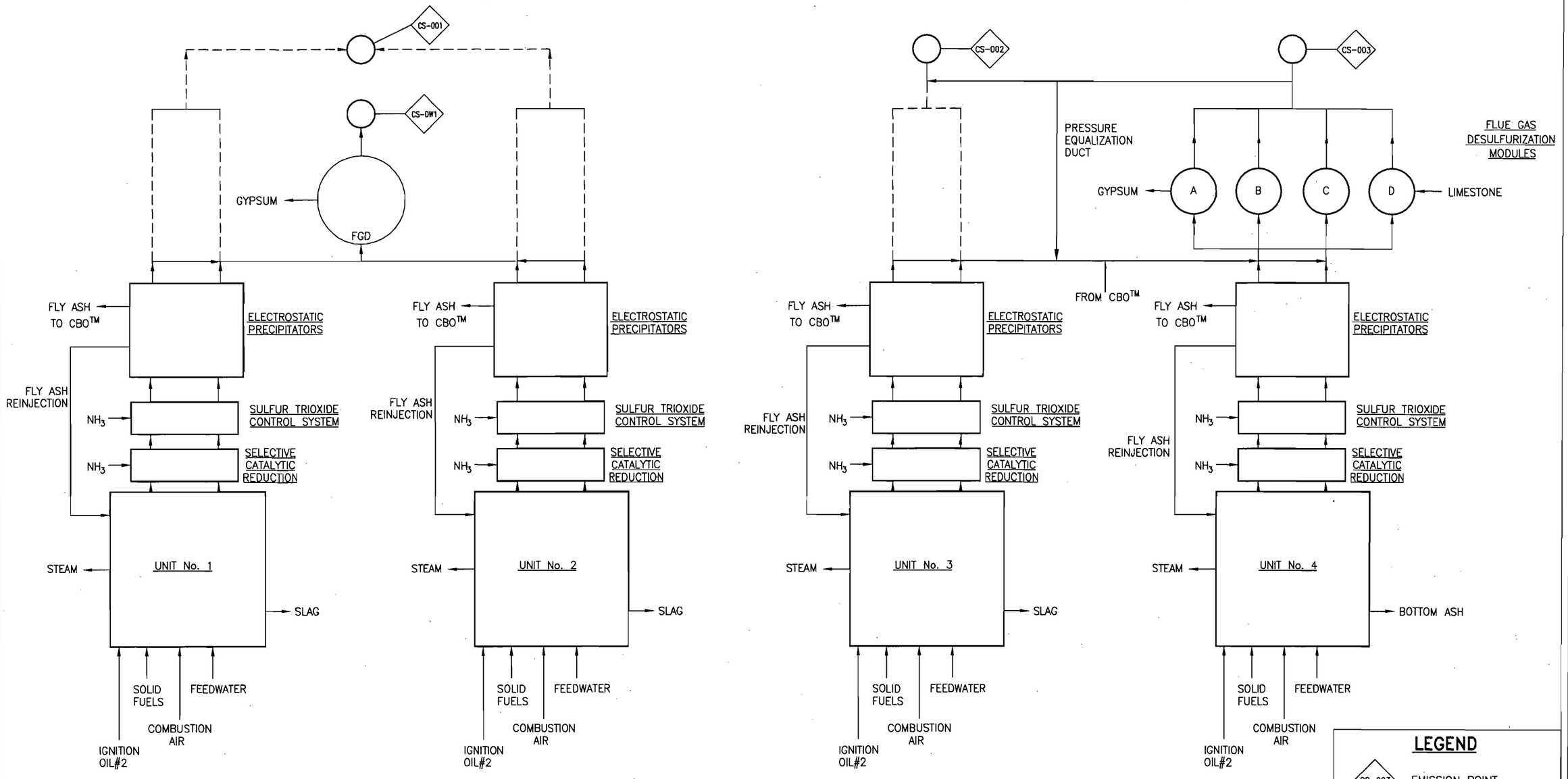

FIGURE 2-2.

UNITS 1 THRU 4 FLOW DIAGRAM

Source: ECT, 2005.

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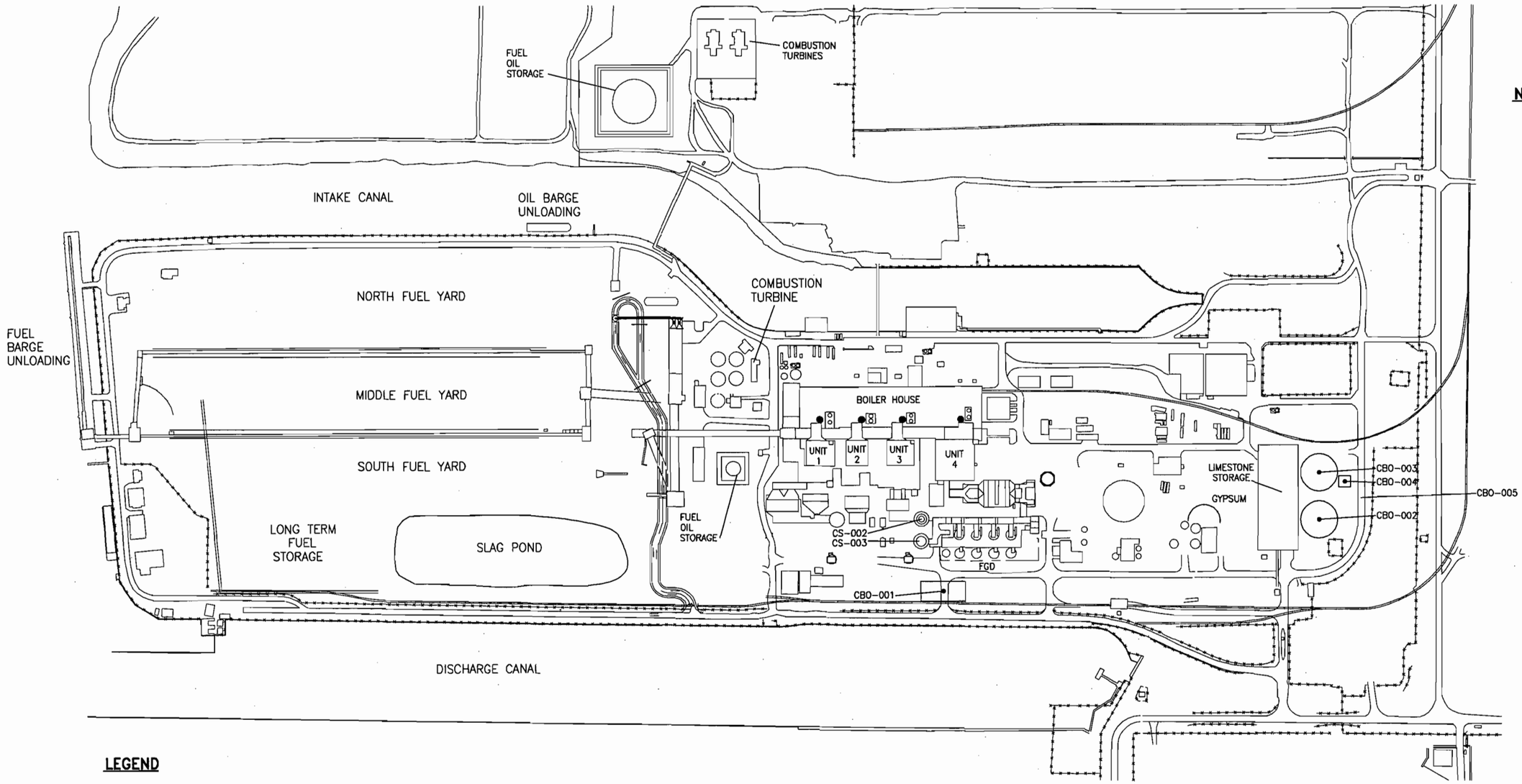

FIGURE 2-3.

BURN-OUT EMISSION SOURCE LOCATIONS

Sources: Boral, 2005; ECT, 2005.

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includes a forced draft fan to provide fluidization and combustion air to the FBC. An induced draft fan maintains the FBC freeboard pressure slightly below atmospheric pressure.

The FBC exhaust stream will be routed through hot cyclones to capture fly ash entrained in the FBC exhaust stream. Fly ash captured by the hot cyclones is returned to the FBC. The hot cyclones exhaust and FBC low carbon product ash streams are combined and sent to the gas/product cooler heat exchanger for heat recovery. Thermal energy recovered from the CBO™ process will be used to heat condensate from the Units 3 and/or 4 low-pressure feedwater systems. Unit 3 will be the primary recipient of the recovered CBO™ process energy; Unit 4 will be used during periods when Unit 3 is not available. Reuse of the CBO™ process recovered energy saves fuel that would otherwise need to be burned in Units 3 and 4. This will result in less coal being consumed per Unit of electric output, with corresponding reductions in air pollutant emissions. The improvement in Unit 3 and Unit 4 heat rate, due to the use of recovered energy from the CBO™ process, represents recovery of a portion of the efficiency lost when combustion controls were installed on Units 3 and 4 for NO_x reduction purposes. Lower combustion efficiency is a consequence of the lower flame temperatures and lower oxygen available in the combustion zone which is necessary to reduce NO_x emissions. This is the reason for the increase in fly ash carbon content.

Following heat recovery, the cooled FBC combustion gases, containing entrained product fly ash, will be routed through a cold cyclone and fabric filter baghouse for product fly ash separation. The exhaust from the fabric filter baghouse (i.e., the CBO™ return) will be routed to the inlet of Units 3 and 4 flue gas desulfurization (FGD) emission control system and subsequently discharged to the atmosphere through the existing Units 3 and 4 stacks (Emission Point IDs CS-002 and CS-003).

Product fly ash separated by the cold cyclone and fabric filter baghouse will be sent to a surge bin. A portion of the cooled, low-carbon product will be recycled to the FBC for temperature control. The remaining product ash is then conveyed pneumatically to the product fly ash storage dome or directly to a truck loadout silo. The product fly ash stor-

age dome will vent through a baghouse prior to discharging to the atmosphere (Emission Point ID CBO-003). The feed and product fly ash storage domes will be used to provide flexibility in product fly ash marketing. Product fly ash will be conveyed to the truck loadout silo for subsequent transfer to trucks for shipment to offsite customers. The PM_{10} emissions captured during the truck loading process will be routed to the truck loadout silo which will vent through a baghouse prior to discharging to the atmosphere (Emission Point ID CBO-004).

The product fly ash trucks will travel on paved roads within Big Bend Station and then exit the plant for delivery to offsite customers. Fugitive particulate matter (PM)/PM_{10} emissions associated with product fly ash truck traffic on Big Bend Station paved roads (Emission Point CBO-005) will be controlled by periodic watering on an as-needed basis.

3.0 PROJECT EMISSION RATES

Emissions associated with the CBO™ pollution control project include PM_{10} due to fly ash handling and storage and combustion by-products (NO_x, CO, SO_2, PM_{10}, and VOC) due to combustion of feed fly ash in the CBO™ FBC. A plan view of the Big Bend Station showing the locations of the CBO™ process emission points was previously provided in Figure 2-3. Detailed emission rate calculations are provided in Attachment B. Each of these CBO™ emission areas is discussed in the following sections.

Material Handling and Storage PM_{10} Emissions

The CBO™ process will include five PM_{10} emission points associated with material handling and storage activities. These PM_{10} emission points include: (1) feed fly ash silo (Emission Point CBO-001), (2) feed fly ash storage dome (Emission Point CBO-002), (3) product fly ash storage dome (Emission Point CBO-003), (4) product fly ash truck loadout storage silo and truck loading operation (Emission Point CBO-004), and (5) fugitive emissions associated with product fly ash truck traffic on paved Big Bend Station roads (Emission Point CBO-005).

The feed fly ash silo, feed and product fly ash storage domes, and product fly ash truck loadout silo will each be equipped with fabric filter baghouses designed to achieve an outlet PM_{10} concentration of no more than 0.020 grains per dry standard cubic foot (gr/dscf). These baghouses will employ Nomex™/Teflon™ filter bags and pulse jet cleaning. Design pressure drop for each baghouse is 6 inches of water. Baghouse air-to-cloth ratios are 3:1 (feed fly ash silo) and 4:1 (feed and product fly ash storage domes and product fly ash truck loadout silo). The truck loading operation will include a telescoping chute with local ventilation designed to capture the fugitive PM_{10} emissions that would otherwise occur in the absence of this collection equipment. The PM_{10} emissions captured during the truck loading process will be routed to the truck loadout silo. Fugitive PM_{10} emissions associated with product fly ash truck traffic on paved Big Bend Station roads will be minor due to relatively short travel distances. Potential PM_{10} emissions, based on the conservative premise of continuous operation, total 16.4 tons per year (tpy) for these CBO™ emission sources.

The existing Big Bend Station fly ash handling and storage systems will remain in use. However, the existing fly ash truck loading equipment will not be used while the CBO™ process is operational.

CBO™ Combustion By-Product Emissions

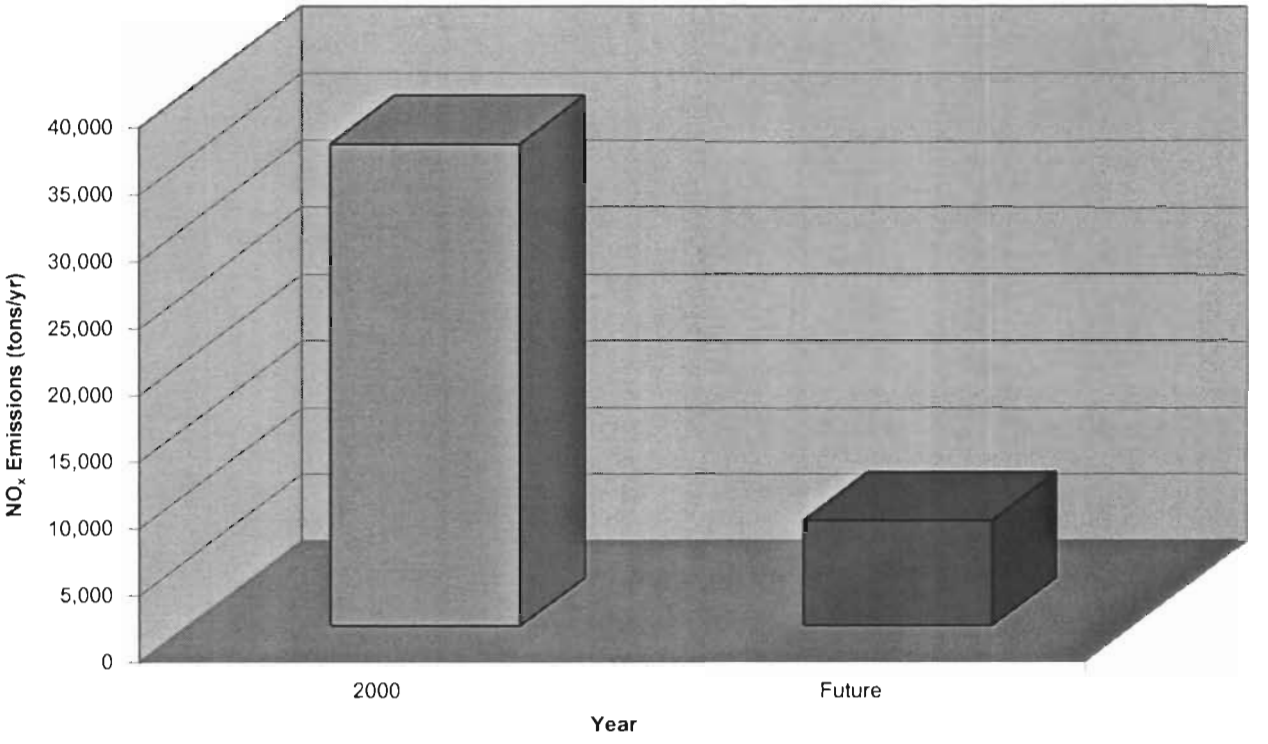
The CBO™ FBC combustion gases will contain combustion by-products including NO_x, CO, SO_2, PM_{10}, and VOCs. The CBO™ FBC will utilize good combustion practices to minimize emissions of CO. Following product fly ash separation by the cold cyclone and fabric filter baghouse, this exhaust stream will be routed to the inlet of Units 3 and 4 FGD control system prior to discharging to the atmosphere through existing Units 3 and 4 stacks. Emission estimates for these combustion by-products, provided in Attachment B, were developed based on data provided by the CBO™ vendor, Progress Materials, Inc. (PMI).

Including the CBO™ return stream, the Units 3 and 4 FGD control system will continue to achieve the SO_2 removal rates required by the EPA Consent Decree and FDEP Consent Final Judgment. Units 3 and 4 will also continue to comply with the PM emission limits required by the EPA Consent Decree and FDEP Consent Final Judgment.

As noted in Section 2.0, reuse of the CBO™ process recovered energy will save fuel that would otherwise need to be consumed in Units 3 and 4. The emission rate increases associated with the Big Bend Station CBO™ process range from 362 tpy (for NO_x) to 22.9 tpy (for PM_{10}). NO_x emissions from the Big Bend Station CBO™ process are expected to be greater than some other CBO™ process installations due to the high ammonia levels in the Big Bend fly ash. The increased NO_x emissions are a direct consequence of the SO_3 mitigation system and constitute a small collateral impact.

The Big Bend Station NO_x pollution control projects, including the integral CBO™ process, are environmentally beneficial due to the substantial reductions in actual NO_x emissions that will occur following completion of these projects. Actual Big Bend Station NO_x emissions in 2000 totaled 36,073 tons. Future Big Bend Station actual NO_x emissions, following completion of the NO_x pollution control projects, are estimated to total

approximately 7,900 tpy resulting in an actual NO_x emissions reduction of over 28,000 tpy. This substantial decrease in actual NO_x emissions is illustrated below.



ATTACHMENT A

FDEP APPLICATION FOR AIR PERMIT—LONG FORM

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: **13031 Wyandotte Road** City: **Apollo Beach** County: **Hillsborough** Zip Code: **33572**	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☒ Yes ☐ 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: **sscastro@tecoenergy.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	8-8-2005
2. Project Number(s):	0570039-023-AC
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

Project consists of the addition of carbon burn-out (CBO™) technology at the Big Bend Station. CBO™ technology is an integral component of the Big Bend Station nitrogen oxides (NO_x) pollution control projects required by the FDEP Consent Final Judgment and the EPA Consent Decree.

The Big Bend Station CBO™ technology project is not subject to Prevention of Significant Deterioration (PSD) New Source Review (NSR) in accordance with Section V., Paragraph M of the FDEP Consent Final Judgment and Paragraph 44. of the EPA Consent Decree. These provisions allow projects that are undertaken pursuant to the Consent Final Judgment and Consent Decree to proceed without the need to obtain PSD permits. As requested by FDEP, this application constitutes TEC's request for a non-PSD air construction permit for the Big Bend Station CBO™ technology pollution control project.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
040	CBO™ Feed Fly Ash Silo	N/A	N/A
041	CBO™ Feed Fly Ash Storage Dome	N/A	N/A
042	CBO™ Product Fly Ash Storage Dome	N/A	N/A
043	CBO™ Product Fly Ash Truck Loadout Storage Silo and Truck Loading	N/A	N/A
044	CBO™ Product Fly Ash Truck Fugitives	N/A	N/A
045	CBO™ Fluidized Bed Combustor (FBC)	N/A	N/A

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☒ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name:
   Karen Sheffield, General Manager, Big Bend Station

2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **Tampa Electric Company**
   Street Address: **P.O. Box 111**
   City: **Tampa** State: **Florida** Zip Code: **33601-0111**

3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **813-228-4111** ext. Fax: **813-228-1308**

4. Owner/Authorized Representative Email Address: **kasheffield@tecoenergy.com**

5. Owner/Authorized Representative Statement:

   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.

   _____ _____
   Signature Date

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name:
   Karen Sheffield, General Manager, Big Bend Station

2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **Tampa Electric Company**
   Street Address: **P.O. Box 111**
   City: **Tampa** State: **Florida** Zip Code: **33601-0111**

3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **813-228-4111** ext. Fax: **813-228-1308**

4. Owner/Authorized Representative Email Address: **kasheffield@tecoenergy.com**

5. Owner/Authorized Representative Statement:

   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.

Karen A. Sheffield — Signature

8/3/05 — Date

APPLICATION INFORMATION

Application Responsible Official Certification **N/A**

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:

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   ☐ 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.

   ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm:
   Street Address:
   City: State: Zip Code:

4. Application Responsible Official Telephone Numbers...
   Telephone: ext. Fax:

5. Application Responsible Official Email Address:

6. Application Responsible Official Certification:

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.

Signature Date

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

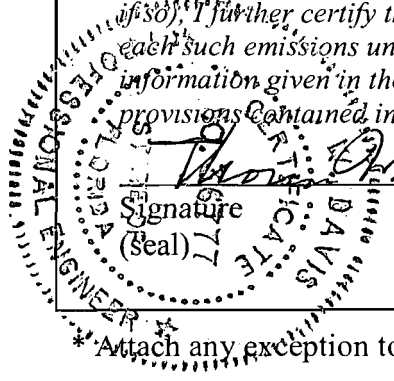
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions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

(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.

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

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, 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 ☐, 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.

(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 ☐, 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.



Signature (seal)

8/4/05
Date

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

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**
VOC	**A**	**N**
H106 (Hydrogen Chloride)	**A**	**N**
H107 (Hydrogen Fluoride)	**A**	**N**
H133 (Nickel Compounds)	**A**	**N**
HAPS (Total)	**A**	**N**

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
SO2	**N**	**001 – 004**		**71,810**	**ESCPSD**
PM/PM10	**N**	**001 – 004**		**2,767**	**ESCPSD**

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

Additional SO_2 caps for Units 001 – 003 are 6.5 lb/mmBtu (2-hour average), 31.5 ton/hr (3-hour average), and 25 ton/hr (24-hour block average). In addition, Units 001 and 002 are limited to 16.5 ton/hr SO_2 (24-hour block average).

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) ☒ Attached, Document ID: **Fig. 2-3** ☐ 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) ☒ Attached, Document ID: **Figs. 2-1 & 2-2** ☐ 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) ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date: **Oct. 2004**

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: ☐ Attached, Document ID: ☒ Previously Submitted, Date: **June 30, 2004**
2. Description of Proposed Construction or Modification: ☒ Attached, Document ID: **Section 2.0** ☐ Not Applicable
3. Rule Applicability Analysis: ☐ Attached, Document ID: ☒ Previously Submitted, Date: **June 30, 2004**
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): ☐ Attached, Document ID:_____ ☒ Not Applicable
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): ☐ Attached, Document ID: ☒ Previously Submitted, Date: **June 30, 2004**
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): ☐ Attached, Document ID:_____ ☒ Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): ☐ Attached, Document ID: ☒ Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): ☐ Attached, Document ID:_____ ☒ Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): ☐ Attached, Document ID:_____ ☒ Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): ☐ Attached, Document ID:_____ ☒ Not Applicable

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.):
   ☐ Attached, Document ID: ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications **N/A**

See comment below

1. List of Insignificant Activities (Required for initial/renewal applications only):
   ☐ Attached, Document ID: _____ ☐ 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):
   ☐ Attached, Document ID: _____
   ☐ Not Applicable
3. Compliance Report and Plan (Required for all initial/revision/renewal applications):
   ☐ 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):
   ☐ Attached, Document ID:_____
   ☐ Equipment/Activities On site but Not Required to be Individually Listed
   ☐ Not Applicable
5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :
   ☐ Attached, Document ID:_____ ☐ Not Applicable
6. Requested Changes to Current Title V Air Operation Permit:
   ☐ Attached, Document ID:_____ ☐ Not Applicable

Additional Requirements Comment

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:

CBO™ Feed Fly Ash Silo

3. Emissions Unit Identification Number: **040**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**10/01/05**		**49**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Fabric Filter - Low Temperature
[Control Device Code 018]

2. Control Device or Method Code(s): **018**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **47 tons/hr**		
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:		
4. Maximum Incineration Rate:	pounds/hr 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:		

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: **CBO-001**	2. Emission Point Type Code: **1**	
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: **H**	6. Stack Height: **93 feet**	7. Exit Diameter: **1.3 feet**
8. Exit Temperature: **77 °F**	9. Actual Volumetric Flow Rate: **2,400 acfm**	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Feed Fly Ash Storage**		
2. Source Classification Code (SCC): **3-05-009-99**	3. SCC Units: **Tons Transferred or Handled**	
4. Maximum Hourly Rate: **47**	5. Maximum Annual Rate: **330,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
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:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**018**		**EL**
PM10	**018**		**NS**

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: **99 percent**
3. Potential Emissions: **0.4** lb/hour **1.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.02 gr/dscf** Reference: **Vendor Data**	7. Emissions Method Code: **2**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

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.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **Rule**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **5% Opacity**	4. Equivalent Allowable Emissions: **0.4** lb/hour **1.8** tons/year
5. Method of Compliance: **EPA Reference Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Rule 62-297.620(4), F.A.C.**	

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):	

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: **99 percent**
3. Potential Emissions: **0.4** lb/hour **1.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.02 gr/dscf** Reference: **Vendor Data**	7. Emissions Method Code: **2**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

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.

Allowable Emissions Allowable Emissions __ of ___ **N/A**

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):	

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):	

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):	

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 1

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: ☒ Rule ☐ 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: **Rule 62-297.620(4), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation ___ of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

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:	☐ Rule ☐ 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:	☐ Rule ☐ Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

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)
   ☒ Attached, Document ID: **Figs. 2-1 & 2-2** ☐ 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)
   ☐ Attached, Document ID: ☒ 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)
   ☒ Attached, Document ID: **Section 3.0** ☐ Previously Submitted, Date

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)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date
   ☒ Not Applicable (construction application)

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)
   ☐ Attached, Document ID: ☒ Previously Submitted, Date **June 2004**
   ☐ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID:
   Test Date(s)/Pollutant(s) Tested:

   ☐ Previously Submitted, Date:
   Test Date(s)/Pollutant(s) Tested:

   ☐ To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested:

   ☒ 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
   ☐ Attached, Document ID: ☒ Not Applicable

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))
   ☐ Attached, Document ID: ☒ 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.)
   ☐ Attached, Document ID: ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

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

Additional Requirements Comment

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:

CBO™ Feed Fly Ash Storage Dome

3. Emissions Unit Identification Number: **041**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**10/01/05**		**49**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Fabric Filter - Medium Temperature
[Control Device Code 017]

2. Control Device or Method Code(s): **017**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **75 tons/hr**		
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:		
4. Maximum Incineration Rate:	pounds/hr 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:		

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: **CBO-002**	2. Emission Point Type Code: **1**	
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: **H**	6. Stack Height: **106 feet**	7. Exit Diameter: **2.2 feet**
8. Exit Temperature: **200 °F**	9. Actual Volumetric Flow Rate: **8,000 acfm**	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment **1** of **1**

1. Segment Description (Process/Fuel Type): **Feed Fly Ash Storage**		
2. Source Classification Code (SCC): **3-05-009-99**	3. SCC Units: **Tons Transferred or Handled**	
4. Maximum Hourly Rate: **75**	5. Maximum Annual Rate: **330,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
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:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**017**		**EL**
PM10	**017**		**NS**

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: **99 percent**
3. Potential Emissions: **1.1** lb/hour **4.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.02 gr/dscf** Reference: **Vendor Data**	7. Emissions Method Code: **2**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

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.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: **Rule**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **5% Opacity**	4. Equivalent Allowable Emissions: **1.1** lb/hour **4.8** tons/year
5. Method of Compliance: **EPA Reference Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Rule 62-297.620(4), F.A.C.**	

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):	

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: **99 percent**
3. Potential Emissions: **1.1** lb/hour **4.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.02 gr/dscf** Reference: **Vendor Data**	7. Emissions Method Code: **2**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

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.

Allowable Emissions Allowable Emissions __ of ___ **N/A**

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):	

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):	

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):	

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 **1**

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: ☒ Rule ☐ 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: **Rule 62-297.620(4), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation ___ of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
6. Visible Emissions Comment:	

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:	☐ Rule ☐ 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:	☐ Rule ☐ Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

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)
   ☒ Attached, Document ID: **Figs. 2-1 & 2-2** ☐ 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)
   ☐ Attached, Document ID: ☒ 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)
   ☒ Attached, Document ID: **Section 3.0** ☐ Previously Submitted, Date

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)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date
   ☒ Not Applicable (construction application)

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)
   ☐ Attached, Document ID: ☒ Previously Submitted, Date **June 2004**
   ☐ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID:
   Test Date(s)/Pollutant(s) Tested:

   ☐ Previously Submitted, Date:
   Test Date(s)/Pollutant(s) Tested:

   ☐ To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested:

   ☒ 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
   ☐ Attached, Document ID: ☒ Not Applicable

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))
   ☐ Attached, Document ID: ☒ 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.)
   ☐ Attached, Document ID: ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

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

Additional Requirements Comment

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.

3. Description of Emissions Unit Addressed in this Section:

CBO™ Product Fly Ash Storage Dome

3. Emissions Unit Identification Number: **042**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**10/01/05**		**49**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Fabric Filter - Medium Temperature
[Control Device Code 017]

2. Control Device or Method Code(s): **017**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **75 tons/hr**		
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:		
4. Maximum Incineration Rate:	pounds/hr 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:		

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: **CBO-003**	2. Emission Point Type Code: **1**	
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: **H**	6. Stack Height: **106 feet**	7. Exit Diameter: **2.2 feet**
8. Exit Temperature: **200** °F	9. Actual Volumetric Flow Rate: **8,000 acfm**	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment **1** of **1**

1. Segment Description (Process/Fuel Type): **Product Fly Ash Storage**		
2. Source Classification Code (SCC): **3-05-009-99**	3. SCC Units: **Tons Transferred or Handled**	
4. Maximum Hourly Rate: **75**	5. Maximum Annual Rate: **330,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
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:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**017**		**EL**
PM10	**017**		**NS**

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: **99 percent**
3. Potential Emissions: **1.1** lb/hour **4.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.02 gr/dscf** Reference: **Vendor Data**	7. Emissions Method Code: **2**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

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.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **Rule**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **5% Opacity**	4. Equivalent Allowable Emissions: **1.1** lb/hour **4.8** tons/year
5. Method of Compliance: **EPA Reference Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Rule 62-297.620(4), F.A.C.**	

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):	

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: **99 percent**
3. Potential Emissions: **1.1** lb/hour **4.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.02 gr/dscf** Reference: **Vendor Data**	7. Emissions Method Code: **2**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

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.

Allowable Emissions Allowable Emissions __ of ___ **N/A**

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):	

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):	

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):	

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 **1**

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: ☒ Rule ☐ 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: **Rule 62-297.620(4), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation ___ of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
7. Visible Emissions Comment:	

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:	☐ Rule ☐ 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:	☐ Rule ☐ Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

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)
   ☒ Attached, Document ID: **Figs. 2-1 & 2-2** ☐ 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)
   ☐ Attached, Document ID: ☒ 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)
   ☒ Attached, Document ID: **Section 3.0** ☐ Previously Submitted, Date

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)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date
   ☒ Not Applicable (construction application)

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)
   ☐ Attached, Document ID: ☒ Previously Submitted, Date **June 2004**
   ☐ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID:
   Test Date(s)/Pollutant(s) Tested:

   ☐ Previously Submitted, Date:
   Test Date(s)/Pollutant(s) Tested:

   ☐ To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested:

   ☒ 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
   ☐ Attached, Document ID: ☒ Not Applicable

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))
   ☐ Attached, Document ID: ☒ 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.)
   ☐ Attached, Document ID: ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications **N/A**

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

Additional Requirements Comment

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.

4. Description of Emissions Unit Addressed in this Section:

CBO™ Product Fly Ash Truck Loadout Storage Silo and Truck Loading

3. Emissions Unit Identification Number: **043**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**10/01/05**		**49**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Fabric Filter - Medium Temperature
[Control Device Code 017]

2. Control Device or Method Code(s): **017**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **75 tons/hr**		
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:		
4. Maximum Incineration Rate:	pounds/hr 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:		

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: **CBO-004**	2. Emission Point Type Code: **2**	
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: **Product Fly Ash Truck Loading Silo** **Product Fly Ash Truck Loading**		
5. Discharge Type Code: **H**	6. Stack Height: **87 feet**	7. Exit Diameter: **1.9 feet**
8. Exit Temperature: **200 °F**	9. Actual Volumetric Flow Rate: **8,000 acfm**	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment **1** of **1**

1. Segment Description (Process/Fuel Type): **Product Fly Ash Storage and Handling**		
2. Source Classification Code (SCC): **3-05-009-99**	3. SCC Units: **Tons Transferred or Handled**	
4. Maximum Hourly Rate: **75**	5. Maximum Annual Rate: **300,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
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:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**017**		**EL**
PM10	**017**		**NS**

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: **99 percent**
3. Potential Emissions: **1.1** lb/hour **4.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.02 gr/dscf** Reference: **Vendor Data**	7. Emissions Method Code: **2**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

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.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **Rule**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **5% Opacity**	4. Equivalent Allowable Emissions: **1.1** lb/hour **4.8** tons/year
5. Method of Compliance: **EPA Reference Method 9**	
6. Allowable Emissions Comment (Description of Operating Method): **Rule 62-297.620(4), F.A.C.**	

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):	

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: **99 percent**
3. Potential Emissions: **1.1** lb/hour **4.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.02 gr/dscf** Reference: **Vendor Data**	7. Emissions Method Code: **2**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

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.

Allowable Emissions Allowable Emissions __ of ___ **N/A**

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):	

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):	

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):	

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 **1**

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: ☒ Rule ☐ 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: **Rule 62-297.620(4), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation ___ of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
8. Visible Emissions Comment:	

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:	☐ Rule ☐ 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:	☐ Rule ☐ Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

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)
   ☒ Attached, Document ID: **Figs. 2-1 & 2-2** ☐ 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)
   ☐ Attached, Document ID: ☒ 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)
   ☒ Attached, Document ID: **Section 3.0** ☐ Previously Submitted, Date

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)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date
   ☒ Not Applicable (construction application)

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)
   ☐ Attached, Document ID: ☒ Previously Submitted, Date **June 2004**
   ☐ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID:
   Test Date(s)/Pollutant(s) Tested:

   ☐ Previously Submitted, Date:
   Test Date(s)/Pollutant(s) Tested:

   ☐ To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested:

   ☒ 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
   ☐ Attached, Document ID: ☒ Not Applicable

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))
   ☐ Attached, Document ID: ☒ 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.)
   ☐ Attached, Document ID: ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications **N/A**

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

Additional Requirements Comment

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.

5. Description of Emissions Unit Addressed in this Section:

CBO™ Product Fly Ash Truck Traffic Fugitives

3. Emissions Unit Identification Number: **044**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**10/01/05**		**49**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Watering of roadways, as necessary
[Control Device Code 062]

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

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **300,000 tons/yr of product fly ash**		
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:		
4. Maximum Incineration Rate:	pounds/hr 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:		

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: **CBO-005**		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:	7. Exit Diameter:
8. Exit Temperature: **77** °F	9. Actual Volumetric Flow Rate:	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: **0 feet**
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Product Fly Ash Handling**		
2. Source Classification Code (SCC): **3-05-009-99**	3. SCC Units: **Tons Transferred or Handled**	
4. Maximum Hourly Rate: **104**	5. Maximum Annual Rate: **300,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Field 4 based on 8 trucks per hour each containing 13 tons of product fly ash.**		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
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:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**062**		**NS**
PM10	**062**		**NS**

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: **90 percent**	
3. Potential Emissions: lb/hour	tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **0.78 tons/year**		
6. Emission Factor: **N/A** Reference: **AP-42, Section 13.2.1**		7. Emissions Method Code: **3**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**		
9. Pollutant Potential/Estimated Fugitive Emissions Comment:		

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.

Allowable Emissions Allowable Emissions ___ of ___ **N/A**

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):	

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):	

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: **90 percent**	
3. Potential Emissions: lb/hour	tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **0.15 tons/year**		
6. Emission Factor: **N/A** Reference: **AP-42, Section 13.2.1**		7. Emissions Method Code: **3**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**		
9. Pollutant Potential/Estimated Fugitive Emissions Comment:		

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.

Allowable Emissions Allowable Emissions ___ of ___ **N/A**

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):	

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):	

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):	

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 ___ of __ **N/A**

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation ___ of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
9. Visible Emissions Comment:	

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:	☐ Rule ☐ 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:	☐ Rule ☐ Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

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)
   ☒ Attached, Document ID: **Figs. 2-1 & 2-2** ☐ 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)
   ☐ Attached, Document ID: ☒ 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)
   ☒ Attached, Document ID: **Section 3.0** ☐ Previously Submitted, Date

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)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date
   ☒ Not Applicable (construction application)

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)
   ☐ Attached, Document ID: ☒ Previously Submitted, Date **June 2004**
   ☐ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID:
   Test Date(s)/Pollutant(s) Tested:

   ☐ Previously Submitted, Date:
   Test Date(s)/Pollutant(s) Tested:

   ☐ To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested:

   ☒ 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
   ☐ Attached, Document ID: ☒ Not Applicable

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))
   ☐ Attached, Document ID: ☒ 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.)
   ☐ Attached, Document ID: ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications **N/A**

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

Additional Requirements Comment

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.

6. Description of Emissions Unit Addressed in this Section:

CBO™ Fluidized Bed Combustor (FBC) - FBC Return to Units 3 and 4

3. Emissions Unit Identification Number: **045**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**10/01/05**		**49**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Unit 3 and 4 Wet Limestone Injection Flue Gas Desulfurization (FGD) - SO_2 & PM/PM_{10} [Control Device Code 042]

2. Control Device or Method Code(s): **042**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate:	
3. Maximum Heat Input Rate: **95.6 MMBtu/hr**	
4. Maximum Incineration Rate: pounds/hr 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:	

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: **CS-002 and CS-003**	2. Emission Point Type Code: **2**	
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: **003 – Unit No. 3 Steam Generator** **004 – Unit No. 4 Steam Generator** **045 – CBO™ FBC Return**		
5. Discharge Type Code: **V**	6. Stack Height: **490 feet**	7. Exit Diameter: **24 feet**
8. Exit Temperature: **127 °F**	9. Actual Volumetric Flow Rate: **2,351,800 acfm**	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **Field 9 is estimated flow rate for Unit 3, Unit 4, and CBO™ FBC return combined.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **Feed fly ash burned in the CBO™ FBC**		
2. Source Classification Code (SCC): **1-02-002-17**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **37.67**	5. Maximum Annual Rate: **330,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.7**	8. Maximum % Ash: **100**	9. Million Btu per SCC Unit: **2.76**
10. Segment Comment:		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **Distillate fuel oil burned in the CBO™ FBC (start-up fuel)**		
2. Source Classification Code (SCC): **1-02-005-02**	3. SCC Units: **Thousand Gallons Burned**	
4. Maximum Hourly Rate: **0.25**	5. Maximum Annual Rate: **14.3**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.5**	8. Maximum % Ash: **0.1**	9. Million Btu per SCC Unit: **140**
10. Segment Comment: **Field 5 based on four cold starts per year.**		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**042**		**NS**
PM10	**042**		**NS**
SO2	**042**		**NS**
NOX			**NS**
CO			**NS**
VOC			**NS**

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: **50 percent**
3. Potential Emissions: **2.3** lb/hour **10.1** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.024 lb/MMBtu** Reference: **Vendor Data**	7. Emissions Method Code: **5**

8. Calculation of Emissions:

See Attachment B for emission rate calculations.

In accordance with the requirements of Rule 62-297.310(7)(a)4.b., F.A.C., TEC proposes to conduct initial and annual PM sampling of the combined CBO™ return and Units 3 and 4 exhaust streams downstream of the common Unit 3 and 4 FGD control system using EPA reference methods.

9. Pollutant Potential/Estimated Fugitive Emissions Comment:

Field 2 is estimate of PM removal for Units 3 & 4 FGD control system.

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.

Allowable Emissions Allowable Emissions ___ of ___ **N/A**

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):	

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):	

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: **50 percent**
3. Potential Emissions: **2.3** lb/hour **10.1** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.024 lb/MMBtu** Reference: **Vendor Data**	7. Emissions Method Code: **5**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Field 2 is estimate of PM_{10} removal for Units 3 & 4 FGD control system.**	

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.

Allowable Emissions Allowable Emissions ___ of ___ **N/A**

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):	

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):	

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: **SO2**	2. Total Percent Efficiency of Control: **95 percent**
3. Potential Emissions: **23.9** lb/hour **104.7** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.25 lb/MMBtu** Reference: **Vendor Data**	7. Emissions Method Code: **5**

8. Calculation of Emissions:

See Attachment B for emission rate calculations.

TEC proposes to conduct continuous SO_2 monitoring of the combined CBO™ return and Units 3 and 4 exhaust streams using the existing SO_2 CEMS located downstream of the common Units 3 and 4 FGD control system.

9. Pollutant Potential/Estimated Fugitive Emissions Comment:

Field 2 is estimate of SO_2 removal for Units 3 & 4 FGD control system.

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.

Allowable Emissions Allowable Emissions ___ of ___ **N/A**

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):	

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):	

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: **NOX**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **90.7** lb/hour **397.3** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.95 lb/MMBtu** Reference: **Vendor Data**	7. Emissions Method Code: **5**

8. Calculation of Emissions:

See Attachment B for emission rate calculations.

In accordance with the requirements of Rule 62-297.310(7)(a)4.b., F.A.C., TEC proposes to conduct initial and annual NO_x sampling of the CBO™ return upstream of Units 3 and 4 FGD control system using EPA reference methods.

9. Pollutant Potential/Estimated Fugitive Emissions Comment:

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.

Allowable Emissions Allowable Emissions ___ of ___ **N/A**

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):	

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):	

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: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **23.3** lb/hour **102.2** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.24 lb/MMBtu** Reference: **Vendor Data**	7. Emissions Method Code: **5**

8. Calculation of Emissions:

See Attachment B for emission rate calculations.

In accordance with the requirements of Rule 62-297.310(7)(a)4.b., F.A.C. , TEC proposes to conduct initial and annual CO stack testing of the CBO™ return upstream of Units 3 and 4 FGD control system using EPA reference methods.

9. Pollutant Potential/Estimated Fugitive Emissions Comment:

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.

Allowable Emissions Allowable Emissions ___ of ___ **N/A**

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):	

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):	

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: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **1.7** lb/hour **7.6** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.018 lb/MMBtu** Reference: **Vendor Data**	7. Emissions Method Code: **5**
8. Calculation of Emissions: **See Attachment B for emission rate calculations.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

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.

Allowable Emissions Allowable Emissions ___ of ___ **N/A**

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):	

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):	

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):	

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 ___ of ___ **N/A**

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation ___ of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
10. Visible Emissions Comment:	

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:	☐ Rule ☐ 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:	☐ Rule ☐ Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

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)
   ☒ Attached, Document ID: **Figs. 2-1 & 2-2** ☐ 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)
   ☐ Attached, Document ID: ☒ 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)
   ☒ Attached, Document ID: **Section 3.0** ☐ Previously Submitted, Date

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)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date
   ☒ Not Applicable (construction application)

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)
   ☐ Attached, Document ID: ☒ Previously Submitted, Date **June 2004**
   ☐ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID:
   Test Date(s)/Pollutant(s) Tested:

   ☐ Previously Submitted, Date:
   Test Date(s)/Pollutant(s) Tested:

   ☐ To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested:

   ☒ 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
   ☐ Attached, Document ID: ☒ Not Applicable

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))
   ☐ Attached, Document ID: ☒ 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.)
   ☐ Attached, Document ID: ☒ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☐ Attached, Document ID: ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications **N/A**

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

Additional Requirements Comment

ATTACHMENT B

CBO™ EMISSION RATE CALCULATIONS

Table B-1. Tampa Electric Company Big Bend Generating Station
CBO™ Project - Potential Emission Estimates
Fly Ash Handling and Storage Particulate Matter Emissions

Emission Source	Control Device	Operating Hours (hrs/yr)	Exhaust Temperature (°F)	Exhaust Flow Rates (acfm)	Exhaust Flow Rates (scfm)	PM_{10} Emission Rates (gr/dscf)	PM_{10} Emission Rates (lb/hr)	PM_{10} Emission Rates (tpy)
Feed Fly Ash Silo	Baghouse	8,760	Ambient	2,400	2,400	0.02	0.4	1.8
Feed Fly Ash Storage Dome	Baghouse	8,760	200	8,000	6,400	0.02	1.1	4.8
Product Fly Ash Storage Dome	Baghouse	8,760	200	8,000	6,400	0.02	1.1	4.8
Product Fly Ash Loadout Silo and Truck Loading	Baghouse	8,760	200	8,000	6,400	0.02	1.1	4.8
Fly Ash Truck Traffic	Paved Roads Watering	8,760	N/A	N/A	N/A	N/A	0.10	0.15
Totals							**3.8**	**16.4**

Sources: ECT, 2005.
PMI, 2005.

Table B-2. Tampa Electric Company Big Bend Generating Station
CBO™ Project - Potential Emission Estimates
Fluidized Bed Combustor By-Products and CBO™ Heat Recovery

A. NO_x, SO_2, CO, VOC, and PM_{10} - CBO™ Return to Units 3 and 4 FGD

Emission Source:	CBO™ Return to Units 3 and 4	
Control System:	FGD (Units 3 and 4)	
Operating Hours:	8,760	hr/yr
CBO™ Heat Input:	95.61	10^6 Btu/hr

CITATIONS WITH PAGE 90 OF APPLICATION.

Pollutant	Control System Efficiency (%)	Emission Rates (lb/10^6 Btu)[1]	(lb/hr)	(tpy)
NO_x	0.0	0.949	90.7 ✓	397.3
CO	0.0	0.244	23.3 ✓	102.2
SO_2	95.0	5.0	23.9 ✓	104.7
VOC	0.0	0.018	1.7 ✓	7.6
PM_{10}	50.0	0.048	2.3 ✓	10.1

VENDOR DATA

[1] CBO™ return prior to Units 3 and 4 FGD.

B. NO_x, SO_2, CO, VOC, and PM_{10} - Units 3 and 4 Decreases (CBO™ Heat Recovery)

Emission Source:	CBO™ Heat Recovery - Units 3 & 4	
Operating Hours:	8,760	hr/yr
CBO™ Heat Recovery:	705,882	10^6 Btu/yr (100% capacity factor)
CBO™ Heat Recovery:	80.6	10^6 Btu/hr

Pollutant	Historical Units 3 & 4 (lb/10^6 Btu)[2]	Emission Rates (lb/hr)	(tpy)
NO_x	0.10	(8.06)	(35.29)
CO	0.022	(1.81)	(7.91)
SO_2	0.25	(20.15)	(88.24)
VOC	0.0027	(0.22)	(0.95)
PM_{10}	0.01	(0.81)	(3.53)

[2] Per EPA Consent Decree for NO_x, SO_2, and PM_{10}. AP-42 factors for CO and VOC.

C. NO_x, SO_2, CO, VOC, and PM_{10} - Change in Emissions

Pollutant	Emission Rates[3] CBO™ Return to Units 3 & 4 (tpy)	CBO™ Units 3 & 4 Heat Recovery (tpy)	Change (tpy)
NO_x	397.3	(35.3)	362.0
CO	102.2	(7.9)	94.3
SO_2	104.7	(88.2)	16.5
VOC	7.6	(0.9)	6.6
PM_{10}	10.1	(3.5)	6.5

[3] Downstream of all emission control systems.

Sources: ECT, 2005.
PMI, 2005.

EMISSION INVENTORY WORKSHEET

Tampa Electric Company - Big Bend Station

Truck Traffic (Paved Roads)

EMISSION SOURCE TYPE

FUGITIVE PM - TRUCK TRAFFIC ON PAVED ROADS

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	Fugitive PM - CBO™ Product Fly Ash Truck Traffic on Paved Roads
Emission Control Method(s)/ID No.(s):	Watering, As Necessary
Emission Point ID:	CBO-005

EMISSION ESTIMATION EQUATIONS

PM Emission (lb/hr) = ((0.082 x [(Silt Loading Factor/2)$^{0.65}$] x [(Truck Weight/3)$^{1.5}$)] - 0.00047) x (1 - ("Wet" Days/1,460)) x Vehicle Miles Traveled (VMT)/hr x (1 - (Control Eff. / 100))

PM Emission (ton/yr) = ((0.082 x [(Silt Loading Factor/2)$^{0.65}$] x [(Truck Weight/3)$^{1.5}$)] - 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. OK

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	7 dy/wk	52 wk/yr
CBO™ Fly Ash Shipped by Truck:	300,000 ton/yr	Truck Travel Distance (one way):	483 ft
Hourly Truck Count:	8 trucks/hr	Annual Truck Count:	23,077 trucks/yr

Truck Traffic Type	Source ID	Vehicle Miles Traveled (VMT/hr)	Vehicle Miles Traveled (VMT/yr)	Vehicle Weight (ton)	Control Efficiency (%)	Potential PM Emission Rates (lb/hr)	Potential PM Emission Rates (ton/yr)
CBO™ Fly Ash Trucks (Empty)	CBO-005a	0.725	2,112	13.0	90.0	0.139	0.203
CBO™ Fly Ash Trucks (Full)	CBO-005b	0.725	2,112	26.0	90.0	0.395	0.574
					Totals	0.53	0.777

PM

2.2 LD

SOURCES OF INPUT DATA

Parameter	Data Source
Uncontrolled Silt Loading Factor	Based on factor for iron and steel production, ECT, 2005. OK
Mean Annual Number of "Wet" Days	Figure 13.2.1-2, Section 13.2.1, AP-42, November 2003.
Vehicle Miles Traveled, VMT	TEC, 2005.
Truck Weights, ton	TEC, 2005.
Control Efficiency	Estimated, ECT 2005.

NOTES AND OBSERVATIONS

DATA CONTROL

Data Collected by:	S. Castro	**Date:**	8/05
Evaluated by:	T. Davis	**Date:**	8/05
Data Entered by:	T. Davis	**Date:**	8/05

EMISSION INVENTORY WORKSHEET

Tampa Electric Company - Big Bend Station

Truck Traffic (Paved Roads)

EMISSION SOURCE TYPE

FUGITIVE PM_{10} - TRUCK TRAFFIC ON PAVED ROADS

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	Fugitive PM_{10} - CBO™ Product Fly Ash Truck Traffic on Paved Roads
Emission Control Method(s)/ID No.(s):	Watering, As Necessary
Emission Point ID:	CBO-005

EMISSION ESTIMATION EQUATIONS

PM_{10} Emission (lb/hr) = ((0.016 x [(Silt Loading Factor/2)$^{0.5}$] x [(Truck Weight/3)$^{1.6}$] - 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)$^{0.5}$] x [(Truck Weight/3)$^{1.6}$]) - 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	7 dy/wk	52 wk/yr
CBO™ Fly Ash Shipped by Truck:	300,000 ton/yr	Truck Travel Distance (one way):	483 ft
Hourly Truck Count:	8 trucks/hr	Annual Truck Count:	23,077 trucks/yr

Truck Traffic Type	Source ID	Vehicle Miles Traveled (VMT/hr)	Vehicle Miles Traveled (VMT/yr)	Vehicle Weight (ton)	Control Efficiency (%)	Potential PM_{10} Emission Rates (lb/hr)	Potential PM_{10} Emission Rates (ton/yr)
CBO™ Fly Ash Trucks (Empty)	CBO-005a	0.725	2,112	13.0	90.0	0.027	0.040
CBO™ Fly Ash Trucks (Full)	CBO-005b	0.725	2,112	26.0	90.0	0.077	0.112
					Totals	0.10	0.152

SOURCES OF INPUT DATA

Parameter	Data Source
Uncontrolled Silt Loading Factor	Based on factor for iron and steel production, ECT, 2005.
Mean Annual Number of "Wet" Days	Figure 13.2.1-2, Section 13.2.1, AP-42, November 2003.
Vehicle Miles Traveled, VMT	TEC, 2005.
Truck Weights, ton	TEC, 2005.
Control Efficiency	Estimated, ECT 2005.

NOTES AND OBSERVATIONS

DATA CONTROL

Data Collected by:	S. Castro	**Date:**	8/05
Evaluated by:	T. Davis	**Date:**	8/05
Data Entered by:	T. Davis	**Date:**	8/05