

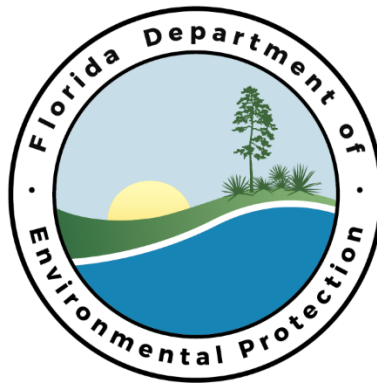
# CEMEX Construction Materials Florida, LLC Brooksville South Cement Plant

Facility ID No. 0530021  
Hernando County

Title V Air Operation Permit Renewal

**Permit No. 0530021-054-AV**

(Revises Title V Air Operation Permit No. 0530021-047-AV)



**Permitting Authority:**

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Department of Environmental Protection  
Division of Air Resource Management  
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Mail Station #5505  
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**Compliance Authority:**

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Southwest District Office  
13051 N. Telecom Parkway  
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# Title V Air Operation Permit Revision

Permit No. 0530021-054-AV

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# Florida Department of Environmental Protection

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Tallahassee, Florida 32399-2400

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Lt. Governor

Jonathan P. Steverson  
Interim Secretary

## **PERMITTEE:**

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

Permit No. 0530021-054-AV  
Cement Manufacturing Lines 1 and 2  
Facility ID No. 0530021  
Title V Air Operation Permit Renewal

The purpose of this permit is to revise the Title V Air Operation Permit for the above referenced facility. The facility consists of the CEMEX Brooksville South Cement Plant comprised of two Portland cement manufacturing lines and is owned by CEMEX Construction Materials Florida, LLC (CEMEX). Universal Transverse Mercator (UTM) Coordinates are: Zone 17; 360.00 kilometers (km) East; and 3162.50 km North. Latitude is: 28° 35' 00" North; and, Longitude is: 82° 25' 53" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

0530021-047-AV Effective Date: May 3, 2013  
0530021-054-AV Effective Date: November 2, 2015  
Renewal Application Due Date: September 21, 2017  
Expiration Date: May 3, 2018

*For:*

Jeffery F. Koerner, Deputy Director  
Division of Air Resource Management

JFK/dlr

## SECTION I. FACILITY INFORMATION.

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### Subsection A. Facility Description.

The facility consists of two Portland cement manufacturing lines, a coal yard and all the required auxiliary equipment. 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 facility is located approximately 20 km east of the Prevention of Significant Deterioration of Air Quality (PSD) Class I Chassahowitzka Wilderness Area. The placard page above indicates the exact geographical coordinates.

The CEMEX plant comprises two Portland cement manufacturing lines; associated raw and product material handling activities; coal handling activities and auxiliary equipment; as well as, all of the land designated as the South Brooksville facility.

Portland Cement Line 1 includes an in-line kiln/raw mill, clinker cooler and associated process equipment. Waste heat from the kiln is used to provide heat to the raw mill and the kiln preheater, which is used to drive off moisture from the materials used for making clinker. All of the materials handling activities are controlled by fabric filter baghouse control systems, except for the Clinker Receiving/Handling System and the coal yard activities. For the Clinker Receiving/Handling System, the fugitive particulate matter emissions generated from the transfer of clinker from the receiving hopper to the belt conveyor are controlled using an atomized water dust suppression system. Water sprays or chemical wetting agents and stabilizers are used at the coal receiving area, the coal storage area, and the coal transfer system to control fugitive particulate matter emissions and minimize visible emissions. All fly ash handling systems (including transfer and silo storage) are totally enclosed and vented (including pneumatic system exhaust) through fabric filters. Continuous monitors are operated for opacity, nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), carbon dioxide (CO<sub>2</sub>) and oxygen (O<sub>2</sub>).

For the Portland Cement Line 1, the maximum clinker production rate is 83.0 tons per hour (TPH) on a 24-hour average basis and 727,800 tons in any consecutive 12-month period. Fuels fired in the pyroprocessing system consist only of coal, petcoke, natural gas, No. 2 distillate fuel oil, residual fuel oil, "on-specification" used oil, and tire derived fuel (TDF), including shredded and whole tires. No. 2 fuel oil is used for the cement kiln No. 1's startup/preheating operation. "On-specification" used oil is allowed to be fired as a blend with purchased fuel oil as a startup fuel only. The TDF may be introduced at the base of the preheater (i.e., kiln No. 1's inlet) or at the hot end of the kiln with a Tire Injection Mechanism (TIM). The firing of the TDF does not commence unless the kiln No. 1 has reached an operating temperature (at least 1,400 °F), which is measured at the cement kiln No. 1's inlet.

Portland Cement Line 2 includes a raw mill system, a dry process preheater/precalciner kiln system, clinker handling system, finish grinding operations, two cement loadout silos, and coal handling and grinding operations. Nitrogen oxides (NO<sub>x</sub>) emissions are controlled by the use of Selective Non-catalytic Reduction (SNCR) technology. Sulfur dioxide (SO<sub>2</sub>) emissions are controlled by use of low sulfur raw materials and inherent scrubbing by finely divided lime in the calciner and limestone in the raw mill. Carbon monoxide (CO) and volatile organic compounds (VOC) emissions are controlled by promoting complete combustion in the kiln and calciner and minimizing carbon and the oil/grease content of raw materials. Particulate matter (PM/PM<sub>10</sub>) from the pyroprocessing system and the clinker cooler are controlled by fabric filter baghouses. Mercury emissions are controlled by material balance with a minimum of quarterly analyses of raw material samples and making and maintaining records of monthly and rolling 12-month mercury throughput. All of the materials handling activity particulate matter emissions are controlled by fabric filters. Water sprays or chemical wetting agents and stabilizers are used at the coal receiving area, the coal storage area, and the coal transfer system to control fugitive particulate matter emissions and minimize visible emissions. Continuous monitors are operated for opacity, NO<sub>x</sub>, SO<sub>2</sub>, carbon monoxide (CO), total hydrocarbons (THC), CO<sub>2</sub> and O<sub>2</sub>.

Portland Cement Line 2 has a capacity of 156 TPH of clinker production and 240 TPH of Portland cement production. Daily and annual rates are 1,277,500 tons per year (3,500 tons/day, 24-hour average) of clinker production, and 1,800,000 tons per year (5,760 760 tons/day or 240 ton/hr) of cement production. Fuels allowed to be used in the pyroprocessing system are natural gas, distillate fuel oil, on specification used oil, coal, petroleum coke, propane, flyash, and tire derived fuels. Line 2 also includes a coal processing operation that

**SECTION I. FACILITY INFORMATION.**

crushes coal and petroleum coke and has an annual processing capacity of 175,200 tons of coal and petroleum coke and may also utilize alternative fuels as specified in this permit.

As part of this Title V Air Operation permit Renewal, the most recent New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) emission limits have been incorporated into the permit, as applicable. In addition, allowances were made for the possible construction of a new fabric filter baghouse to control particulate matter and particulate matter with a mean diameter of 10 microns or less (PM/PM<sub>10</sub>) emissions from the Line No. 1 kiln, raw mill and clinker cooler and an exhaust stack for the Line 1 kiln, raw mill and clinker cooler. The new baghouse and stack may be constructed by CEMEX because of a recent permitting action (Permit No. 0530021-043-AC, PSD-FL-090E) that separated Portland Cement Line 1 from the co-located Central Power and Lime Power (CP&L) 150 megawatt (MW) Power Plant. This permitting action also allowed the conversion of the CP&L Power Plant from coal to biomass as its primary fuel along with derating the power plant to approximately 80 MW.

Previously, the CP&L Power Plant was integrated with CEMEX Cement Line 1 and they shared a common fabric filter baghouse and an exhaust stack. In the past, the CP&L Power Plant and the CEMEX Cement Plant operated under a common Title V air operation permit and shared the same facility ID number. The CP&L power plant will in the future operate under its own Title V air operation permit and have a separate facility ID number. The CP&L Power Plant will also have its own electrostatic precipitator (ESP) to control PM/PM<sub>10</sub> emissions and exhaust stack. [Table of Contents](#)

**Subsection B. Summary of Emissions Units.**

<b>Brooksville South Portland Cement Line 1 - Regulated Emissions Units</b>		
<b>EU ID No.</b>	<b>Facility's Internal ID No.</b>	<b>Brief Description</b>
001	D-75	Filter Dust Bin (was Pre-Mix Bin) with Baghouse
002	D-67	Fly Ash/Equilibrium Catalyst 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 (was Clinker Silo) with Baghouse
012	M-08 M-04	EP-01 Silo Discharge with Baghouse (M-08) and EP-02 Clinker Feeder Baghouse (M-04).
013	N-13	Finish Mill with Baghouse
014	Q-17	A-Side Cement Storage Silos #1 & #2 Discharge System with Baghouse
015	Q-15	Cement Storage Silos #1 & #2 with Baghouse
019	M-05	Finish Mill Feed Belt with Baghouse
020		Cement Kiln 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

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023		Cement Storage Silo #4 and Truck Loadout System with Baghouse
024	Z-18	Cement Storage Silo and Railcar Loadout System with Baghouses
064	M03	Kiln No. 1 Clinker Belt Dust Control

<b>Brooksville South Portland Cement Plant 2 - Regulated Emissions Units</b>		
<b>EU ID No.</b>	<b>Baghouse ID No.</b>	<b>Brief Description</b>
<b>Pyroprocessing System</b>		
044	331.BF300	Kiln, In-line Raw Mill, Pre-Heater, Pre-Calciner and Clinker Cooler No. 2
<b>Raw Mill and Raw Meal Handling and Storage System</b>		
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
<b>Clinker Handling and Storage</b>		
048	471.BF110	Clinker Transport
050	471.BF120	Clinker Storage Silo,
	481.BF155	Clinker Silo Discharge 1
	481.BF165	Clinker Silo Discharge 2
<b>Finish Mill System</b>		
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 Finish Mill Rejects Transport
<b>Cement Silos and Loadout</b>		
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

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059	611.BF005	Multi Cell Cement Silo
	611.BF045	Multi Cell Cement Silo Alleviator
	611.BF610	Multi Cell Loadout Transport
	611.LS760	Multi Cell Loadout Spout
<b>Other</b>		
Not Numbered		Alternative Fuel Handling and Processing
060	461.BF400	Coal Mill
061	461.BF560	Fine Coal Bin
062	641.BF150	Packing Plant
063	N/A	Emergency Diesel Generator
<b>Brooksville South Portland Cement Line 1 and Portland Cement Line 2</b>		
042	N/A	Coal Receiving, Handling and Transfer System (fugitives)
Not Numbered		Facility wide Fugitive Emissions

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**Subsection C. Applicable Regulations.**

This facility is a major source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating internal combustion engine, it is subject to regulation under 40 CFR 63, Subpart ZZZZ - National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines. See Section III, Subsection J that describes in detail the emergency diesel generator at the facility. The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

<b>Regulation</b>	<b>EU No(s).</b>
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, NSPS General Provisions	001, 002, 004, 006, 007, 009, 010, 011, 012, 013, 014, 015, 017, 019, 021, 022, 023, 024, 042, 044, 045, 046, 047, 048, 050, 051, 052, 054, 057, 058, 059, 060, 061, 062, 063
40 CFR 60, Subpart F -- Standards of Performance for Portland Cement Plants.	001, 002, 004, 006, 007, 009, 010, 011, 012, 013, 014, 015, 017, 019, 021, 022, 023, 024, 044, 045, 046, 047, 048, 050, 051, 052, 054, 057, 058, 059, 062, 063

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<b>Regulation</b>	<b>EU No(s).</b>
<i><b>Federal Rule Citations</b></i>	
40 CFR 60, Subpart IIII -- Compression Ignition Internal Combustion Engines	063
40 CFR 63, Subpart A, NESHAP General Provisions	001, 002, 004, 006, 007, 009, 010, 011, 012, 013, 014, 015, 017, 019, 021, 022, 023, 024, 042, 044, 045, 046, 047, 048, 050, 051, 052, 054, 057, 058, 059, 060, 061, 062, 063
40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry	001, 002, 004, 006, 007, 009, 010, 011, 012, 013, 014, 015, 017, 019, 021, 022, 023, 024, 044, 045, 046, 047, 048, 050, 051, 052, 054, 057, 058, 059, 062, 063
40 CFR 60 Y - for Coal Preparation Plants and Processing Plants	042, 060, 061
40 CFR 63, Subpart ZZZZ -- Reciprocating Internal Combustion Engines	063
<i><b>State Rule Citations</b></i>	
Rule 62-4, Florida Administrative Code (F.A.C.) (Permitting Requirements)	001, 002, 004, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 017, 019, 020, 021, 022, 023, 024, 042, 044, 045, 046, 047, 048, 050, 051, 052, 053, 058, 059, 060, 061, 062, 063
Rule 62-204, F.A.C. (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference)	
Rule 62-210, F.A.C. (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms)	
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration	
Rule 62-213, F.A.C. (Title V Air Operation Permits for Major Sources of Air Pollution)	
Rule 62-296, F.A.C. (Emission Limiting Standards)	
Rule 62-297, F.A.C. (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures)	

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## SECTION II. FACILITY-WIDE CONDITIONS.

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The following conditions apply facility-wide to all emission units and activities:

**FW1.** Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

### Emissions and Controls

**FW2.** **Not federally enforceable.** Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An “objectionable odor” means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C. ; and, AC27-199744]

**FW3.** General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

*{Permitting Note: Nothing is deemed necessary and ordered at this time.}*

**FW4.** General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

**FW5.** Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. Chemical or water application of dust suppressants on roads and construction sites.
- b. Landscaping and planting of vegetation.
- c. Application of water, wetting agents and/or dust suppressants on roads and any construction activity, landscaping or the planting of vegetation, and enclosure or covering of conveyor systems.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received November 12, 2010.]

### Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

**FW6.** Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection’s Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP’s Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse

## SECTION II. FACILITY-WIDE CONDITIONS.

gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1<sup>st</sup> of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070.**

Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

*{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at [eaor@dep.state.fl.us](mailto:eaor@dep.state.fl.us).}*

*{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.}*

- FW7.** Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the US. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4  
Atlanta Federal Center  
61 Forsyth Street, SW  
Atlanta, Georgia 30303  
Attn: Air Enforcement Branch

- FW8.** Prevention of Accidental Releases (Section 112(r) of CAA). If, and when, the facility becomes subject to 112(r), the permittee shall:
- Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
  - Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

### **Other Requirements**

- FW9.** NESHAP Subpart LLL (rev. December 20, 2006). No later than September 9, 2015, 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 and finalized February 12, 2013), as well as all other applicable requirements contained in the newest version of NESHAP, Subpart LLL, related to monitoring, testing, reporting, etc (see **Specific Condition FW11.** of this subsection).

- FW10.** NESHAP Subpart LLL (rev. September 9, 2010 and finalized February 12, 2013). If an affected facility subject to 40 CFR 63, Subpart LLL has a different emission limit or requirement for the same pollutant under another regulation in title 40, in this case Subpart F, the owner or operator of the affected facility must comply with the most stringent emission limit or requirement and is exempt from the less stringent requirement. On February 12, 2013, the EPA finalized changes to the NESHAP Subpart LLL (dated September 9, 2010). Compliance with this new finalized NSHAP Subpart LLL is September 9,

## SECTION II. FACILITY-WIDE CONDITIONS.

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2015. The new emission limits from this NESHAP are incorporated into this permit. [Rule 62-204.800, F.A.C.; 40 CFR 63, Subpart LLL; and 40 CFR 60, Subpart F]

**FW11.** NSPS Subpart A and NESHAP Subpart A. These emissions units are subject to the General Provisions of NSPS Subpart A and NESHAP Subpart A. [40 CFR 60, Subpart A and 40 CFR 63, Subpart A]

### **Excess Emissions**

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of an NSPS or NESHAP provisions.

**FW12.** Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**FW13.** Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

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**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection A. Brooksville Portland Cement Line 1— Materials Handling Activities**

The specific conditions in this section apply to the following emissions units:

<b>EU ID No.</b>	<b>Facility's Internal ID No.</b>	<b>Brief Description</b>
001	D-75	Filter Dust Bin with Baghouse
002	D-67	Fly Ash/Equilibrium Catalyst 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
009	K-07 & L-03	Clinker Cooler Discharge with Baghouse
010	L-06 to L-05 & L-07	Clinker Storage Silos with Baghouse
011	L-08	Gypsum and Limestone Bins with Baghouse
012	M-08 and M-03	EP-01 Silo Discharge with Baghouse (M-08) and EP-02 Clinker Feed Belt Baghouse (M-03)
013	N-13	Finish Mill with Baghouse
014	Q-17	A-Side Cement Storage Silos #1 & #2 Discharge System with Baghouse
015	Q-15	Cement Storage Silos #1 & #2 with Baghouse
019	M-05	Finish Mill Feed Belt 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		Cement Storage Silo #4 and Truck Loadout System with Baghouse
024	Z-18	Cement Storage Silo and Railcar Loadout System with Baghouses
064	M03	Kiln No. 1 Clinker Belt Dust Control

**Essential Potential to Emit (PTE) Parameters**

**A.1. Permitted Capacity.** The maximum process/transfer/throughput rates and other critical operational parameters for these emission units are given below:

<b>EU ID No.</b>	<b>Description</b>	<b>Stack <sup>1</sup></b>	<b>BH <sup>2</sup></b>	<b>Temp <sup>3</sup></b>	<b>Flow <sup>4</sup></b>	<b>Throughput</b>
001	Filter Dust Bin - storage bin for fines (dust)	125/2.0	low	77	6,800 6,686	45 tons/hour (TPH)
002	Fly Ash/Equilibrium Catalyst Store Bin	125/2.0	low	77	4,200 4,130	25 TPH
004	Raw Meal Transfer - raw meal being transferred from the storage bins to the raw mill	70/1.0	low	180	1,200 970	138 TPH
006	Two Blend Storage Silos - storage silos for the raw meal being transferred from the raw mill	240/3.5	low	180	17,000 13,745	138 TPH

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection A. Brooksville Portland Cement Line 1— Materials Handling Activities**

<b>EU ID No.</b>	<b>Description</b>	<b>Stack <sup>1</sup></b>	<b>BH <sup>2</sup></b>	<b>Temp <sup>3</sup></b>	<b>Flow <sup>4</sup></b>	<b>Throughput</b>
007	Kiln Feed Surge Bin - is an activity of materials being pre-heated in the pre-heater and transferred to the kiln	50/2.0	medium	200	6,000 4,704	138 TPH
009	Clinker Cooler Discharge - is an activity of clinker transfer from the clinker cooler to the deep bucket conveyor	10/1.0	medium	250	5,100 3,717	83 TPH
010	Clinker Storage Silos - unit is an activity of clinker being transferred to the finish mill	200/1.5	medium	200	2,600 2,038	83 TPH
011	Gypsum and Limestone Bins - is an activity of gypsum and limestone being stored and transferred	135/1.5	Medium	200	5,000 3,920	75 TPH
012	Silo Discharge -is an activity of clinker, gypsum or limestone being transferred from their silos	135/2.5	low	100	9,000 8,316	122 TPH
013	Finish Mill - combines clinker, limestone and gypsum to form cement	70/5.0	medium	210	40,000 30,892	125 TPH; 876,000 TPY
014	A-Side Cement Storage Silos #1 & #2 - unloading of cement from the three storage silos	50/1.5	Low	160	3,200 2,121	300 TPH
015	Cement Storage Silos #1 & #2 - is an activity of cement being pneumatically transferred to two storage silos from the finish mill	200/2.0	Low	180	7,400 5,983	125 TPH each & 876,000 TPY each
019	Finish Mill Feed Belt - is an activity of transferring clinker, gypsum or limestone to the finish mill	29/2.0	Low	85	9,000 8,820	120 TPH
021	B-Side Cement Storage Silos #1, #2 & #3 Discharge System - used for the unloading of cement from a storage silo	50/1.5	Low	160	3,200 2,121	300 TPH
022	Cement Storage Silo #3 - is an activity of cement being pneumatically transferred to a silo from the finish mill	200/2.0	Low	180	5,300 ---	125 TPH; 876,000 TPY
023	Cement Storage Silo #4 and Truck Loadout System - is an activity of cement being pneumatically transferred to the silo from the finish mill and cement loaded into trucks	75/0.8	Low	77	860 829	125 TPH: silo & 390 TPH: trucks
024	Cement Storage Silo and Railcar Loadout System - is an activity of	80/1.5	Low	77	6,000 5,899	

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection A. Brooksville Portland Cement Line 1— Materials Handling Activities**

<b>EU ID No.</b>	<b>Description</b>	<b>Stack <sup>1</sup></b>	<b>BH <sup>2</sup></b>	<b>Temp <sup>3</sup></b>	<b>Flow <sup>4</sup></b>	<b>Throughput</b>
	cement being pneumatically transferred to the railcar silo from the cement storage silos #1, #2, and #3	10/0.5	Low	77	500 490	30 TPH: silo & 100 TPH: railcars
063	Kiln No. 1 Clinker Belt Dust Control	27/1.0	Low	175	2125 1732	122 TPH
1. Height (ft)/diameter(ft) 2. Baghouse temperature range. 3. Nominal temperature degrees Fahrenheit (°F) 4. Nominal flow in actual cubic feet per minute (acfm) and standard cubic feet per minute (scfm).						

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE); and, PSD-FL-091K]

*{Permitting Note: These emissions units are regulated under Rule 62-297.620(4), F.A.C., Exceptions and Approval of Alternate Procedures and Requirements; Rules 62-212.400 and 62-212.400(4), F.A.C., Prevention of Significant Deterioration (PSD-FL-091K) and Best Available Control Technology, respectively and, 40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry, adopted in Rule 62-204.800, F.A.C.}*

- A.2.** Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- A.3.** Methods of Operation. The emissions units either process or transfer materials used in the production of Portland cement. The dry fly ash handling system (including transfer and silo storage) is totally enclosed and vented (including pneumatic system exhaust) through fabric filters. [Rule 62-213.410, F.A.C.; PSD-FL-090K]
- A.4.** Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C., and, Permit No. PSD-FL-090K]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for Specific Conditions **A.5.** - **A.6.** are based on the specified averaging time of the applicable test method.

- A.5.** Visible Emissions. Visible emissions shall not exceed 5 percent opacity, since each emissions unit's potential particulate matter emissions are less than 100 TPY and is equipped with a baghouse control system. As long as the visible emissions do not exceed 5 percent opacity, compliance is assumed for the particulate matter limitations established in Specific Condition **A.6.** If the Department has reason to believe that the particulate matter emissions standards in Specific Condition **A.6.** are not being met, it shall require that compliance be demonstrated by the test method specified in Specific Condition **A.10.** [PSD-FL-090K and BACT]
- A.6.** Particulate Matter Emissions. The maximum allowable particulate matter emissions are:

<b>EU ID No.</b>	<b>Brief Description</b>	<b>Emission Limits</b>	<b>Basis</b>
001	Filter Dust Bin	0.015 gr/acf; 0.7 lb/hr; 3.07 TPY	BACT <sup>1</sup>
002	Fly Ash/Equilibrium Catalyst	0.015 gr/acf; 0.4 lb/hr; 1.75 TPY	BACT
004	Raw Meal Transfer	0.015 gr/acf; 0.2 lb/hr; 0.88 TPY	BACT
006	Two Blend Silos	0.015 gr/acf; 2.2 lb/hr; 9.64 TPY	BACT
007	Kiln Feed Surge Bin	0.015 gr/acf; 0.8 lb/hr; 3.50 TPY	BACT
009	Clinker Cooler Discharge	0.015 gr/acf; 0.66 lb/hr; 2.9 TPY	BACT

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection A. Brooksville Portland Cement Line 1— Materials Handling Activities**

<b>EU ID No.</b>	<b>Brief Description</b>	<b>Emission Limits</b>	<b>Basis</b>
010	Clinker Storage Silos	0.015 gr/acf; 0.3 lb/hr; 1.31 TPY	BACT
011	Gypsum and Limestone Bins	0.015 gr/acf; 0.6 lb/hr; 2.63 TPY	BACT
012	Silo Discharge	0.015 gr/acf; 1.2 lb/hr; 5.26 TPY	BACT
013	Finish Mill	0.015 gr/acf; 5.1 lb/hr; 22.34 TPY	BACT
014	A-Side Cement Storage Silos #1 & #2 Discharge System	0.015 gr/acf; 0.4 lb/hr; 1.75 TPY	BACT
015	Cement Storage Silos #1 & #2	0.015 gr/acf; 1.0 lb/hr; 4.38 TPY	BACT
019	Finish Mill Feed Belt	1.16 lb/hr; 5.08 tons/rolling 12-months	BACT
021	B-Side Cement Storage Silos #1, #2 & #3 Discharge System	0.015 gr/acf; 0.4 lbs/hr; 1.75 TPY	BACT
022	Cement Storage Silo #3	0.015 gr/acf; 0.68 lb/hr; 3.00 TPY	BACT
023	Cement Storage Silo #4 and Truck Loadout System	0.015 gr/acf; 0.11 lb/hr; 0.48 TPY	BACT
024	Cement Storage Silo and Railcar Loadout System	0.02 gr/acf	BACT
064	Kiln No. 1 Clinker Belt Dust Control	0.015 gr/acf; 0.27 lb/hr; 1.02 TPY	BACT
1. PSD-FL-091K replaces all previous PSD permits and represents latest BACT, NSPS and NESHAP emission limits.			

[PSD-FL-091K and BACT]

**Monitoring of Operations**

**A.7. Operations and Maintenance Plan.** The owner or operator of each Portland cement plant shall prepare for each affected source subject to the provisions of 40 CFR 63, Subpart LLL, a written operations and maintenance plan. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(a)(1), (2) & (4) and (b)]

*{Permitting Note: Failure to comply with any provision of the operations and maintenance plan developed in accordance with paragraph 40 CFR 63.1350(a) shall be a violation of the standard.}*

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(a)(1), (2) & (4) and (b)]

**A.8. Finish Mill: Opacity Monitoring.** The owner or operator of a finish mill shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCDs (PM control devices) of this affected source, in accordance with the procedures of Method 22 of Appendix A, 40 CFR Part 60. The Method 22 test shall be conducted while the affected source is operating at the representative performance conditions. The duration of the Method 22 test shall be six (6) minutes. If visible emissions are observed during any Method 22 visible emissions test, the owner or operator must:

- a. *Initial Action.* Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with paragraphs 40 CFR 63.1350(a)(1) and (a)(2); and,
- b. *Follow-up.* Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a follow-up Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the follow-up Method 22 test, conduct a visual opacity test of each stack from which visible emissions were observed during the follow-up Method 22 test in accordance with Method 9 of Appendix A, 40 CFR Part 60. The duration of the Method 9 test shall be thirty minutes.

*{Permitting Note: Per §63.1350, monitoring requirements of NESHAP Subpart LLL, the frequency of opacity monitoring may be decrease if no opacity is observed during Method 22 testing.}*

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(e)]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection A. Brooksville Portland Cement Line 1— Materials Handling Activities**

**A.9. Opacity Monitoring.** The owner or operator of an affected source subject to a limitation on opacity under 40 CFR 63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with paragraph 40 CFR 63.1350(a). [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(j)]

**Test Methods and Procedures**

**A.10. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Method for Determining Particulate Matter Emissions (All PM is assumed to be PM <sub>10</sub> .)
9	Visual Determination of the Opacity of Emissions from Stationary Sources
22	Visual Determination of Fugitive Emissions

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [40 CFR 63.1349(b)(2), 62-297.401, F.A.C.; and PSD-FL-091K]

**A.11. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

**A.12. Annual Compliance Tests Required.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), each emissions unit shall be tested to demonstrate compliance with the emissions standards for visible emissions. [Rule 62-297.310(7), F.A.C.]

**A.13. Compliance With NESHAP Subpart LLL Emission Limits:** The owner or operator of an affected emissions unit subject to 40 CFR 63, Subpart LLL, shall demonstrate compliance with the emission limits of 40 CFR 63.1347 and 40 CFR 63.1348 using the test methods and procedures in paragraph 40 CFR 63.1349(b) and 40 CFR 63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs 40 CFR 63.1349(a)(1) through (a)(10), as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1349(a)]

**Recordkeeping and Reporting Requirements**

**A.14. Reporting Schedule.** The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Notice and Reporting of Malfunctions	Notice per occurrence; quarterly report on demand.	<b>A.17.</b>
Reporting Requirements from 40 CFR 63 Subpart LLL	As required by Subpart LLL.	<b>A.18.</b>

[Rule 62-213.440, F.A.C.]

**A.15. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

**A.16. Malfunctions.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]



### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Brooksville Portland Cement Line 1— Materials Handling Activities

- A.17. Notification Requirements.** The notification provisions of 40 CFR 63, Subpart A are applicable. If any State requires a notice that contains all of the information required in a notification listed in 40 CFR 63.1353, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of 40 CFR 63.1353 for that notification. Each owner or operator subject to the requirements of 40 CFR 63, Subpart LLL shall comply with the notification requirements in 40 CFR 63.9. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1353(a) and (b)(1), (2), (3) & (5)]
- A.18. Reporting Requirements.** The reporting provisions of 40 CFR 63, Subpart A are applicable. If any State requires a report that contains all of the information required in a report listed in 40 CFR 63.1354, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of 40 CFR 63.1354 for that report. The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 of the general provisions of 40 CFR Part 63, Subpart A. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1354(a) and (b)(1) thru (5)]
- A.19. Recordkeeping Requirements.** The owner or operator shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.1355 recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent **two** years of data shall be retained on site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. The owner or operator shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (b)(3). In addition: (1) all documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9; (2) all records of applicability determination, including supporting analyses; and (3) if the owner or operator has been granted a waiver under 40 CFR 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [Rules 62-204.800 and 62-213.440, F.A.C.; and, 40 CFR 63.1355(a) and (b)]
- A.20. Test Reports:** The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix TR (Common Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]

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**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection B. Brooksville Portland Cement Line 1 – Clinker Receiving/Handling System**

The specific conditions in this section apply to the following emissions unit:

EU ID No.	Facility’s Internal ID No.	Brief Description
008	S-04	Clinker Receiving/Handling System

This emissions unit is an integrated system for handling clinker that includes an above-ground clinker receiving hopper that is loaded by front-end loader. Clinker is transported from the hopper to the deep-bucket clinker conveyor by a belt conveyor. The fugitive particulate matter emissions generated from the transfer of clinker from the receiving hopper to the belt conveyor are controlled by the use of an atomized water, or equivalent, dust suppression system.

*{Permitting Note: This emissions unit is regulated under Rules 62-212.400 and 62-212.400(4), F.A.C., Prevention of Significant Deterioration (PSD-FL-091K) and Best Available Control Technology, respectively; and, 40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry.}*

**Essential Potential to Emit (PTE) Parameters**

- B.1.** Permitted Capacity. The maximum process/transfer/throughput rate of clinker is 100 tons/hour. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and PSD-FL-091K]
- B.2.** Emissions Unit Operating Rate Limitation after Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- B.3.** Method of Operation. The emissions unit receives clinker from front-end loaders and transfers the clinker using a belt conveyor to the deep-bucket clinker conveyor system. [Rule 62-213.410, F.A.C.; and PSD-FL-091K]
- B.4.** Water Spray System. A water spray system shall be used as necessary to control fugitive dust emissions during clinker unloading operations from train cars or trucks to the receiving hopper. [Rules 62-210.200(PTE), 62-212.400 (PSD), and Rule 62-296.320(4)(c), F.A.C.]
- B.5.** Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [PSD-FL-091K]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for **Specific Conditions B.6. - B.7.** are based on the specified averaging time of the applicable test method.

- B.6.** Particulate Matter. The allowable particulate matter emissions from the clinker handling system shall not exceed 0.7 lb/hr. [PSD-FL-091K]
- B.7.** Visible Emissions. Visible emissions shall not exceed 10 percent opacity. Compliance with the particulate matter emissions limit in **Specific Condition B.6.** shall be assumed if the visible emissions limit in this condition is met. However, if visible emissions exceed 10 percent opacity, then the owner or operator shall install hoods, ducts, and air pollution control equipment that will reduce the particulate matter emissions to the standard listed in **Specific Condition B.6.** [PSD-FL-091K; and, 40 CFR 63.1348]

**Monitoring of Operations**

- B.8.** Operations and Maintenance Plan. The owner or operator of each Portland cement plant shall prepare for each affected source subject to the provisions of 40 CFR 63, Subpart LLL, a written operations and maintenance plan. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(a)(1), (2) & (4) and (b)]  
*{Permitting Note: Failure to comply with any provision of the operations and maintenance plan developed in accordance with paragraph 40 CFR 63.1350(a) shall be a violation of the standard.}*

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection B. Brooksville Portland Cement Line 1 – Clinker Receiving/Handling System**

**B.9. Opacity Monitoring.** The owner or operator of an affected source subject to a limitation on opacity under 40 CFR 63.1348 (See **Specific Condition B.7.**) shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with paragraph 40 CFR 63.1350(a). [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(j)]

**Test Methods and Procedures**

**B.10. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Method for Determining Particulate Matter Emissions
9	Visual Determination of the Opacity of Emissions from Stationary Sources
22	Visual Determination of Fugitive Emissions

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [62-297.401, F.A.C.]

**B.11. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

**B.12. Annual Compliance Tests Required.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), each EU shall be tested to demonstrate compliance with the emissions standards for visible emissions. [Rule 62-297.310(7), F.A.C. Rule 62-297.401, F.A.C.; and, 40 CFR 63.1349(b)(2)]

**B.13. Compliance With NESHAP Subpart LLL:** The owner or operator of an affected emissions unit subject to 40 CFR 63, Subpart LLL, shall demonstrate compliance with the emission limits of 40 CFR 63.1347 and 40 CFR 63.1348 using the test methods and procedures in paragraph 40 CFR 63.1349(b) and 40 CFR 63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs 40 CFR 63.1349(a)(1) through (a)(10), as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1349(a)]

**Recordkeeping and Reporting Requirements**

**B.14. Reporting Schedule.** The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Notice and Reporting of Malfunctions	Notice per occurrence; quarterly report on demand.	<b>B.16., B.17. and B.18.</b>

[Rule 62-213.440, F.A.C.]

**B.15. Malfunctions.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]

**B.16. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection B. Brooksville Portland Cement Line 1 – Clinker Receiving/Handling System

- B.17. Notification Requirements.** The notification provisions of 40 CFR 63, Subpart A (See Appendix GP) are applicable. If any State requires a notice that contains all of the information required in a notification listed in 40 CFR 63.1353, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of 40 CFR 63.1353 for that notification. Each owner or operator subject to the requirements of 40 CFR 63, Subpart LLL shall comply with the notification requirements in 40 CFR 63.9. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1353(a) and (b)(1), (2), (3) & (5)]
- B.18. Reporting Requirements.** The reporting provisions of 40 CFR 63, Subpart A, are contained in Appendix 40 CFR 63, Subpart A (see Appendix GP), and are applicable. If any State requires a report that contains all of the information required in a report listed in 40 CFR 63.1354, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of 40 CFR 63.1354 for that report. The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 of the general provisions of 40 CFR Part 63, Subpart A. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1354(a) and (b)(1) thru (5)]
- B.19. Recordkeeping Requirements.** The owner or operator shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.1355 recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent **two** years of data shall be retained on site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. The owner or operator shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (b)(3). In addition: (1) all documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9; (2) all records of applicability determination, including supporting analyses; and (3) if the owner or operator has been granted a waiver under 40 CFR 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [Rules 62-204.800 and 62-213.440, F.A.C.; and, 40 CFR 63.1355(a) and (b)]
- B.20. Test Reports.** The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix CTR (Common Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]

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**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Brooksville Portland Cement Line 1 – In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1**

The specific conditions in this section apply to the following emissions unit:

EU ID No.	Facility ID No.	Brief Description
020	N/A	In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1

Portland Cement Line 1 is designed for 83-TPH of cement clinker product. The cement kiln, in-line raw mill and clinker cooler of Portland Cement Line 1 in the past shared a common baghouse fabric filter system for-PM emissions control and a stack with the CP&L power plant. The CP&L power plant is now under the control of Florida Power Development, LLC. The CP&L power plant was recently separated from Cement Line No. 1 by Air Construction Permit No. 0530380-001-AC (PSD-FL-090E). In the PSD-FL-090E permitting action, the power plant was converted from coal to biomass as its primary fuel and derated in power output from 150 megawatts (MW) to approximately 80 MW. In addition, CP&L was authorized to build a new electrostatic precipitator (ESP) to control PM emissions and a new stack to vent pollutant emissions to the atmosphere. CEMEX may construct a new baghouse and stack for Portland Cement Line 1 or may continue to use the existing baghouse and stack.

Waste heat from the kiln is used to provide heat to the raw mill and the kiln preheater, which is used to drive off moisture from the materials used for making clinker. The movement of raw materials, recycled materials, and product are through enclosed transfer systems. All gas streams from the various transfer systems vent through a single baghouse system into the ambient air. The existing site is zoned for mining, so limestone and clay used in the production of cement are supplied on site. The kiln is allowed to fire coal, petcoke, natural gas, distillate and residual fuel oil, on-specification used oil, and shredded and whole tires. Continuous monitors are operated for opacity, NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub> and O<sub>2</sub>. The stack height is 322 feet, with an exit diameter of 18.65 feet and an exit temperature of 220°F. The nominal volumetric flow rate is 530,000 acfm (376,796 dscfm). If installed, the new exhaust stack shall have a maximum design height of 165 feet and a maximum diameter of 13 feet.

CEMEX requested three options with regard to the existing baghouse: (1) modify the existing baghouse; (2) change the bag type (CEMEX will continue to use fiberglass bags, but has been authorized convert to membrane bags to meet the revised NESHAP Subpart LLL PM emission limit); and (3) replace the baghouse (CEMEX may elect to replace the Kiln No.1 and the CP&L power plant baghouse with a reverse air or pulse jet baghouse with design and performance characteristics similar to, or exceeding existing baghouse).

CEMEX shall select from the above options, with no time constraint on the decision, so long as all PM emission limits stipulated in this subsection are met in the applicable timeframe. CEMEX shall notify the Department of a decision to modify or replace the existing baghouse within 30 days after the decision has been reached.

*{Permitting Note: This emissions unit activity is regulated under Rules 62-212.400 and 62-212.400(4), F.A.C., Prevention of Significant Deterioration (PSD-FL--091K) and BACT, respectively and, Maximum Available Control Technology (MACT), 40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry}*

**General**

**C.1. Performance Testing.** The owner or operator shall notify the Department prior to initiating any significant change in the feed or fuel used in the most recent compliant performance test for dioxins/furans (D/F) or PM. For purposes of this condition, significant means any of the following: a physical or chemical change in the feed or fuel; the use of a raw material not previously used; a change in the loss on ignition (LOI) of the fly ash; a change between non-beneficiated fly ash and beneficiated fly ash. Based on the information provided, the Department will determine if performance testing pursuant to 40 CFR 63.1349 will be required for the new feed or fuel. A significant change shall not include switching to a feed/fuel mix for which the permittee already tested in compliance with the dioxin/furan and PM emission limits. [62-4.070(3), F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Brooksville Portland Cement Line 1 – In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1**

**Essential Potential to Emit (PTE) Parameters**

- C.2. Permitted Capacity.** For the Cement Kiln No. 1, the maximum clinker production rate shall not exceed 83.0 tons/hour, 24-hour average and 727,800 tons in any consecutive 12-month period.  
[PSD-FL-091K; and, Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]
- C.3. Hours of Operation.**
- a. *Hours.* The emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.
  - b. *Tires.* Shredded and whole tire derived fuel (TDF) utilization shall not exceed 8,300 hours/year.  
[PSD-FL-091K]
- C.4. Fuels.**
- a. The only fuels allowed to be fired are coal, petcoke, natural gas, No. 2 distillate fuel oil and residual fuel oil, "on-specification" used oil, and TDF (including shredded and whole tires).
  - b. The new No. 2 fuel oil shall be used for the cement kiln 1's startup/preheating operation.
  - c. "On-specification" used oil is allowed to be fired as a blend with purchased fuel oil as a startup fuel only.
  - d. The TDF may be introduced at the base of the preheater (i.e., the kiln 1 inlet) or whole tires may be fired at the front of the kiln using a TIM. The firing of the TDF shall not commence or be conducted unless the kiln 1 has reached an operating temperature, which shall be measured at the inlet of cement kiln 1 of at least 1,400 °F for one hour and the oxygen level in the kiln, as measured at the cement plant's induced draft fan, is at least 2 percent (1-hour average).  
[Rule 62-213.410, F.A.C.; AC27-61016/PSD-FL-091K,]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for **Specific Conditions C.5** are based on the specified averaging time of the applicable test method.

- C.5. Emission Limits.** Based on a maximum preheater feed rate of 138.0 TPH to kiln No. 1 and 83 TPH of cement clinker product the allowable pollutant emissions shall not exceed the following:

Poll. <sup>1</sup>	Unit <sup>2</sup>	Units <sup>3</sup>							Comp. <sup>4</sup>	Basis
		lb/ton-f	lb/hr	TPY	lb/ton-c	lb/Mt-c	ng/dscm TEQ	ppmvd		
PM	KC&M	0.40	49.5	216	---	---	---	---	ST	BACT <sup>5</sup>
	KM	0.30	37.1	162	---	---	---	---	ST	LLL <sup>6</sup>
	C	0.10	12.4	54					ST	LLL <sup>6</sup>
	KC&M	---	---	---	Formula <sup>7</sup>	---	---	---	ST(3hr)/ CPMS <sup>8</sup>	LLL <sup>9</sup>
SO <sub>2</sub>	KC&M	0.60	50.0	325	---	---	---	---	ST	BACT <sup>5</sup>
NO <sub>x</sub>	KC&M	2.9	359.0	1,572	---	---	---	---	ST	BACT <sup>5</sup>
D/F	KM	---	---	---	---	---	0.2 <sup>10</sup>	---	ST	LLL <sup>6,9</sup>
Hg	KM	---	---	---	---	55 <sup>11</sup>	---	---	SBT <sup>12</sup>	LLL <sup>9</sup>
THC	KM	---	---	---	---	---	---	24 <sup>13</sup>	CEMS	LLL <sup>9</sup>
HCl	KM	---	---	---	---	---	---	3 <sup>14</sup>	CEMS <sup>16</sup>	LLL <sup>9</sup>
Opacity	KC&M	10 percent <sup>15</sup>							COMS	BACT
Startup Shutdown	K	Work practices per §63.1346(f), No emission limits								
	C	Work practices per §63.1348(b)(9), No emission limits								

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Brooksville Portland Cement Line 1 – In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1**

1. Pollutant: PM = particulate matter; SO<sub>2</sub> = sulfur dioxide; NO<sub>x</sub> = nitrogen oxide; D/F = dioxin and furans; THC = total hydrocarbons; and HCl = hydrogen chloride. PSD-FL-091K replaces all previous PSD permits and represents latest BACT, NSPS and NESHAP emission limits and compliance methods.
2. Emission subunit: K = kiln; C = clinker cooler; 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. Comp. = method of compliance: ST = annual stack test; CEMS – continuous emission monitor system; SBT = sorbent trap; COMS = continuous opacity monitoring system; CMS – continuous monitoring system; CPMS = continuous parametric monitoring system.
5. Original Best Available Control Technology determination (PSD-FL-091 and PSD-FL-091K).
6. **Expires 9/9/2015**, NESHAP Subpart LLL [40 CFR 63.1343(d)].
7. Use formula given in 40 CFR 63.1343(b)(2) Equation 1.
8. Per Final NESHAP Subpart LLL (dated Feb. 12, 2013) compliance to emission limit by Method 5 or 5i. CPMS used for monitoring operation limit.
9. NESHAP Subpart LLL (dated Feb. 12, 2013), **compliance with emissions limit by Sep. 9, 2015**.
10. 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 0.40 ng/dscm.
11. The emission limit is based on 30 kiln operating days.
12. Hg CEMS can be used in lieu of sorbent trap to show compliance.
13. 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.
14. Pursuant to NESHAP Subpart LLL (dated Feb. 12, 2013), §63.1350(1)(3), if a source is equipped with a wet or dry scrubber or tray tower, and they choose to monitor SO<sub>2</sub> emissions, SO<sub>2</sub> emissions shall be monitor continuously according to the requirements of §60.63(e) through (f) of part 60 subpart F. The emissions limit is based on 30 kiln operating days.
15. Meeting a 10 percent opacity requirement for the kiln, raw mill and clinker cooler fulfills BACT and NESHAP requirements.
16. Alternatively, SO<sub>2</sub> CEMS can be used as a surrogate for HCl emissions pursuant to NESNAP subpart LLL 63.1350(1)(3).

**C.6. Sulfur Dioxide - Sulfur Content.** The maximum sulfur content of virgin fuel oil and/or the blend of on-specification used oil and purchased fuel oil is 1.5%, by weight, for the purpose of preheating the cement kiln 1. [PSD-FL-091K]

**C.7. “On-Specification” Used Oil.** The burning of “on-specification” used oil is allowed at this facility in accordance with all other conditions of this permit and the following additional conditions:

- a. *Blending.* The permittee may blend “on-specification” used oil generated at the CEMEX Company's Gregg Mine, the Cement Plant Complex, or purchased on-specification used oil with the purchased new fuel oil, which is to be used only as a startup fuel for preheating the cement kiln No. 1. “On-specification” used oil is defined as each used oil delivery that meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below. Used oil that does not meet all of the following specifications is considered “off-specification” oil and shall not be fired.

Constituent/Property *	Allowable Level	Test Method
Arsenic	5 ppm maximum	EPA SW-846 (3040-7130)
Cadmium	2 ppm maximum	EPA SW-846 (3040-7130)
Chromium	10 ppm maximum	EPA SW-846 (3040-7130)
Lead	100 ppm maximum	EPA SW-846 (3040-7130)
Total Halogens	1000 ppm maximum	ASTM E442
Flash Point	140 °F minimum	ASTM D93
Sulfur	percent	ASTM D2622-92, ASTM D4294-90 or both ASTM D4057-88 & ASTM D129-91
Heat of Combustion	Btu/gal	ASTM D240-76
Density	lbs/gal	ASTM D1298-80

\* As determined by approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection C. Brooksville Portland Cement Line 1 – In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1

- b. *Hazardous Waste.* Permittee agrees that the used oil to be blended and burned at this facility shall not be a hazardous waste as defined in Rule 62-210.200, F.A.C., or 40 CFR Part 261, and will not include fuels or blended fuels consisting in whole or part of hazardous waste or which include mixtures of any solid waste generated from the treatment, storage, or disposal of hazardous waste, and such burning shall be in compliance with Section 403.769(3), F.S.
- c. Fuel analysis shall be in accordance with 40 CFR 266.43(b)(1) & (6).  
[40 CFR 279.11; and, PSD-FL-091K]

#### C.8. Operating Limits for Kilns and In-line Kiln/Raw Mills.

- a. *Temperature.* The owner or operator of a kiln subject to a D/F emission limitation under 40 CFR 63.1343 must operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) does not exceed the applicable temperature limit specified in paragraph 40 CFR 63.1344(b). The owner or operator of an in-line kiln/raw mill subject to a D/F emission limitation under 40 CFR 63.1343 must operate the in-line kiln/raw mill, such that,
  - (1) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph 40 CFR 63.1344(b) and established during the performance test when the raw mill was operating is not exceeded.
  - (2) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph 40 CFR 63.1344(b) and established during the performance test when the raw mill was not operating, is not exceeded.
- b. *Temperature Limit.* The temperature limit for affected sources meeting the limits of paragraph 40 CFR 63.1344(a) or paragraphs 40 CFR 63.1344(a)(1) and (a)(2) is determined in accordance with 40 CFR 63.1349(b)(3)(iv).

[Rule 62-204.800, F.A.C.; and, 40 CFR 63 Subpart LLL]

#### Monitoring of Operations

- C.9. Instrument Calibration. Instruments shall be calibrated and maintained to continuously measure the amounts of coal used in the kiln 1, materials fed to the kiln 1, and clinker cooler 1. [PSD-FL-091K]
- C.10. Tire-Derived Fuel. The utilization/firing rate of tire-derived fuel (TDF) shall be quantified (weighed) continuously and recorded. [PSD-FL-091K]

#### Continuous Monitoring Requirements

- C.11. Opacity. The permittee shall operate and maintain continuous monitoring device for the Kiln No. 1 main stack exhaust for opacity to demonstrate compliance with the visible emissions limits, in Specific Condition C.5 of this subsection. The monitoring device shall meet the applicable requirements of Chapter 62-297, F.A.C., and 40 CFR 60.45 and 40 CFR 60.13, including certification of the device. The permittee shall provide the Department with 30 days notice on each recertification. On and after September 9, 2015 (the effective date of the February 12, 2013 NESHAP revision), parametric monitoring will be required for PM and the requirement of this Condition to operate and maintain a COMS is not applicable. [40 CFR 60, Appendix B; Rules 62-297.520, 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, 40 CFR 63.1350(c)(1)].
- C.12. Oxygen (O<sub>2</sub>). The owner or operator shall calibrate, maintain and operate a continuous emissions monitoring system to measure O<sub>2</sub> emissions in the cement kiln and clinker cooler control device stack. The calibration of the continuous monitoring system shall be in accordance with 40 CFR 60, Appendix B, Performance Specification 3. The O<sub>2</sub> CEMS requirements of this Condition shall be shown by September 9, 2015. [Rule 62-297.520, F.A.C.; 40 CFR 60, Appendix B; and NESHAP 40 CFR 63, Subpart LLL; and PSD-FL-091K]



**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Brooksville Portland Cement Line 1 – In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1**

- C.13. THC CEMS.** The permittee shall operate a THC CEMS in accordance with the requirements in §63.1350(i). For the purposes of conducting the accuracy and quality assurance evaluations for the CEMS, the THC span value (as propane) is 50 ppmvd and the reference method (RM) is Method 25A of Appendix A to part 60. The permittee shall install, operate, and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8A of Appendix B to part 60 and comply with all of the requirements for continuous monitoring systems found in the general provisions, Subpart A. The permittee shall operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of Appendix F in part 60. Compliance with the NESHAP THC limit given in **Specific Condition C.5** of this subsection and the THC CEMS requirements of this Condition shall be shown by September 9, 2015. [NESHAP 40 CFR 63, Subpart LL; and PSD-FL-091K]
- C.14. HCl CEMS.** The permittee shall operate an HCl CEMS in accordance with the requirements in §63.1350(l). The permittee shall show compliance with the HCl emissions limit by operating an HCl CEMS in accordance with Performance Specification 15 (PS 15) of Appendix B to part 60, or, upon promulgation, in accordance with any other performance specification for HCl CEMS in appendix B to part 60. The permittee shall operate, maintain and quality assure an HCl CEMS installed and certified under PS 15 according to the quality assurance requirements in Procedure 1 of Appendix F to part 60 except that the Relative Accuracy Test Audit requirements of Procedure 1 must be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of PS 15. If the permittee installs and operates an HCl CEMS in accordance with any other performance specification for HCl CEMS in appendix B to part 60, the permittee must operate, maintain and quality assure the HCl CEMS using the procedure of Appendix F to part 60 applicable to the performance specification. The permittee shall use Method 321 of Appendix A to part 63 as the reference test method for conducting relative accuracy testing. The span value and calibration requirements in paragraphs §63.1350(l)(1)(i) and §63.1350(l)(1)(ii) apply to HCl CEMS other than those installed and certified under PS 15. Compliance with the NESHAP HCl limit given in **Specific Condition C.5** of this subsection and the HCl CEMS requirements of this Condition shall be shown by September 9, 2015. [NESHAP 40 CFR 63, Subpart LLL; and PSD-FL-091K]
- C.15. Hg CEMS or Sorbent Trap.** The permittee must operate a mercury CEMS (including sorbent trap) in accordance with the requirements of §63.1350(k). The mercury CEMS shall be installed and operated in accordance with Performance Specification 12A (PS 12A) of Appendix B to part 60 or a sorbent trap-based integrated monitoring system in accordance with Performance Specification 12B (PS 12B) of appendix B to part 60. The permittee shall continuously monitor mercury according to paragraphs §63.1350 (k)(1) through §63.1350 (k)(5). The permittee shall also develop an emissions monitoring plan in accordance with paragraphs §63.1350 (p)(1) through §63.1350 (p)(4). Compliance with the NESHAP Hg limit given in **Specific Condition C.5** of this subsection and the Hg CEMS/sorbent trap requirements of this Condition shall be shown by September 9, 2015. [NESHAP 40 CFR 63, Subpart LLL; and PSD-FL-091K]

**Test Methods and Procedures**

- C.16. Test Methods.** Required applicable tests shall be performed in accordance with 40 CFR 63 Subpart LLL and the following reference methods:

<b>Method</b>	<b>Description of Method and Comments</b>
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Method for Determining Particulate Matter Emissions
6 or 6C	Determination of Sulfur Dioxide Emissions from Stationary Sources

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<b>Method</b>	<b>Description of Method and Comments</b>
7 or 7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
23	Determination of Dioxins/Furans Emissions from Stationary Sources
25A	Gaseous Organic Concentration (Flame Ionization) - for THC
29	Determination of Metals Emissions from Stationary Sources (Mercury)
321	Gaseous HCl Emissions at Portland Cement Kilns by FTIR
ASTM D6784-02	Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, 62-297.310(7), 62-297.401, F.A.C., AC27-61016/PSD-FL-091, Specific Conditions 4, 5 and 6; and, AC27-118674, 40 CFR 63.1349]

- C.17.** Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- C.18.** Annual Stack Testing (PM, NO<sub>x</sub> and SO<sub>2</sub>). The permittee shall annually during each federal fiscal year conduct emission tests on the main stack for PM, NO<sub>x</sub> and SO<sub>2</sub> at 90 percent of production capacity or greater. [Rule 62-297.310(7), F.A.C.; and NESHAP Subpart LLL (dated February 12, 2013.; and PSD-FL-091K)]
- C.19.** Performance Testing.
- a. The owner or operator of an affected emissions unit subject to 40 CFR 63, Subpart LLL, shall demonstrate compliance with the emission limits of 40 CFR 63.1343 and 40 CFR 63.1345 (See **Specific Condition C.5** of this subsection) using the test methods and procedures in paragraph 40 CFR 63.1349(b) and 40 CFR 63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs 40 CFR 63.1349(a)(1) through (a)(10), as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested.
  - b. Performance tests to demonstrate compliance with 40 CFR 63, Subpart LLL, shall be conducted as specified in paragraphs 40 CFR 63.1349(b)(1) through (b)(3).
  - c. Except as provided in paragraph 40 CFR 63.1349(e), performance tests required under paragraphs 40 CFR 63.1349(b)(1) shall be repeated every five years.
  - d. Performance tests required under paragraph 40 CFR 63.1349(b)(3) shall be repeated every 30 months. [Rules 62-204.800 and 62-297.310(7)(a)4., F.A.C.; and, 40 CFR 63.1349(a); (b)(1)(i), (ii), (iii) & (v); (b)(3)(i), (ii), (iii) & (iv); (c); (d); and, (e)]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Brooksville Portland Cement Line 1 – In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1**

**Recordkeeping and Reporting Requirements**

**C.20. Reporting Schedule.** The following reports and notifications shall be submitted to the Compliance Authority:

<b>Report</b>	<b>Reporting Deadline</b>	<b>Related Condition(s)</b>
Notice and Reporting of Malfunctions	Notice per occurrence; report quarterly on demand.	<b>C.24.</b>
Notice of Fuel Analysis and Production Rates	Recorded Daily and Reported Quarterly.	<b>C.25.</b>
TDF Deliveries	Daily.	<b>C.26.</b>
Used Oil Analysis	Quarterly.	<b>C.27.</b>
Annual Operation Report	Annual.	<b>C.28.</b>

[Rule 62-213.440, F.A.C.]

**C.21. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

**C.22. Malfunctions.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]

**C.23. Fuel Analysis and Production Rates.** The records of fuel usage with the fuel analysis and the daily production rates (including clinker production rate) and kiln feed rates shall be recorded and reported quarterly to the Department's Southwest District office. [PSD-FL-091K]

**C.24. Tire-Derived Fuel.** The quantity of all deliveries of TDF shall be documented and kept on record/file. [PSD-FL-091K]

**C.25. On-specification Used Oil.**

a. *Sample Analysis.* The results of each sample analysis shall be submitted to the Compliance Authority within 30-days after the sample is taken.

b. *Reports.* The dates and quantities of both on-specification used oil and purchased fuel oil transferred to the cement kiln's storage tank shall be reported quarterly (i.e., Jan.-Mar., April-June, July-Sept., and Oct.-Dec.) to the Compliance Authority and due during the month following the ending quarter.

[PSD-FL-091K]

**C.26. Annual Operation Report.** An Annual Operation Report (AOR) shall be submitted to the Department's Southwest District office by March 1, or by the date specified by the compliance authority, reporting the kiln's averaged process input rate and clinker production of each month of the previous year. The AOR shall also contain the total amount, separately and by weight, of shredded and whole tires utilized/fired during the previous year. [PSD-FL-091K]

**D/F Control Requirements**

***Water Spray/Injection System on the Downcomer of the Kiln 1 Preheater Tower***

*{Permitting Note: The water spray/injection system, through the use of micro-droplet water sprays, provides sufficient cooling to rapidly quench/cool the temperature of the gas leaving the preheater below the D/F formation temperature zone of 750 – 450°F, thereby minimizing the formation of D/F. The installed Turbosonic system currently consists of 3 spray lances, each equipped with micro-droplet spray nozzles. (Based on operation*

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*of the system, additional spray nozzles may need to be added to enhance the performance of the system to adequately cool the gases). The system is only required to be used during periods of operation of Kiln 1 when the raw mill and the power plant are both out of service at the same time.}*

##### **Performance Restrictions**

- C.27. Kiln 1 Water Injection/Spray Tower Operating Hours.** The hours of operation of the Kiln 1 Water Injection/Spray system are not limited (i.e., permitted for operation 8,760 hours per year). [Rules 62-4.070(3) and 62-210.200(Potential to Emit), F.A.C.; and, PSD-FL-091K]
- C.28. Kiln 1 Water Injection/Spray Tower Operation Requirements.**
- Required Periods of Operation.* The Kiln 1 Water Injection/Spray Tower shall be in service at all times that Kiln 1 is operating (including startup defined as a minimum kiln feed rate of 80 TPH) with the raw mill down (i.e., not operating) (RMD).
  - Maximum Downcomer Exit/Fan Inlet Gas Temperature.* The Kiln 1 Downcomer Water Spray/Injection System shall be operated such that the maximum gas temperature at the downcomer exit/kiln fan inlet thermocouple (at the K13 thermocouple - ID T1207A) shall not exceed 395° F on a 60 minute rolling average basis (as soon as feasible, but no later than within 2 hours of commencing water injection) unless otherwise established by D/F compliance testing and approved by the Department in writing.
  - Maintenance of Proper Operation.* CEMEX shall maintain proper operation of the water spray/injection system by removal, as needed, of any solids buildup in the downcomer resulting from the water sprays. If necessary, the buildup removal shall be accomplished by kiln shutdown, installation of a drop-out chamber or other suitable method.
- [Rule 62-4.070(3) and 62-210.650, F.A.C.; PSD-FL-091K]

##### **Testing Requirements**

- C.29. D/F Compliance Tests.** D/F compliance testing in the RMD and raw mill up (RMU) modes of operation shall be conducted once every 30-months in frequency as required by NESHAP Subpart LLL 40 CFR 63.1349(d), and any applicable Department consent order in effect for this emission unit. Required D/F tests shall be performed in accordance with the reference method(s) specified in this permit and NESHAP 40 CFR 63 Subpart LLL, and any applicable Department consent order in effect for this emission unit. [Rules 62-204.800(11)(b) and 62-297.100, F.A.C.; Appendix A of 40 CFR 63; and, PSD-FL-091K].
- C.30. Downcomer and Water Spray/Injection System Monitoring Requirements.** The owner or operator shall continuously monitor temperature at the downcomer exit/K13 ID kiln fan inlet area (at the new K13 thermocouple – Thermocouple ID T1207A), during all periods of operation of Kiln No. 1 during the RMD mode of operation. The monitoring system shall also determine and show rolling 60-minute average temperature. The owner or operator shall continuously monitor the rate of water flow through the Kiln No. 1 spray system nozzles (gallons/minute or gallons/hour) during all periods of operation of Kiln No. 1 during the RMD mode of operation. [PSD-FL-091K]
- C.31. Kiln No. 1 Operational Data.** The owner or operator shall keep records of all periods of operation of Kiln No. 1. The records shall show each time that the raw mill was taken out of service or put back in service. For all periods of Kiln No. 1 operation in the RMD mode, the records shall show the operating status of the Kiln No. 1 Downcomer Water Spray/Injection System (in or out of service). [PSD-FL-091K]

##### **Monitoring Requirements**

- C.32. Kiln No. 1 Downcomer Water Spray/Injection System Operational Data.** The owner or operator shall keep continuous records of the following Kiln No. 1 Downcomer Water Spray/Injection System operational data during all periods of operation of Kiln No. 1 in the RMD mode:

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- a. *Gas Temperature.* The gas temperature (°F) at the downcomer exit/fan inlet (at the new K13 thermocouple – Thermocouple ID T1207A) (the monitoring system shall also determine and show rolling 60-minute rolling average temperatures); and
- b. *Water Flow Rate.* The Kiln No. 1 Downcomer Water Spray/Injection System water flow rate (gallons/minute) (the monitoring system shall also determine and record rolling 60 minute rolling average gallon/minute flow rate).

[PSD-FL-091K]

**C.33.** Additional Test Report Requirements Reports. In addition to other applicable test report requirements, the owner or operator shall include the following Kiln No. 1 Downcomer Water Spray/Injection System operation information with all test reports for testing conducted during operation of Kiln No. 1 in the RMD mode:

- a. *Operating Status.* Operating status of the Kiln No. 1 Downcomer Water Spray/Injection System (see **Specific Conditions C.28 and C.30** of this subsection).
- b. *Water Flow Rate Average.* Average Kiln No. 1 Downcomer Water Spray/Injection System water flow rate (hourly average gallons/minute) for each run of the test (see **Specific Condition C.32.b** of this subsection); and
- c. *Inlet Gas Temperature Average.* Average downcomer exit/ID fan inlet gas temperature as measured by Thermocouple ID T1207A for each run of the test (see **Specific Condition C.32.a** of this subsection).

[Rule 62-297.310(8), F.A.C.; and, PSD-FL-091K C]

**C.34.** Maintenance of Proper Operation.

- a. *Manufacturer Specifications.* The permittee shall maintain the Downcomer Water Spray System nozzles, valves, piping and other associated equipment in accordance with the manufacturer's specification and recommendations; and,
- b. *Solid Removal.* The permittee shall maintain proper operation of the water spray/injection system by removal, as needed, of any solids buildup in the downcomer resulting from the water sprays. If necessary, the buildup removal will be accomplished by kiln shutdown, installation of a drop-out chamber or other suitable method.

[Rules 62-4.070(3) and 62-210.650, F.A.C.; and, PSD-FL-091K]

#### **Notification Requirements**

**C.35.** Test Notification. The notification provisions of 40 CFR 63, Subpart A (See Appendix GP) are applicable. If any State requires a notice that contains all of the information required in a notification listed in 40 CFR 63.1353, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of 40 CFR 63.1353 for that notification. Each owner or operator subject to the requirements of 40 CFR 63, Subpart LLL shall comply with the notification requirements in 40 CFR 63.9. The owner or operator shall notify the Compliance Authority in writing prior to any required tests in accordance with this permit, 40 CFR 63 Subpart LLL, and any applicable Department consent order in effect for this emission unit. [Rules 62-204.800, and 62-4.070(3), F.A.C. Reasonable Assurance; and, 40 CFR 63.1353(a) and (b)(1), (2), (3) & (5)].

*{Permitting Note: The notification should also include the relevant emission unit ID No(s), test method(s) to be used, and pollutants to be tested.}*

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Brooksville Portland Cement Line 1 – In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1

#### **Records and Reports Requirements**

- C.36. Fuel Usage Records.** The records of fuel usage with the fuel analysis and the daily production rates (including clinker production rate) and kiln feed rates shall be recorded. The quantity of all deliveries of TDF shall be documented and kept on record/file. [62-4.070(3), F.A.C. Reasonable Assurance]
- C.37. On-specification Used Oil.** The results of each sample analysis shall be submitted to the Compliance Authority with the quarterly report. The dates and quantities of both on-specification used oil and purchased fuel oil transferred to the cement kilns storage tank shall be reported quarterly (i.e., Jan.-Mar., April-June, July-Sept., and Oct.-Dec.) during the month following the ending quarter. [62-4.070(3), F.A.C. Reasonable Assurance]
- C.38. Reporting Requirement.** The reporting provisions of 40 CFR 63, Subpart A, are contained in Appendix 40 CFR 63, Subpart A (see Appendix GP), and are applicable. If any State requires a report that contains all of the information required in a report listed in 40 CFR 63.1354, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of 40 CFR 63.1354 for that report. The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 of the general provisions of 40 CFR Part 63, Subpart A. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1354(a) and (b)(1) thru (5)]
- C.39. Recordkeeping Requirements.** The owner or operator shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.1355 recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent five years of data shall be retained on site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. The owner or operator shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (b)(3). In addition: (1) all documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9; (2) all records of applicability determination, including supporting analyses; and (3) if the owner or operator has been granted a waiver under 40 CFR 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [Rules 62-204.800 and 62-213.440, F.A.C.; and, 40 CFR 63.1355(a) and (b)]
- C.40. Test Reports.** The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix CTR (Common Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]

#### **Additional Requirements**

- C.41. Facility Startup, Shutdown and Malfunction (SSM) Plan.** The facility owner or operator shall have on file a Startup, Shutdown and Malfunction (SSM) Plan required by NESHAP Subpart A 40 CFR 63.6(e)(3) that includes the Kiln 1 Downcomer Water Spray/Injection System. The plan shall be available upon request for inspection and copying by the Department. [Rule 62-204.800(11)(d), F.A.C; NESHAP Subpart A 40 CFR 63.6(e)(3); and, PSD-FL-091K]

#### **Monitoring of Operations**

- C.42. CAM Plan.** This emissions unit is subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Brooksville Portland Cement Line 1 – In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1**

**Other Requirements**

**C.43. Attachments.**

- a. *NESHAP and NSPS.* The emissions unit is also subject to Appendix NESHAP A - 40 CFR 63, Subpart A, General Provisions for NESHAP, Appendix NESHAP, Subpart LLL – Portland Cement Manufacturing Industry, Appendix NSPS, Subpart A – General Provisions and Appendix NSPS, Subpart F – Portland Cement Plants and they are attached
- b. *O and M Plan.* The emissions units are subject to the attached Operation and Maintenance (O and M) Plan.

[40 CFR 63.1350; Rule 62-213.440, F.A.C]

**40 CFR 63, Subpart LLLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry (Portland Cement MACT Rule)**

- C.44. Compliance Date Extension For Kiln 1 (Emissions Unit No. 020). The Portland Cement MACT compliance date for the PM requirements is extended from September 9, 2015 to September 9, 2016 and for the THC, HCl and Hg MACT requirements, the compliance date is extended from September 9, 2015 to May 9, 2016. [Rule 62-204.800(11)(d)1., F.A.C.; and 40 CFR 63.6(i)]
- C.45. Key Milestones. The permittee shall meet the following schedule for completing the installation of the control equipment and demonstrating compliance with the Portland Cement MACT requirements for the Kiln 1.

Key Milestones	Target Completion Dates
<b>PM</b>	
Complete review of Baghouse System	6/1/2015
Obtain bids for Modification to Control Equipment	8/1/2015
Complete Procurement of Control Equipment	10/1/2015
Initiate Installation of Control Equipment	1/1/2016
Complete installation of Control Equipment	4/1/2016
Complete PM emissions Evaluation and Operational Testing of Control	6/1/2016
Complete Cement MACT Performance Testing	8/1/2016
Compliance Date	9/9/2016*
Progress Reports	Quarterly
<b>HCl</b>	
Complete AC permitting Control Equipment, sorbent injection (SI) System	5/1/2015
Initiate installation of SI system	6/1/2015
Complete installation of SI system	9/1/2015
Complete Evaluation and Operational Testing of Control Equipment	2/1/2016
Complete Cement MACT Performance Testing	5/1/2016
Compliance Date	5/9/2016*
Progress Reports	Quarterly
<b>Hg</b>	
Initiate Dust Transfer System (DTS) as Control Equipment	5/1/2015

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**Subsection C. Brooksville Portland Cement Line 1 – In-Line Cement Kiln 1, In-Line Kiln/Raw Mill and Clinker Cooler 1**

Key Milestones	Target Completion Dates
Initiate preliminary stack sampling to evaluate DTS operations	6/1/2015
Initiate Interim Hg Material Analysis and Balance	9/1/2015
Complete installation of platform and Sorbent Trap System	12/1/2015
Complete Evaluation and Operational Testing of Control Equipment	4/1/2016
Complete Cement MACT Performance Testing	5/1/2016
Compliance Date	5/9/2016*
Progress Reports	Quarterly
<b>THC</b>	
Initiate THC emissions data at 90% + operations capacity	5/1/2015
Complete initial review Raw Materials and THC emissions.	9/1/2015
Evaluate Procurement Options of Raw Materials and material analysis	9/1/15 to 3/1/2016
Complete Evaluation and Operational Testing of Selected Raw Materials	5/1/2016
Complete Cement MACT Performance Testing	5/1/2016
Compliance Date	5/9/2016*
Progress Reports	Quarterly

\* Compliance must be shown per §63.1348(a)(1) for PM, §63.1348(a)(4) for THC, §63.1348(a)(5) for Hg and §63.1348(a)(6) for HCl.

The permittee shall provide advance notice to the Division and copy the Compliance Authority if it is unable to meet a target in the above schedule and shall identify a new completion date. The compliance date cannot be extended beyond the date in the above schedule under this provision. [Rules 62-204.800(11)(d)1 and 62-4.070, F.A.C.; and 40 CFR 63.6(i)(10) and (11)]

**C.46. Progress Reports.** By September 9, 2015, the permittee shall provide a written report to the Division and the Compliance Authority that summarizes the work completed to date and the work remaining to be done. Thereafter, the permittee shall provide quarterly written progress reports within 30 days following each calendar quarter and an updated schedule if necessary to the Division and the Compliance Authority. [Rules 62-4.070, 62-204.800(11)(d)1, F.A.C., and 40 CFR 63.6(i)(10) and (11)]

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**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection D. Brooksville Portland Cement Line 2 – In-Line Cement Kiln 2, Pre-Heater, Pre-Calciner and Clinker Cooler**

The specific conditions in this section apply to the following emissions unit:

EU ID No.	Baghouse ID No.	Brief Description
044	331.BF300	In-Line Cement Kiln 2, Pre-heater, Pre-Calciner and Clinker Cooler (Pyroprocessing System)

Portland Cement Line 2 is designed for 156 TPH of cement clinker production. This clinker is ground with calcium sulfate (gypsum) to produce Portland cement at the rate of 240 tons per hour. The in-line kiln/raw mill and clinker cooler vent through a single baghouse system into the ambient air. Waste heat from the kiln is used to provide heat to the raw mill and the kiln preheater, which is used to drive off moisture from the materials used for making clinker. The kiln is allowed to fire coal, petroleum coke, natural gas, flyash, propane, distillate fuel oil, on-specification oil, whole tires and alternative fuels. NO<sub>x</sub> emissions are controlled by the use of Selective Non-catalytic Reduction (SNCR) technology. SO<sub>2</sub> emissions are controlled by use of low sulfur raw materials and inherent scrubbing by finely divided lime in the calciner and limestone in the raw mill. CO and VOC emissions are controlled by promoting complete combustion in the kiln and calciner and minimizing carbon and oily content of raw materials. PM/PM<sub>10</sub> from the pyroprocessing system and the clinker cooler is controlled by a large fabric filter baghouse. Mercury emissions are controlled by material balance. Continuous emissions monitors are operated for opacity, NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub>, total hydrocarbon (THC) and O<sub>2</sub>. Line 2 commenced operation on November 29, 2008. The stack characteristics for this unit are: Stack Height = 318 feet, Exit Diameter = 10.1 feet, Actual Volumetric Flow Rate = 330,000 acfm and Exit Temperature = 250° F.

*{Permitting Note: This emissions unit is subject to 40 CFR 63 Subpart LLL, National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry (40 CFR 63.1340 – 63.1359), adopted by reference into Rule 62.204.800, F.A.C. and 40 CFR 63 Subpart A – General Provisions. This emissions unit is also subject to the requirements of the state rules, particularly Rule 62-212.400, F.A.C., Prevention of Significant Deterioration and Rule 62-296.407, F.A.C., Portland Cement Plants.}*

**Essential Potential to Emit (PTE) Parameters**

- D.1. Hours of Operation.** These units may operate continuously, i.e., 8,760 hours per year. [Rules 62-4.070(3) and 62-210.200, F.A.C., Definitions -- Potential to Emit (PTE), F.A.C.; and PSD-FL-351E]
- D.2. Allowable Fuels.**
  - a. Fuels fired in the pyroprocessing system (kiln and calciner) shall consist only of natural gas, coal, distillate oil, petroleum coke, flyash, on-spec oil, whole tires, and alternative fuels. Propane may be fired and shall not exceed a maximum hourly rate of 5,200 gallons/hr-
  - b. Whole tires may be fired directly in the pyroprocessing system. Whole tires shall be fed into the kiln system near the hot side using a TIM near where the clinker exits the kiln or at the transition section between the base of the precalciner and the point where gases exit the kiln or anywhere in the calciner. The tire feeder mechanisms at the upper end near where the fed from the calciner enters the kiln and at the locations in the calciner shall be designed with a double airlock.

[Rules 62-4.070(3) and 62-210.200, F.A.C., Definitions -- potential to emit (PTE), F.A.C., and Applicant request, application received 12/20/04 and PSD-FL-351E]
- D.3. Fuels and Materials Not Allowed.** The owner or operator shall not introduce hazardous wastes, petroleum contaminated soil or materials, used oil, oil fuels, or solid fuels. Only those fuels allowed by this permit including the alternative fuels described below can be used. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]
- D.4. Process Rate Limitations.** The kiln shall not produce more than 156 tons of clinker per hour, and 3,500 tons in any 24-hr period (146 tons per hour, 24 hour average). Production shall be further limited to 1,277,500 tons of clinker in any consecutive 12-month period (3,500 tons/day).

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The clinker production rate identified in the above paragraph shall be determined by the following equation:

$$\text{Clinker Production} = [(\text{Feed})(\text{Kiln Feed LOI Factor}) + (\text{Fly Ash Injection})(\text{Fly Ash LOI Factor})]$$

Where:

- Fly ash is determined from the rotary feed system or equivalent.
- Loss-on-ignition (LOI) for the kiln feed and fly ash is based on a monthly average determined from daily measurements.

[Rule 62-210.200, F.A.C., Definitions -- Potential to Emit (PTE); and PSD-FL-351E]

- D.5. Cement Kiln Dust.** Cement kiln dust shall be recirculated in the process and shall not be directly discharged from process or emission control equipment unless authorized by the Department. Cement kiln dust removed from process equipment during maintenance and repair shall be confined and controlled at all times and shall be managed in accordance with the applicable provisions of 40 CFR 261. [Rule 62-4.070(3), F.A.C. and PSD-FL-351E]
- D.6. Whole Tire Management.** Tires and tire derived fuel shall be stored, handled and managed in accordance with the provisions of Chapter 62-711, F.A.C. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]
- D.7. Performance Testing.** The owner or operator shall notify the Department prior to initiating any significant change in the feed or fuel used in the most recent compliance performance test for D/F or PM. For purposes of this condition, significant means any of the following: a physical or chemical change in the feed or fuel; the use of a raw material not previously used; a change in the loss on ignition (LOI) of the flyash; a change between non-beneficiated flyash and beneficiated flyash. Based on the information provided, the Department will promptly determine if performance testing pursuant to 40 CFR 63.1349 will be required for the new feed or fuel. A significant change shall not include switching to a feed/fuel mix for which the permittee already tested in compliance with the dioxin/furan and PM emission limits. [Rule 62-4.070(3), F.A.C.; and PSD-FL-351E]

#### **Use of Alternative Fuels**

- D.8. New Equipment.** The permittee is authorized to construct and operate the following permanent equipment for firing alternative fuels (AF) in the pyroprocessing kiln system. The permittee shall submit details of the final design once complete (e.g., design heat input rates and schematics).
- a. *Mechanical and Pneumatic Handling and Feed Systems.* Each feed system shall be designed to handle alternative fuels with multiple points of injection to accommodate various AF particle size, density and heating value. The nominal feed rate of each feed system is 15 tons of AF per hour.
    - (1) The mechanical feed system(s) shall consist of mechanical feeder(s), weighing mechanism(s), load hopper(s) with required conveyors, storage bins, and other associated equipment.
    - (2) The pneumatic feed systems shall consist of a system of mechanical feeder(s) and associated system of air movement equipment and related ductwork, weighing mechanism(s), loading hopper(s) with required conveyors, storage bins, and other associated equipment.
  - b. *Kiln Burner, AF Handling and Firing Systems.* The permittee is authorized to replace the current kiln burner system with a multi-channel fuel burner(s) and/or other related feed equipment specifically designed for co-firing AF with authorized fuels in the kiln.
  - c. *Feed Systems.* To the extent practicable, components of the feed systems shall be substantially enclosed or covered to prevent the loss of any AF and fugitive dust emissions. Each feed system shall be integrated into the existing kiln data system. The AF feed rate shall be recorded along with the other fuel feed rates.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection D. Brooksville Portland Cement Line 2 – In-Line Cement Kiln 2, Pre-Heater, Pre-Calcliner and Clinker Cooler

- d. *Fuel Preparation Equipment.* The permittee is authorized to install grinding, shredding, screening, and sizing equipment to prepare the AF. This equipment will be powered by electric motors or diesel engines. In addition, the diesel engines shall comply with any applicable NSPS or NESHAP standards.

[Rules 62-296.320 and 62-4.070(3), F.A.C]

- D.9.** AF Prohibited Materials. The permittee is prohibited from firing the following materials in the pyroprocessing system: hazardous waste as defined in 40 CFR 261, nuclear waste, and radioactive waste. The permittee shall not knowingly fire biomedical waste, asbestos-containing materials per 40 CFR 61 Subpart M, whole batteries, and unsorted municipal waste. These prohibited materials shall not be used to manufacture engineered fuels.

If the permittee identifies delivered prohibited materials, the supplier shall be contacted and the material shall be returned, disposed, or any other appropriate legal method of handling the material shall be employed. The permittee shall maintain records of delivery, sampling and analysis, and actions taken to correct abnormalities. Such records shall be stored onsite for at least five years and available for inspection upon request. [Rules 62-296.320 and 62-4.070(3), F.A.C]

- D.10.** AF. Subject to the AF Acceptance Criteria, the permittee is authorized to co-fire authorized fuels with any of the following AF.
- a. *Tire-Derived Fuel (TDF)*, which includes whole and shredded tires with or without steel belt material including portions of tires such as tire fluff. The kiln is currently permitted to use whole tires using the existing tire injection mechanism system.
  - b. *Plastics*, which includes materials such as polyethylene plastic used in agricultural and silvicultural operations. This may include incidental amounts of chlorinated plastics.
  - c. *Roofing Materials*, which consists of roofing shingles and related roofing materials with the bulk of the incombustible grit material separated and which is not subject to regulations as an asbestos-containing material per 40 CFR 61 subpart M.
  - d. *Agricultural Biogenic Materials*, which includes materials such as peanut hulls, rice hulls, corn husks, citrus peels, cotton gin byproducts, animal bedding and other similar types of materials.
  - e. *Cellulosic Biomass - Untreated*, which includes materials such as untreated lumber, tree stumps, tree limbs, slash, bark, sawdust, sander dust, wood chips scraps, wood scraps, wood slabs, wood millings, wood shavings and processed pellets made from wood or other forest residues.
  - f. *Cellulosic Biomass - Treated*, which includes preservative-treated wood that may contain treatments such as creosote, copper-chromium-arsenic (CCA), or alkaline copper quaternary (ACQ), painted wood, or resinated woods (plywood, particle board, medium density fiberboard, oriented strand board, laminated beams, finger-jointed trim and other sheet goods). The permittee shall not fire more than 1,000 lb/hour averaged on a 7-day block average basis of segregated streams of wood treated with copper-chromium-arsenic (CCA) compounds.
  - g. *Carpet-Derived Fuel*, which includes shredded new, reject or used carpet materials.
  - h. *Alternative Fuel Mix*, which includes a blended combination of two or more of any of the above materials.
  - i. *Biosolids*, which includes organic materials sanitized to meet EPA Class A sanitization standards and is derived from treatment processes of public treatment water systems.
  - j. *Engineered Fuel (EF)* is engineered to have targeted, consistent fuel properties such as: calorific value, moisture, particle size, ash content, and volatility. The specific targeted properties are established based on available alternative fuel material supply and are carefully controlled through blending of non-hazardous combustible materials or through separation of non-hazardous

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incombustible materials from combustible materials (mixes of any alternative fuels where the blending and processing may also include the addition of on-specification used oils or other non-hazardous liquids to ensure consistent and predictable fuel properties). EF is engineered largely from the above materials and could consist of animal meal, automotive manufacturing byproducts, clean-up debris from natural disasters, processed municipal solid waste, dried/sanitized biosolids, paint filter cake, hospital materials (non-infectious), pharmaceuticals (expired prescriptions), cosmetics, and confiscated narcotics.

[Rule 62-210.200(PTE), F.A.C.]

- D.11. Receiving AF.** For AF received at the plant, the permittee shall comply with the following requirements.
- a. All AF materials received at the plant shall be in covered trucks and/or enclosed containers. When unloading and handing AF, the permittee shall take reasonable precautions to prevent fugitive dust emissions.
  - b. The permittee shall record the amount the category/type and amount of each AF received.
  - c. Each AF material received shall be sampled and analyzed in a manner consistently with industry standards for quality assurance and quality control to ensure that representative data is collected. The permittee shall obtain the analytical results of a representative sample of the AF prior to the initial delivery, quarterly for the first year, and if the analysis meets permit requirements the frequency of sampling and analysis shall be annual every January thereafter, if that material is present. All records and results of the analysis will be maintained at the facility as required for currently permitted fuels.
  - d. Fuel Analyses Parameters: The following information shall be included when reporting the analytical results for an AF: higher heating value (Btu/lb) of AF; moisture, ash, volatiles, fixed carbon, sulfur and chlorine content (percent by weight); arsenic, beryllium, cadmium, chromium, lead, and mercury contents (ppm). All concentrations are on a dry basis. Reject roofing shingles, combusted separately as item 5.c. (Roofing Materials) and if included in item 5.j. (Engineered Fuel) shall include a certification from the manufacturer to be made without asbestos.

[Rules 62-296.320 and 62-4.070(3), F.A.C.]

- D.12. Processed/Prepared AF.** The AF shall be stored:
- a. Under cover or in covered trailers, containers or buildings;
  - b. On top of a paved or compacted clay surface; and
  - c. By Best Management Practices to promote containment and prevent contamination of air, water and soil.

[Rules 62-4.070(3) and 62-296.320, F.A.C.]

- D.13. On-Specification Used Oil.** The on-specification used oil shall not exceed the following allowable levels and specifications.

Constituent/property	Allowable level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash point	100 °F minimum

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Total halogens	4,000 ppm maximum
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NOTES:

1. Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).
  2. The allowable levels do not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see 40 CFR 279.10(b)).
  3. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under 40 CFR 279.10(b)(1). Such used oil is subject to 40 CFR 266 subpart H when burned for energy recovery unless the presumption of mixing can be successfully rebutted.
    - a. *Records*: The quantity of used oil accepted and the date of acceptance.
    - b. *Retention of Records*: All records shall be maintained for at least 3 years.
- [Rule Rule 62-710, F.A.C. and 40 CFR 279 Subpart B]

**D.14.** Off-Specification Used Oil. The off-specification used oil shall meet the requirements of 40 CFR 279 Subpart G including the following.

- a. *Total Halogen Content*: The total halogen content shall be below 1,000 ppm.
  - b. *Records*: The quantity of used oil accepted and the date of acceptance.
  - c. *Retention of Records*: All records shall be maintained for at least 3 years.
- [Rule 62-710, F.A.C. and 40 CFR 279 Subpart G]

**D.15.** Shakedown of Equipment and AF Assessments. The permittee shall comply with the emissions standards and terms of all valid air permits during shakedown of the equipment allowed under Specific Condition 2 and AF assessments.

- a. *Equipment Shakedown*. After completing the construction of each system listed in Specific Condition 2, the permittee is authorized 90 operational days irrespective of fuel fired to ensure proper installation as well as develop good operating practices for the AF resulting in steady operation of the kiln system.
- b. *AF Assessments*. For each category of AF, the permittee is authorized 60 operational days to introduce new AF into either the main kiln burner system or the precalciner/calciner to develop good operating practices for normal kiln system operation.

The Division of Air Resource Management may approve a written request by the permittee for an additional shakedown and assessment periods due to specific extenuating circumstances. [Rule 62-4.070(3), F.A.C.]

**D.16.** Operation. Alternative fuels shall only be fired once the kiln has achieved normal operation, temperatures and production (i.e., when raw materials are introduced). [Rule 62-4.070(3), F.A.C.]

- a. AF shall be introduced only in the high-temperature combustion zones of the main kiln burner, the precalciner burner or appropriate secondary firing points in the precalciner/preheater.
- b. The Permittee shall make every effort during the shakedown and assessment periods to promote efficient combustion and minimize emissions impacts.
- c. Operators shall discontinue firing AF if one of the CEMS, COMS or other continuous monitors indicates a non-compliance issue related to alternative fuels. [Rule 62-204.800, F.A.C. and 40 CFR 60 Appendix A; and 40 CFR 63.1349, 1350 and 1354]

**D.17.** NESHAP 40 CFR 61 Requirements - Subpart A. When combusting biosolids the permittee shall comply with all applicable requirements of 40 CFR 61, Subpart A, General Provisions, which have been adopted

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by reference in Rule 62-204.800(10)(d), F.A.C., except for 40 CFR 61.08 and except that the Secretary is not the Administrator for the purposes of 40 CFR 61.04, 40 CFR 61.11, and 40 CFR 61.18. In lieu of the process set forth in 40 CFR 61.08, the Department will follow the permit processing procedures of Rule 62-4.055, F.A.C. When combusting biosolids the permittee shall comply with all applicable provisions of Appendix C. 40 CFR 61 Subpart A - General Provisions included with this permit. [Rule 62-204.800(10)(d), F.A.C.]

- D.18. Mercury Emissions from Biosolids.** The permitted maximum allowable emission rate for mercury is 7.1 pounds per 24-hour period. [Rule 62-204.800(10)(d), F.A.C. and 40 CFR 61.52]  
Mercury emissions shall be determined by sampling/analysis and material balance as specified in the Title V air operation permit. The default value for the mercury content of tires and TDF shall be 0.0081 µg/g; no additional sampling/analysis is required. [Rule 62-4.070(3), F.A.C.]
- D.19. Compliance Stack Tests.** The required stack tests for PM and dioxins/furans shall be conducted while firing an AF that has completed the AF assessment period. [Rule 62-297.310(7)(a)4, F.A.C.]  
*{Permitting note: These emissions are not expected to be affected by alternative fuels.}*
- D.20. Sampling Criteria.** Each AF material received shall be sampled and analyzed in a manner consistent with industry standards for quality assurance and quality control to ensure that representative data is collected. At a minimum, the frequency of sampling and analysis shall be consistent with the frequency of sampling and analysis of coal. All records and results of the analysis shall be maintained at the facility as required for currently permitted fuels. [Rule 62-4.070(3), F.A.C.]
- D.21. AF Assessment and Analytical Methods.** The permittee shall use the following analytical methods to determine the composition of the AF.

Parameter	Analytical Methods
Moisture, Volatiles, Ash and Fixed Carbon	Proximate Analysis appropriate for given fuel
Carbon, Hydrogen, Nitrogen Sulfur and Oxygen	Ultimate Analysis appropriate for given fuel
Heating Value	ASTM E711 - 87(2004) Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, or ASTM D5468 - 02(2007) Standard Test Method for Gross Calorific and Ash Value of Waste Materials, or Proximate Analysis appropriate for given fuel
Chlorine	EPA SW-846 or EPA Method 9056
Mercury	EPA 7470A/7471A
Other Metals	EPA SW-846 or EPA Method 6010B

Other equivalent methods may be used with prior written approval of the Division of Air Resource Management. [Rule 62-4.070(3), F.A.C.]

- D.22. Sampling/Analysis by Permittee.** For each AF assessment, the permittee shall obtain analytical results of the AF as required in Condition 6, the operator shall take a representative as-fired sample of the AF and have it analyzed for the parameters listed in specific condition 6.d. [Rule 62-4.070(3), F.A.C.]
- D.23. Testing of Biosolids for Mercury.** The permittee shall test biosolids unless a waiver of emission testing is obtained under 40 CFR 61.13 from the Department. Such tests shall be conducted in accordance with the procedures set forth in 40 CFR 61 Subpart E as follows.

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- a. The emission or sampling test shall be performed within 90 days of startup of firing biosolids per Method 101A or 105 in Appendix B to 40 CFR 61 Subpart E. A total of three composite samples or as necessary shall be obtained within an operating period of 24 hours. When the 24-hour operating period is not continuous, the total sampling period shall not exceed 72 hours after the first grab sample is obtained. Samples shall not be exposed to any condition that may result in mercury contamination or loss.
- b. The Department shall be notified at least 30 days prior to an emission or sampling test.
- c. The permittee shall take samples over such a period or periods as are necessary to determine accurately the maximum emissions which will occur in a 24-hour period. No changes shall be made in the operation which would potentially increase emissions above the level determined by the most recent stack test, until the new emission level has been estimated by calculation and the results reported to the Department.
- d. All samples shall be analyzed and mercury emissions shall be determined within 30 days after the stack or sampling test. Each determination shall be reported to the Department by a registered letter within 15 calendar days following the date such determination is completed. Records of emission test results and other data needed to determine total emissions shall be retained at the source and shall be made available, for inspection by the Department, for a minimum of 2 years.
- e. The maximum 24-hour period biosolids firing rate shall be determined by use of a flow rate measurement device that can measure the mass rate of biosolids charged to the incinerator or dryer with an accuracy of ±5 percent over its operating range. Other methods of measuring biosolids mass charging rates may be used if they have received prior approval by the Department.
- f. If sampling is used, mercury emissions shall be determined by use of the following equation.

$$E_{Hg} = \frac{MQ F_{sm}(wg)}{1000}$$

where:

$E_{Hg}$  = Mercury emissions, g/day.

M = Mercury concentration of biosolids on a dry solids basis, µg/g.

Q = Biosolids changing rate, kg/day.

$F_{sm}$  = Weight fraction of solids in the collected biosolids after mixing.

1000 = Conversion factor, kg µg/g<sup>2</sup>.

- g. No changes in the operation of a plant shall be made after a biosolids test has been conducted which would potentially increase emissions above the level determined by the most recent biosolids test, until the new emission level has been estimated by calculation and the results reported to the Department.
- h. If mercury emissions exceed 3.5 pound per 24-hour period, demonstrated either by stack sampling according to 40 CFR 61.53 or biosolids sampling, the permittee shall monitor mercury emissions at intervals of at least once per year. The results of monitoring shall be reported and retained as indicated in Condition 18.d.

[Rule 62-204.800(10)(d), F.A.C. and 40 CFR 61.53, 53, 54, and 55]

**D.24. AF Target Levels.** Targets levels are the desired AF properties for as-fired fuel in the system. Target Levels are not enforceable.

Parameter	Target Levels <sup>a</sup>
Higher Heating Value	> 5,000 Btu/lb

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Parameter	Target Levels <sup>a</sup>
Arsenic	< 2,000 ppm by weight
Beryllium	< 20 ppm by weight
Cadmium	< 200 ppm by weight
Chromium	< 200 ppmw (mg/kg)
Lead	< 1,000 ppmw (mg/kg)
Mercury	< 0.3 ppm by weight

a. Heating value is on dry basis. All concentrations are dry basis. Target levels are based on USGS data of coal samples, (<http://pubs.usgs.gov/of/2010/11961>)

[Application No. 0530021-039-AC and Rule 62-4.070(3), F.A.C.]

*{Permitting Note: Title V permitting requires all fuel materials be analyzed for mercury content to determine compliance with an input limit of 122 pounds of mercury per 12-month period.}*

- D.25. Shakedown Notifications.** Within fifteen days of completing construction, the permittee shall notify the Compliance Authority and provide a schedule for shakedown and the initial AF assessment. The Compliance Authority may waive this deadline. [Rule 62-4.070(3), F.A.C.]
- D.26. AF Assessment Notifications.** At least five days prior to firing each new type of AF material listed in Specific Condition 4, the permittee shall notify the Compliance Authority with a proposed schedule. The Compliance Authority may waive this deadline. [Rule 62-4.070(3), F.A.C.]
- D.27. Records of Fuels and Heat Input.** The permittee shall record the fuel-firing rate continuously. The permittee shall maintain records of the quantity and representative analysis of fuels purchased, and such records shall include the parameters listed in **Specific Condition D.21** of this subsection. The permittee shall make and maintain records of heat input to the pyroprocessing system on a block-hour basis, starting at the beginning of each hour, by multiplying the hourly average fuel-firing rate by the heating value representative of that fuel from the records of fuel analysis. Such records shall be completed for each block-hour, within 15 minutes of the end of each block-hour. [Rule 62-4.070(3), F.A.C.; and, 0530021-018-AC/PSD-FL-351C, **Specific Condition A.24.**]
- D.28. Reports for Shakedown and AF Assessments.** During periods of authorized shakedowns and AF assessments, the permittee shall document the shakedown and/or AF assessment period. These periods may end early when the operator is confident that good operating practices have been defined for the AF that result in steady kiln system operation. Within 45 days of completing a shakedown and/or assessment of each AF material listed in Specific Condition 4, the permittee shall provide a written report summarizing the following information collected from the shakedown and/or AF assessment period.
  - a. For a 24-hour period representing good operating practices and steady kiln operation, report: the representative analysis of the AF fired; hourly AF and fossil fuel firing rates; hourly clinker production; hourly CO, NO<sub>x</sub>, SO<sub>2</sub> and THC emissions data from the CEMS; the 6-minute block averages from the COMS; and the inlet temperature to main kiln baghouse (3-hour average). Identify the good operating practices resulting in steady kiln operation.
  - b. The AF assessments may occur over several years. Emissions from the initial AF assessment of a new fuel may be excluded from the report requiring a comparison of actual-to-baseline emissions



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(Rules 62-212.300(1)(e) and 62-210.370, F.A.C.) since operators are still establishing good operating practices and the AF will not have been available for the full calendar year. To exclude emissions data collected during an authorized shakedown and/or AF assessment period from this report, the permittee shall submit the following information for: total clinker production; fossil fuel fired; AF fired; total CO, NO<sub>x</sub>, SO<sub>2</sub> and THC emissions (tons). Excluded data shall be replaced with data estimated from: the actual clinker production rate; and an emissions factor based on the average emission rates from the rest of the year (i.e., all periods except the shakedown and/or AF assessment periods).

[Rules 62-4.070(3) and 62-210.370 and 62-212.300, F.A.C.]

**Emission Limitations and Standards**

*{Permitting Note: Unless otherwise specified, the averaging times for **Specific Conditions D.29** are based on the specified averaging times of the applicable test method.}*

*{Permitting Note: The emission limits for particulate matter and visible emissions imposed by Rule 62-212.400 and BACT are as stringent or more stringent than the limits imposed by the applicable NSPS or NESHAP rules. However, the BACT requirements do not waive or vary any monitoring or record keeping requirements of the NSPS and NESHAP rules.}*

**D.29. Emissions Limits.** Emissions unit 044 has one emission point, the stack of the Kiln #2. Emissions from this unit shall not exceed the following:

Poll. <sup>1</sup>	Unit <sup>2</sup>	Units <sup>3</sup>						Method of Comp. <sup>4</sup>	Basis
		lb/ton-f	lb/hr	lb/ton-c	lb/Mt-c	ng/dscm TEQ	ppmvd		
PM	KC&M	0.112	28.8	0.185	---	---	---	ST (3 hr) <sup>5</sup>	BACT <sup>6</sup>
	KC&M	---	---	Formula <sup>7</sup>	---	---	---	ST (3 hr)/CPMS <sup>8</sup>	LLL <sup>9</sup>
PM <sub>10</sub>	KC&M	0.097	25.0	0.160				ST (3 hr) <sup>5</sup>	BACT <sup>6</sup>
SO <sub>2</sub>	KC&M	---	28.8	0.185	---	---	---	CEMS (24 hr) <sup>10</sup>	BACT <sup>6</sup>
NO <sub>x</sub>	KC&M	---	227	1.56	---	---	---	CEMS (30 day) <sup>11</sup>	BACT <sup>6</sup>
CO	KC&M	---	450.0	2.88	---	---	---	CEMS (24 hr) <sup>12</sup>	BACT <sup>6</sup>
VOC	KC&M	---	15.0	0.096	---	---	---	CEMS (30 day) <sup>13</sup>	BACT <sup>6</sup>
D/F	KM	---	---	---	---	0.2 <sup>14</sup>	---	ST	LLL <sup>15</sup>
Hg	KM	---	---	---	55 <sup>16</sup>	---	---	SBT or CEMS <sup>17</sup>	LLL <sup>9</sup>
		41 µg/dscm						ST	LLL <sup>15, 18</sup>
		122 lb/yr						Annual	Avoid PSD <sup>19</sup>
THC	KM	---	---	---	---	---	24 <sup>20</sup>	CEMS	LLL <sup>9</sup>
							20		LLL <sup>15</sup>
HCl	KM	---	---	---	---	---	3 <sup>21</sup>	CEMS <sup>23</sup>	LLL <sup>9, 15</sup>
Opacity	KC&M	10 percent <sup>22</sup>						COMS	BACT <sup>6</sup>

1. Pollutant: PM = particulate matter; PM10 = PM with a mean diameter of 10 micron or less; SO<sub>2</sub> = sulfur dioxide; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; VOC = volatile organic compounds; D/F = dioxin and furans; Hg = mercury; THC = total hydrocarbons; and HCl = hydrogen chloride. PSD-FL-351E replaces all previous PSD permits and represents latest BACT, NSPS and NESHAP emission limits and compliance methods.

2. Emission subunit: K = kiln; C = clinker cooler; and M = raw mill.

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3. Units of emission limits: lb/ton-f = pounds per ton of preheater 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. Comp. = method of compliance: ST = annual stack test; CEMS – continuous emission monitor system; SBT = sorbent trap; COMS = continuous opacity monitoring system; CMS = continuous monitoring system; CPMS = continuous parametric monitoring system.
5. The averaging time for PM and PM<sub>10</sub> correspond to the required length of sampling for initial and subsequent emission stack tests.
6. Best Available Control Technology determination (PSD-FL-351 and PSD-FL-351E).
7. Use the formula given in 40 CFR 63.1343(b)(2) Equation 1.
8. NESHAP Subpart LLL (dated February 12, 2013) compliance to emission limit shall be demonstrated by Method 5 or 5i and CPMS.
9. NESHAP Subpart LLL (dated February 12, 2013), **compliance with emission limits by September 9, 2015.**
10. The averaging time for SO<sub>2</sub> shall be a rolling average that shall be recomputed every hour from the individual hourly averages for the current hour and the preceding 23 hours of validated monitoring data.
11. NO<sub>x</sub> emissions shall not exceed 227 lbs/hr (30-day rolling average) or 1.56 pounds per ton of clinker.
12. The averaging time for CO shall be a rolling average that shall be recomputed every hour from the individual hourly averages for the current hour and the preceding 23 hours.
13. The averaging time for VOC shall be a 30-day rolling average specified in 40 CFR ~~63.1350(h)~~ 63.1343(a).
14. If the average temperature at the inlet to the first PM control device during the D/F performance test is 400 °F or less this limit is changed to 0.40 ng/dscm.
15. NESHAP LLL (dated February 12, 2013), **compliance with emission limits in effect until September 9, 2015** in accordance with 40 CFR 63.1343(d).
16. The emission limit is based on 30 kiln operating days. When NESHAP 55 lb/Mt- c Hg limit become applicable the 41 µg/dscm Hg limit become obsolete.
17. Hg CEMS can be used in lieu of sorbent trap CEMS to show compliance.
18. Micrograms per dry standard cubic meter (µg/dscm) @ 7 % O<sub>2</sub>.
19. Yearly limit to stay below Florida PSD threshold for Hg of 200 lb/yr.
20. 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.
21. Pursuant to NESHAP Subpart LLL(dated February 12, 2013), §63.1350(l)(3), if the source is equipped with a wet or dry scrubber or tray tower, and you choose to monitor SO<sub>2</sub> emissions, monitor SO<sub>2</sub> emissions continuously according to the requirements of § 60.63(e) through (f) of part 60 subpart F. The emission limit is based on 30 kiln operating days.
22. Meeting 10 percent opacity requirement for kiln, raw mill and clinker cooler fulfills all BACT and NESHAP requirements.

**D.30. Mercury (Hg) into the Pyroprocessing System Limited.** The total mass of mercury compounds introduced into the pyroprocessing system, expressed as Hg, in raw mill feed and fuels shall not exceed 122 pounds in any consecutive 12-month period (see **Specific Condition D.49** of this subsection regarding compliance demonstration). [62-4.070(3), F.A.C.]

**D.31. NSPS Particulate Matter and Visible Emissions Standards.** No owner or operator of a Portland Cement kiln shall cause, permit, or allow the emission of particulate matter in excess of 0.30 pounds per ton to the kiln (dry basis, excluding fuel), or visible emissions the density of which is greater than 20 percent opacity. [Rule 62-296.407, F.A.C.]

#### **Excess Emissions**

**D.32. Malfunction of the SNCR System.** Malfunction of the SNCR System is defined as any unavoidable mechanical and/or electrical failure that prevents introduction of ammonia based solutions into the kiln system. In accordance with the limits in **Specific Condition D.29.**, the exclusion of NO<sub>x</sub> data collected during periods of malfunction and/or repair of the SNCR system is allowed when demonstrating compliance with the 30 day NO<sub>x</sub> standard. No more than 6 hours per calendar day and no more than 30 hours in any 30 day operating block may be excluded. Within one working day of the occurrence, the permittee shall notify the Department's Southwest District of any malfunction of the SNCR system. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]

**D.33. Data Exclusion for CO.** In accordance with the limits in **Specific Condition D.29.**, the exclusion of CO data collected during periods of startup, shutdown, and malfunction of the kiln system is allowed when demonstrating compliance with the 24-hour lb/ton CO standard after the initial 180 day period after initial

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startup. No more than 7 hours per calendar day and no more than 28 hours in any calendar month may be excluded. Within one working day of the occurrence, the permittee shall notify the Department's Southwest District of any startup, shutdown, or malfunction of the system which an exclusion of data will occur. [Rules 62-4.070(3), F.A.C.; and, PSD-FL-351E]

##### Monitoring of Operations

- D.34. CAM Plan.** This emissions unit is subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]
- D.35. O&M Plan for Baghouses and ESP.** The owner or operator shall have on file an operation and maintenance plan (O&M plan). The O&M plan shall address the schedule for inspection of this equipment and required preventive maintenance and shall require records of the condition of the equipment upon each inspection and any maintenance activities performed. [Rule 62-4.070(3), F.A.C.; and PSD-FL-351E]

##### Continuous Monitoring Requirements

- D.36. NO<sub>x</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub> and VOC CEMS.** The owner or operator shall install, calibrate, maintain, and operate CEMS in the in-line kiln/raw mill stack to measure and record the emissions of NO<sub>x</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub> and VOC from the in-line kiln/raw mill, in a manner sufficient to demonstrate compliance with the emission limits given in **Specific Condition D.29** of this subsection. Compliance with the emission limit for NO<sub>x</sub> shall be based on a 30-day calendar rolling average that shall be recomputed daily from the individual hourly averages. Compliance with the emission limits for SO<sub>2</sub> and CO shall be based on a rolling 24-hour average that shall be recomputed every hour from the individual hourly averages for the current hour and the preceding 23 hours. Hourly averages shall be computed according to 40 CFR 60.13. Compliance with the 30-day emission limit for VOC shall be based on a 30-day block average that shall be computed from a minimum of one measurement every minute. The CEMS system shall express the results in units of pounds per ton of clinker produced, and pounds per hour. [Rule 62-4.070(3), F.A.C.; and PSD-FL-351E]

The selection, installation, calibration, maintenance, operation, record keeping, and reporting of the CEMS shall comply with the requirements of 40 CFR 60.7 and 60.13; 40 CFR 60 Appendix B, Performance Specifications; and, Appendix F, Quality Assurance Procedures.

[Rules 62-4.070(3), 62-210.800 and 62-297.520, F.A.C., and BACT]

*{Permitting Note: The "30-day rolling average NO<sub>x</sub> emission rate" is the arithmetic average of all valid hourly NO<sub>x</sub> emission data measured by the continuous emission monitoring equipment (converted to lb/ton of clinker and lb/hr) for a given operating day and the twenty-nine unit operating days immediately preceding that unit operating day. Pursuant to 40 CFR 60, Subpart F, an operating day includes all valid data obtained in any daily 24-hour period during which the kiln operates and excludes any measurements made during the daily 24-hour period when the kiln was not operating. A new 30-day average is calculated each unit operating day as the average of all hourly NO<sub>x</sub> emissions rates for the preceding 30 unit operating days if a valid NO<sub>x</sub> emission rate is obtained for at least 75 percent of all operating hours. Zero emissions from non-unit operating days shall not be included in the averaging period in order to show compliance with the emissions limits.}*

- D.37. THC CEMS.** The permittee shall operate a THC CEMS in accordance with the requirements in §63.1350(i). For the purposes of conducting the accuracy and quality assurance evaluations for the CEMS, the THC span value (as propane) is 50 ppmvd and the reference method (RM) is Method 25A of

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appendix A to part 60. The permittee shall install, operate, and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8A of appendix B to part 60 and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A. The permittee shall operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of appendix F in part 60. Compliance with the NESHAP THC limit given in **Specific Condition D.29** of this subsection and the THC CEMS requirements of this Condition shall be shown September 9, 2015. [NESHAP 40 CFR 63, Subpart LLL, Final February 12, 2013.; and PSD-FL-351E]

- D.38. HCl CEMS.** The permittee shall operate an HCl CEMS in accordance with the requirements in §63.1350(l). The permittee shall show compliance with the HCl emissions limit by operating an HCl CEMS in accordance with Performance Specification 15 (PS 15) of appendix B to part 60, or, upon promulgation, in accordance with any other performance specification for HCl CEMS in appendix B to part 60. The permittee shall operate, maintain and quality assure an HCl CEMS installed and certified under PS 15 according to the quality assurance requirements in Procedure 1 of appendix F to part 60 except that the Relative Accuracy Test Audit requirements of Procedure 1 must be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of PS 15. If the permittee installs and operates an HCl CEMS in accordance with any other performance specification for HCl CEMS in appendix B to part 60, the permittee must operate, maintain and quality assure the HCl CEMS using the procedure of appendix F to part 60 applicable to the performance specification. The permittee shall use Method 321 of appendix A to part 63 as the reference test method for conducting relative accuracy testing. The span value and calibration requirements in paragraphs §63.1350(l)(1)(i) and §63.1350(l)(1)(ii) apply to HCl CEMS other than those installed and certified under PS 15. Compliance with the NESHAP HCl limit given in **Specific Condition D.29** of this subsection and the HCl CEMS requirements of this Condition shall be shown by September 9, 2015. [NESHAP 40 CFR 63, Subpart LLL, Final February 12, 2013.; and PSD-FL-351E]
- D.39. Hg CEMS or Sorbent Trap.** The permittee must operate a mercury CEMS or sorbent trap EMS in accordance with the requirements of §63.1350(k). The mercury CEMS shall be installed and operated in accordance with Performance Specification 12A (PS 12A) of appendix B to part 60 or a sorbent trap-based integrated monitoring system in accordance with Performance Specification 12B (PS 12B) of appendix B to part 60. The permittee shall continuously monitor mercury according to paragraphs §63.1350 (k)(1) through §63.1350 (k)(5). The permittee shall also develop an emissions monitoring plan in accordance with paragraphs §63.1350 (p)(1) through §63.1350 (p)(4). Compliance with the NESHAP Hg limit given in **Specific Condition D.29** of this subsection and the Hg CEMS/sorbent trap requirements of this Condition shall be shown by September 9, 2015. [NESHAP 40 CFR 63, Subpart LLL, Final February 12, 2013.; and PSD-FL-351E]
- D.40. COMS.** The permittee shall operate and maintain continuous monitoring device for the kiln/raw mill/cooler stack exhaust for opacity to demonstrate compliance with the visible emissions limits, in **Specific Condition D.29** of this subsection. Continuous opacity monitor (COM) systems shall be installed, operated, and maintained at the kiln/raw mill baghouse stack pursuant to 40 CFR 63.1350. **Note that this condition becomes obsolete after 9/9/2015 - see Specific Condition D.42.** [PSD-FL-351E; and, NESHAP 40 CFR 63, Subpart LLL, Final February 12, 2013]
- D.41. Temperature Monitor.** A continuous monitor for the temperature at the inlet to the in-line kiln/raw mill baghouse is required pursuant to 40 CFR 63.1349 and 63.1350. [NESHAP 40 CFR 63, Subpart LLL, Final February 12, 2013; and PSD-FL-351E]
- D.42. Parametric PM Monitoring.** Per §60.63(c) Monitoring of Operations, each kiln or clinker cooler subject to a PM emissions limit in §60.62, you must demonstrate compliance through an initial performance test. You will conduct your performance test using EPA Method 5 or Method 5I. A permittee must also

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monitor continuous performance through use of a PM continuous parametric monitoring system (PM CPMS). [NESHAP 40 CFR 63, Subpart LLL, Subpart LLL, Final February 12, 2013; and PSD-FL-351E]

**Test Methods and Procedures**

**D.43. Test Methods.** In addition to the continuous monitoring requirements of this permit, the owner or operator shall demonstrate compliance with the emission limits of this permit for emissions unit 044 annually using the test methods of 40 CFR 60 Appendix A specified below. The tests conducted annually for the relative accuracy test audit (RATA) for the CEM system may be used to satisfy this requirement provided the owner or operator satisfies the prior notification requirements and emission testing requirements of this permit for performance and compliance tests. Required tests shall be performed in accordance with the following reference methods:

<b>Method</b>	<b>Description of Method and Comments</b>
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5*	Method for Determining Particulate Matter Emissions (All PM is assumed to be PM <sub>10</sub> ). The minimum sample volume shall be 30 dry standard cubic feet.
6 or 6C	Determination of Sulfur Dioxide Emissions from Stationary Sources
7 or 7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10 or 10A	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
23	Dioxin and Furan
25 or 25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)
29**	Determination of Metals (Mercury) Emissions from Stationary Sources
321	Gaseous HCl Emissions from Portland Cement Kilns by FTIR

\* The minimum sample volume shall be 30 dry standard cubic feet.

\*\* or the Ontario Hydro Method for Subpart LLL Hg Tests

Each test shall be conducted while all continuous monitoring systems are functioning properly, and with all process units operating at their permitted capacity.

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-4.070(3), 62-296.701(4)(a), (c) and (d), 62-297.310(7), 62-297.401, F.A.C; PSD-FL-351E; 40 CFR 63.1349(c)]

**D.44. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

**D.45. PM Stack Tests.** In addition to the continuous monitoring requirements of this permit, the owner or operator shall demonstrate compliance with the PM/PM<sub>10</sub> emission limits of **Specific Condition D.29** of this subsection by conduction annual stack tests.

**D.46. D/F Stack Tests.** Required D/F stack tests shall be performed in accordance with the reference method(s) specified in the applicable NESHAP 40 CFR 63 Subpart LLL. [NESHAP 40 CFR 63, Subpart LLL]

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**D.47. Hg Stack Tests.** Required Hg stack tests to show compliance with the 41 µg/dscm emission limit shall be performed in accordance with the reference method(s) specified in the December 20, 2006 amendment to NSPS Subpart LLL. [NESHAP 40 CFR 63, Subpart LLL (December 20, 2006)]

*{Permitting Note: Upon the compliance date for the Hg emission limit in 40 CFR 63, Subpart LLL (dated February 12, 2013) coming into force, annual stack testing to show compliance with the 41 µg/dscm Hg emission limit given in **Specific Condition D.29** of this subsection is no longer required and this condition becomes obsolete. Compliance subsequently shall be by CEMS.}*

**D.48. Emissions Tests and Fuel Scenarios.** Emission tests of emissions unit 044 were conducted for the pollutants in **Specific Condition D.29**, upon initial operation under the fuel scenario representing the highest potential for generating emissions:

<b>PRIMARY FUEL</b>	<b>SECONDARY FUELS</b>
Coal	Whole tires directly into the pyroprocessing system, petroleum coke, and flyash and alternative fuels

Subsequent annual testing under this fuel firing scenario is not required for any firing scenario that is used for less than 400 hours in the previous year, as documented by fuel firing records. If all of the secondary fuels listed above are not available at the time of testing, the tests shall be based on the fuels that are available. If another secondary fuel becomes available in the future, additional tests shall be conducted with that fuel, if such tests are deemed necessary by the Department, before that fuel is used. [PSD-FL-351E]

**D.49. Material Balance Analysis of Mercury.** The owner or operator shall demonstrate compliance with the mercury throughput limitation by material balance and making and maintaining records of monthly and rolling 12-month mercury throughput. The owner or operator shall, for each month of sampling required by this condition, perform daily sampling of the raw mill feed, power plant ash, coal, petroleum coke, and tires, and shall composite the daily samples each month, and shall analyze the monthly composite sample to determine mercury content of these materials for the month. The owner or operator shall determine the mass of mercury introduced into the pyroprocessing system (in units of pounds per month) from the total of the product of the mercury content from the monthly composite analysis and the mass of each material or fuel used during the month. The consecutive 12-month record shall be determined from the individual monthly records for the current month and the preceding eleven months and shall be expressed in units of pounds of mercury per consecutive 12-month period. Such records shall be completed no later than 25 days following the month of the records. The permittee shall have the option of collecting, compositing, analyzing and calculating the Hg leaving the process via the dust permanently withdrawn from the pyroprocessing system. If the Hg concentration is below the detectable limit or limits of quantification, a value of zero will be assumed for the concentration in the dust. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]

*{Permitting Note: Upon the compliance date for the Hg emission limit in 40 CFR 63, Subpart LLL (dated September 8, 2010 or February 12, 2013) coming into force, the material balance analysis for mercury to show compliance with the 122 lb/yr Hg emission limit in **Specific Condition 29** of this subsection is no longer required and this condition becomes obsolete. Compliance subsequently will be by CEMS.}*

**D.50. Test Reports.** The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. The permittee shall use the most accurate of the approaches below to compute the emissions of a pollutant.

- a. If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the permittee shall use the CEMS to compute the emissions of the pollutant.
- b. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., but emissions of the pollutant can be calculated using the mass balance methodology of paragraph 62-

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection D. Brooksville Portland Cement Line 2 – In-Line Cement Kiln 2, Pre-Heater, Pre-Calciner and Clinker Cooler

210.370(2)(c), F.A.C., the permittee shall use that methodology, unless the permittee demonstrates to the Department that an alternative approach is more accurate.

- c. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the permittee shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the permittee demonstrates to the Department that an alternative approach is more accurate.

[Rules 62-210.370 and 62-297.310(8), F.A.C.]

#### **Recordkeeping and Reporting Requirements**

- D.51. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
- D.52. Records of Process and Production Rates.** The owner or operator shall make and maintain records of the process rate of dry preheater feed in units of tons per hour and tons per consecutive 12-month period, and the production rate of clinker and cement in units of tons per hour and tons per consecutive 12-month period. The owner or operator shall make and maintain records of the production of Portland cement in units of tons per consecutive 12-month period. Records in units of tons per hour shall be based on either hourly averages or daily averages and shall be completed no later than the day following the day of the record. Records in units of tons per consecutive 12-month period shall be made from monthly records of process and production rates for the past 12 months, and shall be completed no later than the 10th day of each following month. [Rule 62-4.070(3), F.A.C.; BACT; and, PSD-FL-35E]
- D.53. Records of Fuels and Heat Input.** The owner or operator shall record the fuel firing rate continuously. The owner or operator shall maintain records of the quantity and representative analysis of fuels purchased, and such records shall include the sulfur content, and heat content of the fuel for coal, petroleum coke, natural gas, fuel oil, propane, flyash, and whole tires. The records also shall include proximate and ultimate analyses. The owner or operator shall make and maintain records of heat input to the pyroprocessing system on a block-hour basis, starting at the beginning of each hour, by multiplying the hourly average fuel firing rate by the heating value representative of that fuel from the records of fuel analysis. Such records shall be completed for each block-hour, within 15 minutes of the end of each block-hour. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]
- D.54. Records of Startup, Shutdown and Malfunction.** The owner or operator shall make and maintain records of periods of startup, shutdown and malfunction. These records shall show the dates, times and duration of these episodes and shall document suspected cause of each episode, corrective actions taken by the owner or operator and actions taken to reduce excess emissions. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]
- D.55. Material Balance Records of Mercury.** The owner or operator shall demonstrate compliance with the mercury throughput limitation by material balance as required by **Specific Condition D.49.** and making and maintaining records of monthly and rolling 12-month mercury throughput. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection D. Brooksville Portland Cement Line 2 – In-Line Cement Kiln 2, Pre-Heater, Pre-Calciner and Clinker Cooler**

**Other Requirements**

**D.56. Appendices.** This emissions unit is subject to all applicable requirements of Appendices NESHAP, Subpart A and Subpart LLL, listed in the Table of Contents of this permit. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]

**40 CFR 63, Subpart LLLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry (Portland Cement MACT Rule)**

**D.57. Compliance Date Extension.** For Kiln 2 (Emissions Unit No. 044), the Portland Cement MACT compliance date for HCl requirements is extended from September 9, 2015 to May 9, 2016. [Rule 62-204.800(11)(d)1., F.A.C.; and 40 CFR 63.6(i)]

**D.58. Key Milestones.** The permittee shall meet the following schedule for completing the installation of the control equipment and demonstrating compliance with the Cement MACT requirements for the Kiln 2.

Key Milestones	Target Completion Dates
<b>HCl</b>	
Complete AC permitting Control Equipment, sorbent injection (SI) System	5/1/2015
Initiate installation of SI system	6/1/2015
Complete installation of SI system	9/1/2015
Complete Evaluation and Operational Testing of Control Equipment	2/1/2016
Complete Cement MACT Performance Testing	5/1/2016
Compliance Date	5/9/2016*
Progress Reports	Quarterly

\* Compliance must be shown per §63.1348(a)(1) for PM, §63.1348(a)(4) for THC, §63.1348(a)(5) for Hg and §63.1348(a)(6) for HCl.

The permittee shall provide advance notice to the Division and copy the Compliance Authority if it is unable to meet a target in the above schedule and shall identify a new completion date. The compliance date cannot be extended beyond the date in the above schedule under this provision. [Rules 62-204.800(11)(d)1 and 62-4.070, F.A.C.; and 40 CFR 63.6(i)(10) and (11)]

**D.59. Progress Reports.** By September 9, 2015, the permittee shall provide a written report to the Division and the Compliance Authority that summarizes the work completed to date and the work remaining to be done. Thereafter, the permittee shall provide quarterly written progress reports within 30 days following each calendar quarter and an updated schedule if necessary to the Division and the Compliance Authority. [Rules 62-4.070, 62-204.800(11)(d)1, F.A.C., and 40 CFR 63.6(i)(10) and (11)]

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**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Brooksville Portland Cement Line 2 – Materials Handling Activities**

The following specific conditions apply to the following emissions units:

<b>Emissions Unit No.</b>	<b>Baghouse ID No.</b>	<b>Emissions unit Description</b>
<b>Raw Mix and Raw Meal Handling and Storage System</b>		
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
<b>Clinker Handling and Storage</b>		
048	471.BF110	Clinker Transport
050	471.BF120	Clinker Storage Silo
	481.BF155	Clinker Silo Discharge 1
	481.BF165	Clinker Silo Discharge 2
<b>Finish Mill System</b>		
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
	531.BF290	Finish Mill Rejects Transport
<b>Cement Silos &amp; Loadout</b>		
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
	611.BF045	Multi Cell Cement Silo Alleviator
	611.BF610	Multi Cell Loadout Transport
	611.LS760	Multi Cell Loadout Spout
062	641.BF150	Packing Plant

Emissions of NO<sub>x</sub>, SO<sub>2</sub>, CO and VOC are controlled by emissions units 044 and 052. Emissions from handling, conveyance, and transfer points are controlled by baghouses. Emissions from raw materials piles, loading operations, transportation, etc., are controlled by reasonable precautions including paving, road sweeping, watering, planting grass, etc.

*{Permitting Note: These emissions units are subject to 40 CFR 63 Subpart LLL, National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry (40 CFR 63.1340 – 63.1359), adopted by reference into Rule 62.204.800, F.A.C. and 40 CFR 63 Subpart A – General Provisions. These emissions units are also subject to the requirements of the state rules, particularly Rule 62-212.400, F.A.C., Prevention of Significant Deterioration.}*

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Brooksville Portland Cement Line 2 – Materials Handling Activities**

**Essential Potential to Emit (PTE) Parameters**

- E.1.** Permitted Capacity. The finish mill (EU 052) shall not process more than 240 tons per hour of finish mill feed (feed<sub>FM</sub>) and 1,800,000 tons annually. [Rule 62-210.200, F.A.C., Definitions -- potential to emit (PTE); and, PSD-FL-351E]
- E.2.** Hours of Operation. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE); and, PSD-FL-351E]

**Air Heater Performance**

- E.3.** Air Heater Associated With the Finish Mill (EU052). The following are the performance restrictions for the air heater:
  - a. *Heat Input.* The maximum heat input of the air heater shall be limited to 45 MMBtu/hr.
  - b. *Hours.* The operation of the air heater shall be limited to 2,500 hours per year.
  - c. *Fuel.* The air heater may be fired only with propane and maximum 0.05% sulfur distillate oil. [Rule 62-212.400, F.A.C. (BACT); and PSD-FL-351E]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for **Specific Conditions E.4. - E.5.** are based on the specified averaging time of the applicable test method.

- E.4.** Emissions Limits. Particulate matter emissions from each of the emissions units in this subsection (except EU -052, see **Specific Condition E.5.** of this subsection) shall be controlled by a baghouse which shall be installed, operated and maintained to meet a design specification of 0.01 grains/dscf for PM and 0.007 grains/dscf for PM<sub>10</sub> emissions. Visible emissions from the material handling emissions units shall not exceed 5% opacity (no visible emissions). [Rules 62-4.070(3), 62-210.700(5) and 62-212.400, F.A.C., and BACT; and, PSD-FL-351E]

*{Permitting Note: The applicant advised that the baghouses are designed to control PM/PM<sub>10</sub> to 0.01 grains/dry standard cubic foot (gr/dscf) and 0.007 gr/dscf, respectively. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> for all these emission unit systems will be less than 66.5/46.5 TPY, respectively. This annual emission estimate is the proposed PM/PM<sub>10</sub> for all these units and there is a reduction from the particulate matter potential emissions of the “as built” configuration project. Exceedance of the 5% opacity limit shall be deemed an exceedance of the allowed BACT limit condition so long as the opacity does not exceed 10% is not an exceedance of the opacity limitations given in 40 CFR 63, Subpart LLL.}*

EMISSIONS UNIT	BAGHOUSE ID NO.	EMISSION LIMIT PM/PM <sub>10</sub> (LB/HR)	AVERAGING TIME <sup>1</sup>	OPACITY (%) <sup>2</sup>
<b>Process: Raw Mix and Raw Meal Handling and Storage System</b>				
045	331.BF640	0.60/0.42	3 hours	5
	311.LS609			
046	341.BF400	0.55/0.39	3 hours	5
047	341.BF410	2.64/1.84	3 hours	5
	351.BF410			
	351.BF420			
<b>Process: Clinker Handling and Storage</b>				
048	471.BF110	0.22/0.15	3 hours	5
050	481.BF155	0.99/0.70	3 hours	5
	481.BF165			
	471.BF120			

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Brooksville Portland Cement Line 2 – Materials Handling Activities**

<b>Process: Finish Mill System</b>				
051	511.BF650	0.57/0.40	3 hours	5
<b>EMISSIONS UNIT</b>	<b>BAGHOUSE ID No.</b>	<b>EMISSION LIMIT PM/PM<sub>10</sub> (LB/HR)</b>	<b>AVERAGING TIME <sup>1</sup></b>	<b>OPACITY (%) <sup>2</sup></b>
054	531.BF020	0.60/0.42	3 hours	5
057	531.BF400	0.44/0.31	3 hours	5
	531.BF290			
<b>Process: Cement Silos &amp; Loadout</b>				
058	612.BF005	0.95/0.65	3 hours	5
	612.BF620			
	622.LS140			
	622.LS160			
059	611.BF005	0.78/0.54	3 hours	5
	611.BF045			
	611.BF610			
	611.LS760			
062	641.BF150	1.17/0.82	3 hours	5

<sup>1</sup> The averaging times for PM and PM<sub>10</sub> correspond to the required length of sampling for the emission tests.

<sup>2</sup> The averaging time for visible emissions shall be a 6-minute block average computed from a minimum of one measurement every 15 seconds. The 6 minute block averages shall start at the beginning of each hour.

[Rules 62-4.070(3), 62-210.700(5) and 62-212.400, F.A.C.; BACT; and, PSD-FL-351E]

**E.5. Emission Limits for Finish Mill and Air Heater – Emissions Unit 052.** This emissions unit shall comply with the following emission limits:

<b>Pollutant</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM/PM<sub>10</sub></b>	<b>Opacity</b>
Mode	lb/hr	lb/hr	lb/hr	lb/ton feed <sub>FM</sub>	(%)
Air Heater On	2.1	5.40	1.5	0.029/0.020	5%
Air Heater Off	Not applicable	Not Applicable	Not Applicable	0.029/0.020	5%

[PSD-FL-351E]

**Monitoring of Operations**

**E.6. CAM Plan.** Emissions unit Nos. 046, 047, 048, 050, 054, 057, 058 and 059 are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

**E.7. Fuel Oil Sulfur Limit.** Compliance with the distillate fuel oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur and including the value with annual test reports. Sampling the fuel oil sulfur content shall be conducted in accordance with ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, and one of the following test methods for sulfur in petroleum products: ASTM methods D5453-00, D129-91, D1552-90, D2622-94, or D4294-90. More recent versions of these methods may be used. For the initial and each subsequent fuel delivery, the permittee shall maintain a permanent file of the certified fuel sulfur analysis from the fuel vendor. [Rules 62-4.070(3), 62-210.700(5) and 62-212.400, F.A.C., and BACT; and, PSD-FL-351E]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Brooksville Portland Cement Line 2 – Materials Handling Activities**

**Test Methods and Procedures**

**E.8. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Method for Determining Particulate Matter Emissions
6 or 6C	Sulfur Dioxide (SO <sub>2</sub> ) or SO <sub>2</sub> – Instrumental
7 or 7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10 or 10A	Carbon Monoxide (NDIR) or CO for Certifying CEMS

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C -FL-351E]

**E.9. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

**E.10. Compliance Tests Required.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), each EU shall be tested to demonstrate compliance with the emissions standards for visible emissions. Emissions unit 052 shall also be tested once every five years for CO, PM/PM<sub>10</sub> and NO<sub>x</sub>. [Rule 62-297.310(7), F.A.C.; and, PSD-FL-351E]

**E.11. Testing Requirements for Finish Mill (E.U. 052).** The finish mill shall be stack tested with the air heater on once every five years to demonstrate compliance with the emission standards for CO, PM/PM<sub>10</sub>, NO<sub>x</sub> and visible emissions as indicated in the table and **Specific Condition E.5.**, above. Compliance with the SO<sub>2</sub> limit shall be demonstrated by compliance with the maximum 0.05% sulfur fuel limitation. [Rule 62-297.310(7)(a)4.a., F.A.C.; and, 0530021-018-AC/PSD-FL-351C, Specific Conditions B.3. and B.6.b.]

*{Permitting Note: On August 30, 2010, CEMEX requested to install equipment for the effective routing of filter dust from Kiln 2 baghouse/dust bin to Finish Mill 2 (E.U. 052). The existing dust collector (E.U. 047-Kiln Feed Bin) is used to vent the new dust silo. The potential to emit, as calculated by CEMEX, is expected to be less than 0.1 tons per year. They stated that the permitted rate of the finish mill will not be increased and there will be no net increase in the potential to emit from the finish mill baghouse. They added that the scope of material handling, within the system, will not increase and that since the filter dust is consumed at the finish mill, it will ultimately replace a like volume of other input(s). On the basis of the request and follow up information presented and under the authority of Rule 62-210.300(a), F.A.C. Categorical and Conditional Exemptions, the Department concluded that Kiln 2 filter dust storage/conveyance/intergrinding project did not require a construction permit.}*

**Recordkeeping and Reporting Requirements**

**E.12. Reporting Schedule.** The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Notice of oil and propane use.	As requested.	<b>E.14.</b>

[Rule 62-213.440, F.A.C.]

**E.13. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### Subsection E. Brooksville Portland Cement Line 2 – Materials Handling Activities

**E.14.** Notification, Recordkeeping and Reporting Requirements for E.U 052. The permittee shall maintain records of the amount of oil and propane used in the finish mill air heater. [Application and Rules 62-212.400, (BACT), 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.; Rule 62-297.310(7)(a)4.a., F.A.C.; and, 0530021-018-AC/PSD-FL-351C, Specific Condition B.6.d.]

#### **Other Requirements**

**E.15.** Appendices. These emissions units are subject to all applicable requirements of Appendices NESHAP, Subpart A and Subpart LLL listed in the Table of Contents of this permit. [Rules 62-4.070(3) and 62-297.310(7)(a)4.a., F.A.C.; and, 0530021-018-AC/PSD-FL-351C, Specific Condition B.4.]

**E.16.** O&M Plan for Baghouses. Particulate matter emissions from each emission unit shall be controlled by a baghouse. The owner or operator shall prepare an operation and maintenance plan (O&M Plan) for these emissions units in accordance with 40 CFR 63, Subpart LLL. The O&M plan shall address the schedule for inspection of this equipment and required preventive maintenance and shall require records of the condition of the equipment upon each inspection and any maintenance activities performed. The O&M plan shall be submitted to the Department's Southwest District office as part of the Title V permit renewal review. [Rule 62-4.070(3), F.A.C. and 40 CFR 63.1350, Monitoring Requirements]

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**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection F. Brooksville Portland Cement Line 2 – Coal Mill Handling and Grinding System**

The following specific conditions apply to the following emissions units:

EU ID No.	Emissions Unit Description
<b>Coal Mill Handling and Grinding System</b>	
060	Coal Mill
061	Fine Coal Bin

Coal and petroleum coke are received by railcar. The milled fuels are stored in a pulverized fuel storage bin for pneumatic conveyance to the main burner and precalciner burner.

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.

*{Permitting Note: Emissions units 060 and 061 are subject to 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants (40 CFR 60.250 – 60.254) and 40 CFR 60 Subpart A. These emissions units are also subject to the requirements of the state rules, particularly the requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration.}*

**Essential Potential to Emit (PTE) Parameters**

- F.1.** Hours of Operation. These emissions units may operate continuously, i.e., 8,760 hours per year. [Rule 62-210.200, F.A.C., Definitions -- Potential to Emit (PTE); and, PSD-FL-351E]
- F.2.** Process Rate Limitation. The coal mill shall not crush more than 20.0 tons per hour of coal and/or petroleum coke, 30-day average. The coal mill shall not crush more than 175,200 tons annually. [Rule 62-210.200, F.A.C., Definitions -- Potential to Emit (PTE); and, PSD-FL-351E]
- F.3.** O&M Plan for Baghouses. The owner or operator shall have on file an operation and maintenance plan (O&M Plan) for emissions unit 060. The O&M plan shall address the schedule for inspection of this equipment and required preventive maintenance and shall require records of the condition of the equipment upon each inspection and any maintenance activities performed. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging times for **Specific Conditions F.4. - F.5.** are based on the specified averaging time of the applicable test method.

- F.4.** Emissions Limits. The emissions units, and corresponding points, shall have the following emission limits:

EMISSIONS UNIT NO.	EMISSION POINT	DESCRIPTION	OPACITY LIMIT
060	461.BF400	Coal Mill	10%
061	461.BF560	Fine Coal Bin	5%

Particulate matter emissions from these emissions units shall be controlled by baghouses which shall be installed, operated and maintained to meet a design specification of 0.01 grains/dscf for PM and 0.007 grains/dscf for PM<sub>10</sub> emissions.

[Rules 62-4.070(3), 62-210.700(5), 62-212.400, and BACT; and, PSD-FL-351E]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection F. Brooksville Portland Cement Line 2 – Coal Mill Handling and Grinding System**

**Test Methods and Procedures**

**F.5. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

<b>Method</b>	<b>Description of Method and Comments</b>
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Method for Determining Particulate Matter Emissions
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C., 0530021-018-AC/PSD-FL-351C, Specific Condition C.5. 40 CFR 60.254(a); and, 0530021-018-AC/PSD-FL-351C, **Specific Condition C.10.**]

**F.6. Emission Tests Required.** The owner or operator shall demonstrate compliance with the visible emissions standard for emissions units 060 and 061 annually using EPA Method 9, as described in 40 CFR 60 Appendix A. Should subsequent particulate matter (PM) testing be required for both emissions units, compliance shall be demonstrated using EPA Method 5. [Rules 62-4.070(3), 62-297.310 and 62-297.620(4), F.A.C.; BACT; and, PSD-FL-351E]

**Recordkeeping and Reporting Requirements**

**F.7. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

**F.8. Records of Process Rates.** The owner or operator shall make and maintain records showing the monthly processing rate of coal and petroleum coke crushed in the coal mill. Records of the processing rate for each month shall be completed no later than 10 days following the end of the month. [Rule 62-4.070(3), F.A.C.; and PSD-FL-351E]

**Other Requirements**

**F.9. Appendices.** These emissions units are subject to all applicable requirements of Appendices NSPS Subpart A and Subpart Y listed in the Table of Contents of this permit. [Rule 62-4.070(3), F.A.C.; and, PSD-FL-351E]

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**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection G. Cement Plant/Power Plant Coal Receiving, Handling and Transfer Activities**

The following specific conditions apply to the following emission unit.

<b>E.U. ID/Facility ID No.</b>	<b>Brief Description</b>
042	Coal Receiving, Handling and Transfer Activities (fugitives)

This emissions unit is an activity of receiving, storage, and transferring/conveying up to 300,000 tons per year of coal to cement plants 1 and 2. The coal will be received in unit trains and will be bottom-dumped from moving rail cars through an open elevated trestle to a coal receiving area. From this area, the coal will be moved to a storage area by a bulldozer with the storage pile being shaped and compacted during the transfer. The resulting coal storage area will cover approximately 7.8 acres and will be approximately 10 feet high. The coal storage area will have a capacity of approximately 55,000 tons. The coal will be recovered from the coal storage pile by a rubber tired front-end loader and transferred to a receiving hopper. The maximum daily coal transfer rate from the storage pile to the cement plants' receiving system will be about 1200 tons per day. From the receiving hopper, the coal will be transferred by covered conveyor belt to a screening system and then to coal bins that will supply the cement plants.

*{Permitting Note: This emissions unit/activity is regulated under Rule 62-210.300, F.A.C., Permits Required; and shared by Cement Lines No. 1 and No. 2 at the CEMEX Brooksville South facility.}*

**Essential Potential to Emit (PTE) Parameters**

- G.1.** Hours of Operation. The emissions unit/activity is allowed to operate continuously, i.e., 8,760 hours/year. [PSD-FL-091K]
- G.2.** Method of Operation. This emissions unit is an activity of receiving, storage, and transferring/conveying coal to the cement plants. [Rule 62-213.410, F.A.C.]

**Emission Limitations and Standards**

Unless otherwise specified, the averaging time for Specific Condition **I.3.** of this subsection is based on the specified averaging time of the applicable test method.

- G.3.** Visible Emissions. Visible emissions shall not exceed 10 % opacity from the receiving, handling or transferring of coal. [PSD-FL-091K]
- G.4.** Coal Handling Operations. Water sprays or chemical wetting agents and stabilizers shall be applied to the storage piles, handling equipment, etc., as necessary during dry periods and as necessary to all coal handling facilities to minimize visible emissions. [PSD-FL-091K]
- G.5.** Control of Fugitives. Water sprays or chemical wetting agents and stabilizers shall be used at the coal receiving area, the coal storage area, and the coal transfer system to control fugitive particulate matter emissions. [PSD-FL-091K; and, Rule 62-296.320(4)(c)3., F.A.C.]
- G.6.** Conveyors. All conveyors and conveyor transport points are enclosed to preclude particulate matter emissions (except those directly associated with the coal stacker/reclaimer or emergency stakeout stacker/reclaimer or emergency stakeout). [PSD-FL-091K; and, Rule 62-296.320(4)(c)3., F.A.C.]
- G.7.** Water Spray. A water spray system shall be used as necessary to control fugitive dust emissions during coal unloading operation from train cars to the receiving area. [PSD-FL-091K 4; and, Rule 62-296.320(4)(c)3., F.A.C.]

**Test Methods and Procedures**

- G.8.** Visible Emissions. Visible emissions shall be demonstrated using DEP Method 9 pursuant to Chapter 62-297, F.A.C. [PSD-FL-091K; Rule 62-297.401, F.A.C.]



### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### **Subsection G. Cement Plant/Power Plant Coal Receiving, Handling and Transfer Activities**

- G.9.** Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- G.10.** Annual Compliance Tests Required. During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), each EU shall be tested to demonstrate compliance with the emissions standards for visible emissions. [Rule 62-297.310(7), F.A.C.]

#### **Reporting and Recordkeeping Requirements**

- G.11.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-297.310(7), F.A.C.]

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**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection H. Emergency Diesel Generator**

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
063	Emergency Diesel Generator for Line 2

This emergency diesel generator is a six cylinder Detroit Diesel Corporation family 7DDXL14 model rated at 685 horsepower with an engine displacement of 14 liters. It was manufactured in March of 2007. It is run approximately one hour per month for maintenance checks.

The following table provides important details for this emissions unit:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Serial #	Date of last mod. or reconstr.
063	685	03/01/2007	2007	Diesel	Emergency	2.33	06R097 1420	N/A

*{Permitting Note: This emissions unit, a compression ignition (CI) engine, is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocal Internal Combustion Engines (RICE) adopted in Rule 62.204.800(11)(b), F.A.C. and 40 CFR 60, Subpart IIII, NSPS. This RICE is not used for fire pumps. This permit section addresses “new” stationary CI RICE greater than 500 HP and less than or equal to 750 HP, with a displacement less than 10 liters per cylinder, that are located at a major source of HAP and that have been modified, reconstructed or commenced construction on or after 12/19/2002 and have a post-2007 model year.}*

**Essential Potential to Emit (PTE) Parameters**

**H.1. Allowable Fuel.** The Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- a. *Sulfur Content.* The sulfur content shall not exceed = 15 ppm = 0.0015% weight for Non-Road fuel.
- b. *Cetane and Aromatic.* The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b) and 80.510(b)]

**H.2. Hours of Operation**

- a. **Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(f)]
- b. **Maintenance and Testing.** Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. [40 CFR 60.4211(f)]
- c. **Other Situations.** Each RICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4219]

**Emission Limitations**

**H.3. NMHC + NO<sub>x</sub> Emissions.** Non-Methane Hydrocarbons and Nitrogen oxide emissions shall not exceed 4.0 g/KW-hr. [40 CFR 60.4205(b)]

**H.4. CO Emissions.** Carbon monoxide emissions shall not exceed 3.5 g/KW-hr. [40 CFR 60.4205(b)]

**H.5. PM Emissions.** Particulate matter emissions shall not exceed 0.2 g/KW-hr. [40 CFR 60.4205(b)]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection H. Emergency Diesel Generator

**H.6. Operation and Maintenance.** The owner or operator must operate and maintain the stationary CI internal combustion engine according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. The owner or operator must meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply. [40 CFR 60.4211(a)]

#### **Monitoring of Operations**

**H.7. Hour Meter.** The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

#### **Compliance**

**H.8. Compliance Requirements.** No stack testing for compliance with emissions limits is required. Owner or operator must demonstrate compliance according to the method below:

*Certification.* Have purchased an engine certified according to 40 CFR Part 89 or Part 94, as applicable, for the same model year and maximum engine power. [40 CFR 60.4211(c)]

*{Permitting Note: This engine must be certified to meet the non-road Tier 3 standards found in 40 CFR 89.112 and 89.113. Alternatively, if the engine is certified to a cleaner voluntary emission standard, the EPA certified Blue Sky series engines that have a lower limit for PM (0.12 gr/kw-hr), then the records in Specific Conditions H.10 and H.11 below are not required}*

#### **Testing Requirements**

**H.9. Performance Test.** No annual performance tests are required for this emissions unit. [40 CFR 60.4211(c)]

#### **Recordkeeping and Reporting Requirements**

**H.10. Required Records.** Owner or operator must keep records of the hours of operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214]

**H.11. Record Retention.**

- a. *Form.* The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
- b. *Duration.* The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

#### **General Provisions**

**H.12. Subpart A.** The owner or operator must comply with the general provisions in 40 CFR 60 Subpart A, except 60.18. (See Appendix NSPS, Subpart A – General Provisions.) [40 CFR 60.4218]

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## SECTION IV. APPENDICES.

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### The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.

Appendix CAM, Compliance Assurance Monitoring Plan.

Appendix I, List of Insignificant Emissions Units and/or Activities.

Appendix NESHAP, Subpart A – General Provisions.

Appendix NESHAP, Subpart LLL Current – Portland Cement Manufacturing Industry (rev. December 20, 2006).

Appendix NESHAP, Subpart LLL– Portland Cement Manufacturing Industry (rev. February 12, 2013).

Appendix NSPS, Subpart A – General Provisions.

Appendix NSPS, Subpart F – Portland Cement Plants.

Appendix NSPS Subpart Y, Standards of Performance for Coal Preparation Plants.

Appendix RR, Facility-wide Reporting Requirements.

Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

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