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RESOURCE MANAGEMENT

June 8, 2012

Mr. Jonathan K. Holtom, P.E.
Power Plant Permitting Group Administrator
Florida Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road, MS-5500
Tallahassee, FL 32399-2400

Subject: Air Construction Permit Application for the Installation of Air Quality Control Systems
OUC Stanton Energy Center
Facility ID No. 0950137

Dear Mr. Holtom:

Attached please find the finalized application for a construction permit for the Stanton Energy Center.

Per our phone conversations, the subject application project entails upgrades to the FGD system on Unit 1, the addition of a Selective Catalytic Reduction system to Unit 1, and the addition of Dry Sorbent Injection systems to Unit 1 and Unit 2.

If you have any questions regarding this application, please contact me at 407-434-3036 or David Baez at 407-434-3072.

Best Regards,

Michael L. Kyhos
Senior Environmental Engineer
Orlando Utilities Commission

AIR PERMIT APPLICATION

ORLANDO UTILITIES COMMISSION

STANTON ENERGY CENTER

For the Installation of Air Quality Control Systems on Units 1 and 2

B&V PROJECT NO. 175407

PREPARED FOR

OUC
The *Reliable* One®

Orlando Utilities Commission

JUNE 2012

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Building a world of difference.

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1.0 Introduction

Orlando Utilities Commission (OUC) is proposing to implement a number of air quality controls systems (AQCS) upon Units 1 and 2 at its Stanton Energy Center (SEC) aimed at reducing of emissions of key criteria pollutants in preparation for upcoming regulatory programs such as the Cross-State Air Pollution Rule (CSAPR) and the Mercury and Air Toxics Standards (MATS). Hereinafter, these facility changes, as set forth in this application, will be referred to as the Project. The Project is proposed to consist of the following general modifications to SEC:

- FGD Scrubber Upgrades on Unit 1.
- Addition of a Selective Catalytic Reduction (SCR) system to Unit 1.
- Addition of Dry Sorbent Injection (DSI) systems to Units 1 and 2.

This report is a technical support document for the air construction permit application designed to provide a basis for the Florida Department of Environment (FDEP) preparation of an air construction permit for the Project. The remainder of this document provides a detailed description of the above modifications (and associated changes to implement the Project), a permit applicability analysis, supporting emissions calculations, and the appropriate FDEP application forms.

2.0 Project Characterization

The following sections characterize the facility and the Project, including detailed descriptions of the modifications and associated changes necessary to implement the Project.

2.1 FACILITY DESCRIPTION

The SEC facility is located in Orange County, in the city of Orlando at 5100 South Alafaya Trail. The facility consists primarily of two fossil fuel fired steam electric generating units, an auxiliary boiler, two combined cycle combustion turbines, and solid fuels, fly ash, limestone, gypsum, slag, and bottom ash storage and handling facilities.

2.2 PROJECT DESCRIPTION

The Project involves the implementation of a number of AQCS upon Units 1 and 2 aimed at reducing of emissions of key criteria pollutants in preparation for upcoming regulatory programs such as CSAPR and MATS. The Project is proposed to consist of the following general modifications to SEC:

- FGD Scrubber Upgrades on Unit 1.
- Addition of a Selective Catalytic Reduction (SCR) system to Unit 1.
- Addition of Dry Sorbent Injection (DSI) systems to Units 1 and 2.

2.2.1 Unit 1 FGD Scrubber Upgrades

Phase 1 of the scrubber upgrades was previously completed and included the installation of a dibasic acid (DBA) chemical feed system and a forced oxidation system to improve scrubber performance. Installation of the DBA chemical feed system was covered under air permit 0950137-011-AC issued January 2007 and the forced oxidation system was approved under air permit 0950137-014-AC issued September 2007. Additionally, minor upgrades to the mist eliminator vanes and fixed grid wash system on the Unit 1 FGD were authorized and installed under air permit 0950137-034-AC issued June 2010.

Phase 2 of the scrubber upgrades involves installation of spray header modifications along with possible gas/liquid contact devices such as a dual flow tray and/or wall rings on the inside of the absorber to improve the contact of the slurry and the flue gas in the Unit 1 absorber modules. It may also require OUC to modify and increase the speed of the Unit 1 Induced Draft (ID) fans to account for additional pressure drop caused by the upgrades and resolve vibration issues. These modifications were previously authorized under air permit 0950137-012-AC. However, OUC did not complete these Phase 2 modifications prior to the expiration of the permit on December 31, 2008. As such, this application includes those same modifications for FDEP approval as were contained in the previous scrubber upgrade permit and described below with minor updates.

As was previously the case, these modifications are expected to reduce the emissions of the Unit 1 FGD system and improve its reliability. In addition, the modifications will assist in meeting the MATS requirements.

The existing FGD System consists of three 50 percent capacity absorber modules, with normal operation consisting of two operating absorber modules with one module designated as a spare. The absorber chemistry is limestone based, operating in natural oxidation mode. Four recycle pumps per module are provided, with three used for normal operation and the fourth acting as an installed spare.

To increase reliability of the Unit 1 FGD System, OUC commissioned a study to evaluate improvements in SO_2 removal capability of the FGD system for Unit 1. This study was performed by Black & Veatch with assistance from Wheelabrator Air Pollution Control Company (WAPC). WAPC is a major supplier of wet FGD systems. The study provided guidance on the most cost effective means to improve SO_2 removal performance, mitigate process problems, and improve reliability. OUC is in the bidding process for determining which FGD vendor can provide the most cost effective upgrades for meeting the new SO_2 emission target of 0.2 lb/MMBtu (30-day average) and the exact nature of the FGD improvements necessary. The final upgrades will work in conjunction with the previous upgrades to reduce SO_2 emissions up to the maximum design coal sulfur content of 3.5 percent that OUC sees in its fuel deliveries.

All of the absorber modifications being evaluated are essentially internal to the absorber and may be used alone or in combination with others depending on the optimized improvement approach developed by the selected vendor.

Although the final selection of the FGD upgrades is still underway, the following descriptions of the possible modifications being evaluated are provided below.

- **Distribution Trays:** Industry experience has shown FGD system performance can be significantly improved with the addition of a perforated distribution tray. The use of distribution trays have commonly been used by the industry in the design of new scrubber systems and have been used as a retrofit option to improve performance of existing FGD systems. The distribution trays provide intimate contact between the gas and liquid phases and the resulting increased mass transfer surface area improves the amount of SO_2 absorbed in the scrubbers.
- **Wall Rings:** Much like the distribution trays above, industry experience has shown FGD system performance can be significantly improved with the addition of wall rings between the spray headers. Wall rings have commonly been used by the industry in the design of new scrubber systems and have been used as a retrofit option to improve performance of existing FGD systems. The wall rings are attached to the inner circumference of the absorber between the spray headers. The rings direct both the flue gas and the slurry away from the wall where contact between the two phases is limited towards areas where gas-liquid contact is enhanced.
- **Improved Spray Header and Nozzle Design:** New spray headers with a modified nozzle arrangement with more modern nozzles can be used to maximize spray coverage. Improvements in recycle spray nozzles and their arrangement provide a more uniform and denser spray coverage pattern which provides better interaction between the sprays and better gas/liquid contact. Changes in the direction of the

sprays (use of both counter and co-current sprays), dual nozzles to allow the sprays to interact better, and flatter spray patterns are all options that are currently presented by the various vendors and are being evaluated. Modification of the nozzles may provide a lower pressure drop that may allow the existing pumps to produce higher flow rates (thus increasing the L/G) without changing the current pump operating speeds.

- **ID Fans Modifications**: ID fan modifications may be necessary to support the specific FGD improvement approach selected. The addition of additional sprays and distribution devices to each absorber module will cause the absorber pressure drop to increase, which will require additional fan static pressure. When additional AQCS components are to be installed, ID fan modifications are often needed to increase the pressure capacity to offset the increased component pressure drops. The switch to high speed operation would provide significant additional ID fan pressure capacity or else upgrade modifications or new fans may be necessary. The modifications needed would be determined during detailed design. OUC plans to leave the final details of the design modifications open until further site investigations are performed and detailed data can be obtained from equipment manufacturers.

Ultimately the purpose and primary result of the Unit 1 scrubber upgrade is to improve the removal efficiency of the scrubber and the Unit 1 scrubber upgrade will not include the addition of any new emission units at the facility. The only expected effect of the Unit 1 scrubber upgrade on facility air emissions would involve a decrease in Unit 1 SO_2 emissions and possibly small increases in limestone/limestone slurry material handling and waste byproduct handling/transport emissions resulting from slightly higher limestone usage and byproduct production (gypsum) associated with improved SO_2 removal. These emissions changes are discussed in detail in Section 3.0. Modifications to the FGD system will not increase the capacity of or change the heat input to Unit 1.

2.2.2 Unit 1 SCR

Units 1 and 2 at SEC are essentially identical coal fired units, constructed nearly 9 years apart. OUC proposes to duplicate the Unit 2 SCR for Unit 1, as much as practical, incorporating improvements in SCR technology over the years. The purpose of the Unit 1 SCR installation is to aid the facility in complying with the recently finalized CSAPR by controlling post-combustion NO_x emissions and in addition, the MATS requirements due to a co-benefit of Hg control.[1]

[1] SCR can aid in the removal of mercury which can be emitted as different compounds, including elemental mercury, organic mercury, inorganic mercury, and mercuric chloride. Although the SCR does not directly capture the mercury, the SCR will help in the downstream capture of mercury by oxidizing an additional portion of the elemental mercury to the ionic form, which readily combines with available anions to form solids such as mercuric chloride. This form of mercury can be captured in the downstream particulate control device or wet scrubber.

In SCR systems, vaporized ammonia injected into the flue gas stream acts as a reducing agent, achieving NO_x emission reductions when passed over an appropriate amount of catalyst. Flue gas containing ammonia and NO_x undergoes an exothermic reaction as it passes through the catalyst, forming nitrogen and water vapor. The following are the predominant reactions.

$$4NO + 4NH_3 + O_2 \xrightarrow{\text{catalyst}} 4N_2 + 6H_2O + \text{heat} \uparrow \quad (1)$$

$$6NO_2 + 8NH_3 \xrightarrow{\text{catalyst}} 7N_2 + 12H_2O + \text{heat} \uparrow \quad (2)$$

The reaction mechanisms are very efficient, with a reagent stoichiometry very close to 1.0

A number of other reactions can also take place.

$2SO_2 + O \rightarrow 2SO_3$ (SO2 Oxidation) (3)

$NH_3 + SO_3 + H_2O \rightarrow NH_4HSO_4$ (ammonium bisulfate formation) (4)

$2NH_3 + SO_3 + H_2O \rightarrow (NH_4)_2SO_4$ (ammonium sulfate formation) (5)

These reactions are mitigated through selection of the catalyst, operation of the SCR to minimize ammonia slip and use of DSI to react with additional SO_3 (discussed in Section 2.2.3).

As shown in Figure 2-1, the SCR system will include a single SCR reactor. The SCR reactor will consist of a steel reactor box designed to support the SCR catalyst modules and to properly distribute flue gas through the catalyst layers. Flue gas ductwork will be provided from the existing economizer outlet to the existing air heater inlet. Flue gas will flow vertically downward through the catalyst. The SCR inlet duct will include provisions for static flue gas mixer (if required), and an ammonia injection grid. A large particle ash (LPA) screen will be added in the economizer hopper area. The reactor will include sonic horns to keep the catalyst free of fly ash buildup. Provisions for catalyst loading into the reactor will be included. The reactor will be designed for 3 initial layers of catalyst and a spare level for a future additional layer of catalyst.

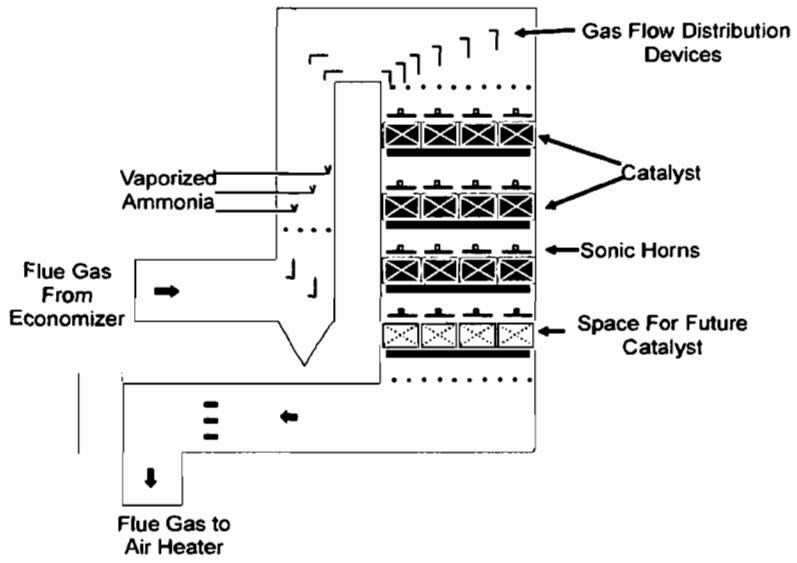

Figure 2-1 General SCR Reactor Depiction

Anhydrous ammonia will be delivered to the site by tank truck and unloaded into one of two new 30,000 gallon (nominal water capacity) bulk storage tanks located near the existing ammonia unloading and storage facility. Commensurate with how the existing anhydrous ammonia storage tank is listed in the facility's current Title V permit, these new storage tanks will also be considered insignificant emissions units/activities. Vaporized ammonia will be transferred from the storage tanks to the SCR enclosure. The ammonia will be mixed with ambient air and distributed into the flue gas through ammonia injection grids located upstream of the reactor.

With the addition of the SCR itself several other modifications to the unit are required to support the SCR including:

- Upgrading the ID fans to operate with new variable frequency drives.
- Modifying the existing air heater to reverse the rotational direction and develop an ammonium bisulfate (ABS) tolerant design.
- Expanding the existing fire protection system and other miscellaneous utilities for the new SCR enclosure.

SCR installation will not impact stack temperature, gas flow rates, ash generation, or heat input.

2.2.3 Units 1 and 2 Dry Sorbent Injection Systems

OUC also proposes to install and utilize a DSI system to inject hydrated lime into the exhaust gas ductwork upstream of the ESPs to minimize SO3 formation[2] and ultimately control H_2SO_4 emissions from the stacks to a concentration of approximately 3 ppm in both Units. The DSI system will also mitigate potential "blue-plume" episodes by controlling H_2SO_4 emissions that could occur as a result of oxidation of SO_2 by the SCRs and will allow both units to maintain H_2SO_4 emissions at

[2] Minimizing SO3 formation in conjunction with the minimization of NH3 slip will also minimize the formation of ammonium sulfate and ammonium bisulfate as discussed in Section 2.2.2.

current levels. Based on the test results from the full scale temporary DSI system which operated during December 2011, total particulate emissions are expected to be controlled to current levels or below as the DSI system was found be effective at controlling the condensable portion of particulate matter.

The proposed permanent DSI system will require additional material handling systems for the hydrated lime additive. Hydrated lime will be delivered by trucks and unloaded to a single or double bulk storage vessel/silo (5 to 7-day storage capacity) with a bin vent/dust collector or other comparable control device. From the silo, hydrated lime is fed into one of two weigh hoppers. From the respective weigh hopper hydrated lime is gravity fed to a variable speed rotary feeder and then gravity fed through the flex hose and hard piping to the conveying line where hydrated lime is conveyed to the injection location(s). Once the hydrated lime reacts with SO3, it will be converted to other materials such as CaSO4 (majority) which will be collected with the fly ash and hauled to the onsite landfill for disposal.

The general pieces of new equipment required as part of the DSI installation are:

- Pneumatic truck unloading station.
- DSI Storage silos (one each per unit) with bin vent dust collectors.
- Weigh hoppers and rotary feeders (two each per unit) and associated piping.

3.0 NSR/PSD Applicability

While it is true that the AQCS additions will ultimately result in a reduction in emissions from the boilers, the vacatur of the pollution control project (PCP) provisions under New Source Review (NSR) Reform rules means that such projects will have to initially go through the typical PSD regulatory review process to determine PSD applicability.

On December 31, 2002, the United States Environmental Protection Agency (USEPA) substantially reformed the Prevention of Significant Deterioration (PSD) program, including the manner in which a project's emissions increase is determined. Florida amended its rules, effective February 2006, to address the USEPA PSD reforms.

3.1 EMISSIONS ANALYSIS

In terms of PSD applicability, a project at an existing major source will not be subject to PSD review if it does not result in a significant emissions increase. In general, a project's emissions increase is determined as the difference between its baseline actual emissions (BAE) and its future projected actual emissions (PAE). One is also allowed to consider excludable emissions (EE) when making this comparison. New emissions sources are included in the PSD analysis using their potential-to-emit (PTE). The sum total of these emissions changes (or increases, rather, at this step) from the modifications to the boiler and the new material handling activities are compared with the PSD Significant Emission Rates (SERs) to determine PSD applicability.

3.1.1 Calculating Emissions Change from the Boilers

The starting point for this type of analysis is the determination of the BAE for Units 1 and 2 combined. For this analysis, the BAE emissions were determined using historical emissions data and the methodology set forth in the current PSD regulations. The historical emissions data were derived from continuous emissions monitoring system (CEMS) data for SO_2, NO_x, CO, and CO_2 emissions (for all or part of the baseline period) and from annual operating reports (AORs) and stack tests for all other pollutants. The BAE period is chosen on a pollutant-by-pollutant basis as the 24-month period within the five year look-back period that has the highest emissions of that pollutant based on historical emissions data. The BAE period can be different for each pollutant, but must be the same for both units for each individual pollutant. The five year look back period for this air permit application ran from May 2007 through April 2012. Table 3-1 illustrates the BAE for this Project.

Once the BAE is established, the next step is to determine the EE based on the projected operation of each unit without the Project. Essentially, the rules allow one to exclude from the emissions increase calculation those emission increases that would have occurred without the Project. As will be discussed shortly, the EE can be considered an adjusted BAE and is subtracted from the PAE to determine the Project emission increases. This Project conservatively assumes that no adjustments to the baseline are made as the units would continue to operate as they've done historically. Therefore, the EE are equal to the BAE which were shown in Table 3-1.

Table 3-1 Baseline Actual Emissions from Units 1 and 2

POLLUTANT	BAE PERIOD	UNIT 1 BAE (TPY)	UNIT 2 BAE (TPY)	COMBINED BAE (TPY)
NO_x	May 2007 – April 2009	5,662.32	2,633.58	8,295.89
SO_2	May 2007 – April 2009	3,955.58	2,108.51	6,064.08
CO	Jan 2009 – Dec 2010	1,012.09	856.96	1,869.04
VOC	May 2007 – April 2009	38.38	16.43	54.81
PM	May 2007 – April 2009	249.66	327.60	577.26
PM_{10}	May 2007 – April 2009	230.17	308.25	538.42
$PM_{2.5}$	Jan 2009 – Dec 2010	187.11	253.32	440.43
H_2SO_4	May 2007 – April 2009	177.23	190.62	367.84
CO_2	May 2007 – April 2009	3,228,131	3,285,671	6,513,803

Note: Appendix A contains detailed emissions calculations.

Once the BAE (and EE) are established, the next step is to determine the PAE values. In determining the PAE for each unit, one needs to differentiate between the projected increases due to *natural* demand growth versus the demand increases due to the *project*. However, since the Project is not expected to increase demand growth upon the units, the increase in operation of the units due to demand growth caused by the Project is non-existent (zero). This analysis also conservatively assumes that the units will have a flat (zero) natural demand growth into the future essentially making their anticipated future annual heat input equal to the units' baseline heat input.

The remaining step for determining the PAE then is to combine the projected annual heat input (equal to the baseline heat input) with the anticipated future emission factors. The emissions of each regulated pollutant is expected to be equal to or less than the emissions during the baseline period due to the reductions that will be experienced from installation of the AQCS equipment. Table 3-2 provides the Project's PAE. Detailed calculations of the boilers' BAE and PAE are contained in Appendix A.

Once the BAE (EE) and PAE values are determined, the next step is to perform the calculations to determine the projected emissions increase (PEI) from the boilers. Table 3-3 combines the data from the previous tables to determine the PEI for the boilers. Before comparing the boilers' PEI to the PSD SERs to determine PSD applicability, emissions from the material handling activities must be calculated using their PTE values to determine a total Project PEI.

3.1.2 Calculating Emissions Change from Material Handling Systems

Additional new material handling systems will be installed as part of the Project. The emission associated with the material handling systems need to be considered in the emissions increase calculation for the Project to determine PSD applicability. This would include all *new* material handling emission sources associated with the Project. For a new emissions unit or process, the emissions increase would be the potential to emit of the new unit or process. The calculation of project emissions changes would also need to include emission changes from the *existing* material handling units affected by the Project. The Project will not result in any changes to the existing material handling units, but will increase the amounts of limestone/limestone slurry delivered, as well as the fly ash (as DSI waste) and gypsum generated hauled to the onsite landfill. The increases from the existing material handling will all be in the form of additional truck traffic into and around the site and are accounted for in the calculations below.

Emissions increases from the new material handling equipment are based on PTE from point sources such as dust collectors, and fugitive dust sources such as haul roads. The only new point sources are the two bin vent dust collectors on the two new hydrated lime storage silos. The control efficiency achieved by these dust collectors will be equal to or greater than 99 percent and compliance with this level of control will be assured by seeking vendor guarantees on the outlet grain loading (0.005 grains/dscf). Haul road fugitive emissions will be minimized using the management practices currently employed by OUC and identified in Attachment C to Appendix B of this document. Table 3-4 provides the emissions increases associated with the material handling activities. Appendix A provides detailed emissions calculations for the new material handling

Table 3-2 Projected Actual Emissions from Units 1 and 2

POLLUTANT	PAE (TPY)
NO_x	3,262.84
SO_2	5,254.84
CO	1,869.04
VOC	54.81
PM	577.26
PM_{10}	538.42
$PM_{2.5}$	440.43
H_2SO_4	367.84
CO_2	6,513,803

Note: Appendix A contains detailed emissions calculations.

Table 3-3 Projected Emissions to Baseline Emissions Comparison

POLLUTANT	BAE (EE) (TPY)	PAE (TPY)	UNITS 1 & 2 PROJECTED EMISSIONS INCREASE (TPY)
NO_x	8,295.89	3,262.84	-5,033.05
SO_2	6,064.08	5,254.84	-809.24
CO	1,869.04	1,869.04	0
VOC	54.81	54.81	0
PM	577.26	577.26	0
PM_{10}	538.42	538.42	0
$PM_{2.5}$	440.43	440.43	0
H_2SO_4	367.84	367.84	0
CO_2	6,513,803	6,513,803	0

Notes:

In accordance with the regulations of the NSR reform rule for Step 1 emissions calculations (i.e., emissions calculations not involving netting), emissions decreases will be reset to a zero tpy increase such that the decreases cannot be combined with other Project increases to show a Project total less than significance.

Appendix A contains detailed emissions calculations.

Table 3-4 Material Handling Particulate Emissions

SOURCE	POTENTIAL TO EMIT (TPY)		
	TSP	PM_{10}	$PM_{2.5}$
Hydrated Lime Silo #1 Bin Vent	0.28	0.28	0.28
Hydrated Lime Silo #2 Bin Vent	0.28	0.28	0.28
Hydrated Lime Deliveries	0.068	0.014	0.003
Anhydrous Ammonia Deliveries	0.013	0.003	0.001
Scrubber Reagent Deliveries	0.018	0.004	0.001
Waste Hauling (from DSI use)	5.92	2.08	0.21
Gypsum Hauling	0.97	0.34	0.03
Total Material Handling Emissions Increase	**7.56**	**3.00**	**0.81**

Note: Appendix A contains detailed emissions calculations.

equipment/activities based on outlet grain loading for bin vent dust collectors and vehicle miles traveled for haul road emissions.

3.2 PROJECT EMISSIONS INCREASE AND PSD APPLICABILITY

The total Project PEI is the sum of the emission increases from the boiler operations and the increase in particulate emissions from the material handling sources associated with the Project. The Project PEI for all pollutants is less than the SERs as found in Table 3-5. Consequently, the Project will be a true minor modification and is requesting a minor source air construction permit.

3.3 RECORD KEEPING REQUIREMENTS

Prior to beginning actual construction on a proposed project, a facility must record the following information:

- A description of the project;
- Identification of each affected emission unit;
- A description of the applicability test used; including,
  - The BAE;
  - The PAE;
  - The amount of EE;
  - The reason for excluding that amount; and,
  - Any netting calculations, if applicable.

With this application submittal, OUC is fulfilling this above information requirement.

After resuming normal operation following completion of the Project, the PSD regulations also require the facility to monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that are emitted by any of the affected emission units. However, it is important to note that none of the pollutants included in this application have been shown to have a reasonable possibility (i.e., a projected increase in emissions equaling or exceeding 50 percent of the applicable PSD SER) of increasing by a significant amount as a result of this Project. In addition, annual emissions, in tons per year, are required to be calculated at the end of each year following the date that normal operation resumes after completion of the Project. These monitoring and emission calculation requirements shall continue for each year of the projection period.

3.4 REPORTING REQUIREMENTS

It is important to note that per the FDEP and USEPA NSR reform rules, that the PAE values in Tables 3-2 and 3-3 should not be construed to be future annual permit limits. Rather, OUC's obligation going forward is to track and report emissions from the Units 1 and 2 sixty days after the end of each year for the five years following completion of the Project to demonstrate that the units did not experience a significant emissions increase over the baseline emissions which would

Table 3-5 ***Total Project Projected Emissions Increase***

POLLUTANT	UNITS 1 & 2 PROJECTED EMISSIONS INCREASE (TPY)	MATERIAL HANDLING PTE (TPY)	TOTAL PROJECT PROJECTED EMISSIONS INCREASE (TPY)	PSD SER (TPY)	PSD MAJOR MODIFICATION (YES/NO)
NO_x	0	NA	0	40	No
SO_2	0	NA	0	40	No
CO	0	NA	0	100	No
VOC	0	NA	0	40	No
PM	0	7.56	7.56	25	No
PM_{10}	0	3.00	3.00	15	No
$PM_{2.5}$	0	0.81	0.81	10	No
H_2SO_4	0	NA	0	7	No
CO_2	0	NA	0	75,000	No

Notes:

As noted in Table 3-3 and in accordance with the regulations of the NSR reform rule for Step 1 emissions calculations (i.e., emissions calculations not involving netting), the emissions decreases associated with reductions from Units 1 and 2 were reset to a zero tpy increase such that the decreases cannot be combined with other Project increases to show a Project total less than significance.

Appendix A contains detailed emissions calculations.

indicate a potential for retroactive PSD permitting. That is, if the post-project actual emissions exceed the BAE by a significant amount *and* differ from (and presumably exceed) the PAE, then the project may be subject to PSD review, unless a legitimate reason is identified in the emissions report, such as the actual electrical demand growth exceeded the projected growth rate and the reported emissions increase is the result of that circumstance alone.

Further, as discussed above and because the installation of the air quality control systems is voluntary and the amount of use is yet to be determined, Units 1 and 2 are not obligated to demonstrate the emissions reductions shown above and the values should not be construed to be future annual permit limits (per the FDEP and USEPA NSR reform rules). The purpose of the analysis presented in this document was to demonstrate that emission increases for the Project will be below the SERs and thus not be considered a major modification for PSD purposes.

Appendix A. Detailed Emissions Calculations

OUC - SEC
Units 1 and 2 AQCS Project

Table A1 Projected Emissions Increase Calculations for Units 1 and 2

Market Demand Growth **that is independent of project** - Percent increase over the 10 years following the date the Unit resumes regular operation.	0.0%	
Market Demand Growth **that is directly the result of the project** - Percent increase over the 10 years following the date the Unit resumes regular operation.	0.0%	None assumed for power generation
Annual Project Related Capacity Increase (%)	0.0%	
Short-term Project Related Capacity Increase (%)	0.00%	
Pre-Project (Baseline Period) Maximum Permitted Heat Input (Mbtu/h)	9,600	Title V Air Operating Permit Heat Input for Both Units (4,800 MMBtu/hr each)
Post-Project Maximum Heat Input (Mbtu/hr)	9,600	

	NOx		SO2		CO		VOC		PM		PM10		PM2.5		H2SO4		CO2	
	Blended Fuel MBtu/yr	Emissions tpy	Blended Fuel MBtu/yr	Emissions tpy	Blended Fuel MBtu/yr	Emissions tpy	Blended Fuel MBtu/yr	Emissions tpy	Blended Fuel MBtu/yr	Emissions tpy	Blended Fuel MBtu/yr	Emissions tpy	Blended Fuel MBtu/yr	Emissions tpy	Blended Fuel MBtu/yr	Emissions tpy	Blended Fuel MBtu/yr	Emissions tpy
BAE-Average rate in tpy of actual emissions over any consecutive 24-month period within the 5-years immediately preceding actual construction of the project.	6.35E+07	8,295.89	6.35E+07	6,064.08	6.06E+07	1,869.04	6.35E+07	54.81	6.35E+07	577.26	6.35E+07	538.42	6.06E+07	440.43	6.35E+07	367.84	6.35E+07	6,513,803
PAE - The HI and initial projected emissions in any one 12-month period of the 10 years following the date the Unit resumes regular operation.	6.35E+07	3,262.84	6.35E+07	5,254.84	6.06E+07	1,869.04	6.35E+07	54.81	6.35E+07	577.26	6.35E+07	538.42	6.06E+07	440.43	6.35E+07	367.84	6.35E+07	6,513,803
Post-Project Period Capacity Factor	75.49%		75.49%		72.02%		75.49%		75.49%		75.49%		72.02%		75.49%		75.49%	
EE - The excludable HI and emissions that would have been emitted anyway without the modification.	6.35E+07	8,295.89	6.35E+07	6,064.08	6.06E+07	1,869.04	6.35E+07	54.81	6.35E+07	577.26	6.35E+07	538.42	6.06E+07	440.43	6.35E+07	367.84	6.35E+07	6,513,803
Projected Emission Increase = PAE minus the EE		-5,033.05		-809.24		0.00		0.00		0.00		0.00		0.00		0.00		0
Significant Emission Level (tpy)		40		40		100		40		25		15		10		7		75,000
Exceed SEL		NO		NO		NO		NO		NO		NO		NO		NO		NO

Emission Factors

	Baseline Period Average Emissions (lb/Mbtu)	Post-Project Blended Fuel Emission[1] (lb/Mbtu)
NOx	0.2613	0.1028
SO2	0.1910	0.1655
CO	0.0617	0.0617
VOC	0.0017	0.0017
PM	0.0182	0.0182
PM10	0.0170	0.0170
PM2.5	0.0145	0.0145
H2SO4	0.0116	0.0116
CO2	205.20	205.20

[1] The Post-Project NOx emission rate includes a potential reduction in Unit 1 NOx from it's baseline value to 0.04 lb/Mbtu. OUC will operate it to the level necessary for controlling NOx for CSAPR.
The Post-Project SO2 emission rate includes a potential reduction in Unit 1 SO2 from it's baseline value to 0.20 lb/Mbtu. OUC will operate it to the level necessary for controlling SO2 for MATS and general permit compliance.
Pollutants such as CO, VOC, and CO2 will not be impacted by the proposed AQCS Project.
Particulate matter and H2SO4 may experience decreases as the DSI injection system works to control SO3 emissions (including the formation of SO3 from the SCR) and the condensable portion of particulate matter such that total particulates are controlled to baseline or lower levels.

OUC - SEC

Units 1 and 2 AQCS Project

Table A2 BAE NSR Reform Method (Highest 24-months of the Most Recent 5 Years)

	CEMS Heat Input (total)				NOx			
	Unit 1 Monthly Heat Input (mmBtu)	Unit 2 Monthly Heat Input (mmBtu)	Total Monthly Heat Input (mmBtu)	24-Mon Ann Rolling Avg. (mmBtu)	Unit 1 Monthly Emissions (tons)	Unit 2 Monthly Emissions (tons)	Total Monthly Emissions (tons)	24-Mon Ann Rolling Avg. (tons)
2007 May	3,109,088	3,273,389	6,382,477		568.97	267.78	826.75	
2007 Jun	3,097,091	2,854,452	5,951,544		538.52	234.58	773.09	
2007 Jul	3,298,928	3,251,693	6,550,621		590.71	268.00	858.71	
2007 Aug	3,259,417	3,212,925	6,472,341		600.49	265.03	865.51	
2007 Sep	3,181,587	3,204,669	6,386,256		550.72	265.92	816.63	
2007 Oct	1,265,857	3,152,131	4,417,989		235.43	259.44	494.87	
2007 Nov	699,307	2,919,304	3,618,611		87.31	243.31	330.62	
2007 Dec	2,584,181	2,893,453	5,477,635		520.71	238.82	759.33	
2008 Jan	2,613,162	2,890,485	5,503,648		504.28	237.54	741.82	
2008 Feb	2,502,278	2,353,963	4,856,241		494.69	192.88	687.57	
2008 Mar	2,874,959	1,239,624	4,114,583		631.10	113.50	744.60	
2008 Apr	2,970,972	0	2,970,972		842.92	0.00	842.92	
2008 May	3,196,098	1,540,950	4,737,048		680.06	120.13	800.18	
2008 Jun	3,042,769	2,813,771	5,856,540		586.65	217.73	804.37	
2008 Jul	3,174,040	2,816,156	5,992,196		639.72	231.02	870.74	
2008 Aug	3,019,161	3,018,382	6,037,543		558.36	245.81	804.17	
2008 Sep	2,824,873	3,130,918	5,955,791		567.42	258.62	826.04	
2008 Oct	0	3,311,387	3,311,387		0.00	271.73	271.73	
2008 Nov	2,097,167	3,088,703	5,185,871		289.58	253.80	543.38	
2008 Dec	2,965,704	2,837,387	5,803,061		427.38	234.00	661.38	
2009 Jan	2,959,473	2,610,988	5,570,461		434.94	218.67	653.61	
2009 Feb	2,746,318	2,502,178	5,248,496		399.94	205.13	605.07	
2009 Mar	2,774,105	2,745,653	5,519,756		397.20	227.72	624.92	
2009 Apr	2,870,196	2,383,669	5,053,865	63,487,482	387.56	196.22	583.78	8,295.89
2009 May	2,537,484	2,422,545	4,960,029	62,776,258	376.06	196.65	571.71	8,168.37
2009 Jun	2,919,876	2,507,395	5,427,271	62,514,122	433.73	201.01	634.74	8,099.19
2009 Jul	2,427,339	2,802,974	5,230,313	61,853,968	349.63	223.83	573.46	7,956.57
2009 Aug	2,956,072	2,945,484	5,901,557	61,568,575	456.38	235.81	692.19	7,869.91
2009 Sep	2,428,278	2,769,656	5,217,934	60,984,414	397.73	230.11	627.84	7,775.51
2009 Oct	3,083,353	170,809	3,254,163	60,402,501	513.72	14.04	527.76	7,791.95
2009 Nov	2,645,895	2,344,777	4,990,671	61,088,531	423.93	189.47	613.40	7,933.34
2009 Dec	2,974,767	2,930,372	5,905,138	61,302,263	459.82	233.65	693.46	7,900.41
2010 Jan	3,136,625	2,890,512	6,027,137	61,564,028	482.17	230.54	712.71	7,885.86
2010 Feb	2,659,440	2,600,869	5,260,309	61,766,082	420.69	206.45	627.14	7,856.65
2010 Mar	0	2,930,678	2,930,678	61,174,209	0.00	223.83	223.63	7,595.16
2010 Apr	309,811	2,685,367	2,995,178	61,186,312	39.61	225.54	265.15	7,408.28
2010 May	2,898,330	2,961,085	5,859,415	61,747,496	416.06	231.11	647.17	7,329.77
2010 Jun	3,010,194	2,978,697	5,988,892	61,813,671	445.90	230.55	676.44	7,265.80
2010 Jul	3,042,138	3,062,388	6,104,526	61,869,836	446.72	234.44	681.16	7,171.01
2010 Aug	2,673,121	2,657,395	5,330,515	61,516,323	398.97	205.57	604.54	7,071.20
2010 Sep	2,267,122	2,583,498	4,850,620	60,963,737	341.99	199.91	541.90	6,929.13
2010 Oct	2,442,081	429,989	2,872,069	60,744,078	326.85	33.22	360.07	6,973.30
2010 Nov	2,570,064	2,396,423	4,966,487	60,634,387	362.80	185.53	548.33	6,975.78
2010 Dec	2,960,318	2,707,757	5,668,075	60,568,879	425.53	210.75	636.29	6,963.23
2011 Jan	2,316,618	2,493,738	4,810,356	60,186,826	339.75	191.74	531.49	6,902.17
2011 Feb	1,452,259	2,065,023	3,517,262	59,321,219	202.86	159.11	361.98	6,760.62
2011 Mar	455	2,075,214	2,075,669	57,599,174	0.04	156.72	156.76	6,547.54
2011 Apr	1,762,890	2,225,409	3,988,299	57,066,391	244.18	171.75	415.92	6,463.62
2011 May	2,144,194	2,265,613	4,409,807	56,791,280	322.95	176.77	499.72	6,427.62
2011 Jun	2,101,905	2,351,069	4,452,973	56,304,132	266.71	184.37	451.08	6,335.79
2011 Jul	2,768,202	2,668,556	5,436,757	56,407,353	390.65	207.56	598.41	6,348.27
2011 Aug	2,587,971	2,672,262	5,260,233	56,086,691	366.37	206.64	573.01	6,288.66
2011 Sep	2,241,582	932,730	3,174,312	55,064,680	287.54	48.42	335.96	6,142.74
2011 Oct	2,161,121	1,578,106	3,738,226	56,307,412	296.91	119.49	416.40	6,087.06
2011 Nov	2,107,594	2,406,474	4,514,068	56,069,110	283.10	164.05	467.16	6,013.93
2011 Dec	1,249,651	1,102,580	2,352,231	53,292,657	160.92	85.92	246.65	5,790.62
2012 Jan	268,173	1,299,125	1,567,298	51,072,738	37.31	96.49	135.80	5,502.17
2012 Feb	0	1,427,691	1,427,691	49,156,429	0.00	110.46	110.46	5,243.63
2012 Mar	0	1,721,155	1,721,155	48,551,567	0.00	133.23	133.23	5,196.83
2012 Apr	622,878	1,838,816	2,461,694	48,294,825	81.00	138.00	219.00	5,175.55
Max 24-Month Annual Rolling Average (BAE)								8,295.89

	SO2				CO				VOC			
	Unit 1 Monthly Emissions (tons)	Unit 2 Monthly Emissions (tons)	Total Monthly Emissions (tons)	24-Mon Ann Rolling Avg. (tons)	Unit 1 Monthly Emissions (tons)	Unit 2 Monthly Emissions (tons)	Total Monthly Emissions (tons)	24-Mon Ann Rolling Avg. (tons)	Unit 1 Monthly Emissions (tons)	Unit 2 Monthly Emissions (tons)	Total Monthly Emissions (tons)	24-Mon Ann Rolling Avg. (tons)
2007 May	394.41	212.26	606.66		29.51	38.29	67.80		4.32	1.73	6.05	
2007 Jun	379.82	195.65	575.47		29.40	33.39	62.79		4.31	1.51	5.81	
2007 Jul	435.20	171.12	606.33		31.31	38.04	69.35		4.59	1.71	6.30	
2007 Aug	493.43	149.50	642.93		30.94	37.58	68.52		4.53	1.69	6.23	
2007 Sep	421.34	168.75	590.09		30.20	37.49	67.69		4.42	1.69	6.11	
2007 Oct	172.02	165.16	337.17		12.02	36.87	48.89		1.76	1.66	3.42	
2007 Nov	57.74	131.58	189.32		6.64	34.15	40.79		0.97	1.54	2.51	
2007 Dec	328.23	154.62	482.85		24.53	33.85	58.39		3.59	1.53	5.12	
2008 Jan	332.82	228.65	561.47		24.63	28.85	53.88		2.98	1.46	4.44	
2008 Feb	391.27	183.21	584.47		23.77	23.50	47.27		2.86	1.19	4.04	
2008 Mar	382.76	96.81	479.57		27.32	12.37	39.69		3.28	0.62	3.91	
2008 Apr	508.50	0.00	508.50		28.23	0.00	28.23		3.39	0.00	3.39	
2008 May	439.75	113.24	552.99		30.37	15.38	45.75		3.65	0.78	4.43	
2008 Jun	453.77	212.31	666.08		28.91	28.09	57.00		3.48	1.42	4.89	
2008 Jul	310.37	233.19	543.57		30.16	28.13	58.29		3.63	1.42	5.05	
2008 Aug	349.23	236.30	585.53		26.69	30.13	56.81		3.45	1.52	4.97	
2008 Sep	291.96	271.17	563.13		26.84	31.25	58.09		3.23	1.58	4.80	
2008 Oct	0.00	273.83	273.63		0.00	33.05	33.05		0.00	1.67	1.67	
2008 Nov	268.36	182.36	448.72		19.93	30.63	50.76		2.40	1.56	3.95	
2008 Dec	334.33	140.44	474.77		28.18	28.32	56.50		3.39	1.43	4.82	
2009 Jan	289.36	132.28	401.64		90.34	93.14	183.48		3.32	1.32	4.64	
2009 Feb	380.18	192.05	572.23		83.64	89.26	173.09		3.08	1.26	4.35	
2009 Mar	350.57	223.41	573.98		84.69	97.94	182.63		3.12	1.39	4.50	
2009 Apr	177.72	149.16	326.88	6,064.08	81.51	85.03	166.54	888.53	3.00	1.20	4.20	54.81
2009 May	166.33	96.74	263.07	5,892.28	77.46	86.41	163.88	936.56	2.85	1.22	4.07	53.82
2009 Jun	173.68	146.33	320.01	5,764.56	89.14	89.44	178.58	984.46	3.28	1.26	4.54	53.19
2009 Jul	177.46	240.19	417.67	5,670.22	74.10	99.98	174.08	1,046.83	2.73	1.41	4.14	52.11
2009 Aug	190.25	240.32	430.57	5,564.04	90.24	105.07	195.31	1,110.22	3.32	1.49	4.61	51.39
2009 Sep	145.06	177.43	322.50	5,430.25	74.13	99.51	173.64	1,163.20	2.73	1.41	4.13	50.40
2009 Oct	170.62	11.50	182.31	5,352.82	94.13	6.09	100.22	1,188.86	3.46	0.09	3.55	50.47
2009 Nov	174.10	166.42	340.52	5,428.42	80.77	83.64	164.41	1,250.67	2.97	1.16	4.15	51.29
2009 Dec	214.70	230.93	445.63	5,409.61	90.81	104.53	195.34	1,319.18	3.34	1.48	4.82	51.14
2010 Jan	331.52	269.29	600.81	5,429.48	113.61	63.07	176.67	1,380.65	3.57	1.44	5.00	51.42
2010 Feb	245.53	160.51	406.04	5,350.26	96.32	56.75	153.07	1,433.55	3.02	1.29	4.32	51.58
2010 Mar	0.00	142.63	142.63	5,181.79	0.00	63.95	63.95	1,445.68	0.00	1.46	1.46	50.33
2010 Apr	31.99	208.90	240.89	5,047.98	11.22	58.59	69.81	1,466.47	0.35	1.34	1.69	49.48
2010 May	269.28	213.56	482.87	5,012.92	104.97	64.61	169.58	1,528.39	3.29	1.47	4.77	49.65
2010 Jun	278.79	220.82	499.61	4,929.66	109.03	64.99	174.02	1,586.90	3.42	1.48	4.90	49.66
2010 Jul	331.07	226.87	557.94	4,936.87	110.18	66.82	177.00	1,648.26	3.46	1.52	4.98	49.63
2010 Aug	219.22	185.66	405.08	4,846.64	96.82	57.98	154.80	1,694.25	3.04	1.32	4.36	49.32
2010 Sep	95.11	101.66	196.77	4,663.46	82.11	56.37	138.48	1,734.44	2.56	1.29	3.86	46.85
2010 Oct	156.59	21.56	178.13	4,615.62	88.45	9.38	97.83	1,766.83	2.78	0.21	2.99	49.51
2010 Nov	229.16	168.83	397.99	4,590.25	93.08	52.29	145.37	1,814.14	2.92	1.19	4.11	49.59
2010 Dec	217.31	161.06	378.37	4,542.05	107.22	59.08	166.30	1,869.04	3.36	1.35	4.71	49.54
2011 Jan	156.97	133.60	290.57	4,486.52	76.10	57.30	133.40	1,844.00	1.85	0.99	2.83	46.84
2011 Feb	108.16	85.96	194.12	4,297.47	30.00	55.87	85.87	1,800.39	1.00	0.81	1.81	47.37
2011 Mar	0.04	45.17	45.21	4,033.06	0.00	50.85	50.85	1,734.50	0.00	0.80	0.80	45.52
2011 Apr	141.14	47.57	188.72	3,984.00	78.30	45.34	123.64	1,713.05	1.44	0.85	2.29	44.56
2011 May	138.78	71.97	210.73	3,937.83	40.30	38.89	79.19	1,670.71	1.72	0.82	2.55	43.60
2011 Jun	119.66	77.72	197.37	3,876.51	48.70	57.77	106.47	1,634.66	1.73	0.85	2.56	42.82
2011 Jul	129.65	87.13	216.78	3,776.07	64.90	86.57	151.47	1,623.35	2.16	0.97	3.13	42.31
2011 Aug	144.75	112.42	257.18	3,689.37	119.80	79.23	199.03	1,625.21	2.02	0.93	2.94	41.38
2011 Sep	181.70	42.26	223.95	3,640.10	86.70	25.09	111.79	1,594.28	2.12	0.32	2.45	40.54
2011 Oct	139.37	66.82	206.19	3,652.04	72.90	85.61	158.51	1,623.43	2.74	0.85	3.59	40.56
2011 Nov	125.96	123.16	249.11	3,606.34	94.80	70.80	165.60	1,624.02	2.29	1.33	3.62	40.29
2011 Dec	74.28	39.89	114.18	3,440.61	29.40	36.47	65.87	1,559.29	1.43	0.67	2.09	38.92
2012 Jan	19.41	45.76	65.17	3,172.79	6.70	19.63	26.33	1,485.12	0.32	0.83	1.15	37.00
2012 Feb	0.00	91.89	91.69	3,015.71	0.00	29.36	29.36	1,423.27	0.00	0.66	0.66	35.27
2012 Mar	0.00	102.88	102.88	2,995.84	0.00	22.74	22.74	1,402.67	0.00	0.91	0.91	34.99
2012 Apr	64.00	91.00	155.00	2,952.90	9.30	41.83	51.13	1,393.33	0.74	0.94	1.68	34.99
Max 24-Month Annual Rolling Average (BAE)				6,064.08				1,869.04				54.81

	PM				PM10				PM2.5			
	Unit 1 Monthly Emissions (tons)	Unit 2 Monthly Emissions (tons)	Total Monthly Emissions (tons)	24-Mon Ann Rolling Avg. (tons)	Unit 1 Monthly Emissions (tons)	Unit 2 Monthly Emissions (tons)	Total Monthly Emissions (tons)	24-Mon Ann Rolling Avg. (tons)	Unit 1 Monthly Emissions (tons)	Unit 2 Monthly Emissions (tons)	Total Monthly Emissions (tons)	24-Mon Ann Rolling Avg. (tons)
2007 May	22.98	40.97	63.95		22.98	40.97	63.95		19.66	21.37	41.04	
2007 Jun	22.89	35.73	58.62		22.89	35.72	58.62		19.59	18.64	38.23	
2007 Jul	24.39	40.70	65.08		24.38	40.70	65.08		20.87	21.23	42.10	
2007 Aug	24.09	40.21	64.31		24.09	40.21	64.30		20.62	20.98	41.60	
2007 Sep	23.52	40.11	63.63		23.52	40.11	63.62		20.12	20.93	41.05	
2007 Oct	9.36	39.45	48.81		9.36	39.45	48.81		8.01	20.58	28.59	
2007 Nov	5.17	36.54	41.71		5.17	36.54	41.71		4.42	19.06	23.49	
2007 Dec	19.10	36.22	55.32		19.10	36.21	56.31		16.34	18.89	35.24	
2008 Jan	21.80	25.38	47.18		19.36	22.53	41.89		16.54	19.25	35.79	
2008 Feb	20.87	20.67	41.54		18.53	18.35	36.88		15.64	15.88	31.52	
2008 Mar	23.98	10.88	34.87		21.29	9.66	30.96		18.20	8.26	26.46	
2008 Apr	24.78	0.00	24.78		22.01	0.00	22.01		18.81	0.00	18.81	
2008 May	26.66	13.53	40.19		23.87	12.01	35.88		20.23	10.26	30.50	
2008 Jun	25.38	24.71	50.09		22.54	21.93	44.47		19.26	18.74	38.00	
2008 Jul	26.48	24.75	51.22		23.51	21.97	45.48		20.10	18.77	38.86	
2008 Aug	25.18	26.50	51.69		22.36	23.53	45.89		19.11	20.10	39.21	
2008 Sep	23.56	27.49	51.05		20.92	24.40	45.33		17.88	20.85	38.73	
2008 Oct	0.00	29.09	29.08		0.00	25.81	25.81		0.00	22.05	22.05	
2008 Nov	17.49	27.12	44.61		15.53	24.07	39.61		13.28	20.57	33.85	
2008 Dec	24.74	24.91	49.65		21.97	22.12	44.08		18.78	18.89	37.67	
2009 Jan	23.06	23.00	46.07		20.48	20.44	40.93		17.51	17.44	34.96	
2009 Feb	21.40	22.05	43.45		19.01	19.59	38.60		16.25	16.72	32.97	
2009 Mar	21.62	24.19	45.81		19.20	21.50	40.70		16.42	18.34	34.76	
2009 Apr	20.61	21.00	41.61	577.26	18.48	18.66	37.14	536.42	15.80	15.92	31.72	406.59
2009 May	19.77	21.34	41.12	565.84	17.56	18.97	36.53	524.71	15.02	16.16	31.20	403.87
2009 Jun	22.75	22.09	44.84	558.95	20.21	19.63	39.84	515.32	17.28	16.75	34.03	401.57
2009 Jul	18.92	24.70	43.61	548.21	16.80	21.95	38.75	502.15	14.36	18.73	33.09	397.07
2009 Aug	23.04	25.95	48.99	540.55	20.46	23.06	43.52	491.76	17.49	19.68	37.17	394.85
2009 Sep	18.92	24.58	43.50	530.49	16.80	21.64	38.85	479.27	14.37	18.64	33.01	390.83
2009 Oct	24.03	1.50	25.53	518.65	21.34	1.34	22.68	466.21	18.25	1.14	19.39	386.23
2009 Nov	20.62	20.88	41.28	518.63	18.31	18.36	36.67	463.69	15.66	15.66	31.32	390.15
2009 Dec	23.18	25.82	49.00	515.47	20.59	22.94	43.53	457.80	17.60	19.56	37.18	391.12
2010 Jan	26.34	37.25	63.59	523.88	23.38	33.50	56.89	465.30	19.99	29.19	49.17	397.81
2010 Feb	22.33	33.52	55.65	530.83	19.83	30.15	49.97	471.85	16.95	26.26	43.21	403.65
2010 Mar	0.00	37.77	37.77	532.29	0.00	33.97	33.97	473.35	0.00	29.59	29.59	405.22
2010 Apr	2.80	34.61	37.21	538.50	2.31	31.13	33.43	479.07	1.97	27.11	29.09	410.30
2010 May	24.34	38.16	62.50	549.66	21.61	34.32	55.93	489.19	18.47	29.90	48.37	419.30
2010 Jun	25.27	38.39	63.66	556.44	22.44	34.52	56.97	495.44	19.16	30.08	49.26	424.83
2010 Jul	25.54	39.47	65.01	563.34	22.69	35.49	58.18	501.79	19.39	30.92	50.31	430.65
2010 Aug	22.44	34.25	56.66	565.64	19.93	30.80	50.73	504.21	17.03	26.83	43.87	432.98
2010 Sep	19.04	33.30	52.33	568.48	16.90	29.94	46.85	504.97	14.45	26.09	40.53	433.87
2010 Oct	20.50	5.54	26.05	564.96	18.21	4.98	23.19	503.66	15.56	4.34	19.90	432.80
2010 Nov	21.56	30.88	52.46	568.89	19.16	27.78	46.94	507.32	16.36	24.20	40.57	436.16
2010 Dec	24.66	34.90	59.75	573.94	22.07	31.38	53.45	512.01	18.66	27.34	46.20	440.43
2011 Jan	15.51	23.57	39.08	570.45	13.39	21.64	35.03	509.06	10.95	19.42	30.38	438.14
2011 Feb	8.23	19.28	27.51	562.48	7.10	17.71	24.81	502.17	5.81	15.69	21.70	432.51
2011 Mar	0.00	18.96	18.98	549.07	0.00	17.43	17.43	490.54	0.00	15.65	15.65	422.96
2011 Apr	11.45	20.35	31.81	544.06	9.89	18.69	28.58	486.26	8.09	16.78	24.86	419.52
2011 May	14.15	19.64	33.79	540.40	12.22	19.04	30.26	483.12	9.99	16.19	26.18	417.01
2011 Jun	14.20	20.48	34.68	535.32	12.26	18.81	31.07	478.73	10.03	16.88	26.90	413.45
2011 Jul	17.72	23.27	40.99	534.01	15.30	21.37	36.67	477.69	12.52	19.16	31.70	412.76
2011 Aug	18.47	22.17	36.64	528.83	14.23	20.35	34.59	473.23	11.85	18.27	29.92	409.13
2011 Sep	17.18	7.57	24.73	519.45	14.83	6.95	21.78	464.78	12.14	6.24	18.39	401.82
2011 Oct	22.34	19.92	42.26	527.61	19.30	18.29	37.60	472.25	15.81	16.42	32.22	406.24
2011 Nov	18.52	31.87	50.39	532.37	18.00	29.26	45.26	478.55	13.10	26.26	39.36	412.28
2011 Dec	11.86	15.83	27.69	521.71	10.25	14.54	24.78	467.17	8.39	13.05	21.43	404.38
2012 Jan	2.83	19.32	21.95	500.90	2.27	17.74	20.02	448.74	1.86	15.93	17.79	388.69
2012 Feb	0.00	20.31	20.31	483.13	0.00	18.65	18.65	433.06	0.00	16.74	16.74	375.46
2012 Mar	0.00	21.64	21.64	475.08	0.00	19.87	19.87	426.03	0.00	17.84	17.84	369.58
2012 Apr	6.06	21.69	27.76	470.33	5.24	19.92	25.16	421.89	4.28	17.88	22.17	366.12
Max 24-Month Annual Rolling Average (BAE)				577.26				536.42				440.43

	H2SO4				CO2			
	Unit 1 Monthly Emissions (tons)	Unit 2 Monthly Emissions (tons)	Total Monthly Emissions (tons)	24-Mon Ann Rolling Avg. (tons)	Unit 1 Monthly Emissions (tons)	Unit 2 Monthly Emissions (tons)	Total Monthly Emissions (tons)	24-Mon Ann Rolling Avg. (tons)
2007 May	17.93	19.32	37.25		318,993	335,850	654,843	
2007 Jun	17.86	16.85	34.71		317,762	292,867	610,629	
2007 Jul	19.03	19.19	38.22		338,470	333,624	672,094	
2007 Aug	18.80	18.96	37.76		334,416	329,645	664,061	
2007 Sep	18.35	18.92	37.27		326,433	328,800	655,233	
2007 Oct	7.30	18.61	25.91		129,877	323,409	453,286	
2007 Nov	4.03	17.23	21.27		71,749	299,519	371,268	
2007 Dec	14.91	17.08	31.98		265,137	296,868	562,005	
2008 Jan	14.82	17.28	32.10		268,111	296,563	564,675	
2008 Feb	14.19	14.07	28.26		256,734	241,518	498,251	
2008 Mar	16.30	7.41	23.71		294,971	127,185	422,156	
2008 Apr	16.85	0.00	16.85		304,821	0	304,821	
2008 May	18.12	9.21	27.34		327,920	158,102	486,022	
2008 Jun	17.25	16.82	34.06		312,188	288,892	600,880	
2008 Jul	18.00	16.85	34.85		325,656	289,142	614,798	
2008 Aug	17.12	18.05	35.17		309,785	309,683	619,449	
2008 Sep	16.02	18.72	34.74		289,832	321,227	611,059	
2008 Oct	0.00	19.80	19.80		0	339,739	339,739	
2008 Nov	11.89	16.47	30.36		215,164	316,900	532,064	
2008 Dec	16.62	16.97	33.76		304,277	291,116	595,393	
2009 Jan	15.62	15.65	31.26		303,639	267,889	571,528	
2009 Feb	14.50	15.00	29.50		281,769	256,724	538,494	
2009 Mar	14.64	16.46	31.10		284,619	281,712	566,331	
2009 Apr	14.09	14.29	28.39	367.84	273,960	244,570	518,529	6,513,803
2009 May	13.39	14.52	27.92	363.17	260,346	248,554	508,899	6,440,831
2009 Jun	15.41	15.03	30.45	361.04	299,578	257,256	556,836	6,413,934
2009 Jul	12.81	16.81	29.62	356.74	249,047	287,586	536,633	6,348,204
2009 Aug	15.60	17.66	33.26	354.48	303,293	302,207	605,500	6,316,923
2009 Sep	12.82	16.73	29.54	350.82	249,141	286,218	535,359	6,256,986
2009 Oct	16.27	1.02	17.30	348.32	316,350	17,525	333,875	6,197,281
2009 Nov	13.97	14.06	28.02	349.70	271,468	240,574	512,042	6,267,666
2009 Dec	15.70	17.57	33.27	350.34	305,212	300,656	605,867	6,289,599
2010 Jan	17.88	17.04	34.92	351.75	321,817	296,567	618,383	6,318,453
2010 Feb	15.16	15.33	30.49	352.66	272,859	266,848	539,707	6,337,161
2010 Mar	0.00	17.28	17.28	349.84	0	300,708	300,708	6,276,456
2010 Apr	1.77	15.83	17.60	350.02	31,786	275,520	307,307	6,277,701
2010 May	16.52	17.46	33.96	353.34	297,366	303,807	601,174	6,335,276
2010 Jun	17.18	17.56	34.72	353.66	308,846	305,615	614,461	6,342,067
2010 Jul	17.34	18.05	35.39	353.93	312,122	314,201	626,323	6,347,830
2010 Aug	15.24	15.67	30.90	351.80	274,260	272,647	546,908	6,311,559
2010 Sep	12.92	15.23	28.15	348.50	232,607	265,068	497,675	6,254,667
2010 Oct	13.92	2.53	16.45	346.63	250,555	44,118	294,672	6,232,334
2010 Nov	14.65	14.13	28.78	348.04	263,689	245,873	509,562	6,221,083
2010 Dec	16.87	15.96	32.84	345.56	303,729	277,814	581,544	6,214,156
2011 Jan	9.39	11.67	21.06	340.46	237,685	255,857	493,543	6,175,185
2011 Feb	4.98	9.55	14.53	332.97	149,002	211,870	360,872	6,088,354
2011 Mar	0.00	9.39	9.39	322.12	47	212,919	212,965	5,909,671
2011 Apr	6.93	10.06	17.01	318.43	180,871	228,375	409,197	5,856,005
2011 May	8.57	9.73	18.30	311.62	219,994	232,450	452,444	5,826,778
2011 Jun	8.59	10.16	18.75	305.77	215,656	241,220	456,876	5,778,798
2011 Jul	10.70	11.54	22.24	302.06	284,017	273,793	557,810	5,787,386
2011 Aug	9.94	10.99	20.92	295.91	265,526	274,174	539,700	5,754,466
2011 Sep	10.34	3.74	14.08	288.18	229,967	95,698	325,665	5,649,649
2011 Oct	13.46	9.88	23.34	291.21	221,730	161,912	383,642	5,674,533
2011 Nov	11.18	15.80	26.98	290.88	216,239	246,904	463,142	5,650,083
2011 Dec	7.16	7.64	15.00	281.55	128,214	113,125	241,339	5,467,619
2012 Jan	1.59	9.56	11.15	269.66	29,566	133,291	162,857	5,240,056
2012 Feb	0.00	10.05	10.05	259.44	0	146,481	146,481	5,043,442
2012 Mar	0.00	10.72	10.72	256.16	0	176,591	176,591	4,981,384
2012 Apr	3.67	10.73	14.40	254.56	63,907	188,663	252,570	4,954,015
Max 24-Month Annual Rolling Average (BAE)				367.84				6,513,803

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Table A3 Material Handling Emission Sources Increase Summary

Source	Emissions Increase		
	PM (tpy)	PM10 (tpy)	PM2.5 (tpy)
Bin Vent Dust Collectors			
Hydrated Lime	0.56	0.56	0.56
Haul Trucks (Paved Roads)			
Transport Activity	0.15	0.03	0.01
Haul Trucks (Unpaved Roads)			
Transport Activity	6.84	2.41	0.24
Total Emissions	**7.56**	**3.00**	**0.81**

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Units 1 and 2 AQCS Project

Material Handling Emission Sources - Bin Vent Dust Collectors (New Sources)

Emission Rate (ER) Equation

$$ER = GL \times dscfm \times \frac{60}{7{,}000}$$

Where:

GL =	grain loading	0.005 gr/dscf (bin vent filters)
dscfm =	stack exhaust (dscfm)	see Table below
(60/7,000) =	unit conversion	

Basis:

PM_{10}/TSP Fraction	1.00	dimensionless	[1]
$PM_{2.5}$/PM_{10}	1.00	dimensionless	[1]
Hours of operation	8,760	hrs/yr	

Table A4 Bin Vent Dust Collectors

Emission Unit Number	Transfer Description	Potential to Emit Calculations						
		Flow Rate	Emission Rates			Potential Controlled Emissions		
			TSP	PM-10	PM-2.5	TSP	PM-10	PM-2.5
		dscfm	lb/hr	lb/hr	lb/hr	ton/yr	ton/yr	ton/yr
Hydrated Lime								
30	Bin Vent - Hydrated Lime Storage Silo (Unit 1)	1,500	0.0643	0.0643	0.0643	0.28	0.28	0.28
31	Bin Vent - Hydrated Lime Storage Silo (Unit 2)	1,500	0.0643	0.0643	0.0643	0.28	0.28	0.28
					Total Controlled Emissions	**0.56**	**0.56**	**0.56**

Notes [ ]:

1. It was assumed that all particulate matter was $PM_{2.5}$.

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Material Handling Emission Sources - Haul Trucks (Paved Roads)

Emission Factor (EF) Equation [1]

$$EF = \left(k \times sL^{0.91} \times W^{1.02}\right) \times \left(1 - \frac{P}{4 \times N}\right)$$

Where:

EF = particulate emission factor, lb/VMT
k = particle size multiplier = 0.011 for PM [1a]
0.0022 for PM-10 [1a]
0.00054 for PM-2.5 [1a]
sL = surface silt loading, g/m² = 0.6 Ubiquitous Baseline (ADT <500) [1b]
W = average vehicle weight, tons = see Table below
P = number of days per year with at least 0.01 in of precipitation = 117 [2]
N = number of days in the averaging period = 365

Basis:

Table A5 Vehicle Traffic Counts (Paved Roads)

Material	Usage Rate		Empty Truck Weight (tons)	Truck Capacity (tons)	No. of Trucks
Hydrated Lime for DSI (Units 1 and 2)	19,272	tpy	15	23	838
Anhydrous Ammonia (Unit 1)	2,282	tpy	23	18	131
Scrubber Reagent - Limestone Slurry (Unit 1) [3]	4,336	tpy	15	25	174
Byproduct Waste from DSI (Units 1 and 2)	24,791	tpy	20	25	992
Gypsum (Unit 1)	4,073	tpy	20	25	163

Table A6 Vehicle Traffic Emissions (Paved Roads)

Transport Activity	Potential to Emit Calculations									Control Method	Control Efficiency [4]	Potential Controlled Emissions		
	Average Vehicle Weight	Roundtrip Distance	Vehicle Mile Traveled	Emission Factor			Potential Uncontrolled Emissions							
				PM	PM-10	PM-2.5	PM	PM-10	PM-2.5			PM	PM-10	PM-2.5
	tons	mi	VMT/yr	lb/VMT	lb/VMT	lb/VMT	ton/yr	ton/yr	ton/yr		%	ton/yr	ton/yr	ton/yr
Hydrated Lime for DSI (Units 1 and 2)	26.5	3.0	2,514	0.1799	0.0360	0.0088	2.26E-01	4.52E-02	1.11E-02	Broom Sweeping	70.0	6.78E-02	1.36E-02	3.33E-03
Anhydrous Ammonia (Unit 1)	31.3	3.1	406	0.2128	0.0426	0.0104	4.32E-02	8.64E-03	2.12E-03	Broom Sweeping	70.0	1.30E-02	2.59E-03	6.36E-04
Scrubber Reagent - Limestone Slurry (Unit 1) [3]	27.5	3.6	626	0.1868	0.0374	0.0092	5.85E-02	1.17E-02	2.87E-03	Broom Sweeping	70.0	1.76E-02	3.51E-03	8.62E-04
Byproduct Waste from DSI (Units 1 and 2)	32.5	1.3	1,290	0.2215	0.0443	0.0109	1.43E-01	2.86E-02	7.01E-03	Broom Sweeping	70.0	4.28E-02	8.57E-03	2.10E-03
Gypsum (Unit 1)	32.5	1.3	212	0.2215	0.0443	0.0109	2.35E-02	4.69E-03	1.15E-03	Broom Sweeping	70.0	7.04E-03	1.41E-03	3.46E-04
				Total Uncontrolled Emissions (tons/yr)			0.4941	0.0988	0.0243	Total Controlled Emissions (tons/yr)		0.15	0.03	0.01

Notes [ ]:

1. USEPA, AP-42, Fifth Edition, Vol. I, Chapter 13 "Miscellaneous Sources", Section 13.2.1 "Paved Roads". January 2011.
   a. Table 13.2.1-1 "Particle Size Multipliers for Paved Road Equation"
   b. Table 13.2.1-2 "Ubiquitous Silt Loading Default Values with Hot Spot Contributions from Anti-Skid Abrasives (g/m²)"
2. From 2011 Annual Local Climatological Data (LCD) for Orlando, FL (MCO)
3. Additional limestone usage due to scrubber upgrades is expected to be 2,168 tpy. Assumed limestone comes in the form of a slurry from the water treatment plant as is currently done for much of the FGDs' limestone needs. Further assumed slurry is 50% solids so multiplied limestone usage rate time two.
4. Ohio Environmental Protection Agency, "Reasonably Available Control Measures for Fugitive Dust Sources". Table 2.1.1-3 "Summary of Techniques, Efficiencies [...] for Controlling Fugitive Dust from Paved and Unpaved Surfaces". 1980.

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Material Handling Emission Sources - Haul Trucks (Unpaved Roads)

Emission Factor (EF) Equation [1]

$$EF = \left(k \times (s/12)^a \times (W/3)^b\right) \times \left(\frac{365 - P}{365}\right)$$

Where:

EF =	particulate emission factor, lb/VMT			
k =	empirical constant =	=	4.9	for PM [1a]
			1.5	for PM-10 [1a]
			0.15	for PM-2.5 [1a]
s =	surface material silt content, % =	=	24.0	[1b]
W =	mean vehicle weight, tons =	=	see Table below	
a =	empirical constant =		0.7	for PM [1a]
			0.9	for PM-10 & PM-2.5 [1a]
b =	empirical constant =		0.45	for PM, PM-10, & PM-2.5 [1a]
P =	number of days per year with at least 0.01 in of precipitation	=	117	[2]

Basis:

Table A7 Vehicle Traffic Counts (Unpaved Roads)

Material	Usage Rate		Empty Truck Weight (tons)	Truck Capacity (tons)	No. of Trucks
Byproduct Waste from DSI (Units 1 and 2)	24,791	tpy	20	25	992
Gypsum (Unit 1)	4073	tpy	20	25	163

Table A8 Vehicle Traffic Emissions (Unpaved Roads)

Transport Activity	Potential to Emit Calculations													
	Average Vehicle Weight	Roundtrip Distance	Vehicle Mile Traveled	Emission Factor			Potential Uncontrolled Emissions			Control Method	Control Efficiency [3]	Potential Controlled Emissions		
				PM	PM-10	PM-2.5	PM	PM-10	PM-2.5			PM	PM-10	PM-2.5
	tons	mi	VMT/yr	lbs/VMT	lbs/VMT	lbs/VMT	ton/yr	ton/yr	ton/yr		%	ton/yr	ton/yr	ton/yr
FGD Byproducts & Fly Ash Truck - Loaded	32.5	1.5	1,488	15.8022	5.5567	0.5557	1.18E+01	4.13E+00	4.13E-01	Watering	50.0	5.88E+00	2.07E+00	2.07E-01
FGD Byproducts & Fly Ash Truck - Empty	32.5	1.5	245	15.8022	5.5567	0.5557	1.93E+00	6.79E-01	6.79E-02	Watering	50.0	9.66E-01	3.40E-01	3.40E-02
				Total Uncontrolled Emissions (tons/yr)			13.6887	4.8135	0.4814	Total Controlled Emissions (tons/yr)		6.84	2.41	0.24

Notes [ ]:

1. USEPA, AP-42, Fifth Edition, Vol. I. Chapter 13 "Miscellaneous Sources", Section 13.2.2 "Unpaved Roads". November 2006.
   a. Table 13.2.2-2 "Constants for Equations 1a and 1b"
   b. Table 13.2.2-1 "Typical Silt Content Values of Surface Material on Industrial Unpaved Roads" - Conservatively selected the silt value for a freshly graded haul road at a coal mine.
2. From 2011 Annual Local Climatological Data (LCD) for Orlando, FL (MCO)
3. Ohio Environmental Protection Agency, "Reasonably Available Control Measures for Fugitive Dust Sources". Table 2.1.1-3 "Summary of Techniques, Efficiencies [...] for Controlling Fugitive Dust from Paved and Unpaved Surfaces". 1980.
   Conservatively selected watering for a 50% control. According to the facility's Title V permit's "Precautions to Prevent Emissions of Unconfined PM", OUC may at times use chemical dust suppressants which can have a control efficiency of 90% accourding to the Ohio EPA document.

Appendix B. Application Forms

RECEIVED
JUN 11 2012
DIVISION OF AIR RESOURCE MANAGEMENT

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 any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

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

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Orlando Utilities Commission	
2. Site Name: Stanton Energy Center	
3. Facility Identification Number: 0950137	
4. Facility Location... Street Address or Other Locator: 5100 South Alafaya Trail City: Orlando County: Orange Zip Code: 32831	
5. Relocatable Facility? ☐ Yes ☑ No	6. Existing Title V Permitted Facility? ☑ Yes ☐ No

Application Contact

1. Application Contact Name: David R. Báez, Project Engineer, Environmental Affairs
2. Application Contact Mailing Address... Organization/Firm: Orlando Utilities Commission Street Address: P.O. Box 3193 City: Orlando State: FL Zip Code: 32802
3. Application Contact Telephone Numbers... Telephone: (407) 434-3072 ext. Fax: (407) 244-8794
4. Application Contact E-mail Address: dbaez@ouc.com

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 6-11-12	3. PSD Number (if applicable):
2. Project Number(s): 0950137-040-AC	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

☑ Air construction permit.

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

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

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
1	Fossil Fuel Steam Generation Unit No. 1	ACM1	
2	Fossil Fuel Steam Generation Unit No. 2	ACM1	
30	Hydrated Lime Silo #1 Bin Vent	AC1F	
31	Hydrated Lime Silo #2 Bin Vent	AC1F	

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 :
Chip Merriam, Chief Legislative and Regulatory Compliance Officer

2. Owner/Authorized Representative Mailing Address...
Organization/Firm: Orlando Utilities Commission
Street Address: P.O. Box 3193
City: Orlando State: FL Zip Code: 32802

3. Owner/Authorized Representative Telephone Numbers...
Telephone: (407) 434 - 2201 ext. Fax: (407) 434-4371

4. Owner/Authorized Representative E-mail Address: cmerriam@ouc.com

5. Owner/Authorized Representative Statement:

I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.

Signature

JUNE 8, 2012
Date

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation 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 or CAIR 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 E-mail 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: Larry Todd Newland
   Registration Number: 64188
2. Professional Engineer Mailing Address...
   Organization/Firm: Black & Veatch
   Street Address: 9000 Regency Parkway, Suite 300
   City: Cary State: NC Zip Code: 27518
3. Professional Engineer Telephone Numbers...
   Telephone: (919) 462-7415 ext. Fax: (919) 468-9212
4. Professional Engineer E-mail Address: newlandlt@bv.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) 5.30.2012 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) 483.5 North (km) 3150.6		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) 28° 29' 1" N Longitude (DD/MM/SS) 81° 10' 7" W	
3. Governmental Facility Code: 4	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: David R. Báez, Project Engineer, Environmental Affairs
2. Facility Contact Mailing Address... Organization/Firm: Orlando Utilities Commission Street Address: P.O. Box 3193 City: Orlando State: FL Zip Code: 32802
3. Facility Contact Telephone Numbers: Telephone: (407) 434 - 3072 ext. Fax: (407) 244 - 8794
4. Facility Contact E-mail Address: dbaez@ouc.com

Facility Primary Responsible Official

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 E-mail Address:

FACILITY INFORMATION

Facility Regulatory Classifications

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

1. ☐ 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:	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
SO2	A	N
CO	A	N
NOX	A	N
PM	A	N
VOC	A	N
PM10	A	N
PB	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's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

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

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: Attach. A [ ] 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: Attach. B [ ] 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: Attach. C [ ] Previously Submitted, Date: _____

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location:
   [ ] Attached, Document ID: _____ [√] Not Applicable (existing permitted facility)

2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):
   [√] Attached, Document ID: Attach. D

3. Rule Applicability Analysis:
   [√] Attached, Document ID: Attach. E

4. List of Exempt Emissions Units:
   [√] Attached, Document ID: Attach. F [ ] Not Applicable (no exempt units at facility)

5. Fugitive Emissions Identification:
   [√] Attached, Document ID: Attach. G [ ] Not Applicable

6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.):
   [ ] Attached, Document ID: _____ [√] Not Applicable

7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.):
   [ ] Attached, Document ID: _____ [√] Not Applicable

8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):
   [ ] Attached, Document ID: _____ [√] Not Applicable

9. Additional Impact Analyses (Rules 62-212.400(8) 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

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:
   ☐ Attached, Document ID:_____ ☐ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities: (Required for initial/renewal applications only)
   ☐ Attached, Document ID:_____ ☐ Not Applicable (revision application)

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 (revision application with no change in applicable requirements)

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 Onsite 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

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:

   Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):
   ☐ Attached, Document ID:_____ ☑ Previously Submitted, Date:5/21/2009
   ☐ Not Applicable (not an Acid Rain source)

   Phase II NO_X Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☑ Not Applicable

   New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☑ Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):
   ☐ Attached, Document ID:_____ ☑ Previously Submitted, Date5/21/2009
   ☐ Not Applicable (not a CAIR source)

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

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:
Fossil Fuel Steam Generating Unit #1

3. Emissions Unit Identification Number: 1

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date: 01-JULY-85	7. Emissions Unit Major Group SIC Code: 49

8. Federal Program Applicability: (Check all that apply)

☑ Acid Rain Unit

☑ CAIR Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Emissions Unit Control Equipment/Method: Control 1 of 2

1. Control Equipment/Method Description: Gas Scrubber for SO2 control
2. Control Device or Method Code: 013

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description: Electrostatic Precipitator - High Efficiency
2. Control Device or Method Code: 010

Emissions Unit Control Equipment/Method: Control 3 of 3

1. Control Equipment/Method Description: Low NOx Burners with Overfire Air
2. Control Device or Method Code: 204/205

Emissions Unit Control Equipment/Method: Control 4 of 4

1. Control Equipment/Method Description: SCR (Selective Catalytic Reduction)
2. Control Device or Method Code: 139

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 4,800 MMBtu/hr	
2. Maximum Production Rate: 465 MW	
3. Maximum Heat Input Rate: 4,800 million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: 24 hours/day 52 weeks/year	7 days/week 8760 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:	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code:	6. Stack Height: 550 Feet	7. Exit Diameter: 19 feet
8. Exit Temperature: 127 °F	9. Actual Volumetric Flow Rate: 1,420,000 acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 483.05 North (km): 3150.06	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) 28° 28' 43" N Longitude (DD/MM/SS) 81° 10' 30" W	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10100202	3. SCC Units: Tons Bituminous Coal Burned	
4. Maximum Hourly Rate: 159	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 3.5	8. Maximum % Ash: 10	9. Million Btu per SCC Unit: 26
10. Segment Comment:		

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10100401	3. SCC Units: 1000 Gallons Residual Oil (No. 6) Burned	
4. Maximum Hourly Rate: 27.6	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2.5	8. Maximum % Ash: 0.1	9. Million Btu per SCC Unit: 150
10. Segment Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10100701	3. SCC Units: Million Cubic Feet Process Gas Burned	
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:		

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10101302	3. SCC Units: 1000 Gallons Waste Oil Burned	
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: On-site generated lubricating oil and used fuel oil which meets the requirements of 40 CFR 266.40.		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 5 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10100601	3. SCC Units: Million Cubic Feet Gas Burned	
4. Maximum Hourly Rate: TBD	5. Maximum Annual Rate: TBD	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: TBD	8. Maximum % Ash: TBD	9. Million Btu per SCC Unit: TBD
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
SO2	**013**		**EL**
CO			**NS**
NOX	**139**	**205/204**	**EL**
PM	**010**		**EL**
VOC			**NS**
PM10	**010**		**EL**
PB	**010**		**NS**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: CO	2. Total Percent Efficiency of Control:
3. Potential Emissions: 771.5 lb/hour 3379.2 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.18 lb/mmBtu burned Reference: Vendor guarantee	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: (4286 tpy) x (0.18 lb/mmBtu) = 771.5 lb/hr (4286 tpy) x (0.18 lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 3379.2 tpy	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 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:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.18 lb/mmBtu	4. Equivalent Allowable Emissions: 771.5 lb/hour 3379.2 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emission value is based on vendor guarantee from Low NOx Burner/Overfire Air system installation.	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOX - Nitrogen Oxides	2. Total Percent Efficiency of Control: 60
3. Potential Emissions: 2572 lb/hour 8635 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.6 lb/mmBtu (30 day rolling average) 0.46 lb/mmBtu (annual average) Reference: Existing permit limit	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: (4286 mmBtu/hr) x (0.6 lb/mmBtu) = 2572 lb/hr (4286 mmBtu/hr) x (0.46 lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 8635 tpy	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.6 lb/mmBtu (30 day rolling average)	4. Equivalent Allowable Emissions: 2572 lb/hour 11264 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.46 lb/mmBtu (annual average)	4. Equivalent Allowable Emissions: lb/hour 8635 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PB - Lead - Total (elemental lead and lead compounds)	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.07 lb/hour 0.29 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 4.2E-04 lb/ton Reference: USEPA AP-42	7. Emissions Method Code: 3
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: (159 tpy) x (4.2E-04 lb/ton) = 0.07 lb/hr (159 tpy) x (4.2E-04 lb/ton) x (8760 hr/yr) x (ton/2000 lb) = 0.29 tpy	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

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):	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM - Particulate Matter - Total	2. Total Percent Efficiency of Control:
3. Potential Emissions: 128.6 lb/hour 563 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.03 lb/mmBtu Reference: Existing permit limit	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
(4286 mmBtu/hr) x (0.03 lb/mmBtu) = 128.6 lb/hr
(4286 mmBtu/hr) x (0.03 lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 563 tpy

11. Potential, Fugitive, and Actual Emissions Comment:

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 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: 0.03 lb/mmBtu heat input	4. Equivalent Allowable Emissions: 128.6 lb/hour 563 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM10 - Particulate Matter - PM10	2. Total Percent Efficiency of Control:
3. Potential Emissions: 128.6 lb/hour 563 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.03 lb/mmBtu Reference: Existing permit limit for PM	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions:	
11. Potential, Fugitive, and Actual Emissions Comment: Assume same as PM	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

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):	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2 - Sulfur Dioxide	2. Total Percent Efficiency of Control:
3. Potential Emissions: 4886 lb/hour 21401 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 1.14 lb/mmBtu Reference: Existing permit limit	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: (4286 mmBtu/hr) x (1.14 lb/mmBtu) = 4886 lb/hr (4286 mmBtu/hr) x (1.14 lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 21401 tpy	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 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: 1.14 lb/mmBtu heat input	4. Equivalent Allowable Emissions: 4886 lb/hour 21401 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC - Volatile Organic Compounds	2. Total Percent Efficiency of Control:
3. Potential Emissions: 15.9 lb/hour 69.67 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.1 Reference:	7. Emissions Method Code: 3
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions:	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

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):	

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 Subsection G 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: VE20	2. Basis for Allowable Opacity: ☑ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 6 min/hour	
4. Method of Compliance: COMS	
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:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 1 of 8

1. Parameter Code: VE	2. Pollutant(s): Opacity
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Teledyne Monitor Labs Model Number: Light Hawk 560	Serial Number: 56000377/378
5. Installation Date:	6. Performance Specification Test Date: 1/16/2004
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor 2 of 8

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Teledyne Monitor Labs Model Number: TML9850	Serial Number: S/N 745
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 3 of 8

1. Parameter Code: 02	2. Pollutant(s): SO2
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: SERVOMEX LTD. Model Number: 1400	Serial Number: 1420C/1013
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor 4 of 8

1. Parameter Code: EM - EMISSION	2. Pollutant(s): SO2
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Teledyne Monitor Labs Model Number: TML9850	Serial Number: S/N 363
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 5 of 8

1. Parameter Code: CO2	2. Pollutant(s): CO2
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: MONITOR LABS Model Number: TML9820	Serial Number: S/N 76
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION
Section [1] of [4]

Continuous Monitoring System: Continuous Monitor 6 of 8

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: EMRC-DP7 Model Number: CM60	Serial Number: S/N 460
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 7 of 8

1. Parameter Code: EM	2. Pollutant(s): NOX
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Teledyne Monitor Labs Model Number: TML 9841	Serial Number: N0373
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor 8 of 8

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model 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: Attach. B [ ] 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: Attach. H [ ] Previously Submitted, Date _____

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: Attach. I [ ] 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: Attach. J [ ] Previously Submitted, Date _____
   [ ] 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) 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 (Rules 62-212.400(4)(d) and 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

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [2] of [4]

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:
Pulverized Coal Fired Unit No. 2 (460 MW gross)

3. Emissions Unit Identification Number:

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A		29-MAR-96	49

8. Federal Program Applicability: (Check all that apply)

☑ Acid Rain Unit

☑ CAIR Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION
Section [2] of [4]

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description: Electrostatic Precipitator – High Efficiency
2. Control Device or Method Code: 010

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description: SCR (Selective Catalytic Reduction)
2. Control Device or Method Code: 139

Emissions Unit Control Equipment/Method: Control 3 of 3

1. Control Equipment/Method Description: Gas Scrubber for SO2 control
2. Control Device or Method Code: 013

Emissions Unit Control Equipment/Method: Control 4 of 4

1. Control Equipment/Method Description: Low NOx Burner/Overfire Air
2. Control Device or Method Code:205/204

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 4,800 MMBtu/hr	
2. Maximum Production Rate: 465 MW	
3. Maximum Heat Input Rate: 4,800 million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: 24 hours/day 52 weeks/year	7 days/week 8760 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:	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code:	6. Stack Height: 550 Feet	7. Exit Diameter: 19 feet
8. Exit Temperature: 124 °F	9. Actual Volumetric Flow Rate: 1,310,120 acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 484 North (km): 3150.5	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) 28° 28' 57" N Longitude (DD/MM/SS) 81° 9' 54" W	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10100202	3. SCC Units: Tons Bituminous Coal Burned	
4. Maximum Hourly Rate: 159	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 3.5	8. Maximum % Ash: 10	9. Million Btu per SCC Unit: 26
10. Segment Comment:		

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10100401	3. SCC Units: 1000 Gallons Residual Oil (No. 6) Burned	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2	8. Maximum % Ash:	9. Million Btu per SCC Unit: 154
10. Segment Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10100701	3. SCC Units: Million Cubic Feet Process Gas Burned	
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:		

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10101302	3. SCC Units: 1000 Gallons Waste Oil Burned	
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: Used oil specification: Arsenic 5 PPM, Cadmium 2 PPM, Chromium 10 PPM, Lead 100 PPM, Total Halogens 1000 PPM, PCB 50 ppm.		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 5 of 5

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC): 10100601	3. SCC Units: Million Cubic Feet Gas Burned	
4. Maximum Hourly Rate: TBD	5. Maximum Annual Rate: TBD	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: TBD	8. Maximum % Ash: TBD	9. Million Btu per SCC Unit: TBD
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
CO			**EL**
NOX	**139**	**205/204**	**EL**
PB			**EL**
PM	**010**		**EL**
PM10	**010**		**NS**
SO2	**013**		**EL**
VOC			**EL**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: CO - Carbon Monoxide	2. Total Percent Efficiency of Control:
3. Potential Emissions: 642.9 lb/hour 2815.9 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.15 lb/mmBtu Reference: Existing permit limit	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
(4286 mmBtu/hr) x (0.15 lb/mmBtu) = 642.9 lb/hr
(4286 mmBtu/hr) x (0.15 lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 2815.9 tpy

11. Potential, Fugitive, and Actual Emissions Comment:

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 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: 0.15 lb/mmBtu	4. Equivalent Allowable Emissions: 642.9 lb/hour 2815.9 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOX - Nitrogen Oxides	2. Total Percent Efficiency of Control:
3. Potential Emissions: 728.6 lb/hour 3191.4 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.17 lb/mmBtu (30 day rolling average) Reference: Existing permit limit	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions: (4286 mmBtu/hr) x (0.17 lb/mmBtu) = 728.6 lb/hr (4286 mmBtu/hr) x (0.17 lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 3191.4 tpy	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 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: 0.17 lb/mmBtu Heat Input	4. Equivalent Allowable Emissions: 728.6 lb/hour 3191.4 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PB - Lead - Total (elemental lead and lead compounds)	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.64 lb/hour 2.8 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 1.5 x 10^{-4} lb/mmBtu Reference: Existing permit limit	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
(4286 mmBtu/hr) x (1.5 x 10^{-4} lb/mmBtu) = 0.64 lb/hr
(4286 mmBtu/hr) x (1.5 x 10^{-4} lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 2.8 tpy

11. Potential, Fugitive, and Actual Emissions Comment:

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 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: 1.5 x 10^{-4} lb/mmBtu	4. Equivalent Allowable Emissions: 0.64 lb/hour 2.8 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM - Particulate Matter - Total	2. Total Percent Efficiency of Control: 99.4
3. Potential Emissions: 85.7 lb/hour 375.5 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.02 lb/mmBtu Reference: Existing permit limit	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
(4286 mmBtu/hr) x (0.02 lb/mmBtu) = 85.7 lb/hr
(4286 mmBtu/hr) x (0.02 lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 375.5 tpy

11. Potential, Fugitive, and Actual Emissions Comment:

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 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: 0.02 lb/mmBtu heat input	4. Equivalent Allowable Emissions: 85.7 lb/hour 375.5 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM10 - Particulate Matter - PM10	2. Total Percent Efficiency of Control: 99.4
3. Potential Emissions: 85.72 lb/hour 375.45 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions:	
11. Potential, Fugitive, and Actual Emissions Comment: Assume PM10 emissions are the same as PM.	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

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):	

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, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2	2. Total Percent Efficiency of Control:
3. Potential Emissions: 3643 lb/hour 4693 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.85 lb/mmBtu (3 hour average) 0.25 lb/mmBtu (30 day rolling average) Reference: Existing permit limit	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
(4286 mmBtu/hr) x (0.85 lb/mmBtu) = 3643 lb/hr
(4286 mmBtu/hr) x (0.25 lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 4693 tpy

11. Potential, Fugitive, and Actual Emissions Comment:

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.85 lb/mmBtu (3 hour)	4. Equivalent Allowable Emissions: 3643 lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.67 lb/mmBtu (24 hour)	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.25 lb/mmBtu (30 day rolling average)	4. Equivalent Allowable Emissions: lb/hour 4693 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: VOC - Volatile Organic Compounds	2. Total Percent Efficiency of Control:
3. Potential Emissions: 64.29 lb/hour 281.59 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.015 lb/mmBtu Reference: Existing permit limit	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
(4286 mmBtu/hr) x (0.015 lb/mmBtu) = 64.29 lb/hr
(4286 mmBtu/hr) x (0.015 lb/mmBtu) x (8760 hr/yr) x (ton/2000 lb) = 281.59 tpy

11. Potential, Fugitive, and Actual Emissions Comment:

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 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: 0.015 lb/mmBtu Heat Input	4. Equivalent Allowable Emissions: 64.29 lb/hour 281.59 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions value is an existing permit limit.	

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 Subsection G 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: VE20	2. Basis for Allowable Opacity: ☐ Rule ☑ Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 6 min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment: VE may not exceed 20% opacity under normal operation except for one 6-minute period per hour of not more than 27% opacity.	

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

Continuous Monitoring System: Continuous Monitor 1 of 8

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: MONITOR LABS Model Number: 9850	Serial Number: 593
5. Installation Date:	6. Performance Specification Test Date: 29-JUL-96
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor 2 of 8

1. Parameter Code: EM	2. Pollutant(s): NOX
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Teledyne Monitor Labs Model Number: TML41	Serial Number: S/N 131
5. Installation Date:	6. Performance Specification Test Date: 29-JUL-96
7. Continuous Monitor Comment:	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 3 of 8

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Teledyne Monitor Labs Model Number: Light Hawk 560	Serial Number: 5600379 / 5600380
5. Installation Date:	6. Performance Specification Test Date: 5/21/2003
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor 4 of 8

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: MONITOR LABS Model Number: 9820	Serial Number: S/N 179
5. Installation Date:	6. Performance Specification Test Date: 29-JUL-96
7. Continuous Monitor Comment:	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 5 of 8

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: EMRC Model Number: EMRC-DP1	Serial Number: S/N 461
5. Installation Date:	6. Performance Specification Test Date: 29-JUL-96
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor 6 of 8

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Teledyne Monitor Labs Model Number: TML 9850	Serial Number: S/N 615
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 7 of 8

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Teledyne Monitor Labs Model Number: 9820	Serial Number: S/N 175
5. Installation Date:	6. Performance Specification Test Date: 29-JUL-96
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor 8 of 8

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Teledyne Monitor Labs Model Number: TML 30	Serial Number: S/N 151
5. Installation Date:	6. Performance Specification Test Date: 10/21/2008
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: Attach. B [ ] 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: Attach. H [ ] Previously Submitted, Date _____

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: Attach. I [ ] 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: Attach. J [ ] Previously Submitted, Date _____
   [ ] 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) 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 (Rules 62-212.400(4)(d) and 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

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [3] of [4]

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:
Hydrated Lime Silo #1 Bin Vent

3. Emissions Unit Identification Number: 30

4. Emissions Unit Status Code: C	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49

8. Federal Program Applicability: (Check all that apply)

☐ Acid Rain Unit

☐ CAIR Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION
Section [3] of [4]

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description: Fabric Filter - Low Temperature (T < 180F)
2. Control Device or Method Code: 018

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

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: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: 24 hours/day 52 weeks/year	7 days/week 8760 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: 4	2. Emission Point Type Code: 2	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code:	6. Stack Height: 133 Feet	7. Exit Diameter: De = 0.8 feet
8. Exit Temperature: 77 F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: 1,500 dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 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): Material Processed		
2. Source Classification Code (SCC): 30510296	3. SCC Units: Tons Material Processed	
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:		

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/PM10/PM2.5	**018**		**EL**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM/PM10/PM2.5	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.06 lb/hour 0.28 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.005 gr/dscf Reference: Vendor Design Rate	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
1,500 dscfm x 0.005 gr/dscf / 7,000 (gr/lb) x 60 (min/hr) = 0.06 lb/hr

1,500 dscfm x 0.005 gr/dscf / 7,000 (gr/lb) x 60 (min/hr) x 8,760 (hr/yr) / 2,000 (lb/ton) = 0.28 ton/yr

11. Potential, Fugitive, and Actual Emissions Comment:
DSCFM and GR/DSCF are based on vendor design rate. Should the bin vent be assigned a permit limit with which to demonstrate compliance, OUC requests the limit remain in the form or the performed indicated by the vendor (i.e., gr/dscf).

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

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):	

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 Subsection G 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: VE20	2. Basis for Allowable Opacity: ☑ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: Maximum Period of Excess Opacity Allowed:	
4. Method of Compliance: Method 9	
5. Visible Emissions Comment: Rule 62-296.320(4)(b) General Visible Emissions Standard	

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

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:	

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: Attach. B [ ] 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: NA [ ] Previously Submitted, Date _____

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: Attach. I [ ] 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: Attach. J [ ] Previously Submitted, Date _____
   [ ] 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) 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 (Rules 62-212.400(4)(d) and 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

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [4] of [4]

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:
Hydrated Lime Silo #2 Bin Vent

3. Emissions Unit Identification Number: 31

4. Emissions Unit Status Code: C	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49

8. Federal Program Applicability: (Check all that apply)

☐ Acid Rain Unit

☐ CAIR Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION
Section [4] of [4]

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description: Fabric Filter - Low Temperature (T < 180F)
2. Control Device or Method Code: 018

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

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: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: 24 hours/day 52 weeks/year	7 days/week 8760 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: 4	2. Emission Point Type Code: 2	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code:	6. Stack Height: 133 Feet	7. Exit Diameter: De = 0.8 feet
8. Exit Temperature: 77 F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: 1,500 dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 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): Material Processed		
2. Source Classification Code (SCC): 30510296	3. SCC Units: Tons Material Processed	
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:		

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/PM10/PM2.5	**018**		**EL**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 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 operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM/PM10/PM2.5	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.06 lb/hour 0.28 tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.005 gr/dscf Reference: Vendor Design Rate	7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
1,500 dscfm x 0.005 gr/dscf / 7,000 (gr/lb) x 60 (min/hr) = 0.06 lb/hr

1,500 dscfm x 0.005 gr/dscf / 7,000 (gr/lb) x 60 (min/hr) x 8,760 (hr/yr) / 2,000 (lb/ton) = 0.28 ton/yr

11. Potential, Fugitive, and Actual Emissions Comment:
DSCFM and GR/DSCF are based on vendor design rate. Should the bin vent be assigned a permit limit with which to demonstrate compliance, OUC requests the limit remain in the form or the performed indicated by the vendor (i.e., gr/dscf).

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

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):	

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 Subsection G 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: VE20	2. Basis for Allowable Opacity: ☑ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: Maximum Period of Excess Opacity Allowed:	
4. Method of Compliance: Method 9	
5. Visible Emissions Comment: Rule 62-296.320(4)(b) General Visible Emissions Standard	

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

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:	

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: Attach. B [ ] 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: NA [ ] Previously Submitted, Date _____

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: Attach. I [ ] 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: Attach. J [ ] Previously Submitted, Date _____
   [ ] 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) 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 (Rules 62-212.400(4)(d) and 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

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements Comment

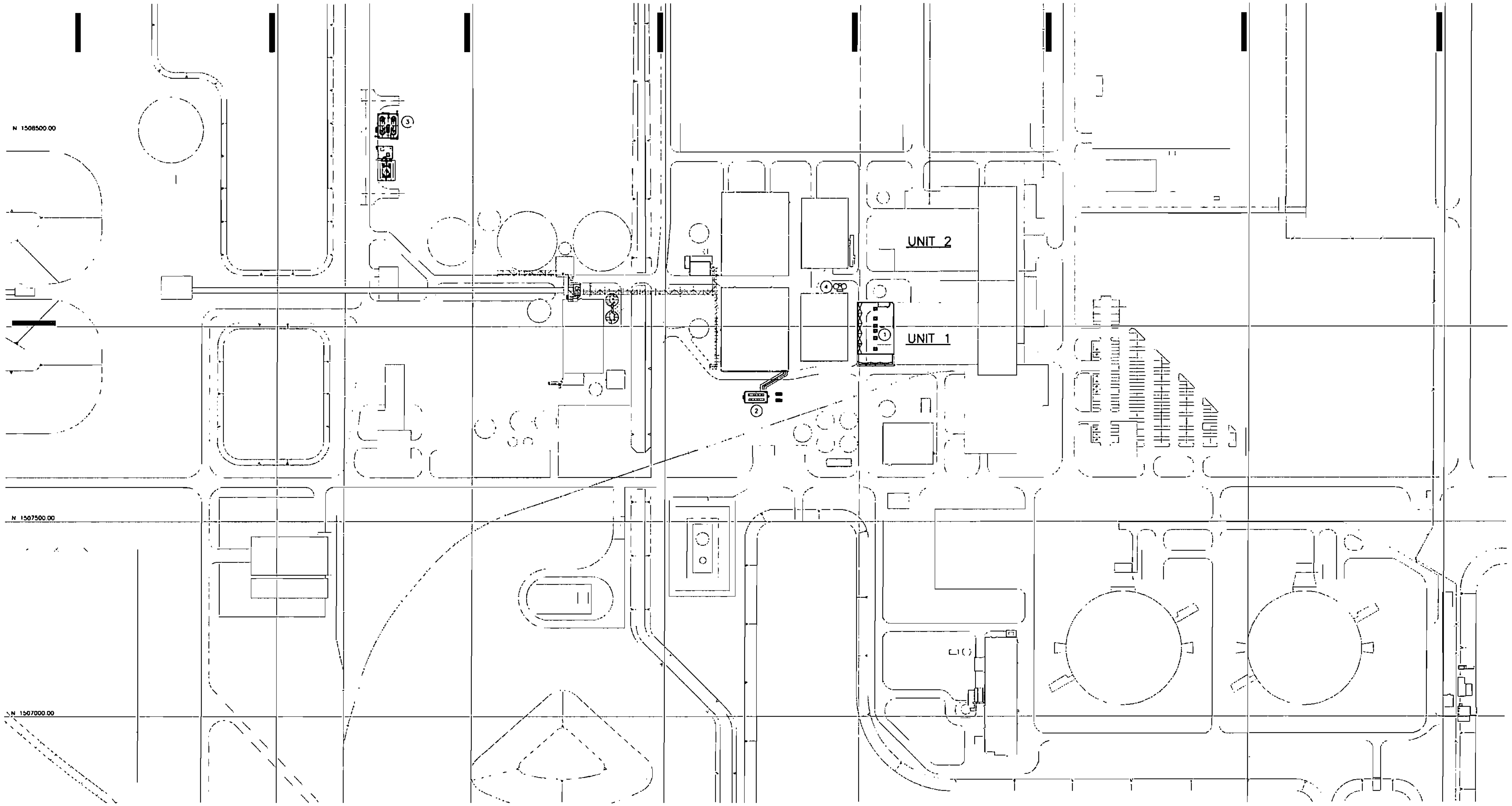
Attachment A

Facility Plot Plan

FACILITIES LEGEND		
ID		REMARKS
1	UNIT 1 SCR	
2	UNIT 1 ID FAN VFD BUILDING	
3	UNIT 1 ANHYDROUS AMMONIA UNLOADING AND STORAGE TANKS	
4	UNIT 1 AND 2 DSI SILOS	

ORLANDO UTILITIES COMMISSION

SEC UNIT 1 SCR ADDITION



BLACK & VEATCH

PROJECT NO. 149473

BLACK & VEATCH CORPORATION
9000 REGENCY PARKWAY, SUITE 300
CARY, NC 27518
FLORIDA ENGINEERING
CERTIFICATE OF AUTHORIZATION
#8132

OPEN
01/03/12

NOT TO BE USED
FOR CONSTRUCTION

THE DISTRIBUTION AND USE OF THE NATIVE FORMAT CAD FILE OF THIS DRAWING IS UNCONTROLLED. THE USER SHALL VERIFY TRACEABILITY OF THIS DRAWING TO THE LATEST CONTROLLED VERSION.

NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	CHK	APP
A	OPEN	—	MMK		AJM

SCALE: 1"=100'

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA.
SIGNED ______
DATE ______ REG NO. ______

BLACK & VEATCH — Building a world of difference

DESIGNER	DRAWN MMK
CHECKED	DATE

ORLANDO UTILITY COMMISSION
SEC UNIT 1 SCR ADDITION

SITE ARRANGEMENT

PROJECT / DRAWING NUMBER	REV
149473-SM-0023	A

CODE
AREA

Attachment B

Process Flow Diagrams

Unit 1 Selective Catalytic Reduction System

NOTES:

1. SYSTEM CODE IS CGE, EXCEPT AS INDICATED.
2. ALL VALVES ARE SERIES 1CGE-XXX-XXXX, EXCEPT AS INDICATED.
3. MISCELLANEOUS PIPING AND INSTRUMENT CONNECTION SIZES ARE AS FOLLOWS, EXCEPT AS INDICATED.

VENT CONNECTIONS	1"
DRAIN CONNECTIONS	1"
PRESSURE CONNECTIONS (PROCESS)	1"
TEMPERATURE CONNECTIONS (PROCESS)	1"
LEVEL SWITCH CONNECTIONS	1"
LEVEL TRANSMITTER CONNECTIONS	2"

4. RELIEFS AND VENTS SHALL BE ROUTED VERTICALLY 8 FEET FROM GRADE OR ROOF LEVEL. DRILL A 1/4" WEEP HOLE IN BOTTOM ELBOW. ALL RELIEF VALVE DISCHARGES SHALL HAVE RAIN CAPS.
5. THERMAL RELIEFS SHALL BE DIRECTED 6" TOWARD GRADE.
6. CONNECTIONS TO AND FROM THIS DRAWING ARE AS FOLLOWS.

UNIT 1 CONNECTION NUMBER	LOCATION
1-205B	C10

VAPOR EQUALIZATION TRUCK CONNECTION

LIQUID FILL TRUCK CONNECTION

TRUCK UNLOADING SKID SKD-1

N2 BOTTLE CONNECTION

N2 BOTTLE CONNECTION

ELECTRIC HEATER/VAPORIZER SKID SKD-2

ANHYDROUS AMMONIA STORAGE TANK TNK-1 30,000 GAL. NOMINAL WATER CAP.

ANHYDROUS AMMONIA STORAGE TANK TNK-2 30,000 GAL. NOMINAL WATER CAP.

TANK AREA GAS DETECTORS

TO DILUTION AIR MIXER 1-205B

GRADE

BLACK & VEATCH CORPORATION
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CARY, NC 27518
FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION #8132

NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES	CHK	PDE	APP
0	06/JAN/12	ISSUED FOR BIDS / RELEASED FOR DESIGN	MAS	DM		WJM	JJB

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SIGNED
DATE REG NO.

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DESIGNER DM DRAWN JLH
CHECKED DATE

ORLANDO UTILITIES COMMISSION
SEC UNIT 1 SCR ADDITION

PIPING AND INSTRUMENT DIAGRAM
ANHYDROUS AMMONIA SYSTEM

PROJECT 149473-1CGE-M2205A
DRAWING NUMBER
REV 0
CODE
AREA

KAR116839
A1ASL028
01/06/12 14:21:15
D1
ACAD 16.1s (LMS Tech)
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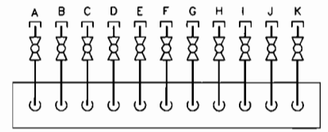
TABLE 1



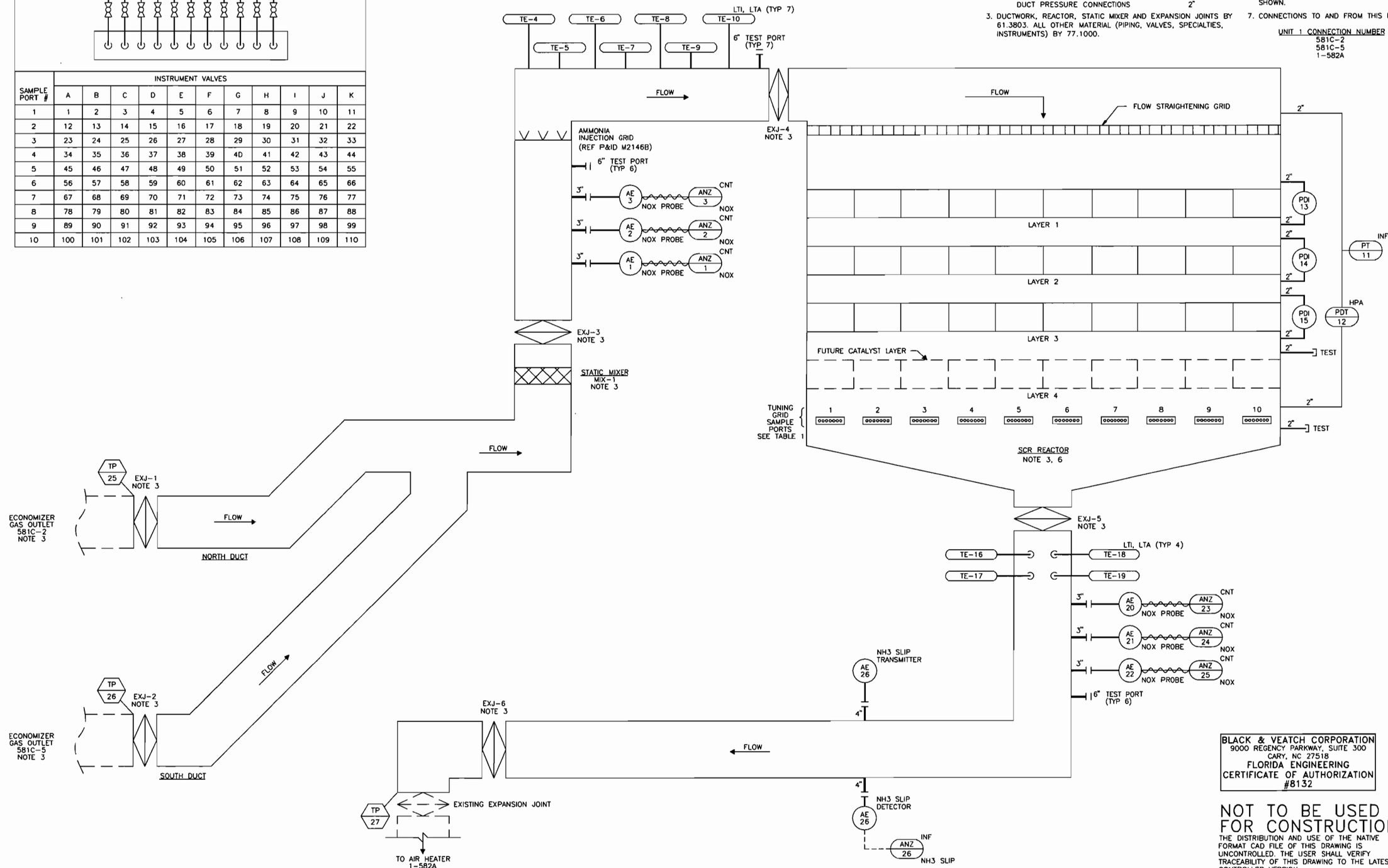
SAMPLE PORT #	INSTRUMENT VALVES										
	A	B	C	D	E	F	G	H	I	J	K
1	1	2	3	4	5	6	7	8	9	10	11
2	12	13	14	15	16	17	18	19	20	21	22
3	23	24	25	26	27	28	29	30	31	32	33
4	34	35	36	37	38	39	40	41	42	43	44
5	45	46	47	48	49	50	51	52	53	54	55
6	56	57	58	59	60	61	62	63	64	65	66
7	67	68	69	70	71	72	73	74	75	76	77
8	78	79	80	81	82	83	84	85	86	87	88
9	89	90	91	92	93	94	95	96	97	98	99
10	100	101	102	103	104	105	106	107	108	109	110

NOTES:

1. SYSTEM CODE IS CCF, EXCEPT AS INDICATED.
2. MISCELLANEOUS PIPING AND INSTRUMENT CONNECTION SIZES ARE AS FOLLOWS, EXCEPT AS INDICATED.

   DUCT TEMPERATURE CONNECTIONS 1 1/2"
   DUCT PRESSURE CONNECTIONS 2"
3. DUCTWORK, REACTOR, STATIC MIXER AND EXPANSION JOINTS BY 61.3803. ALL OTHER MATERIAL (PIPING, VALVES, SPECIALTIES, INSTRUMENTS) BY 77.1000.
4. NEW LPA SCREEN IS SHOWN ON DWG 8927-1SGA-M2581C IN EXISTING ECONOMIZER DUCT.
5. SEE 1CAC-M2183 FOR SCR SONIC HORNS.
6. REACTOR VIEW IS SHOWN PERPENDICULAR TO FLOW PATH SHOWN.
7. CONNECTIONS TO AND FROM THIS DRAWING ARE AS FOLLOWS.

UNIT 1 CONNECTION NUMBER	LOCATION
581C-2	D1
581C-5	F1
1-582A	F3



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NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES	CHK	PDE	APP
C	12/JAN/12	ISSUED FOR DESIGN	MAS	KSM		AJM	
B	21/OCT/11	ISSUED FOR CLIENT REVIEW	MMK	KSM		AJM	
A	05/OCT/11	ISSUED FOR INTERNAL REVIEW	JLH	KSM		AJM	

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DATE _____ REG NO. _____

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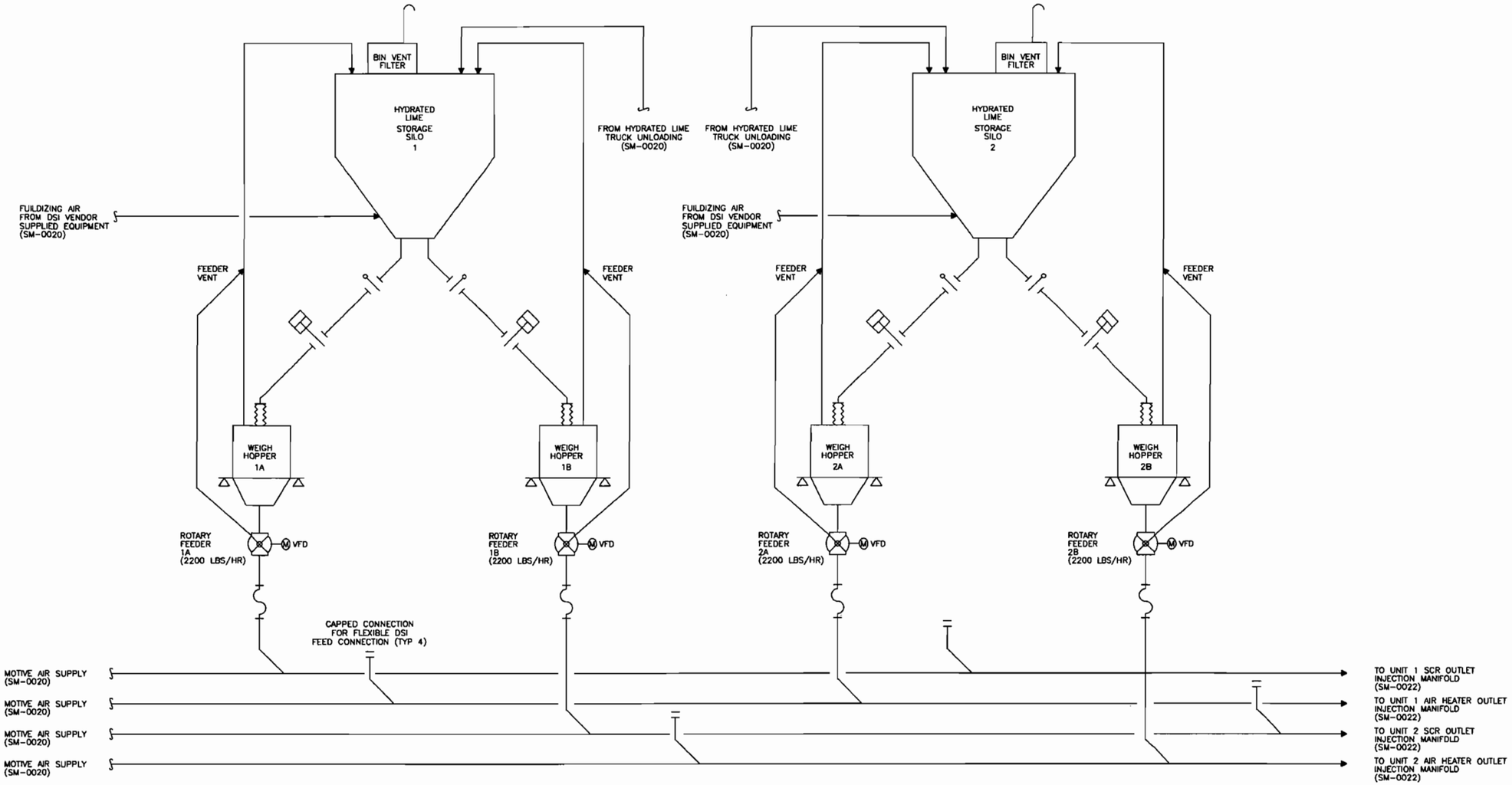
ORLANDO UTILITIES COMMISSION
SEC UNIT 1 SCR ADDITION

PIPING AND INSTRUMENT DIAGRAM
SELECTIVE CATALYTIC REDUCTION (SCR) - SHT A

PROJECT 149473 | DRAWING NUMBER 1CCF-M2146A | REV C

CODE | AREA

Units 1 and 2 Dry Sorbent Injection System



OPEN
05/08/12

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NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES	CHK	PDE	APP
A		OPEN	JLH	KSM			

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CHECKED		DATE	

ORLANDO UTILITIES COMMISSION
SEC UNIT 1 SCR ADDITION

FLOW DIAGRAM
DRY SORBENT INJECTION SYSTEM

PROJECT	DRAWING NUMBER	REV
149473	SM-0021	A
CODE		
AREA		

KAR16839
AAS1008
05/08/12

ACAD 16.1s (LMS Tech)
D1
n=1
09:28:39

Attachment C

Precautions to Prevent Emissions of Unconfined Particulate Matter

Precautions to Prevent Emissions of Unconfined Particulate Matter

As discussed in the permit application support document, this project will create additional vehicle traffic on paved and unpaved plant roads which will produce fugitive dust emissions (i.e., unconfined particulate matter).

This project will not alter OUC's previous commitments to the prevention of unconfined particulate matter. Such road-related commitments include the following:

- Paving and maintenance of roads and parking areas.
- Chemical (dust suppressants) or water application to paved and unpaved roads.
- Removal of PM from roads and other paved areas to prevent reentrainment.

Attachment D

Description of Proposed Construction or Modification

Description of Proposed Construction or Modification

Orlando Utilities Commission (OUC) is proposing to implement a number of air quality controls systems (AQCS) upon Units 1 and 2 at its Stanton Energy Center (SEC) aimed at reducing of emissions of key criteria pollutants in preparation for upcoming regulatory programs such as the Cross-State Air Pollution Rule (CSAPR) and the Mercury and Air Toxics Standards (MATS). The Project is proposed to consist of the following general modifications to SEC:

- FGD Scrubber Upgrades on Unit 1.
- Addition of a Selective Catalytic Reduction (SCR) system to Unit 1.
- Addition of Dry Sorbent Injection (DSI) systems to Units 1 and 2.

Detailed descriptions of the proposed modifications are contained in Section 2.2 of the permit application support document.

Attachment E

Rule Applicability Analysis

Rule Applicability Analysis

The following rule applicability analysis is limited to the rules associated with the proposed facility changes and does not encompass overall facility rule applicability. Overall facility applicable requirements were identified in the latest Title V permit application.

Rule Applicability Analysis for the proposed facility changes:

- State: Rule 62-4.070 – Standards for Issuing or Denying Permits.
- State: Rule 62-210.300 – Permits Required.
- State: Rule 62-212.300 – General Preconstruction Review Requirements.
- State: Rule 62-296-320(4)(b) – General Visible Emissions Standard (20 percent opacity standard applicable to the new hydrated lime bin vents)

Attachment F

List of Exempt Emission Units

List of Exempt Emission Units

This application does not affect the existing list of exempt emission units at this facility.

Attachment G

Fugitive Emissions Identification

Fugitive Emissions Identification

As discussed in the permit application support document, this project will create additional vehicle traffic on paved and unpaved plant roads which will produce fugitive dust emissions.

Attachment H

Fuel Analysis or Specification

Fuel Analysis or Specification

The primary fuel for Unit 1 and Unit 2 is coal. This permit application will not change the primary or secondary fuels the units are capable of firing, Secondary fuels for these units include:

- Natural gas.
- Landfill gas.
- Fuel oil (will no longer be available to the units upon installation of the natural gas igniters).
- Waste oil (will no longer be available to the units upon installation of the natural gas igniters).

Attachment I

Detailed Description of Control Equipment

Detailed Description of Control Equipment

Orlando Utilities Commission (OUC) is proposing to implement a number of air quality controls systems (AQCS) upon Units 1 and 2 at its Stanton Energy Center (SEC) aimed at reducing of emissions of key criteria pollutants in preparation for upcoming regulatory programs such as the Cross-State Air Pollution Rule (CSAPR) and the Mercury and Air Toxics Standards (MATS). The Project is proposed to consist of the following general modifications to SEC:

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- Addition of Dry Sorbent Injection (DSI) systems to Units 1 and 2.

Detailed descriptions of the above-mentioned control equipment are contained in Section 2.2 of the permit application support document.

Attachment J

Operation and Maintenance Plan

Operation and Maintenance Plan

The facility equipment will be operated and maintained in accordance with manufacturer's recommendations, operations and maintenance experience, and technical guidance taking into account protection of equipment, safety of personnel and other factors as deemed necessary to maintain compliance with the permitted limits.