TECHNICAL EVALUATION

&

PRELIMINARY DETERMINATION

APPLICANT

CEMEX Construction Materials Florida, LLC
10311 Cement Plant Road
Brooksville, Florida 34601

PROJECT

Brooksville South Cement Plant
Re-Permitting Portland Cement Lines Nos. 1 and 2
ARMS Facility ID No. 0530021

DEP No. 0530021-043-AC (PSD-FL-091K) – Line No. 1
DEP No. 0530021-044-AC (PSD-FL-351E) – Line No. 2

COUNTY

Hernando County, Florida

PERMITTING AUTHORITY

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

August 16, 2012

1. APPLICATION INFORMATION

1.1. Applicant Name and Address

CEMEX Construction Materials Florida, LLC
Brooksville South Cement Plant
10311 Cement Plant Road
Brooksville, Florida 34601

Authorized Representative: Jim Daniel, Cement Plant Manager

1.2. Key Dates

- May 21, 2012 Received an air construction permit application from CEMEX.

1.3. Facility Location

This cement plant is owned by CEMEX Construction Materials Florida, LLC (CEMEX). The Cement Plant includes two Portland cement manufacturing lines (Cement Lines Nos. 1 and 2), a coal yard and all the required auxiliary equipment. The applicant operates this existing site as a single Title V facility. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS). The site is located approximately 20 kilometers (km) east of the Prevention of Significant Deterioration of Air Quality (PSD) Class I Chassahowitzka Wilderness Area. This facility is located in Hernando County at 10311 Cement Plant Road, Brooksville. UTM Coordinates are: Zone 17; 360.00 km East; and, 3162.50 km North.

The cement plant is co-located with the Central Power and Lime (CP&L) power plant. Currently, the CEMEX cement plant and the CP&L Power Plant operate under a single facility Title V air operation permit. Cement Line No. 1 shares a common baghouse for particulate matter (PM) emissions control and stack with the CP&L Power Plant. The CP&L power plant was recently authorized to separate from Cement Line No. 1. In this permitting action, the power plant was authorized to convert its boiler from coal to biomass as its primary fuel and derated in power output from 150 megawatts (MW) to approximately 80 MW. In addition, the power plant was authorized to build a new electrostatic precipitator (ESP) to control PM emissions and a new stack to exhaust emissions to the atmosphere.

The facility is located in Hernando County (see Figure 1 below). The map location of the facility in Hernando County is shown in Figure 2 below.

Figure 1 – Hernando County, Florida.

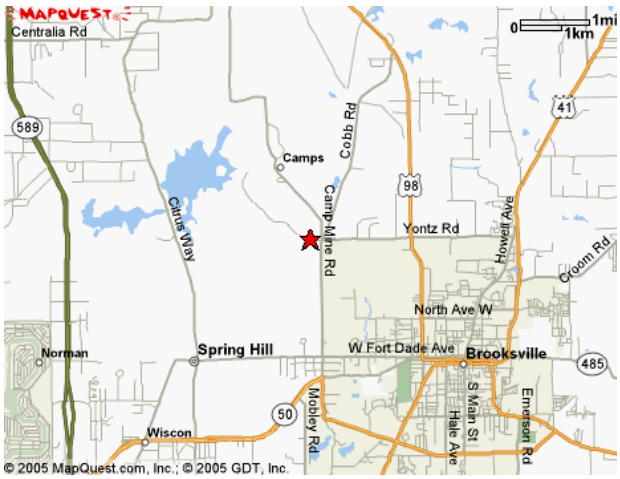

Figure 2 – Facility Location in Brooksville Florida.

A wide aerial view of the site is shown in Figure 3 below. Figure 4 below shows the common baghouse and stack that are shared by Cement Line No. 1 and the CP&L power plant. Cement Line No. 2 has a dedicated baghouse and a stack not shared with other processes at the facility.

Figure 3 – Wide Aerial View of the CEMEX Site

Figure 4 – Shared Baghouse, Stack.

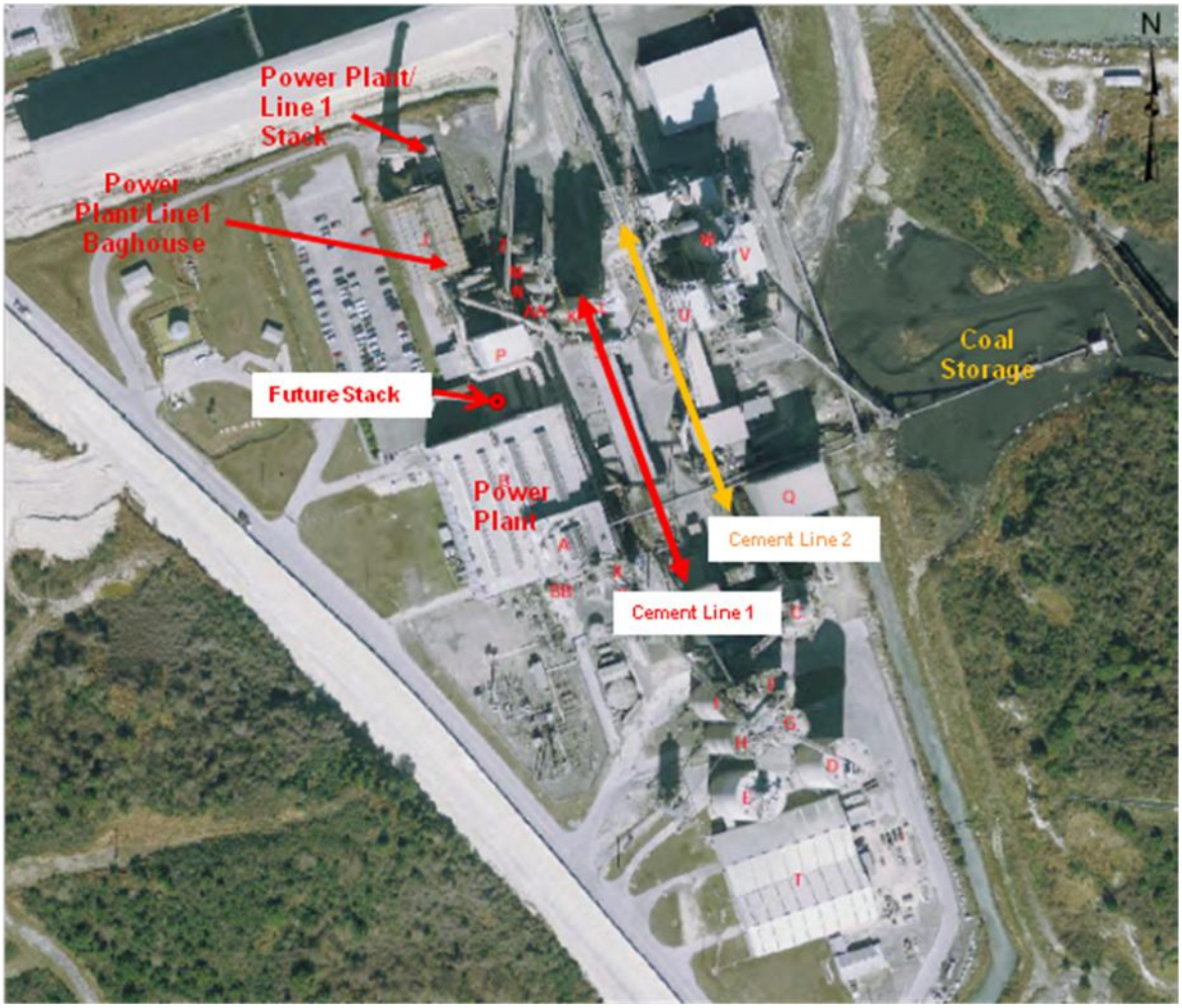

Figure 5 – Close-Up Aerial View of CP&L Power Plant and Cemex Cement Plant.

A close-up aerial view of the facility is shown in Figure 5 above. The power plant location within the existing facility as well as the shared baghouse and stack are indicated. The two cement lines are indicated and include kilns, coolers, mills, raw material and product storage areas and silos that are visible in the photograph.

The CEMEX Cement Plant is categorized under Standard Industrial Classification (SIC) Code No. 3241. The immediate environs are visible at the following link: Environs of Brooksville Facility.

1.4. Project Description

The project consist of the re-permitting of Cement Lines Nos. 1 and 2 at the CEMEX cement plant to create "clean" new air construction permits for each cement line incorporating the latest New Source Performance Standards (NSPS) and National Emission Standard as for Hazardous Air Pollutants (NESHAP) emissions limits and compliance requirements into the permits. In addition, redundant and obsolete permit conditions were removed and in general the permits made more concise and easier to read. Each of these re-permitting efforts is described below.

1.4.1. Cement Line No. 1

The permitting action to re-permit Portland Cement Line No. 1 will incorporate the original PSD construction permit (PSD-FL-091) and all subsequent construction permit modifications into a "clean" new construction permit. In addition, this new construction permit will remove any reference to the recently separate CP&L power plant which is now under the control of Florida Power Development, LLC. As previously indicated, the CP&L power plant was recently authorized to separate itself from Cement Line No. 1 by Air Construction Permit No. 0530380-001-AC (PSD-FL-090E). This permit along with other relevant documents can be found at:

www.dep.state.fl.us/air/emission/bioenergy/central_power.htm

After this permitting action, Cement Line No. 1 will share no commonality with the power plant and may have a new baghouse to control PM emissions and exhaust stack. If a new stack is not constructed for Cement Line No. 1, the stack previously shared with the power plant will continue to be used. If a new baghouse is not constructed, Cement Line No. 1 will continue to use the existing baghouse without modification or modify the baghouse to account for the reduced air flow. In addition, the type of bags used in the baghouse may be changed from fiberglass to another material in order to meet the new NESHAP PM emission limits.

Cement Line No. 1 consists of the following emission units (EU).

EU ID No.	Facility Internal ID No.	Emissions Unit Description
001	D-75	Filter Dust Bin with Baghouse
002	D-67	Fly Ash & Equilibrium Storage Silo with Baghouse
004	F-14	Raw Meal Transfer with Baghouse
006	G-12 (A & B)	Two Blend Silos with Baghouse
007	H-15	Kiln Feed Surge Bin with Baghouse
008	S-04	Clinker Receiving & Handling System
009	K-07 & L-03	Clinker Cooler Discharge with Baghouse
010	L-05, L-06 & L-07	Clinker Storage Silos with Baghouse
011	L-08	Gypsum and Limestone Bins with Baghouse
012	M-08	Silo Discharge with Baghouse
013	N-13	Finish Mill with Baghouse
014	Q-17	A-Side Cement Storage Silo #1 and #2 with Baghouse
015	Q-15	Cement Storage Silos #1 and #2 with Baghouse

EU ID No.	Facility Internal ID No.	Emissions Unit Description
019	M-05	Finish Mill Feed Belt with Baghouse
020	N/A	Cement Kiln No. 1, In-Line Kiln/Raw Mill and Clinker Cooler 1 with Baghouse
021	Q-18	B-Side Cement Storage Silos #1, #2 & #3 Discharge System with Baghouse
022	Z-15	Cement Storage Silo #3 with Baghouse
023	N/A	Cement Storage Silo #4 and Truck Loadout System with Baghouse
024	Z-18	Cement Storage Silo and Railcar Loadout System with Baghouse
Shared Emission Unit - Cement Lines No. 1 and 2: Fugitive Emissions and Coal Yard		
042	N/A	Coal Receiving, Handling and Transfer System (fugitives)

1.4.2. Cement Line No. 2

The permitting action to re-permit Portland Cement Line No. 21 will incorporate the original PSD construction permit (PSD-FL-351) and all subsequent construction permit modifications into a "clean" new construction permit. This permitting action is being taken in conjunction with the re-permitting of Cement Plant No. 1 to provide the CEMEX cement plant two "clean" similar construction permits for each cement line that will subsequently be incorporated into a new Title V air operation permit that does not include the CP&L power plant.

Cement Line No. 2 consists of the following emission units (EU).

EU ID No.	Baghouse ID No.	Emissions Unit Description
Pyroprocessing System		
044	331.BF300	Kiln No.2, Pre-Heater, Pre-Calciner and Clinker Cooler No. 2
Raw Mill and Raw Meal Handling and Storage System		
045	331.BF640	Filter Dust Bin
	311.LS609	Filter Dust Bin Loadout Spout
046	341.BF400	Blend Silo
047	351.BF420	Kiln Feed Transport
	341.BF410	Blend Silo Discharge
	351.BF410	Kiln Feed Bin
Clinker Handling and Storage		
048	471.BF110	Clinker Transport
050	471.BF120	Clinker Storage Silo
	481.BF155	Clinker Silo Discharge 1
	481.BF165	Clinker Silo Discharge 2
Finish Mill System		
051	511.BF650	Finish Mill Additives
052	531.BF500	Finish Mill and Air Heater
054	531.BF020	Finish Mill Bucket Elevator
057	531.BF400	Finish Mill Cement Transport
Cement Silos and Loadout		
058	612.BF005	Cement Silo 5
	612.BF620	Cement Silo 5 Loading Bin
	622.LS140	Cement Silo 5 Loadout Spout N
	622.LS160	Cement Silo 5 Loadout Spout S
059	611.BF005	Multi Cell Cement Silo

EU ID No.	Baghouse ID No.	Emissions Unit Description
	611.BF045	Multi Cell Cement Silo Alleviator
	611.BF610	Multi Cell Loadout Transport
	611.LS760	Multi Cell Loadout Spout
060	461.BF400	Coal Mill
061	461.BF560	Fine Coal Bin
062	641.BF150	Packing Plant
Shared Emission Unit - Cement Lines No. 1 and 2: Fugitive Emissions and Coal Yard		
042*	N/A	Coal Receiving, Handling and Transfer System (fugitives)

** The Coal Receiving, Handling and Transfer System (fugitives) emission unit is permitted in Air Construction Permit No. 0530021-043-AC (PSD-FL-091K) dealing with Cement Line No. 1.*

1.5. Facility Regulatory Categories

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has emission units that are subject to NSPS under Section 111 of the Clean Air Act (CAA). Specifically, emission units are subject to 60 Subpart A, General Provisions, Subpart F, NSPS for Portland Cement Plants and Subpart Y NSPS for Coal Preparation Plants.
- The facility has emission units that are subject to the NESHAP under Section 112 of the CAA. Specifically, the facility is subject to 40 CFR 63, Subpart A, General Provisions and Subpart LLL, NESHAP for Portland Cement Manufacturing (Subpart LLL).
- The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. (PSD).
- These emissions units are also subject to the requirements of the state rules as indicated in this permit, particularly Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD).

2. PROCESS DESCRIPTION

2.1. Overview

Portland cement is a fine powder, usually gray in color, which consists of a mixture of dicalcium silicate, tricalcium silicate, tricalcium aluminate, and tetracalcium aluminoferrate, and small amounts of magnesium oxide, sodium, potassium and sulfur, to which one or more forms of calcium sulfate have been added. About 95% of the cement production in the U.S. is Portland cement. Masonry cement represents the balance of the domestic cement production.

There are several cement manufacturing processes including wet, dry, dry preheater and dry preheater/precalciner processes. These processes all produce Portland cement from raw materials through pyroprocessing. Each type of process has different characteristics for equipment design, method of operation, and fuel consumption.

In the wet and dry processes, all of the pyroprocessing and fuel combustion occurs in the kiln, with the primary difference being that with the wet process the raw materials are blended and introduced into the kiln as a slurry. The preheater and preheater/precalciner processes are also dry processes, but in these processes thermal efficiency and production capacity have been improved by adding process vessels arranged vertically before the kiln, wherein the hot gases pass counter to the material flow, effecting heat transfer through the intimate contact between the two streams. The improved heat transfer allows the kiln length to be reduced. This arrangement also allows the hot gases from the preheater tower to be used to dry raw materials in the raw mill. In the preheater/precalciner process, fuel combustion is divided between the kiln and a preheater vessel below the preheater tower. This arrangement provides for greater thermal efficiency than the preheater process. A relatively new innovation is the use of a separate line

combustion chamber for the preheater burner, so called because it is installed to the side (separate) of the material flow through the precalciner region. Because of its lower fuel requirements and greater efficiency, most new Portland cement plants use the dry preheater/precalciner process. Cement Line No. 1 at the CEMEX facility is a dry preheater in-line kiln/raw mill, clinker cooler arrangement, while Cement Line No. 2 is a dry preheater/precalciner process, with a separate line combustion chamber for the calciner burner and an in-line arrangement with the raw mill.

The production of Portland cement is generally a four-step process: raw materials acquisition and handling, kiln feed preparation for pyroprocessing, pyroprocessing, and finished cement grinding. The chemical reactions and physical processes that constitute the transformation from raw materials to cement are quite complex. The heart of the Portland cement manufacturing process is the pyroprocessing system which includes the rotary kiln and preheater/precalciner.

Pyroprocessing may be divided into four stages, depending on location and temperature of the materials in the system: evaporation of uncombined water from raw materials; dehydration of combined water to form oxides of silicon, aluminum, and iron; calcination (liberation of carbon dioxide); reaction and sintering of the oxides in the kiln to form cement clinker.

Generally the entire process may be summarized as follows. Raw materials, predominantly limestone, but also including sand, clay, iron ore, and coal ash, will be crushed and then blended and milled in the raw mill. The resulting material will be conveyed to the pyroprocessing system in the top stage of the preheater. It will exit the preheater/precalciner and enter the kiln at the elevated end (feed end). The rotation of the kiln causes the solid materials to be slowly transported downward from the front end (discharge end). Fuel will be supplied to the precalciner combustion chamber, optionally at the feed end of the kiln, and at the lower or discharge end of the kiln. The hot, gaseous combustion products will move countercurrent to the material flow, thereby transferring heat to solids in the kiln and preheater/precalciner, and to the raw mill. The kiln produces cement clinker from calcining the raw materials.

The clinker will enter the clinker cooler where it will be cooled by ambient air. This cooling or quenching serves to “freeze” the clinker, halting the formation chemistry. Hot air from the clinker cooler will be recovered and returned to the pyroprocessing system as combustion air and will also be supplied to the coal mill for drying the coal and petroleum coke. The cooled clinker will be stored in silos before being mixed with gypsum and limestone and ground in a ball mill in the finish milling operation to produce Portland cement. The Portland cement will be stored in silos and loaded in bulk into tanker trailers or in bags which will be palletized. The Portland cement will be hauled by truck for distribution to customers.

Figure 6 below shows the general process of the cement production from mining the raw materials to the transport of the final product. The cement line show in the figure, i.e., the preheater, in-line kiln, raw mill and clinker cooler, is similar to Cement Line No. 1. However, the figure shows an ESP to control PM emissions unlike the baghouse currently used on Cement Line No. 1. As part of this permitting action, a baghouse may be replaced by a new smaller baghouse on Cement Line No. 1. The cement line show in Figure 7 below is a dry process, cement kiln with a preheater, precalciner and clinker cooler, which is similar to the type used on Cement Line No. 2.

An animated depiction of the Portland cement process, i.e., how cement is made, that was produced by the Portland Cement Association (PCA) can be found at the web link given below:

http://www.cement.org/basics/images/flashtour.html

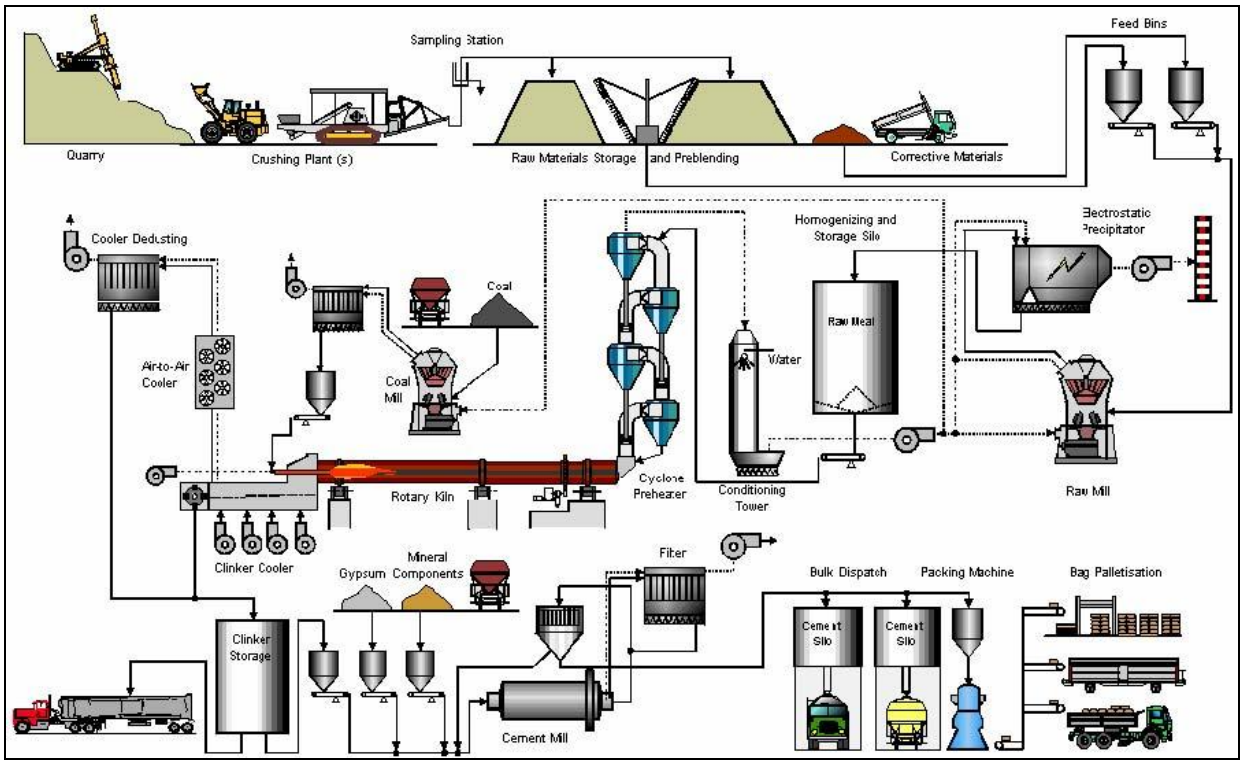

Figure 6 - General Process of Cement Production.

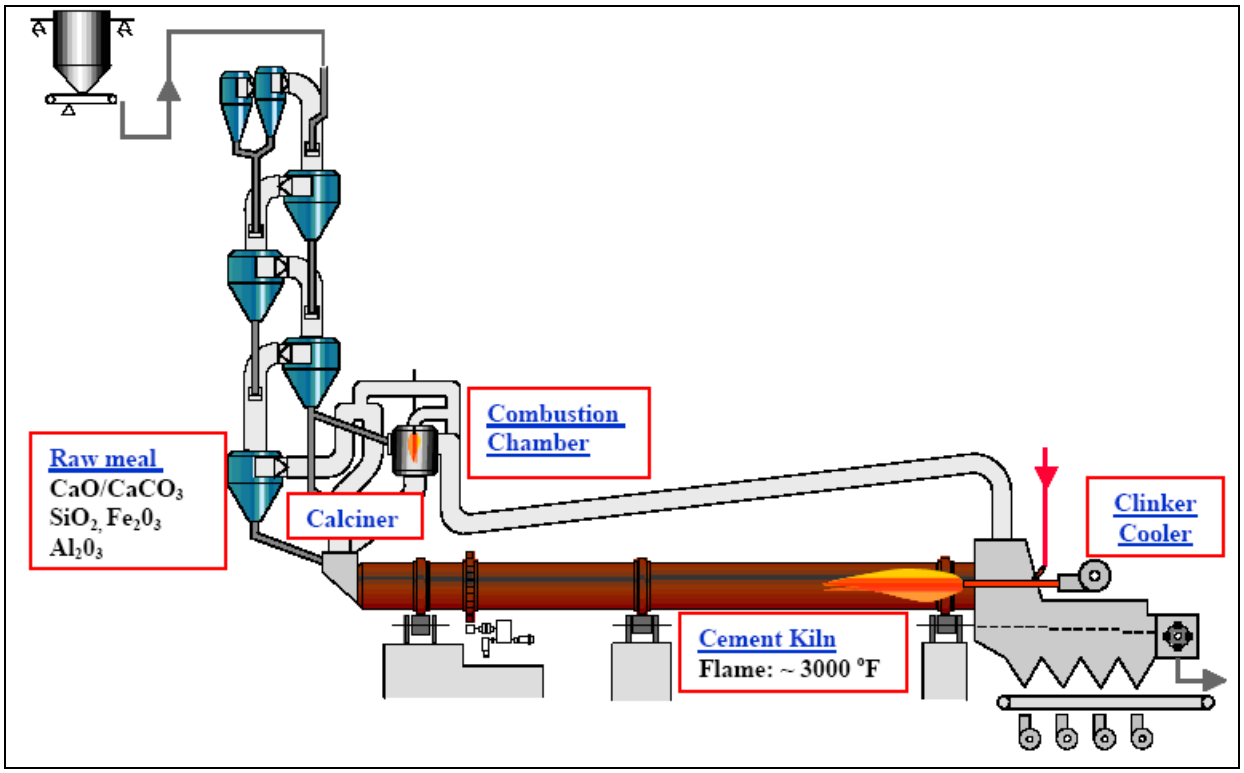

Figure 7 – Diagram of Dry Process Cement Kiln with Preheater and Precalciner.

2.2. Detailed Process Description at CEMEX Facility

A more detail discussion of the cement production process at the CEMEX cement plant by major components is given below. It should be noted, that there are differences between the two cement lines, however the discussion below groups the two lines together with major differences denoted.

2.2.1. Raw Material Handling

Limestone is mined primarily below the water table. The overburden, consisting of sand and clay, is removed from the limestone surface and stockpiled in the vicinity of the crusher. The crusher is portable, and is relocated periodically in accordance with the mining plan. The overburden and the limestone are fed into the crusher typically with front end loaders in the ratios dictated by the target chemical composition of the desired raw mix. The quarry mix is delivered to a covered storage hall by a conveyor belt system. The quarry mix typically has a moisture content of 10-20%. The storage hall has space devoted to storage of the other raw materials which include but are not limited to: mill scale, feldspar and flyash. The other raw materials are transported to the facility from offsite by truck.

2.2.2. Raw Milling Operations

The quarry mix and other raw materials are conveyed to the raw mill feed bin. Raw materials are fed from the raw mill feed bin to the raw mill. The raw mill will grind and mix the raw materials, and dry the raw materials with the hot gases from the pyroprocessing system. The raw meal is then either fed directly into the preheater or stored in the homogenization silo. Emissions from the raw mill are controlled by baghouses.

2.2.3. Pyroprocessing System

The kiln feed from the mill or homogenization silo is conveyed to the preheater by means of an airlift. The feed enters the top stage of the preheater. Gases from the pyroprocessing system flow counter to the material direction to the raw mill. Coal, petroleum coke, natural gas, and flyash are the typical fuels. Natural gas, fuel oil and propane are used as startup and supplemental fuels. The cement plant also burns tires. The pyroprocessing system transforms the raw meal into clinker. The clinker when mixed with calcium sulfate (gypsum) produces Portland cement.

2.2.4. Clinker Cooling And Handling

After discharge from the kiln, the clinker is cooled with ambient air in a cooler. The exhaust gases from the cooler are cleaned by a baghouse operating under negative pressure from an ID fan. The cleaned gases are exhausted through a stack. The clinker is conveyed to the clinker silos. The clinker is withdrawn from the silos by vibrating feeders, and discharged onto the finish mill feed belt. Enclosed clinker handling operations and storage silos are controlled with baghouses.

2.2.5. Finish Mill

Gypsum and limestone are received by truck and stored under cover in stockpiles. Each material is transferred by a front end loader to feed hoppers, and conveyed to the finish mill where it is mixed with the clinker to create Portland cement. All enclosed sources associated with the finish milling operation are controlled with baghouses. Fugitive emissions from gypsum and limestone handling and conveying associated with the finish milling operation are minimized by inherent moisture and by the application of water as necessary for suppression of unconfined emissions of particulate matter.

2.2.6. Cement Handling

Finished Portland cement is stored in concrete silos. The Portland cement is withdrawn from the silos and loaded into tanker trailers for bulk shipment or into bags which is palletized for shipment. Finished Portland cement is transported by truck or rail. All enclosed sources associated with the cement handling operation are controlled with baghouses.

2.2.7. Coal and Petroleum Coke Handling

Coal and petroleum coke are received by railcar. The bucket elevator discharges either into a covered storage facility or onto a belt and then to a bin. Coal and petroleum coke in covered storage is reclaimed by a front end loader through the unloading system. The milled fuels are stored in a pulverized fuel storage bin for pneumatic conveyance to the main burners and precalciner burner (Cement Line No. 2).

All enclosed sources associated with the coal and petroleum coke handling and milling operation are controlled with baghouses. Fugitive emissions from coal and petroleum coke handling and conveying are minimized by inherent moisture and by the application of water as necessary for suppression of unconfined emissions of particulate matter.

2.2.8. Cement Kiln Dust

This cement plant does not generate cement kiln dust (CKD) as a waste product. This is consistent with the low alkali characteristics of the raw limestone and the greater opportunity for recycle afforded by the dry preheater process or dry preheater/precalciner process. The process equipment utilized to transport the captured dust from the baghouse (Cement Line No. 1) and ESP (Cement Line No. 2) back into the process is all enclosed.

3. APPLICABLE REGULATIONS

3.1. State Regulations

This project is subject to the applicable environmental laws specified in Chapter 403 of the Florida Statutes (F.S.). The F.S. authorizes the Department of Environmental Protection (Department) to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.).

This project is subject to the applicable rules and regulations defined in the following Chapters of the F.A.C. and summarized in Table 1.

Table 1 – Applicable Rules from the F.A.C.

F.A.C. Rule	Description
62-4	Permits
62-204	Air Pollution Control – General Provisions
62-210	Stationary Sources of Air Pollution – General Requirements
62-212	Stationary Sources – Preconstruction Review
62-213	Operation Permits for Major Sources (Title V) of Air Pollution
62-296	Stationary Sources – Emission Standards
62-297	Stationary Sources – Emissions Monitoring

3.2. Federal Regulations

The U.S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40, Code of Federal Regulations, part 60 (40 CFR 60) that identifies NSPS for a variety of industrial activities. 40 CFR 61 specifies NESHAP. 40 CFR 63 specifies NESHAP provisions based on the Maximum Achievable Control Technology (MACT) for given source categories.

Federal regulations adopted by reference are given in Rule 62-204.800, F.A.C. State regulations approved by EPA are given in 40 CFR part 52, Subpart K – Florida, also known as the State Implementation Plan (SIP) for Florida.

3.3. PSD Major Stationary Source Applicability Determination

The Department regulates major stationary sources in accordance with Florida's PSD program pursuant to Rule 62-212.400, F.A.C. PSD preconstruction review is required in areas that are currently in attainment

with the state and federal Ambient Air Quality Standards (AAQS) or areas designated as "unclassifiable" for these regulated pollutants.

The more common PSD pollutants related to this project include: carbon monoxide (CO), nitrogen oxide (NO_X), sulfur dioxide (SO_2), PM, PM smaller than 10 micrometers (PM_{10}), volatile organic compounds (VOC), mercury (Hg), hydrogen chloride (HCl) and octa-chlorinated dibenzo-p-dioxins and dibenzofurans (dioxin/furan). Other PSD pollutants that are not germane to this project include: lead (Pb), fluorides (F), sulfuric acid mist (SAM), hydrogen sulfide (H_2S), total reduced sulfur (TRS) including H_2S, reduced sulfur compounds including H_2S, , MWC metals measured as PM; MWC acid gases measured as SO_2 and, MSW landfill emissions as non-methane organic compounds.

As defined in Rule 62-210.200(189)(a)1, F.A.C., a facility is considered a "major stationary source" (major PSD source) if it emits or has the potential to emit (PTE):

- 250 tons per year (tons/year) or more of any PSD pollutant; or
- 100 tons/year or more of any PSD pollutant and the facility belongs to one of the 28 listed PSD major facility categories. Link to Rule 62-210, F.A.C.

The existing facility consists of at least two PSD sources from the list of 28 facility categories because it includes:

"a fossil fuel-fired steam electric plant of more than 250 million British thermal units per hour heat input" and "a portland cement plant, each of which emits, or has the potential to emit, 100 tons/year or more of any PSD pollutant."

After it conversion to biomass, the CP&L power plant will no longer be one of the 28 listed categories as far as PSD applicability is concerned. However, the resulting woody biomass power plant will still be a major PSD source of air pollution because it will emit or has the potential to emit (PTE), 250 tons/year or more of any PSD pollutant. However, it will also be considered a separate major stationary source. The CEMEX cement plant (Line Nos. 1 and 2) will also continue to be a major PSD source, because the two cement lines will continue to emit or have the PTE, 100 tons/year or more of any PSD pollutant.

For major stationary sources, PSD applicability for modification projects is based on thresholds known as the significant emission rates (SER) as defined in Rule 62-210.200(274), F.A.C. Any "net emissions increase" as defined in Rule 62-210.200(204), F.A.C. of a PSD pollutant from the project that equals or exceeds the respective SER is considered "significant".

SER also means any emissions rate or any net emissions increase of a PSD pollutant associated with a major stationary source or major modification which would construct within 10 km of a Class I area and have an impact on such area equal to or greater than 1 gram per cubic meter, 24-hour average.

Although a facility may be "major" (i.e. emits or has the potential to emit 100 or 250 TPY as applicable) for only one PSD pollutant, a project must include BACT controls for any PSD pollutant that exceeds the corresponding SER given in Table 2.

Table 2 – List of Significant Emissions Rates (SER) by PSD-Pollutant. [1, 3]

Pollutant	SER (tons/year)	Pollutant	SER (tons/year)
CO	100	NO_X	40
$PM/PM_{10}/PM_{2.5}$	25/15/10	Fluorides (F)	3
Ozone (VOC) [2]	40	Ozone (NO_X) [3]	40
SO_2	40	SAM	7
Lead (Pb)	0.6	Mercury (Hg)	0.1

1. Excluding those not germane to woody biomass projects.
2. Ozone (O_3) is regulated by its precursors (VOC and NO_X).
3. A federal significant emission rate of 75,000 tons/year for greenhouse gases (GHG) as carbon dioxide equivalent (CO_2e) exists but has not been incorporated into Department rules.

3.3.1. PSD Applicability – Re-Permitting of Cement Line No. 1

3.3.1.1. *Separation of Cement Line No. 1 from the CP&L Power Plant*

Table 3 provides PSD applicability calculations from the previous biomass conversion project (Permit No. 0530380-001-AC, PSD-FL-90E) of the CP&L power plant based on the net emission increases and decreases assuming that the future woody biomass-fueled power plant emits at its PTE. Increases and decreases of CO_2e are also included for comparison with federal greenhouse gas PSD applicability criteria.

Table 3 – Net PSD Pollutant Emission Increases (in tons/year) due to the Conversion Project (TPY).

Pollutant	Coal Power Plant Actual Emissions [1]	Wood Power Plant PTE	Net Emissions Increase (decrease)	SER	PSD Applies?
PM	53.0	67.4	14.4	25	No
PM_{10}	45.1	57.6	12.5	15	No
$PM_{2.5}$	29.3	34.2	4.9	10 [5]	No
NO_X	2,391.5	591.3	(1,800)	40	No
SO_2	2,129	591.3	(1,538)	40	No
SAM	5.7	9.5	3.8	7	No
CO	91.0	177.4	86.4	100	No
VOC	10.9	39.4	28.5	40	No
Pb	0.01	0.2	0.19	0.6	No
Hg	~ 0.004 [2]	~ 0.018	~ 0.014	0.1	No
nb-CO_2e [3]	751,569	745	(750,824)	75,000 [5]	No
bio-CO_2e [4]	0	1,194,176	1,194,176	deferred [5]	No

1. Based on Annual Operating Reports submitted for the power plant for 2006-2010 (except mercury).
2. Mercury emissions based on test conducted May 2007 with the power plant on and Cement Line 1 off.
3. Non-biogenic (nb) CO_2e emissions.
4. Biogenic (bio) CO_2e emissions.
5. Federal EPA significant emission rate.

According to Table 3, the separation of the power plant from Cement Line No. 1 and the conversion of the power plant to biomass do not trigger the Department or the federal EPA significant emission rate for any PSD-pollutant. However, the effect of the separation on the PTE of the Cement Line No. 1 and power plant individually needs to be assessed to ensure PSD is not triggered for the overall facility due to the separation. This analysis is discussed below.

3.3.1.2. *Effects Facility PTE of the Separation of CP&L Power Plant from Cement Line 1*

The existing coal-fueled power plant and Cement Line No. 1 were originally permitted by the EPA in 1984 through identical permits PSD-FL-090 and 091 and were certified with equal or more stringent limits by the Florida Power Plant Siting Board.

The present potential emissions from the coal-fueled power plant and Cement Line 1 based on the PSD permits, certification and modifications thereto are provided in Table 4 below.

Table 4 – Potential to Emit (PTE) from Existing/Combined, Future/Separate Facilities (TPY).

Pollutant	Present Combined Facility			Future Separate Facilities			Comparison
	Coal Plant	Line 1	Total [1]	Biomass Plant	Line 1	Total	Δ Total PTE
PM	110	216	326	67	15 [2]	82	(244)
NO_X	3,689	1,572	5,278	591	1,572	2,163	(3,115)
SO_2	3,373	219	3,420	591	219	810	(2,610)
Hg	0.131 [3]			~ 0.018 [4]	0.021 [5]	0.039	~ (0.092)

1. Individual potentials to emit from present coal-fueled power plant and Cement Line 1 do not precisely add up to facility total due to exhaust gas interactions, PSD permit versus site certification conditions and differences in calculation procedures.
2. Cement Line No. 1 PM emissions will be limited to 0.04 lb/ton of clinker by the Cement NESHAP in September 2013.
3. The presently applicable mercury limit is for the complex coal-fueled power plant and Cement Line No. 1 operating mode.
4. Florida Power Development, LLC owner of the CP&L power plant assumed all mercury in the biomass will be emitted and none will be captured in the control equipment.
5. Cement Line 1 mercury emissions will be limited to 55 lb/millions tons of clinker by the Cement NESHAP in September 2013.

The PTE for each of the listed pollutants will be substantially reduced due to the biomass conversion project or due to the applicability of the most recent versions of 40 CFR 63, subpart LLL – NESHAP from the Portland Cement Manufacturing Industry (Cement NESHAP). The versions of the Cement NESHAP applicable to Cement Line Nos. 1 and 2 are:

- The December 20, 2006 amendment to the previous Cement NESHAP (year 2002) which **currently** limits the emissions of mercury from Cement Line No. 2 to 41 micrograms per dry standard cubic meter (µg/dscm) with compliance by annual stack testing.
- The final Cement NESHAP (dated September 9, 2009) has emission limits in effect for sources prior to September 9, 2010 that currently affect Cement Line No. 1. The D/F emission limit is 0.2 nanograms per dry standard cubic meter (ng/dscm). The PM emission limits for the kiln and raw mill are 0.30 pounds per ton of raw feed (lb/ton-f) and 37.1 pounds per hour (lb/hr). The PM emission limits for the clinker cooler are 0.10 lb/ton-f and 12.4 lb/hr. These limits are in effect until the compliance date of September 9, 2013 comes into effect for the full final Cement NESHAP (see below).
- After the compliance date of September 9, 2013, the final Cement NESHAP has emission limits that apply to both Cement Line Nos. 1 and 2. These emission limits along with methods of compliance and compliance dates are summarized in Table 5 below.

Table 5 – Cement NESHAP Emission Limits, Cement Lines Nos. 1 and 2.

Pollutant [1]	Unit [2]	Units [3]				Compliance [4]	Basis
		lb/ton-c	lb/Mt-c	ng/dscm TEQ	ppmvd		
PM	C	0.04 [5]				CEMS [6]	LLL [7]
	KM	0.04 [5]	---	---	---	CEMS [6]	LLL [7]
D/F	KM	---	---	0.2 [8]	---	ST	LLL [7, 9]
Hg	KM	---	55 [10]	---	---	SBT [11]	LLL [7, 9]
THC	KM	---	---	---	24 [12]	CEMS	LLL [7, 9]
HCl	KM	---	---	---	3 [13]	CEMS	LLL [7, 9]

1. Pollutant: PM = particulate matter; SO_2 = sulfur dioxide; NO_X = nitrogen oxide; D/F = dioxin and furans; THC = total hydrocarbons; and HCl = hydrogen chloride. PSD-FL-091K and PSD-FL-351E replaces all previous PSD permits and represents latest BACT, NSPS and NESHAP emission limits and compliance methods for Cement Lines Nos. 1 and 2.
2. Emission subunit: K = kiln; C = clinker cooler; and M = raw mill.
3. Units of emission limits: lb/ton-f = pounds per ton of feed; lb/hr = pounds per hour; lb/ton-c = pounds per ton of clinker;

lb/Mt-c = pounds per million tons of clinker; ng/dscm TEQ = nanograms per dry standard cubic meter, toxic equivalents; ppmvd = parts per million volume dry.

4. Method of compliance = method of compliance: ST = annual stack test; CEMS – continuous emission monitor system; SBT = sorbent trap EMS; COMS = continuous opacity monitoring system.
5. Proposed NESHAP Subpart LLL (dated July 18, 2012) limit is 0.07 with effective date of September 9, 2015. Final and proposed NESHAP Subpart LLL startup/shutdown limits are 0.004 grains per dry standard cubic foot (gr/dscf).
6. Proposed NESHAP Subpart LLL allows stack testing for compliance in lieu of PM CEMS.
7. Final NESHAP Subpart LLL, compliance with emission limits by September 9, 2013.
8. If the average temperature at the inlet to the first PM control device (fabric filter or electrostatic precipitator) during the D/F performance test is 400 °F or less this limit is changed to 0.040 ng/dscm
9. Proposed NESHAP LLL emission limits effective September 9, 2015.
10. Final and proposed NESHAP Subpart LLL Hg emission limit during startup/shutdown is 10 ng/dscm TEQ. The emission limit is based on 30 kiln operating days.
11. Hg CEMS can be used in lieu of sorbent trap EMS to show compliance.
12. Measured as propane. Any source subject to the 24 ppmvd THC limit may elect to meet an alternative limit of 12 ppmvd for total organic HAP. The emission limit is based on 30 kiln operating days.
13. Per Final NESHAP Subpart LLL, if the kiln does not have an HCl CEMS, the emissions limit is zero. In proposed NESHAP Subpart LLLL, §63.1350(l)(3), if the source is equipped with a wet or dry scrubber or tray tower, and you choose to monitor SO_2 emissions, monitor SO_2 emissions continuously according to the requirements of § 60.63(e) through (f) of part 60 subpart F of this chapter. The emission limit is based on 30 kiln operating days.

- On July 18, 2012, the EPA proposed changes to the Final Cement NESHAP (dated September 9, 2010). The **major** changes are: (1) adjust the way cement kiln owner's measure and monitor PM emissions, i.e., the removal of the PM CEMS requirement and allowing stack testing in its place; (2) extend the deadline by two years – from September 9, 2013 to September 9, 2015 – for existing cement kilns to comply with the 2010 rule; and (3) raise the allowable emissions levels for PM. These new PM limits are included in Table 5 above and indicated by the appropriate footnote.

Based on the conversion project and the Cement NESHAP, reductions in PTE for the combined and separated facilities are given in the last column of Table 4. The comparison provided in Table 4 allows the Department to conclude that the conversion of the power plant to biomass and its separation from Cement Line No. 1 will not trigger PSD. The requirements of the Cement NESHAP were incorporated in the most recent facility draft/proposed Title V Air Operation Permit No. 0530021-029-AV which will become effective on December 28, 2011 by operation of the law. Section II, FW11 of the draft/proposed Title V air operation permit states:

"No later than September 9, 2013, CEMEX shall be in compliance with the future emissions limits for existing sources contained in Table 1 of Appendix NESHAP, Subpart LLL (rev. September 9, 2010), as well as all other applicable requirements contained in the newest version of NESHAP, Subpart LLL, related to monitoring, testing, reporting, etc."

In addition, the latest Cement NESHAP emission limits, compliance methods and effective dates are incorporated into the new construction permits discussed in the document: Air Construction Permit No. 0530021-043-AC (PSD-FL-091K) for Cement Line No. 1; and Air Construction Permit No. 0530021-044-AC (PSD-FL-351E) for Cement Line No. 2.

3.3.1.3. *Comparison of Combined Facility Past Actual Emissions to Future Separated Facilities PTE*

The final check that was performed to ensure that PSD was not triggered due to the conversion and separation was a comparison of past actual baseline facility-wide emissions to the sum of future potential emissions from the separated power plant and Cement Line No. 1 for certain key pollutants. The analysis shows that even under the previous PSD rules (prior to New Source Review Reform) the separation of the power plant from Cement Line No. 1 will not trigger PSD for these pollutants. The results are summarized in Table 6.

Table 6 – Facility Baseline Actual Emissions, Sum of Future Separated Facilities PTE (TPY).

Pollutant	Coal Power Plant+Line 1 Baseline Actual Emissions [1]	Biomass Power Plant+Line 1 Potential Emissions	Δ Actual to Potential Increase (decrease)
PM	53+83 = 136	67+15 [2] = 82	(53)
NO_X	2,392+1,206 = 3,598	591+1,572 = 2,163	(1,435)
SO_2	2,129+36 = 2,165	591+219 = 810	(1,355)
Hg	0.004 [4]+0.012 [5] = 0.016 [3]	~0.018 [6]+0.021 [7] = ~0.039 [8]	~0.023 [8]

1. Based on Annual Operating Reports (2006-2010) submitted for the power plant and Cement Line No. 1 (except for mercury).
2. Cement Line 1 PM emissions in the future will be limited to 0.04 lb/ton of clinker by Cement NESHAP.
3. Total mercury emissions are based on tests conducted in November 2009 with the power plant and Cement Line No. 1 in operation.
4. This value represents the emissions from the power plant and Cement Line No. 1 when the cement raw mill is on.
5. This value represents the emissions from the power plant and Cement Line No. 1 when the cement raw mill is off.
6. Applicant assumed all mercury in the biomass will be emitted and none will be captured in the control equipment.
7. Future mercury emissions from Cement Line No. 1 will be limited to 55 lb/millions tons of clinker by the Cement NESHAP.
8. Future mercury emissions will depend on the degree to which the ash from the power plant is sent to Cement Line No. 1 and the also the extent to which cement filter dust is removed and mixed with product (versus return to pyroprocessing).

3.3.1.4. *Conclusion*

As indicated in the above analyses, the re-permitting of Cement Line No. 1 and its separation from the converted CP&L power plant does not trigger PSD either by: the conversion of the power plant to biomass; facility wide PTE due to the separation of the power plant and cement line; and comparison of the combined facility past actual emissions to future separated facilities PTE.

3.3.2. PSD Applicability – Re-Permitting of Cement Line No. 2

As indicated in the above analyses for Cement Line No. 1, the separation project and the conversion of the CP&L power plant to biomass will not trigger PSD. No emission increases in NO_X, SO_2, CO, PM/PM_{10}, VOC or any other PSD pollutant will occur as a result of re-permitting Cement Line No. 2. In fact, emissions of PM, D/F, Hg, THC and HCl will decrease as the applicable Cement NESHAP limits come into force. Consequently PSD is not triggered by the re-permitting of Cement Line No. 2.

3.4. Cement Line No. 1 – New Stack and Baghouse

CEMEX **may** construct a new exhaust stack and baghouse to control PM emission on Cement Line No. 1 after its separation from the CP&L power plant. The new stack will have a maximum design height of 165 feet and a maximum diameter of 13 feet. The old stack height is 322 feet with a diameter of 18.68 feet. The flow through the old stack is approximately 1,150,000 acfm, while the gas flow through the new stack will be approximately 530,000 acfm. Because of these possible changes in the exhaust stack for Cement Line No. 1 ambient air quality modeling was required. Specifically, the applicant conducted modeling with respect to the 1-hour nitrogen dioxide (NO_2) AAQS. This modeling is discussed in **Section 5** below

4. PERMIT REQUIREMENTS FOR SEPARATION OF THE FACILITIES

The Department will include enforceable requirements within Air Construction Permit No. 0530021-043-AC (PSD-FL-091K) for the re-permitting of Cement Line No. 1 that will establish two separate facilities not under common control. The following conditions will be included:

- As specified in Air Construction Permit No. 0210380-001-AC (PSD-FL-90E), upon initiation of actual construction of the grate within the existing furnace of the CP&L power plant, the Power Plant is prohibited from sharing the baghouse and the exhaust stack with Cement Line No. 1 of the CEMEX Brooksville South Cement Plant.

- Upon initiation of actual construction of the grate within the existing furnace, the conditions contained in the original air construction permits PSD-FL-090 (power plant) and PSD-FL-091 (cement plant) issued by the EPA on March 24, 1984, related to the operation of Cement Line No. 1 in combination with the Power Plant, are obsolete. This includes any modified versions of those permits through the date of issuance of this permit for the separation of the cement line from the power plant.
- Upon initiation of actual construction of the grate within the existing furnace, the conditions contained in the current Title V permit No. 0530021-029-AV, related to the operation of a coal-fired power plant in combination with Cement Line 1, are obsolete.

As a separate action, the current Title V Permit No. 0530021-029-AV will be revised accordingly to reflect the separation of Cement Line No. 1 from the power Plant. The revised Title V permit will reflect the operation of Cement Lines No. 1 and 2 at the CEMEX Cement Plant and will not include the operation of the Power Plant. The Power Plant will be issued a separate Title V permit for facility ID No. 0530380 reflecting its conversion to approximately 80 MW biomass fired facility.

5. AMBIENT AIR QUALITY

5.1. Introduction

The proposed project will not trigger PSD for any of the regulated pollutants. Therefore, modeling is not explicitly required. However, because the Cement Line No. 1 at the CEMEX facility may utilize a new stack with a lower height and diameter than the existing, the applicant has provided an ambient air quality impact assessment to ensure the NAAQS is maintained for the NO_2 1-hour standard. The SO_2 1-hour NAAQS standard was not modeled because emissions of SO_2 are expected to be approximately five times lower than NO_X emissions from Cement Line No. 1 at the CEMEX facility without the coal plant. According to the applicant, *"the modeling results showed that the NO_2 NAAQS to be in attainment. Based on the SO_2 (60 lb/hr) emissions being less than 1/5 of the NO_X (359 lb/hr) emissions and that the SO_2 standard is a 75 ppb versus the NO_2 standard of 100 ppb 1-hour standard determined by similar statistics we did not conduct SO_2 NAAQS modeling.*"

5.2. Major Stationary Sources in Pinellas and Nearby Counties

The largest stationary sources of NO_X in Hernando, Citrus, Pasco, and Sumter Counties are listed below in Table 7. Figures 8 and 9 indicate the major emission sources nearest to this proposed project.

Table 7 – Largest Sources of NO_X in Hernando and Nearby Counties - 2011 (tons/year).

Owner	Site Name	County	Emissions
Progress Energy	Crystal River Power Plant	Citrus	6,082
Progress Energy	Anclote Power Plant	Pasco	1,089
Pasco County	Pasco County RRF	Pasco	785
CEMEX	**Brooksville S Cement & Power Plant**	**Hernando**	**631**
American Cement	Sumterville Plant	Sumter	332
Shady Hills	Shady Hills Generating Station	Pasco	131
Pasco Cogen Limited	Pasco Cogen Limited	Pasco	112

5.3. SO_2 and NO_X Emission Trends from Power Plants in the Southeastern U.S.

There are regional efforts underway through the Federal (Title IV) Acid Rain Program, the Clean Air Interstate Rule (CAIR), the Cross-State Air Pollution Rule (CSAPR), Best Available Retrofit Technology (BART) and Reasonable Further Progress (RFP) to reduce emissions of NO_X and SO_2. These two pollutants are also key contributors to condensable $PM_{2.5}$ emissions and precursors for $PM_{2.5}$ formation in the atmosphere and regional haze. Regional SO_2 emissions from existing power plants in the Southeast U.S. in 2007 and 2010 are listed in Table 8.

Table 8 – SO_2 Emission from Power Plants in the Southeast in 2007 and 2011 in tons/year.

State	2007	2011	Δ Since 2007 (%)
Alabama	447,189	179,250	-267,939 (60%)
Florida	**317,582**	**91,380**	**-226,202 (71%)**
Georgia	635,484	186,860	-448,624 (71%)
Kentucky	379,837	246,396	-133,441 (35%)
Mississippi	69,796	43,211	-26,585 (38%)
North Carolina	370,826	73,507	-297,319 (80%)
South Carolina	172,726	66,167	-106,559 (62%)
Tennessee	237,231	120,325	-116,906 (49%)
Total	**2,630,671**	**1,007,096**	**-1,623,575 (62%)**

SO_2 emissions from power plants in the Southeast U.S. during 2011 were reduced by more than 1,600,000 tons/year or 62% compared to emissions in 2007. SO_2 emissions from power plants in Florida from 2007 to 2011 declined by 226,202 tons/year or 71%. The PTE of SO_2 from the CEMEX facility, including the biomass converted CP&L power plant, is 1,045 TPY or only 0.46% of the SO_2 emission reductions that have occur in Florida since 2007.

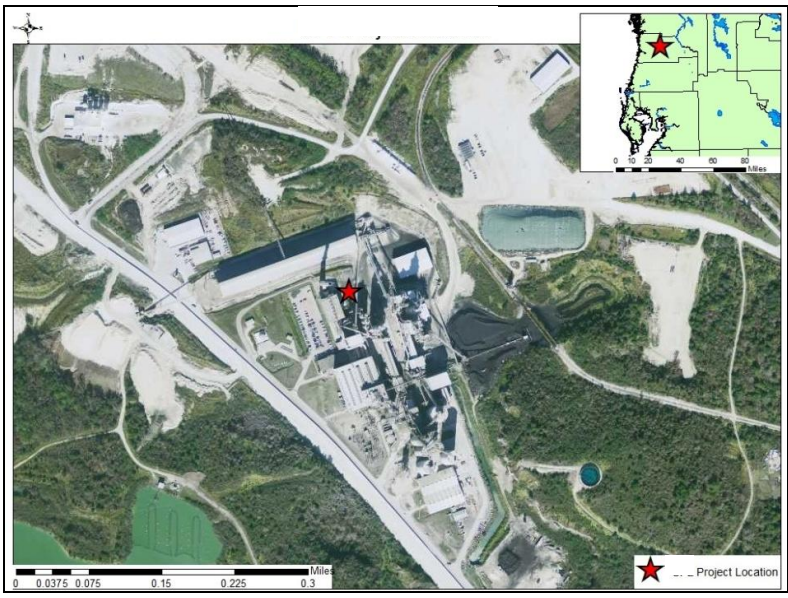

Figure 8 – CEMEX Location.

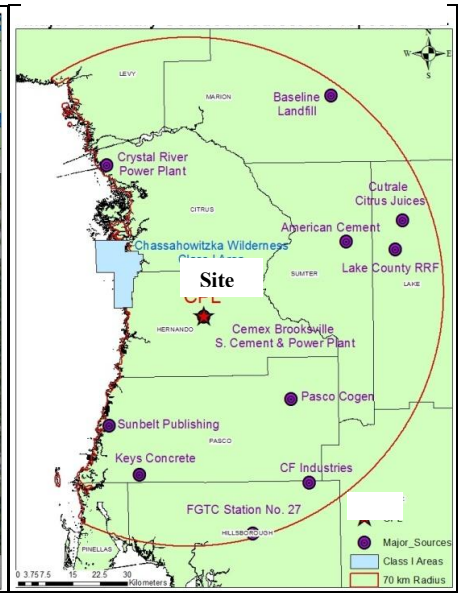

Figure 9 – Major Sources Near Site.

Regional NO_X emissions from existing power plants in the Southeast U.S. in 2007 and 2011 are listed in Table 9.

Table 9 – NO_X Emission from Power Plants in the Southeast in 2007 and 2010 (TPY).

State	2007	2011	Δ Since 2007 (%)
Alabama	122,374	61,398	-60,976 (50%)
Florida	**184,171**	**54,748**	**-129,423 (70%)**
Georgia	107,471	54,823	-52,648 (49%)
Kentucky	174,840	92,051	-82,789 (47%)
Mississippi	48,546	25,078	-23,468 (48%)
North Carolina	59,417	41,348	-18,069 (4%)
South Carolina	46,062	23,262	-17,229 (30%)
Tennessee	102,886	26,838	-76,048 (74%)
Total	**845,767**	**379,546**	**-396,690 (45%)**

NO_X emissions from power plants in the Southeast U.S. during 2011 were reduced by nearly 400,000 tons/year or 45% compared to emissions in 2007. NO_X emissions from power plants in Florida during 2011 declined by 129,423 tons/year or 70%. The PTE of NO_X from the CEMEX facility, including the biomass converted CP&L power plant, is 3,160 TPY or only 2.4% of the NO_X emission reductions that have occur in Florida since 2007.

The Department graphed gross electrical generation and the SO_2 and NO_X emission trends during the period 1998-2011 from power plants in Florida that report their emissions to the EPA Clean Air Markets database. The results are summarized in Figure 10 below. By comparison with the overwhelming downtrend of regional and local emissions of SO_2 and NO_X, the emission from the CEMEX facility, including the CP&L power plant, are very low.

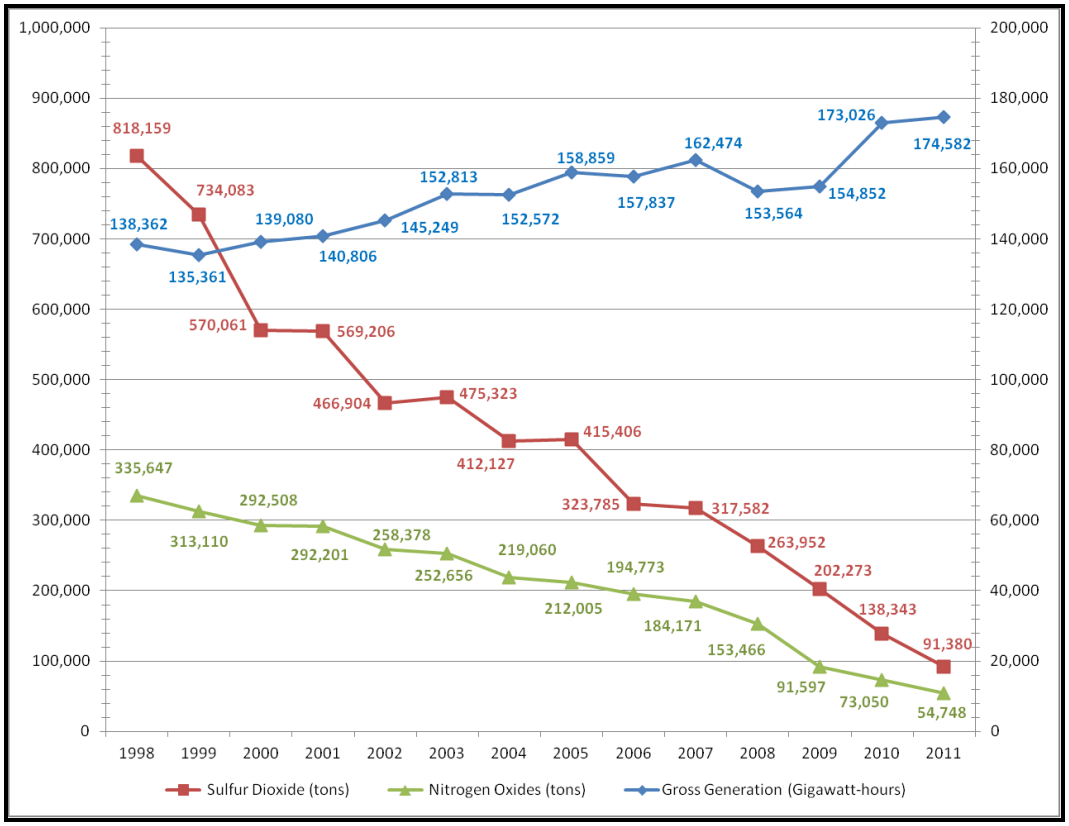

Figure 10 – Electric Generation and SO_2 & NO_X Emissions from Florida, 1998-2011.

5.4. Ambient Air Monitoring Surrounding Proposed Facility

The State ambient air monitoring network operated by the Department and its partners (local air pollution control programs) includes monitors in counties containing over 90% of the population. As Figure 11 below indicates, the ambient air monitoring sites are concentrated in areas of high population density, along the coasts and near major highways in the interior portion of the state. Figure 12 below shows the closest NO_2 monitor to the CEMEX site. Air quality measurements from this monitor is summarized below in Table 10 and compared with the National AAQS. Currently, all monitors in Florida indicate attainment with the AAQS.

5.5. Air Quality Impact Analysis

The applicant provided an air quality analysis which included air quality modeling to show compliance with the 1 hour NAAQS standard for NO_2.

5.5.1. Models and Meteorological Data Used in the Air Quality Analysis

The AERMOD modeling system was used to evaluate the pollutant emissions from the proposed project. AERMOD was approved by the EPA in November 2005. The AERMOD modeling system incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including the treatment of both surface and elevated sources, and both simple and complex terrain. AERMOD contains two input data processors, AERMET and AERMAP. AERMAP is the terrain processor and AERMET is the meteorological data processor.

A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction specific downwash parameters were used for all sources for which downwash was considered. The new stack for Cement Line No. 1 satisfied the good engineering practice (GEP) stack height criteria.

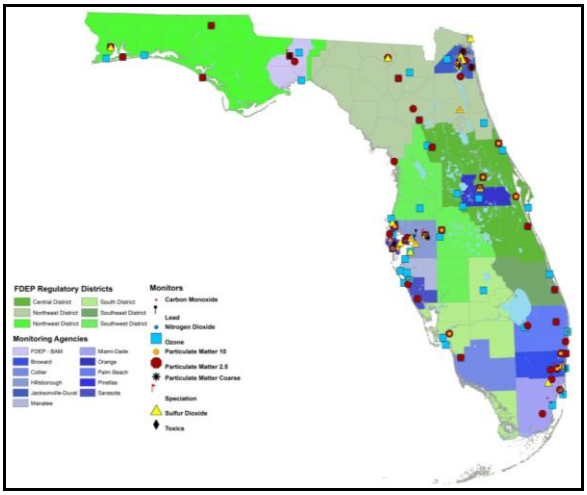

Figure 11 – Ambient Air Monitoring Network.

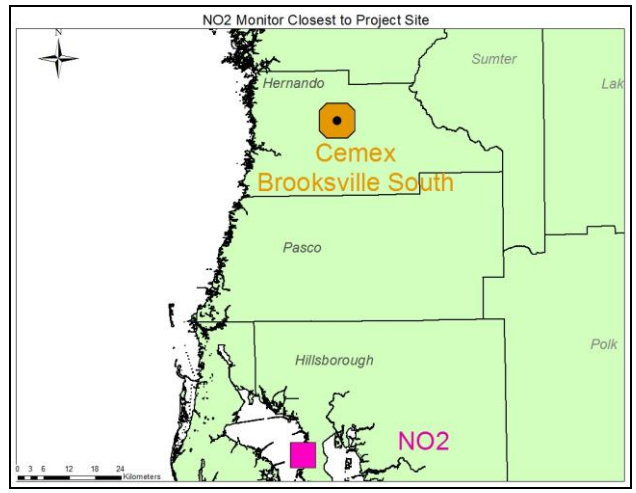

Figure 12 – NO_2 Monitor Closest to Facility.

Table 10 – Ambient Air Quality Based on Most Representative Monitors Near the Project Site.

Pollutant	Location (Site Number)	Averaging Period	Ambient Concentration			
			Compliance Period	Value	Standard	Units [a]
NO_2	Hillsborough Co (057-1065)	1-hour [b]	2009-2011	37	100	ppb
		Annual [c]	2011	5	53	ppb

a. Units are in parts per billion (ppb).
b. Arithmetic mean.
c. Three-year average of the annual 98th percentile maximum daily 1-hour value (design value).

Meteorological data used in the AERMOD model consisted of a concurrent five-year period of hourly surface weather observations from the National Weather Service office located at Tampa International Airport and twice-daily upper air soundings from Ruskin. The five-year period of meteorological data was from 2006 through 2010. These stations were selected for use in the evaluation because they are the closest primary weather stations to the project area and are most representative of the project site.

5.5.2. AAQS Analysis

The total impact on ambient air quality is obtained by adding a "background" concentration to the maximum modeled concentration. This "background" concentration takes into account all sources of a particular pollutant that are not explicitly modeled. The results of the AAQS analysis are summarized in Table 11. As shown in the table, emissions from the proposed facility are below AAQS for NO_2.

Table 11 – Maximum Predicted Air Quality Impacts for Comparison to the PSD Class II SIL.

Pollutant	Avg. Time	Max Predicted Impact [1] ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Total Impact ($\mu g/m^3$)	AAQS ($\mu g/m^3$)
NO_X	1-Hour	107	70	177	188
1. Modeled NO_X was adjusted in accordance with Tier 2 (0.75 conversion) to correct for the NOx-to-NO2 conversion					

5.6. Conclusion Regarding Air Quality

Emissions from this re-permitting project, including the separation of the CP&L power plant from Cement Line No. 1 and the conversion of the power plant to biomass, do not trigger PSD. Results of the voluntarily produced air quality impact assessment demonstrate that after the re-permitting and conversion projects, the CEMEX cement plant will not cause or contribute to a violation of 1-hour NO_2 AAQS. Also, emissions of SO_2 from the CEMEX facility are significantly less than NO_X emissions (1,045 TPY versus 3,160 TPY) indicating the 1-hour SO_2 NAAQS should not be violated.

The analysis in **subsection 5.3** indicated both the emissions of NO_X and SO_2 from the re-permitting and conversion projects at the CEMEX facility are minimal compared to the large reductions of these pollutants that have occurred in Florida during the last 4 years. In addition, it should be noted, that because of the conversion of the CP&L power plant to biomass and its derating from 150 MW to approximately 80 MW, emissions of NO_X and SO_2 at the facility will drop by 1,800 and 1,538 TPY, respectively. This should improve the local air quality. Finally, the actual re-permitting of Cement Line Nos. 1 and 2 does not result in any increase in PSD pollutants. In fact emissions of PM, HCl, THC and D/F should drop as a result of the cement lines becoming subject to the more stringent NESHAP emission standards.

For the reasons stated above, the Department concludes that these projects will not cause or contribute to violations of the 1-hour NO_X and SO_2 AAQS or the adversely affect the air quality near the facility.

CONCLUSION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution control regulations as conditioned by the Draft Permits.

Melody Lovin is the meteorologist responsible for reviewing and drafting the ambient air quality analyses. David Read is the project engineer responsible for reviewing the application, and drafting the permit and other documents. Additional details of this analysis may be obtained by contacting David Read at david.read@dep.state.fl.us and 1-850-717-9075 or Melody Lovin at melody.lovin@dep.state.fl.us and 1-850-717-9084.