Walker, Elizabeth (AIR)

From: Linero, Alvaro
Sent: Tuesday, April 21, 2009 10:42 AM
To: 'Daniel, James S. (Jim)'
Cc: 'Lawrence A Lucarelli'; 'fbergen@kooglerassociates.com'; 'forney.kathleen@epa.gov'; 'Abrams.Heather@epamail.epa.gov'; Nasca, Mara; 'gkuhl@hernandocounty.us'; 'gtownsend@cemexusa.com'; 'Aller, Mike'; 'Lillian F Deprimo'; Heron, Teresa
Subject: RE: Cemex Brooksville South - Alternative Fuels, As-built Kiln 2/Line 2, Permit Extension
Attachments: 171820INCApr09.pdf

Dear Mr. Daniel:

Please read the attached letter as it relates to the three active applications for Kiln 2/Line2 at the South Brooksville facility.

Thank you.

Alvaro Linero, Program Administrator
Bureau of Air Regulation
Special Projects Section
State of Florida DEP
850-921-9523

Florida Department of Environmental Protection
Bob Martinez Center
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor
Jeff Kottkamp
Lt. Governor
Michael W. Sole
Secretary

April 20, 2009

Electronically Sent – Received Receipt Requested.

jdaniel@cemexusa.com
James S. Daniel, Plant Manager
South Brooksville Cement Plant
Florida Crushed Stone, d.b.a. CEMEX, Inc.
10311 Cement Plant Road
Brooksville, Florida 32669

Re: DEP File Nos. 0530021-017-AC, 0530021-018-AC and 0530021-020
South Brooksville Cement Plant – Kiln 2
As-Built Configuration, Permit Extension and Trial Burning of Alternative Fuels

Dear Mr. Daniel:

On March 26, 2009 CEMEX submitted further information regarding the "as-built" configuration for Kiln 2 (0530021-018-AC). On April 13, 2009 CEMEX submitted a further extension request (0530021-020-AC) to the existing construction permit that had already been extended to allow construction of the Tire Injection Mechanism (TIM). The extension request is to provide additional time to complete compliance tests at the new kiln, submit the Title V air operation permit application and complete installation of the TIM. The application for the trial burning of alternative fuels (0530021-017-AC) has been incomplete until the matters related to the "as-built" configuration are resolved.

DEP File Nos. 0530021-018 & 020-AC

The Department will combine the processing of these two files when the applications are deemed complete. Please note that although additional time will be provided to submit the Title V application based on the expiration of the construction permit, the application is nevertheless due within 180 days of the startup of Kiln 2, which occurred on November 28, 2008. Therefore the application is due on or before May 27, 2009.

The applications are incomplete. Please provide the following information:

1. A schedule to complete the initial compliance testing on Kiln 2 and to complete the physical construction of the TIMS.
2. A rule analysis for any standards (such as New source Performance Standards) that apply to the heater that will now be incorporated into the cement mill rather than the kiln/calciner/preheater/in-line raw mill system.
3. Estimates of hourly NO_X and SO_2 emissions from the additional heater. Will there be some SO_2 removal by contact with cement in the mill. This relates to the fact that some of the

historical samples of oil fired at the plant have sulfur content greater than typical diesel fuel.

4. Will the emissions, emission limits and baghouses for the cement mill account for particulate emissions (PM/PM_{10}) from the heater?

DEP File Nos. 0530021-017-AC

We consider the alternative fuels application (0530021-017-AC) to be incomplete at least until a final construction permit for Kiln 2 reflects the as-built configuration. In the meantime, we recommend that CEMEX evaluate the yard trash and the materials that will be used as engineered fuel and consider whether they constitute solid waste. Please be aware that federal rule applicability (e.g. Section 129 of the Clean Air Act) may be an issue.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please advise the professional engineer to make sure he/she uses the correct seal in compliance with the applicable requirements of the Florida Board of Professional Engineers. Permit applicants are advised that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days.

If you have any questions, please contact the Project Engineer, Teresa Heron, at (850) 921-9529.

Sincerely,

A. A. Linero, Program Administrator
Bureau of Air Regulation
Special Projects Section

AAL/th

Cc: Mike Aller, CEMEX: maller@cemexusa.com
George Townsend, CEMEX: gtownsend@cemexusa.com
Lillian F. DePrimo, CEMEX: lillianf.deprimo@cemex.com
Larry Lucarelli, P.E., CEMEX: lawrencea.lucarelli@cemex.com
Mara Nasca, DEP SWD: mara.nasca@dep.state.fl.us
Fawn Bergen, P.E., K&A: fbergen@kooglerassociates.com
Administrator, Hernando County: gkuhl@hernandocounty.us
Katy Forney, EPA Region 4: forney.kathleen@epamail.epa.gov
Heather Abrams, EPA Region 4: abrams.heather@epa.gov

KOOGLER & ASSOCIATES, INC.
ENVIRONMENTAL SERVICES
4014 NW 13th STREET
GAINESVILLE, FL 32609-1923
352/377-5822 ▪ FAX/377-7158

KA 307-08-07
June 22, 2009

Mr. A.A. Linero, PE
Program Administrator, Special Projects Section
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: ***Request for Additional Information—Response***
DEP File Nos. 0530021-017-AC, 018-AC and 020-AC; Kiln 2
As-Built Configuration, Permit Extension & Trial Burning of Alternative Fuels
CEMEX Construction Materials Florida, LLC, Brooksville South Cement Plant

Dear Al:

CEMEX Construction Materials Florida, LLC (CEMEX) is in receipt of the Department's request for additional information (RAI) letter dated April 20, 2009 regarding Kiln 2 (Projects 0530021-017-AC, -018-AC, and -020-AC) at their Brooksville South Cement Plant. The comments below are addressed in the order as they appear in the letter.

DEP File Nos. 0530021-018 & 020-AC

The applications are incomplete. Please provide the following information:

1. A schedule to complete the initial compliance testing on Kiln 2 and to complete the physical construction of the TIMS.

Response: CEMEX plans to install the TIMS later this year (2009) or early 2010. At this time, all of the initial compliance testing has been completed on Kiln 2. However, some of the reports have not yet been submitted to the Department. The following is a summary of the test dates for the required initial compliance testing:

PM	March 3, 2009
VE	February 16 – 19 and March 4, 2009
D/F	May 5 – 7, 2009
Gaseous Pollutants	March 12 – 13, 2009
CEMS RATAs	March 12 – 13, 2009

2. A rule analysis for any standards (such as New source Performance Standards) that apply to the heater that will now be incorporated into the cement mill rather than the kiln/calciner/preheater/in-line raw mill system.

Response: Since the air heater is located at the Finish Mill it is not subject to 40 CFR 63 Subpart LLL. (Note that the original plant design included a Raw Mill with air heater and a ball mill-type Finish Mill; while the existing plant consists of a ball mill-type Raw Mill and a vertical mill Finish Mill with a hot gas air heater.) Consequently, there are two federal rules that are potentially applicable to the Finish Mill air heater: 40 CFR 60 Subpart UUU: NSPS for Calciners and Dryers in Mineral Industries, and 40 CFR 63 Subpart DDDDD: NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters.

40 CFR 60 Subpart UUU applies to mineral processing plants defined as:

> ***Mineral processing plant*** *means any facility that processes or produces any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.*

Since the Finish Mill does not process any of these materials at mixtures above 50%, this rule does not apply to the Finish Mill air heater.

40 CFR 63 DDDDD defines a process heater as follows:

> *A **process heater** is an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit*

instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials.

Since the air heater used at the Finish Mill may operate with indirect contact to the process materials, this rule does apply to the air heater. As such, CEMEX will comply with the applicable provisions of 40 CFR 63 Subpart DDDDD, including the initial notification requirements and emission limits.

3. Estimates of hourly NO_X and SO_2 emissions from the additional heater. Will there be some SO_2 removal by contact with cement in the mill. This relates to the fact that some of the historical samples of oil fired at the plant have sulfur content greater than typical diesel fuel.

Response: The emissions calculations presented in the original "as-built" permit application have been attached to this letter for reference. As shown, these emission calculations are based on AP-42 factors for diesel fuel (primary fuel) and propane (used for the pilot light) combustion, without accounting for any removal of SO_2 by contact with cement in the mill. This is a conservative approach, since it is likely that some of the SO_2 is absorbed into the cement.

The facility will use diesel fuel as the primary fuel in the air heater, and will use only diesel fuel with a maximum sulfur content of 0.5%. As shown in the attached spreadsheet, the SO_2 emission calculations were based on a diesel fuel sulfur content of 0.5%. Attached is a summary of the diesel fuel sulfur content used at Kiln No. 1 since February 2003. The sulfur content average was 0.3% and the maximum in that 6-year period was 0.49%. CEMEX plans to use the same suppliers for diesel fuel for Kiln No. 2, and will therefore comply with the 0.5% sulfur content maximum.

4. Will the emissions, emission limits and baghouses for the cement mill account for particulate emissions (PM/PM_{10}) from the heater?

Response: Yes, the Finish Mill will comply with the PM emissions limit with the use of the air heater.

DEP File Nos. 0530021-017-AC

We consider the alternative fuels application (0530021-017-AC) to be incomplete at least until a final construction permit for Kiln 2 reflects the as-built configuration. In the meantime, we recommend that CEMEX evaluate the yard trash and the materials that will be used as engineered fuel and consider whether they constitute solid waste. Please be aware that federal rule applicability (e.g. Section 129 of the Clean Air Act) may be an issue.

Response: Comment noted.

If you have any questions regarding this letter, please feel free to contact me at (352) 377-5822 or FBergen@kooglerassociates.com, or Mr. George Townsend, Environmental Manager for CEMEX Brooksville South, at (352) 799-7881 or gtownsend@cemexusa.com.

Regards,

KOOGLER AND ASSOCIATES, INC.

Fawn W. Bergen, PE
Senior Engineer

Enclosure: Air Heater Emission Calculations; Fuel Sulfur Content

copy to: J. Daniel, CEMEX (via email)
L. DePrimo, CEMEX (via email)
G. Townsend, CEMEX (via email)

Attachment 1. Hot Gas Generator Unit--Finish Mill, Emission Calculations
Kiln 2 System, Brooksville South, CEMEX, Inc.

Maximum Heat Input Rate:	**43.5 MMBtu/hr**	
Annual Operating Hours:	**2,500 hr/yr**	
Heating Value:		
Diesel	**20,713 Btu/lb**	
Propane (Pilot)	**2,359 Btu/scf**	
Sulfur Content:		
Diesel	**0.5 %**	
Propane (Pilot)	**2 gr/100 scf**	
Fuel Consumption:		
Diesel	**295.8 gal/hr**	**(based on maximum heat input rate)**
	739,497 gal/yr	
Propane (Pilot)	**318.0 scf/hr**	**(maximum rate)**
	795,000 scf/yr	

Emission Calculations

Pollutant	Emission Factor	(Ref)	Diesel		Propane		Maximum of any Fuel Type	
			lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
SO_2	142 S lb/1000 gal	(1)	21.0	26.25	--	--	21.00	26.25
	0.1 S lb/1000 gal	(3)	--	--	0.48	0.6	--	--
NO_x	20 lb/1000 gal	(1)	5.92	7.39	--	--	30.92	38.65
	13 lb/1000 gal	(3)	--	--	30.92	38.7	--	--
CO	5 lb/1000 gal	(1)	1.48	1.85	--	--	17.84	22.30
	7.5 lb/1000 gal	(3)	--	--	17.84	22.3	--	--
VOC	0.556 lb/1000 gal	(2)	0.164	0.21	--	--	2.38	2.97
	1.0 lb/1000 gal	(3)	--	--	2.38	3.0	--	--

References:
(1) AP-42 Table 1.3-1.
(2) AP-42 Table 1.3-2 (as total organic compounds)
(3) AP-42 Table 1.5-1.
(4) Based on a maximum sulfur content of 2 gr/100 scf.

Notes:
Density of diesel fuel = 7.1 lb/gal
Density of propane (liquified) = 4.24 lb/gal
1 scf = 7.48 gal
PM/PM_{10} emissions accounted for in the Finish Mill emissions from the baghouse stack.

CEMEX Construction Materials Florida, LLC
Brooksville South Cement Plant
Kiln No. 1

Virgin Oil used in Kiln			
Sample Date	Sulfur %	Permit Max. %	Test Method
2/16/2003	0.23	1.50	D-262
5/30/2003	0.49	1.50	D-262
9/24/2003	0.30	1.50	D-262
1/20/2004	0.35	1.50	D-262
2/1/2004	0.32	1.50	D-262
5/18/2004	0.11	1.50	D-262
7/16/2004	0.33	1.50	D-262
4/13/2005	0.39	1.50	D-262
9/16/2005	0.41	1.50	D-262
8/18/2006	0.35	1.50	D-262
10/23/2006	0.39	1.50	D-262
4/10/2007	0.48	1.50	D-262
9/13/2007	0.32	1.50	D-262
7/31/2008	0.03	1.50	D4294
3/17/2009	0.03	1.50	D-262
Average	0.30		

Livingston, Sylvia

From: Daniel, James S. (Jim) [JDaniel@cemexusa.com]
Sent: Thursday, January 07, 2010 3:01 PM
To: Livingston, Sylvia
Subject: RE: CEMEX BROOKSVILLE S. CEMENT andPOWER PLANT; 0530021-018-AC/ PSD-FL-351C

Received. Thanks.

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Tuesday, January 05, 2010 2:10 PM
To: Daniel, James S. (Jim)
Subject: FW: CEMEX BROOKSVILLE S. CEMENT andPOWER PLANT; 0530021-018-AC/ PSD-FL-351C

Dear Mr. Daniel:

We have not received confirmation that you were able to access the documents attached to this December 29th e-mail. Please confirm receipt by opening the attachment and sending a reply to me.

The Division of Air Resource Management is sending electronic versions of these documents rather than sending them Return Receipt Requested via the US Postal service. Your "receipt confirmation" reply serves the same purpose as tracking the receipt of the signed "Return Receipt" card from the US Postal Service. Please let me know if you have any questions.

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
Department of Environmental Protection
850/921-9506
sylvia.livingston@dep.state.fl.us

From: Livingston, Sylvia
Sent: Tuesday, December 29, 2009 4:48 PM
To: 'jdaniel@cemexusa.com'
Cc: Nasca, Mara; 'gkuhl@hernandocounty.us'; 'abrams.heather@epa.gov'; 'forney.kathleen@epa.gov'; 'scullen@kooglerassociates.com'; Gibson, Victoria; Linero, Alvaro; Heron, Teresa; Walker, Elizabeth (AIR)
Subject: CEMEX BROOKSVILLE S. CEMENT andPOWER PLANT; 0530021-018-AC/ PSD-FL-351C

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0530021.018.AC.D_pdf.zip

Owner/Company Name: CEMEX CNSTRCTION MATERIALS FLORIDA, LLC
Facility Name: CEMEX BROOKSVILLE S. CEMENT and POWER PLANT
Project Number: 0530021-018-AC/ PSD-FL-351C
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: HERNANDO
Processor: Teresa Heron

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at http://www.dep.state.fl.us/air/eproducts/apds/default.asp .

Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-9506
sylvia.livingston@dep.state.fl.us

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Tuesday, December 29, 2009 4:48 PM
To: 'jdaniel@cemexusa.com'
Cc: Nasca, Mara; 'gkuhl@hernandocounty.us'; 'abrams.heather@epa.gov'; 'forney.kathleen@epa.gov'; 'scullen@kooglerassociates.com'; Gibson, Victoria; Linero, Alvaro; Heron, Teresa; Walker, Elizabeth (AIR)
Subject: CEMEX BROOKSVILLE S. CEMENT andPOWER PLANT; 0530021-018-AC/ PSD-FL-351C
Attachments: 0530021-018INTENT.pdf

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

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http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0530021.018.AC.D_pdf.zip

Owner/Company Name: CEMEX CNSTRCTION MATERIALS FLORIDA, LLC
Facility Name: CEMEX BROOKSVILLE S. CEMENT and POWER PLANT
Project Number: 0530021-018-AC/ PSD-FL-351C
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
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Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-9506
sylvia.livingston@dep.state.fl.us

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Tuesday, December 29, 2009 4:48 PM
To: 'jdaniel@cemexusa.com'
Cc: Nasca, Mara; 'gkuhl@hernandocounty.us'; 'abrams.heather@epa.gov'; 'forney.kathleen@epa.gov'; 'scullen@kooglerassociates.com'; Gibson, Victoria; Linero, Alvaro; Heron, Teresa; Walker, Elizabeth (AIR)
Subject: CEMEX BROOKSVILLE S. CEMENT andPOWER PLANT; 0530021-018-AC/ PSD-FL-351C
Attachments: 0530021-018INTENT.pdf

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0530021.018.AC.D_pdf.zip

Owner/Company Name: CEMEX CNSTRCTION MATERIALS FLORIDA, LLC
Facility Name: CEMEX BROOKSVILLE S. CEMENT and POWER PLANT
Project Number: 0530021-018-AC/ PSD-FL-351C
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: HERNANDO
Processor: Teresa Heron

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at http://www.dep.state.fl.us/air/eproducts/apds/default.asp .

Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-9506
sylvia.livingston@dep.state.fl.us

Memorandum

Florida Department of Environmental Protection

TO: Trina Vielhauer aaf for TLV

THROUGH: Al Linero aaf

FROM: Teresa Heron TH

DATE: December 29, 2009

SUBJECT: CEMEX Brooksville Cement Plant
DEP File No. 0530021-018-AC (PSD-FL-351C)
South Brooksville Cement Plant – Kiln 2
Modifications to Plant Design to "as built" Configuration

This project is subject to minor source preconstruction review. The original project to construct the new Cement Line 2 triggered the PSD requirements and the project went through a PSD preconstruction review. The requested PM/PM_{10} emissions revisions to the material and handling operations (baghouses) do not result in any significant emissions increases. Line 2 began operation on November 28, 2008 and initial performance testing has been conducted.

Attached for your review are the following items:

- Written Notice of Intent to Issue Air Permit;
- Public Notice of Intent to Issue Air Permit;
- Technical Evaluation and Preliminary Determination;
- Draft Permit (letter) Modification; and
- P.E. Certification.

This Draft Permit Modification will reflect the "as built" design configuration of the Line 2 air construction permit. It will also include the installation of the air heater at the finish Mill instead of the raw mill and the previous modifications such as the changes to the permit done on August 2, 2005 (0530021-012-AC); the installation of the tire injection mechanism done on September 10, 2008 (0530021-015-AC); and the proposed extension of the permit expiration date (0530021-020-AC) to March 30, 2010.

The proposed work will be conducted at CEMEX South Brooksville Cement Plant, which is located in Hernando County, Florida. The Technical Evaluation and Preliminary Determination document provides a detailed description of the project and the rationale for issuance. The P.E. certification briefly summarizes the proposed project.

We recommend your approval of the attached Draft Permit.

Attachments

Florida Department of
Environmental Protection
Bob Martinez Center
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor
Jeff Kottkamp
Lt. Governor
Michael W. Sole
Secretary

Mr. James S. Daniel, Plant Manager
CEMEX Brooksville South Cement Plant
10311 Cement Plant Road
Brooksville, Florida 32669

Re: DEP File No. 0530021-018-AC (PSD-FL-351C)
Brooksville South Cement Plant
Final Configuration – Portland Cement Line 2

Dear Mr. Daniel:

On November 24, 2008, you submitted an application for an air construction permit modification. The purpose of the modification is to reflect the as-built configuration of the recently commissioned Line 2 located at the CEMEX Brooksville South Cement Plant located in Hernando County at the address given above.

Enclosed are the following documents: Written Notice of Intent to Issue Air Permit; Public Notice of Intent to Issue Air Permit; Technical Evaluation and Preliminary Determination; and a Draft Permit with Appendices.

The Public Notice of Intent to Issue Air Permit is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. If you have any questions, please contact the Project Engineer, Teresa Heron, at (850) 921-9529.

Sincerely,

per Trina L. Vielhauer, Chief
Bureau of Air Regulation

12/29/09
(Date)

Enclosures

TLV/aal/tmh

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

In the Matter of an
Application for Air Permit by:

CEMEX Construction Materials Florida, LLC
920 Memorial City Way, Suite 100
Houston, Texas 77024

Authorized Representative: Mr. James Daniel
Manager, Brooksville South Cement Plant

Draft Permit No. 0530021-018-AC (PSD-FL-351C)
CEMEX Brooksville South Cement Plant
Portland Cement Line 2

As Built Configuration
Hernando County, Florida

Facility Location: The applicant, CEMEX Construction Materials Florida, LLC, operates the existing Brooksville South Cement Plant, which is located in Hernando County at 10311 Cement Plant Road in Brooksville, Florida.

Project: The project is to issue an air construction permit to reflect the as-built configuration for the previously permitted and constructed Portland Cement Line 2 that began operation in November 2008. The changes relate to differences between the original design based on one supplier and the final configuration based on the design practices of the selected equipment supplier.

This new permit will also incorporate: previously approved modifications to the original permit including minor corrections thereto; additional time to complete the previously approved construction of a whole tire injection mechanism (TIM); and a mercury standard that was finalized by the U.S. Environmental Protection Agency prior to commencement of construction.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida 32301 and the mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If timely received comments result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the

relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.

for Trina Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permit package (including the Written Notice of Intent to Issue Air Permit, the Public Notice of Intent to Issue Air Permit, the Technical Evaluation and Preliminary Determination and the Draft Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on 12/29/09 to the persons listed below.

James S. Daniel, CEMEX: jdaniel@cemexusa.com
Mara Nasca, DEP SWD: mara.nasca@dep.state.fl.us
Administrator, Hernando County: gkuhl@hernandocounty.us
Heather Abrams, EPA Region 4: abrams.heather@epa.gov
Kathy Forney, EPA Region 4: forney.kathleen@epa.gov
Steve Cullen, P.E., K&A: scullen@kooglerassociates.com

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk) 12/29/09 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation

Draft Air Permit No. 0530021-018-AC (PSD-FL-351C)
CEMEX Brooksville South Cement Plant – Line 2
As-Built Configuration
Hernando County

Applicant: The applicant for this project is CEMEX Construction Materials Florida, LLC (CEMEX). The applicant's authorized representative and mailing address is: Mr. James S. Daniel, Plant Manager, CEMEX Brooksville South Cement Plant, 10311 Cement Plant Road, Brooksville, Florida 32669.

Facility Location: The applicant, CEMEX, operates the existing Brooksville South Cement Plant, which is located in Hernando County at 10311 Cement Plant Road in Brooksville, Florida.

Project: The project is to issue an air construction permit to reflect the as-built configuration for the previously permitted and constructed Portland Cement Line 2. Line 2 has a capacity of 2,800 tons per day of clinker and was constructed pursuant to Air Permit 0530021-009-AC (PSD-FL-351) issued in 2005 to the previous owner, Rinker. A review for the Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) were conducted for Line 2. This line began operation in November 2008.

The key emission limits from Kiln 2 (the main emissions unit) are based on the following controls:

- Staged combustion calciner and raw material selection for the control of volatile organic compounds (VOC), carbon monoxide (CO) and nitrogen oxides (NO_X);
- Selective non-catalytic reduction (SNCR) by ammonia injection to further control NO_X;
- Dry scrubbing in the calciner and contact with moist limestone in the raw mill to control sulfur dioxide (SO_2);
- Raw material and fuel selection to minimize mercury (Hg) emissions; and
- Fabric filter baghouses to control particulate matter (PM/PM_{10}).

The present request is to modify the permit to reflect the differences between the original design based on one supplier and the final configuration based on the design practices of the selected equipment supplier. Those differences are related primarily to the sizes and flow rates in the fabric filter baghouses used for material conveyance, separation and storage. The other difference relates to the inclusion of a small 45 million BTU per hour diesel-fueled air heater located at the cement mill rather than at the raw mill. The Department has determined that BACT for the air heater is the use of low sulfur diesel fuel oil and filtration through the finish mill baghouse. No changes are requested in the key BACT, production or emission limits for Kiln 2.

This new permit will also incorporate: previously approved modifications to the original permit including minor corrections thereto; additional time to complete the previously approved construction of a whole tire injection mechanism (TIM); and a Hg standard that was finalized by the U.S. Environmental Protection Agency prior to commencement of construction.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida 32301 and the mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application and information submitted by the applicant, exclusive of confidential records under

Section 403.111, F.S. Interested persons may contact the Permitting Authority's project engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents as well as documents related to the previous permits for Line 2 are available at the following web link:

www.dep.state.fl.us/Air/emission/construction/rinker.htm

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 30-day period. If timely received comments result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

(Public Notice to be Published in the Newspaper)

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

CEMEX Construction Materials Florida, LLC
Line 2 As-Built Configuration
CEMEX Brooksville South Cement Plant
Hernando County

DEP File No. 0530021-018-AC
PSD-FL-351C

Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Special Projects Section

December 29, 2009

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. GENERAL PROJECT INFORMATION

Facility Description and Location

The facility consists of the CEMEX Brooksville South Cement Plant owned by CEMEX Construction Materials Florida, LLC (CEMEX) and the Central Power and Lime (CP&L) Power Plant owned by Arroyo Energy. The two plants operate under a single facility Title V Air Operation Permit. The facility is located at the site indicated in Figure 1 below in Hernando County at 10311 Cement Plant Road in Brooksville, Florida. The UTM coordinates are Zone 17; 360.0 km East and 3162.5 km North. 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).

Figure 1. Facility location, Brooksville, Florida. Figure 2. Baghouse and stack for Line 1 and CP&L.

The cement plant consists of two portland cement lines (Lines 1 and 2) including associated kilns (Kilns 1 and 2) and clinker coolers (Coolers 1 and 2). The cement plant is categorized under Standard Industrial Classification (SIC) Code No. 3241. Line 1 and the CP&L Power Plant share a common baghouse and stack that are shown in Figure 2 above. Line 2, the subject of the present evaluation, began operation in November 2008 and has a separate stack and pollution control equipment.

Facility Regulatory Categories

The existing facility is identified as a major source of hazardous air pollutants (HAP).

The operator of the CP&L Power Plant has applied to EPA for treatment as a Title IV source.

The existing facility is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.)

The existing facility is a major stationary source with respect to the rules for the Prevention of Significant Deterioration (PSD) at Rule 62-212.400, F.A.C.

Background

Line 2, with a capacity of 2,800 tons per day of clinker, was constructed pursuant to Air Permit 0530021-009-AC (PSD-FL-351) issued in 2005 to the previous owner, Rinker. A review for the Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) were conducted for Line 2. The project is to issue an air construction permit to reflect the as-built configuration for the previously permitted and constructed Portland Cement Line 2.

Line 2 began operation in November 2008 and compliance with the BACT requirements and other applicable emission regulations was demonstrated in the first half of 2009. The key BACT emission limits from Kiln 2 and Clinker Cooler 2 (the main emissions units) are based on the following controls:

- Staged combustion calciner and raw material selection for the control of volatile organic compounds (VOC), carbon monoxide (CO) and nitrogen oxides (NO_X);
- Selective non-catalytic reduction (SNCR) by ammonia injection to further control NO_X;
- Dry scrubbing in the calciner and contact with moist limestone in the raw mill to control sulfur dioxide (SO_2);
- Raw material and fuel selection to minimize mercury (Hg) emissions; and
- Fabric filter baghouses to control particulate matter (PM/PM_{10}).

The tables below are included at this point to put into better perspective the present application and changes requested by CEMEX. The first table was included in the original permit authorizing construction of Line 2. It was based on information submitted in the original application to construct Line 2. The column indicating maximum emissions is an estimate of the potential-to-emit (PTE) in tons per year (TPY) per the original Line 2 application. The maximum emissions include contributions from Kiln 2 and Clinker Cooler 2 as well as all of the raw materials and product storage, handling and conveyance operations.

Table 1. Original Line 2 Project PSD Applicability Calculations and Potential to Emit (PTE)

POLLUTANT	PSD SIGNIFICANCE LEVELS (TPY)	MAXIMUM EMISSIONS (TPY)	SUBJECT TO PSD REVIEW?
PM/PM_{10}	25/15	256.4	Yes
SO_2	40	122.7	Yes
NO_X	40	1126.2	Yes
CO	100	2133.6	Yes
VOC (Ozone)	40	105.3	Yes
Mercury (Hg)	200 pounds per year	122 pounds per year	No

For reference, all of the SO_2, NO_X, CO, VOC and Hg are emitted from the single baghouse and stack that handle the combined emissions from Kiln 2 and Clinker Cooler 2. PM/PM_{10} are also emitted from Kiln 2 and Clinker Cooler 2 but are also emitted from the materials and product handling, storage and conveyance operations. Table 2 is a comparison of the stack compliance tests conducted during the first half of 2009 with the BACT emission limits in the existing permit. The values are in pounds per ton of clinker (lb/ton clinker) and in pounds per hour (lb/hr).

The results include both Kiln 2 and Clinker Cooler 2 that exhaust through a single stack. The column on the right provides the permitted PTE from Line 2 for SO_2, NO_X, CO and VOC and are emitted only from the combined Kiln 2 and Clinker Cooler 2 fabric filter baghouse and stack. The values for visible emissions (VE) and PM/PM_{10} reflect only Kiln 2 and Clinker Cooler 2 and do not include materials storage, handling and conveyance. As a general observation, the PTE PM/PM_{10} from Kiln 2 and Clinker Cooler 2 comprise on the order of half of the PTE PM/PM_{10} from all of Line 2.

Table 2. Compliance Emissions Testing for Common Kiln 2/Clinker Cooler 2 Exhaust Stack

Pollutant	BACT Limits (lb/ton clinker)	Emissions Tests (lb/ton clinker)	BACT Limit (lb/hr)	Emissions Tests (lb/hr)	Annualized Limits (TPY)
PM/PM_{10}	0.23/0.20	0.045/0.045	28.8/25.0	5.5	126.1/109
SO_2	0.23	0.01	28.8	1.3	126.1
NO_X	1.95	1.76	243.75	205.7	1,067
CO	3.6	1.3	450.0	152.3	1,971
VOC	0.12	0.03	15.0	3.2	65.7
VE	10% opacity	9.2/4.5 [1]	Note 1. Mill down/mill up, highest 6-minute average.		

The Department reviewed continuous emissions monitoring systems (CEMS) data for September 2009 and found that emissions for NO_X, CO and VOC averaged 1.84, 0.87 and 0.04 lb/ton clinker respectively. SO_2 emissions were practically nil. The kiln performed very well with respect to the conventional PSD pollutants.

The company also conducted tests for Hg and dioxin/furan (D/F) required by 40 Code of Federal Regulations (CFR) Part 60, Subpart LLL - National Emission Standards for Hazardous Air Pollutants (NESHAP) From the Portland Cement Manufacturing Industry (Subpart LLL).

Table 3. D/F and Hg Testing for Common Kiln 2/Clinker Cooler 2 Exhaust Stack

Pollutant	Hg (µg/dscm [1])		D/F (ng TEQ/dscm [2])	
Mode	Test	LLL	Test	LLL
Raw Mill On	0.59	41	0.0018	0.2
Raw Mill Off	300	41	0.0025	0.4

1. micrograms per dry standard cubic meter (µg/dscm)
2. nanograms total toxic equivalent per dry standard cubic meter (ng TEQ/dscm)

The D/F tests were conducted in May 2009. The D/F results are excellent and are several orders of magnitude less than the respective limits. This is in contrast with Kiln 1 at Brooksville South Cement Plant and Kilns 1 and 2 at Brooksville North Cement Plant that have had chronic problems complying with the D/F standards. The Hg tests were conducted in November 2009.

Kiln 2 at the Brooksville South Cement Plant is the first project in Florida (and possibly the U.S.) that actually has an applicable standard pursuant to Subpart LLL. The applicable standard of 41 µg Hg/dscm is under reconsideration, but nevertheless applies to this kiln since it appears that construction commenced after December 2, 2005.

http://cementamericas.com/mag/cement_rinker_names_new/

The proposed version of the reconsidered Subpart LLL was published in May 2009 and includes the same applicability date. However the proposed Hg limit is a long term standard of 14 lb/million tons of clinker rather than a short-term standard. It will be finalized in early 2010.

According to the tests, the kiln did not comply with the presently applicable limit when the raw mill is down. Extrapolation by CEMEX of the data to a full year of operation yielded an annual rate of 138.8 lb Hg/yr compared with the Department's limit included in the permit of 122 lb Hg/yr. For reference, their extrapolation assumed only 7,884 hours of operation and therefore does not represent PTE. If the proposed reconsidered Subpart LLL is promulgated, the kiln would not comply if operated in the same manner as operated during the recent Hg tests.

Whereas the NESHAP compliance is demonstrated by single tests, the Department limit is demonstrated by long-term materials testing and development of a material balance. At this time, CEMEX is conducting diagnostic tests to develop solutions to the exceedances of the limits.

Related Permitting Actions

For reference, the present permit action is DEP File 0530021-18-AC (PSD-FL-351C). The present action is essentially a modification and re-issuance of the original permit. Following are other historical permitting actions or ongoing permit projects related to Line 2:

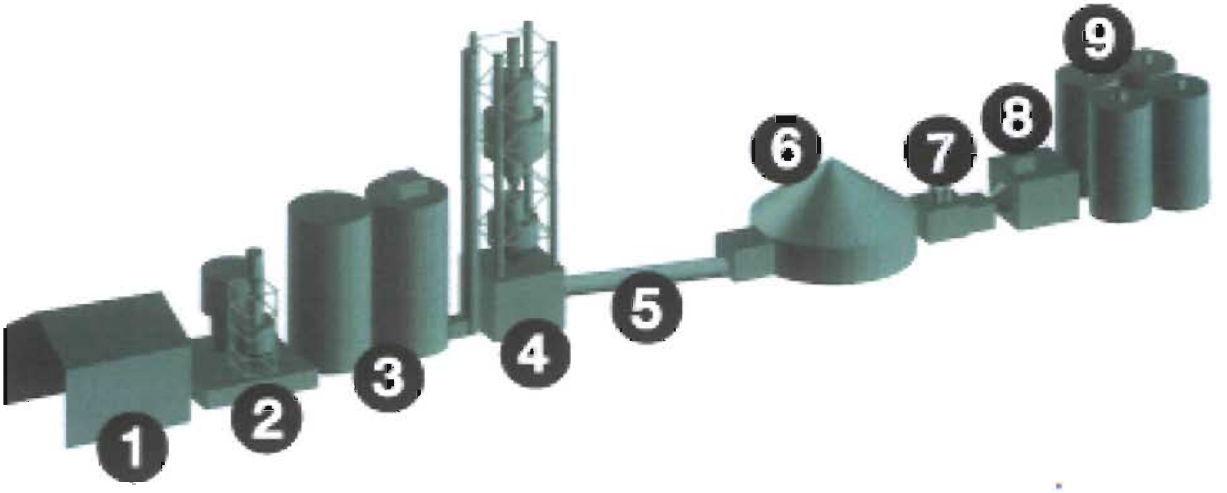
- The original Permit 0530021-009-AC (PSD-FL-351) was issued on July 6, 2006 and authorized construction of Line 2. It will be superseded by the present permitting action.
- Corrections to process rates were made on August 2, 2005 under Permit 0530021-012-AC (PSD-FL-351A). The corrections will also be shown in this as-built configuration permit.

- The original permit authorized introduction of whole tires at the cold side of the kiln (base of the preheater). Department Permit 0530021-015-AC (PSD-FL-351B) issued in September 9, 2008 authorized whole tire introduction at the hot side (near the main kiln burner). The design is called a tire injection mechanism (TIM). The permit allowing construction of the TIM will be rolled over into this as-built configuration permit.
- The applicant requested additional time (DEP File 0530021-020-AC) to complete construction, conduct compliance tests, submit the Title V operation permit application and conclude the TIM project. Initial construction is complete and the compliance tests have been conducted. Only sufficient time is required to complete the TIM project. Additional time (until December 31, 2010) will be provided to complete construction of the TIM.
- The applicant applied to test various alternative fuels (DEP File 0530021-017-AC). That application remains incomplete until the company obtains this as-built permit and provides additional details regarding the nature of the fuels.
- A Title V permit application was submitted to include Line 2 (DEP File 0530021-021-AV). Action on that request will be taken after issuance of this final as-built configuration permit.

Project Description

The present request is to modify the permit to reflect the differences between the original design based on an assumed supplier (possibly Polysius) and the final configuration based on the design practices of the selected equipment supplier (F.L. Smidth). By and large those differences are related primarily to the sizes and flow rates in the fabric filter baghouses used for material conveyance, separation and storage. The differences are typically offsetting in nature such that on-balance there is little net difference in total project PM/PM_{10} emissions compared with permitted values. In the present project, there is another difference that has some effect on combustion exhaust gas emissions.

The basic portland cement dry process is the same regardless of manufacturer and is shown in the Figure 3 below. In Line 2, gaseous emissions from Components 2, 4, 5 and part of 6 are combined in a single emissions point at a common stack. The as-permitted version of Line 2 assumed there will be a heater at Component 2 (raw mill) that will assist (only to the extent needed) in the drying of raw materials that are otherwise dried by Kiln 2 and Clinker Cooler 2 exhaust gases prior to exiting via the common stack.



1. Raw Material Storage
2. Grinding (Raw Mill)
3. Blending, Feed
4. Preheater/Calciner
5. Rotary Kiln
6. Clinker Cooler and Storage
7. Additions (e.g. Gypsum)
8. Cement Grinding (Finish Mill)
9. Bulk Storage & Loading

Figure 3. Components and Key Operations of a Modern Dry Process Cement Plant

The permitted design assumed that there will be no heater at Component 8 (finish mill). The only emissions expected from the stack at the finish mill were therefore only PM/PM_{10} because all combustion gases exit through the described Kiln 2/Clinker Cooler 2 common stack.

The permitted configuration reflects the typical practice for an in-line vertical raw mill. Instead, the F.L. Smidth project design incorporated a ball mill for the raw mill that has several benefits including assistance (by generated friction heat) in drying of the raw materials. The result was that the described heater was not needed or included within Component 2 in the as-built Line 2.

The permitted configuration also reflects the typical practice using a ball mill for product cement grinding at the finish mill. Instead, the F.L. Smidth project design incorporated a vertical mill for the finish mill that has some process benefits but which (at times) requires use of a heater to assist in driving off moisture (from ambient air) from the finished cement prior to storage and shipping.

The as-built configuration includes a small 45 million Btu per hour (mmBtu/hr) propane or diesel-fueled dryer within the cement finish mill at Component 8 rather than a 32 mmBtu/hr dryer located at the raw mill at Component 2. No changes are requested in the key BACT, production or emission limits for Kiln 2 or Clinker Cooler 2. However, emission increases are requested to account for the heater at the new location.

Within the previous location, emissions from the dryer (usually intermittent based on drying requirement) were included within those of Kiln 2/Clinker Cooler 2. It was possible to offset the emissions from the heater by additional ammonia injection to reduce NO_X from the kiln and calciner while SO_2 emissions would have been controlled by the presence of warm and moist limestone within the raw mill.

At the proposed finish mill location, it is not feasible to inject ammonia to control NO_X emissions. Also, it has not been accepted by the applicant that ground clinker will scrub SO_2 in the same manner that finely divided lime scrubs SO_2 in the calciner or in the manner that limestone in the raw mill scrubs SO_2. Table 3 indicates the emissions expected by the applicant from the air heater when located at the finish mill.

Table 4. Applicant's Estimate of Emissions from the Air Heater if Located at the Finish Mill

SO_2		NO_X		CO		VOC	
lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
21.0	26.3	30.9	38.7	17.8	22.3	< 3	3

The PM/PM_{10} emissions were not estimated. These are consolidated and controlled with PM/PM_{10} emissions from the finish mill which is equipped with a fabric filter baghouse subject to grain loading design requirements.

The applicant advised of a needed correction to the permitted natural gas utilization rate for Kiln 2. The original permit allows 432 million cubic feet per hour (million cf/hr). The correct value is 432 thousand cf/hr. This correction will be reflected in the as-built configuration.

Table 5 is a qualitative summary of the changes requested by CEMEX for Line 2. Almost all changes relate to the material handling, storage and conveyance equipment included in Line 2 and affect PM/PM_{10} emissions. Except for deletion of the air heater, Kiln 2 and Clinker Cooler 2 are unaffected.

The applicant submitted a detailed summary of the expected increases or decreases in PM/PM_{10} emissions for each of the changes described above. The result is that PM emissions from EU 45-62 under the as-built configuration will be 88.0 TPY compared with 85.7 TPY under the permitted configuration for an increase of 2.3 TPY. PM_{10} emissions will be 61.6 TPY rather than 60.0 TPY for an increase of 1.6 TPY.

Table 5. Qualitative Summary of Changes Proposed by Applicant

ARMS EU No.	Description in Original Permit	Primary Proposed Changes
044	Kiln 2, Preheater, Precalciner Clinker Cooler 2, and Air Heater	Correct natural gas rate Delete Air Heater.
045	Filter Dust	Add a baghouse for Filter Dust Bin Loadout Spout. Correct flow rate and temperature.
046	Raw Meal Transport	Correct flow rate and temperature.
047	Kiln Feed Transport	Add baghouses for Blend Silo Discharge and Kiln Feed Bin to Kiln Feed Transport. Correct flow rate and temperature.
049	Gypsum Bin	Delete Gypsum Bin
050	Clinker Storage	Add Baghouses for Clinker Silo Discharge 1 and Clinker Silo Discharge 2 to Clinker Storage Silo.
051	Finish Mill Collecting Bin	Change name to Finish Mill Additives Correct flow rate and temperature.
052	Finish Mill	Change Name to Finish Mill and Air Heater. Correct flow rate and temperature.
053	Air Slide	Delete Air Slide. Functions within Finish Mill.
054	Bucket Elevator	Rename as Finish Mill Bucket Elevator. Correct flow rate and temperature.
055	High Efficiency Separator	Delete High Efficiency Separator.
056	Cement Cooler	Delete Cement Cooler.
057	Cement Transport A	Rename Finish Mill Cement Transport, add Baghouse. Correct flow rate and temperature.
	Cement Transport B	Rename Finish Mill Rejects Transport, add Baghouse. Correct flow rate and temperature.
058	Cement Loadout Bin	Add Baghouses for Cement Silo 5, Cement Silo 5 Loading Bin, Cement Silo 5 Loadout Spout North and Cement Silo 5 Loadout Spout South. Correct flow rate and temperature.
059	Cement Loadout Bin	Add Baghouses for Multi Cell Cement Silo Multi Cell Cement Silo Alleviator Multi Cell Loadout Transport and Multi Cell Loadout Spout. Correct flow rate and temperature.
060	Coal Mill	Correct flow rate and temperature.
061	Fuel Bin	Rename Fine Coal Bin. Correct flow rate and temperature.
062		Add Packing Plant

Processing Schedule

11/24/2008 Received the application for a minor source air pollution construction permit.
12/24/2008 Department sent the applicant a request for additional information (RAI).
03/26/2009 Received response to RAI.
04/21/2009 Department sent second RAI.
06/23/2009 Received response to second RAI.
07/10/2009 Department sent third RAI.
10/06/2009 Received response to third RAI.
11/03/2009 Department requested further clarification by electronic mail.
11/04/2009 Received clarifications by electronic mail.
11/12/2009 Department requested further clarification by electronic mail.
11/12/2009 Received partial clarifications by electronic mail.
11/17/2009 Received final clarifications by electronic mail.
12/30/2009 Department distributed draft Intent to Issue package.

The processing of the permit was impacted by four changes in the professional engineer (P.E.) representing the applicant. Initially Ms. Fawn Bergen, P.E. of Koogler and Associates was responsible for preparation of the application. Larry Luccarelli, P.E. of CEMEX took over the function in early 2009. However, CEMEX returned responsibility to Ms. Bergen later in 2009. Ms. Bergen subsequently turned over the responsibility to her colleague, Mr. Steven Cullen, P.E. after joining another engineering company outside of Florida.

2. APPLICABLE REGULATIONS

State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the F.A.C. The original Kiln 2 project was subject to the applicable rules and regulations defined in the following Chapters of the F.A.C.

Chapter	Description
62-4	Permitting Requirements
62-204	Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference
62-210	Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms
62-212	Preconstruction Review, PSD Review and BACT, and Non-attainment Area Review and LAER
62-213	Title V Air Operation Permits for Major Sources of Air Pollution
62-296	Emission Limiting Standards
62-297	Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures

Federal Regulations

The original project was also subject to the applicable federal provisions regarding air quality as established by the Environmental Protection Agency (EPA) in the following sections of the Code of Federal Regulations (CFR).

Title 40, CFR	Description
Part 60	Subpart A - General Provisions for NSPS Sources NSPS Subpart F - Standards of Performance for Portland Cement Plants. NSPS Subpart Y - Standards of Performance for Coal Preparation Plants. NSPS Subpart OOO - New Source Performance Standards For Nonmetallic Mineral Processing Plants. Applicable Appendices
Part 63	NESHAP Subpart A - National Emission Standards for Hazardous Air Pollutants – General Provisions. NESHAP Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry.

PSD and BACT Applicability Review

The Department regulates major air pollution sources in accordance with Florida's PSD program, as approved by the EPA in Florida's State Implementation Plan and defined in Rule 62-212.400, F.A.C. A PSD review is required in areas currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or areas designated as "unclassifiable" for a given pollutant. A "major stationary source" with respect to PSD is defined in Rule 62-210.200, F.A.C. (Definition 195) if it emits or has the potential to emit:

- 250 TPY or more of any regulated air pollutant, or
- 100 TPY or of any regulated air pollutant and the stationary source belongs to one of categories given in Rule 62-210.200(195)(a)1., F.A.C.

For new projects at PSD-major sources, each regulated pollutant is reviewed for PSD applicability based on emissions thresholds known as the Significant Emission Rates (SER) listed in Rule 62-210.200(280)(a)1., F.A.C. Pollutant emissions from the project exceeding the respective SER are considered "significant" and the applicant must employ BACT to minimize emissions of each such pollutant and evaluate the air quality impacts.

The facility was a major stationary source prior to permitting of Line 2. The Line 2 project triggered the SER for NO_X, CO, SO_2, VOC and PM/PM_{10}. The applicant conducted ambient air quality modeling and the Department issued a BACT determination consisting of the controls and emission limits given in the original Line 2 permit.

When taken as a whole, the requested revisions due to the as-built configuration do not result in any significant emissions increases. The applicant believes this project is not subject to PSD preconstruction review. Clearly, the Department would have conducted a BACT review for the heater located at the finish mill if it had been addressed in the original application. The Department considered the emissions from the planned raw mill heater during the original application and included them in the BACT emission limits for EU 044.

The Department does not consider the installation of the heater at the finish mill (within the actual construction of Line 2) to be a separate project that can escape PSD and a BACT determination by obtaining an after-the-fact permit. The Department has concluded that it is necessary to conduct a BACT determination for the small heater at the finish mill.

The air heater has a rating of only 45 mmBtu/hr and is not subject to an NSPS. Typical equal sized process heaters (that heat materials that in turn transfer heat) are sometimes subject to 40 CFR 60, Subpart Dc which imposes few if any requirements.

The Department has determined that use of low sulfur fuel oil with a specification of 0.05% sulfur is appropriate as BACT for this small air heater. This will reduce emissions of SO_2 from the 26.5 TPY to less

than 3 TPY. The Department believes that NO_X emissions will be less than predicted by the applicant and will require testing to determine the magnitude of those emissions.

Previously, the Department required only visible emission testing of the finish mill. Because the heater and finish mill emissions will exit from a common stack, the Department will require initial and annual testing for this combined source. Testing requirements will include stack testing for NO_X, CO, PM/PM_{10} and fuel analysis for sulfur.

3. CHANGES TO PERMIT

The changes to the original permit are shown in the enclosed draft permit. They are generally highlighted in bold script or described as notes that will be removed upon issuance of the final permit. Generally, the tables have been simplified and redundant limits have been removed (such as tons per year when lb/hr limits suffice). The Department will incorporate directly into the permit the applicable Hg concentration limits for new kilns pursuant to 40 CFR 63, Subpart LLL. Due to reasons of representativeness, the Department will require month-by-month sampling and testing of raw materials and fuels for Hg rather than allowing testing during one month per quarter.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the "as-built" project design configuration project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the application, the limited reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in PSD-pollutant emissions. Teresa Heron is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DRAFT PERMIT

PERMITTEE

CEMEX Construction Materials Florida, LLC
Brooksville South Cement Plant
10311 Cement Plant Road
Brooksville, Florida 32669

Permit No	0530021-018-AC (PSD-FL-351C)
	Cement Line No. 2
Project	As-Built Configuration
SIC No.	3241
Expires:	December 31, 2010

Authorized Representative:

James Daniel, Plant Manager

PROJECT AND LOCATION

Cement Line 2 is a recently constructed dry process preheater/precalciner kiln system with a cooler and associated material, fuel and product handling equipment. This project modifies and reissues the original permit (DEP File No. 0530021-009-AC) that authorized construction of Cement Line 2 to reflect the as-built configuration. The facility is located at 10311 Cement Plant Road, Hernando County. The UTM coordinates are: Zone 17; 360.0 km East and 3162.5 km North.

STATEMENT OF BASIS

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to construct the emissions units in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

APPENDICES

The attached appendices from Permit 0530021-009-AC (PSD-FL-351) are a part of this permit:

Appendix A	BACT Determination
Appendix B	40 CFR 60 Subpart F and 40 CFR 60 General Provisions
Appendix C	40 CFR 63 Subpart LLL and 40 CFR 63 General Provisions
Appendix GC	General Permit Conditions

Joseph Kahn, Director
Division of Air Resource Management

JK/tlv/aal/tmh

SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION

The existing facility is an integrated facility that includes a Portland cement manufacturing plant, a power plant and a coal yard. The power boiler is a coal fired unit that is allowed to generate a net delivered 150 MW. The cement kiln I, in-line kiln/raw mill and clinker cooler I share a common baghouse fabric filter system (for particulate matter emissions control) and stack with the power plant. Dry limestone injection is used to control SO_2 emissions from the power boiler, which is then collected in the common baghouse fabric filter system. 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 a Johnson-Marsh Dust Suppressant system, which uses a non-ionic wetting agent to enhance the wettability of the clinker. 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 emission. All fly ash handling systems (including transfer and silo storage) are totally enclosed and vented (including pneumatic system exhaust) through fabric filters.

The original project allowed the construction of a new cement manufacturing line (Line 2) at the existing facility. New emissions units include 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. Line 2 has a capacity of 206.3 tons per hour of material fed (dry basis) to the preheater, 125 tons per hour of clinker production, and 138 tons per hour of Portland cement production. The annual rates for the proposed system are not based on the maximum allowable rates for feed material and clinker production. The original project was subjected to Prevention of Significant Deterioration (PSD) Review and a Best Available Control Technology (BACT) determination for NOx, PM, PM10, SO2, CO, and VOC.

The permittee installed Selective Non-catalytic Reduction (SNCR) technology to control NO_x emissions from the new line. The NOx emissions limit from the kiln is 1.95 lbs of NOx per ton of clinker (243.8 lb/hour). Emissions limits for PM, PM_{10}, SO_2, CO, and VOC are 0.23 pounds of PM per ton of clinker (28.8 lb/hr), 0.20 pounds of PM_{10} per ton of clinker (25.0 lb/hr), 0.23 pounds of SO_2 per ton of clinker (28.8 lb/hr), 3.60 pounds of CO per ton of clinker (450 lb/hr), and 0.12 pounds of VOC per ton of clinker (15 lb/hr), respectively. Mercury emissions are limited to 122 lbs per year from the new line, and visible emissions from the line are limited to 10% opacity. Daily and annual rates are 1,686,300 tons per year (4,620 tons/day, 24-hour average) of material fed to the preheater (dry basis), 1,022,000 tons per year (2,800 tons/day, 24-hour average) of clinker production, and 1,301,138 tons per year (5,760 tons/day) 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. The plant also includes a coal processing operation that crushes coal and petroleum coke and has an annual processing capacity of **165,000** tons of coal and petroleum coke. The new raw material and handling storage shall not process more than 225 tons per hour of raw material (1,971,000 tons per year) in any consecutive 12-month period.

{Note for Draft Permit: Corrected coal and coke capacity in accordance with Permit 0530021-012-AC}

SECTION I. FACILITY INFORMATION

PROJECT DETAILS

This permitting action is to modify and reissue Permit 0530021-009-AC that allowed the construction of a preheater/precalciner kiln with in-line raw mill. The modification reflects the as-built configuration. Emissions units addressed by this permit are:

EMISSIONS UNIT NO.	BAGHOUSE ID NO.	EMISSIONS UNIT DESCRIPTION
044	331.BF300	Kiln #2, Pre-Heater, Pre-Calciner and Clinker Cooler
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
048	471.BF110	Clinker Transport
050	471.BF120	Clinker Storage Silo
	481.BF155	Clinker Silo Discharge 1
	481.BF165	Clinker Silo Discharge 2
051	511.BF650	Finish Mill Additives
052	531.BF500	Finish Mill and Air Heater
054	531.BF020	Finish Mill Bucket Elevator
57	531.BF400	Finish Mill Cement Transport
	531.BF290	Finish Mill Rejects Transport
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
060	461.BF400	Coal Mill
061	461.BF560	Fine Coal Mill
062	640.BF150	Packing Plant

{Note for Draft Permit. The table in the original permit was revised to reflect the as-built configuration including designations of baghouse identification numbers and descriptions of each emissions unit.}

The total annual air pollutant potential emissions in tons per year from **Line 2** are:

POLLUTANT	PSD SIGNIFICANCE LEVELS [1]	MAXIMUM EMISSIONS	SUBJECT TO PSD REVIEW?
PM/PM_{10}	25/15	214.09 / 171.06	Yes
SO_2	40	128.74	Yes
NOx	40	1106.6	Yes
CO	100	1993	Yes
VOC (Ozone)	40	68.7	Yes
Mercury	200 pounds per year	122 pounds per year	No

1. Significant Emission Rates

{Note for Draft Permit Modification: Previously this table reflected the values in the original application. It is being corrected under the present permitting action to reflect the Department's original BACT determinations and a subsequent determination related to a small heater}

REGULATORY CLASSIFICATION

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NOx), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Rule 62-210.200 (Definitions), F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD).

The project was subjected to the provisions of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because it is a modification to an existing facility.

The Department has determined this facility is a major source of hazardous air pollutants (HAPs) and is subject to 40 CFR 63, Subpart LLL, National Emissions Standard for Portland Cement Manufacturing (Subpart LLL).

The emissions units included in this project are subject to regulation under the New Source Performance Standards, 40 CFR 60 Subpart A, General Provisions, Subpart F, Standards of Performance for Portland Cement Plants, and Subpart Y Standards of Performance for Coal Preparation Plants. Some of these emissions units are also 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) and 40 CFR 63 Subpart A.

These emissions units are also subject to the requirements of the state rules as indicated in this permit, particularly Rule 62-212.400, F.A.C., Prevention of Significant Deterioration. Some emissions units are subject to Rule 62-296.407, F.A.C., portland cement plants. Additionally the permit references the test methods of 40 CFR 60, Appendix A, Test Methods; 40 CFR 63, Appendix A, Test Methods; 40 CFR 51, Appendix M, Recommended Test Methods for State Implementation Plans; 40 CFR 61, Appendix B, Test Methods.

SECTION I. FACILITY INFORMATION

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Original permit application and report for Line 2 received on December 20, 2004.
- EPA's comments received December 28, 2004 via email; No comments.
- Department's request for additional information on January 19, 2005.
- Applicant's additional information received March 7, 2005.
- Permit 0530021-009-AC (PSD –FL-351) issued on July 6, 2005
- Permit Modification 0530021-012-AC (PSD –FL-351A) issued on August 2, 2005
- Permit Modification 0530021-015-AC (PSD –FL-351B) issued on September 9, 2008
- Permit Modification Application 0530021-018-AC received on November 24, 2008.
- Permit Extension Application 0530021-020-AC received on April 13, 2008
- Applicant's additional information received on March 26, June 23 and October 6, 2009.

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

The following specific conditions apply to all emissions units at this facility addressed by this permit.

1. Permitting Authority:

   a. For this permit (PSD Permits), the permitting authority is the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, and phone number (850)488-0114.

   b. For future permitting actions (Minor Construction or Title V), all documents related to applications for permits to construct or modify an emissions unit should be submitted to the Florida Department of Environmental Protection (FDEP), Southwest District, 3804 Coconut Palm Drive, Tampa, FL 33619-1352 and phone number (813) 744-6100.

2. Compliance Authority: All documents related to operation, reports, tests, and notifications should be submitted to the Department of Environmental Protection's Southwest District Office at
   Department of Environmental Protection
   Southwest District Office
   13051 N Telecom Parkway
   Temple Terrace, FL 33637-0926
   Telephone: 813/632-7600 Fax 813/632-7665

3. General Conditions: The owner and operator are subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]

4. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

5. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60 and Part 63, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

6. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

7. Expiration: This air construction permit shall expire on **December 31, 2010**. The permittee, for good cause, may request that this construction and PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C]

PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40 CFR 52.21(r)(2)]

BACT Determination: In conjunction with extension of the 18 month periods to commence or continue construction, or extension of the permit expiration date, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source. [40 CFR 52.21(j)(4)]

8. Modifications: The permittee shall submit an application to the Department when there is any modification to this facility that would require a permit under State or Federal regulations. This application shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such application shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212, F.A.C.]

9. Final Construction Schedule: The permittee shall provide to the Department a final construction schedule after selection of the contractor and before commencement of construction. [Rule 62-212.400(5)(h)2., F.A.C.]

10. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density if which is equal to or greater than 20% opacity. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

11. Unconfined Emissions of Particulate Matter:

a. 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.

b. Reasonable precautions include the following:

- Paving and maintenance of roads, parking areas and yards.
- Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
- Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- Landscaping or planting of vegetation.
- Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- Confining abrasive blasting where possible.
- Enclosure or covering of conveyor systems.

Additional reasonable precautions applicable to this facility are:

- All materials, except **tires,** coal and petroleum coke, at the plant shall be stored under roof on compacted clay or concrete, or in enclosed vessels.
  {Note for Draft Permit Modification: Tires added per Permit 0530021-012-AC}
- Water supply lines, hoses and sprinklers shall be located near all materials, coal and petroleum coke stockpiles.
- All plant operators shall be trained in basic environmental compliance and shall perform visual inspections of materials, coal and petroleum coke regularly and before handling. If the visual inspections indicate a lack of surface moisture, the materials, coal and petroleum coke shall be wetted with sprinklers. Such wetting shall continue until the potential for unconfined particulate matter emissions are minimized.
- Water spray shall be used to wet the materials and fuel if inherent moisture and moisture from wetting the storage piles are not sufficient to prevent unconfined particulate matter emissions.
- The manufacturing area and the access roadways for the facility shall be paved with asphalt or concrete.
- Vacuum Sweeper shall be used on paved roads.

c. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.
[Rule 62-296.320(4)(c), F.A.C.]

12. General Pollutant Emission Limiting Standards:

a. No person shall 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.

b. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Rule 62-296.320(1)(a)&(2), F.A.C.]

[Note: An objectionable odor is defined in Rule 62-210.200(203), F.A.C., as 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.]

13. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All plant operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

14. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's district office. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]

15. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

16. Excess Emissions: The following excess emissions provisions can not be used to vary any NSPS or NESHAP requirements from any subpart of 40 CFR 60 or 40 CFR 63.

    Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) 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. 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 start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700, F.A.C.]

17. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. [Rule 62-297.310(1), F.A.C.]

18. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
    (a) General Compliance Testing.
    3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
    a. Did not operate; or
    b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
    4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
    a. Visible emissions, if there is an applicable standard;
    [Rule 62-297.310(7), F.A.C.]

19. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

20. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

21. Applicable Test Procedures

a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)1. and 2., F.A.C.]

b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet (dscf). [Rule 62-297.310(4)(b), F.A.C.]

c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C. [Rule 62-297.310(4)(d), F.A.C.]

22. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]

a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

23. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

24. Test Notification: The owner or operator shall notify the Department's district office at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]

[Note: The owner or operator shall comply with all applicable timelines stated in 40 CFR 60.7, Notification and recordkeeping and 40 CFR 63.9, Notification Requirements.]

25. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

26. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department, upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]

27. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]

28. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rule 62-4.130, F.A.C.]

29. Excess Emissions Report - Malfunctions: In 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. A quarterly written report is hereby requested by the Department for every quarter that the facility is in operation. If no malfunctions occurred during a quarter, a written report stating that no malfunctions occurred shall be submitted. [Rule 62-210.700(6), F.A.C.]

30. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's Southwest District office by April 1 of the following year. [Rule 62-210.370(3), F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

SUBSECTION A.

The following specific conditions apply to the following emissions units after construction:

EMISSIONS UNIT NO.	FACILITY ID NO.	EMISSIONS UNIT DESCRIPTION
044	331.BF300	Kiln #2, Pre-Heater, Pre-Calciner and Clinker Cooler ~~and Air Heater~~

This Emission unit is subject to 40 CFR 60 Subpart F, Standards of Performance for Portland Cement Plants (40 CFR 60.60 – 60.66) and 40 CFR 60 Subpart A. This emission unit also 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. These emissions units are also subject to the requirements of the state rules as indicated in this permit, particularly Rule 62-212.400, F.A.C., Prevention of Significant Deterioration. Emissions unit 044 is subject to Rule 62-296.407, F.A.C., Portland Cement Plants.

{Note for Draft Permit Modification: Previously this Emissions Unit included a heater that was not constructed.}

STATE REQUIREMENTS

OPERATIONAL REQUIREMENTS

1. Hours of Operation: These units may operate continuously, i.e., 8,760 hours per year. [Rule 62-210.200, F.A.C., Definitions -- potential to emit (PTE)]

2. Fuels: Fuels fired in the pyroprocessing system (kiln and calciner) shall not exceed a total maximum heat input of 390 million Btu per hour (MMBtu/hr) and shall consist only of natural gas, coal, distillate oil, petroleum coke, flyash, on-spec oil, and whole tires. Propane may be fired and shall not exceed a maximum hourly rate of 4150 gallons/hr.

   a. Whole tires may be fired directly in the pyroprocessing system at a rate not to exceed a maximum heat input of 30% of the total pyroprocessing heat input, not to exceed **117** MMBtu/hr at any time. The remaining 70% of the total pyroprocessing heat input shall be derived from firing coal, flyash, petroleum coke, natural gas, propane or distillate oil. Whole tires fired in this manner shall be fed into the kiln system **near the product end (hot side) of the kiln or** at the transition section between the base of the precalciner and the point where gases exit the kiln. The tire feeder mechanism **at the feed end (cold side) of the kiln** shall be designed with a double airlock.

   b. Coal and/or petroleum coke shall not exceed **20.0** tons per hour. Natural gas shall not exceed **432, 000 cf/hr**. Distillate oil shall not exceed 3080 gallons/hr.

   [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 **Permit Modifications 0530021-012-AC and 0530021-015-AC**]

   {Note for Draft Permit Modification: This action includes corrections and modifications approved in permitting actions listed above and issued after the original permit}

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 other than those allowed by this permit, or solid wastes other than whole tires into any part of the process or emission control equipment. [Rule 62-4.070(3), F.A.C.]

4. Process Rate Limitations: The kiln shall not process more than 206.3 tons per hour of dry preheater feed and dry flyash and shall not exceed 4,620 tons in any 24-hour period (24 hour average). The kiln shall not produce more than 125 tons of clinker per hour, and 2800 tons in any 24-hr period (24 hour average). Process and production rates shall be further limited to 1,686,300 tons of dry preheater feed and dry flyash in any consecutive 12-month period (4620 tons/day) and 1,022,000 tons of clinker in any consecutive 12-month period (2800 tons/day).

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

   Clinker Production = [(Feed)(Kiln Feed LOI Factor) + (Fly Ash Injection)(Fly Ash LOI Factor)]

   Where:

   - Fly ash is determined from the rotary feed system or equivalent.
   - 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)]

5. Air Heater: **Not constructed.** ~~**The permittee may install an air heater associated with the raw mill, fired only with natural gas and distillate oil with a maximum rated heat input capacity of 32 MMBtu/hr. [Rule 62-4.070(3), F.A.C.]**~~

6. 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.]

7. 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.]

8. O&M Plan for Baghouses and ESP: The owner or operator shall prepare 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. The O&M plan shall be submitted to the Department's Southwest District office prior to expiration of this permit. [Rule 62-4.070(3), F.A.C.]

COMBUSTION AND PROCESS CONTROL TECHNOLOGY

9. Combustion and Process Control Technology: The owner or operator shall install selective noncatalytic reduction (SNCR). The owner or operator will also install multistage combustion (MSC) or equivalent system and utilize as needed to supplement the controls. The owner or operator shall use SNCR and/or MSC for control of NOx emissions. The owner or operator shall control emissions of CO and VOC through control of the combustion process. The owner or operator shall control emissions of SO_2 through design and control of the clinker production process. The owner or operator shall use hydrated lime injection or other control techniques when necessary to achieve the SO_2 emission limits. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

[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.]

10. 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 per consecutive 12-month period. [62-4.070(3), F.A.C.]

11. 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 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 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. [62-4.070(3), F.A.C.]

12. Emissions Limits: Emissions unit 044 shall have one emission point, the stack of the Kiln #2, Pre-Heater, Pre-Calciner and Clinker Cooler~~, and Air Heater~~, designated by the permittee as 331.BF300. Particulate matter emissions from this emissions unit shall be controlled by a baghouse.

Emissions from this unit shall not exceed the following limits for the following pollutants. ~~**Emissions from the natural gas fired air heater are included in the limits below.**~~

POLLUTANT	EMISSION LIMIT		AVERAGING TIME	BASIS
PM	0.136 lb/ton of dry preheater feed; 0.23lb/ton of clinker	28.8 lb/hr	3 hours [3]	BACT
PM_{10}	0.118 lb/ton of dry preheater feed; 0.20 lb/ton of clinker	25.0 lb/hr	3 hours [3]	BACT
SO_2	0.23 lb/ton of clinker	28.8 lb/hour	24 hours [4]	BACT
NOx	1.95 lb/ton of clinker [1]	243.75 lb/hour [1]	30 day	BACT
CO	3.6 lb/ton of clinker	450.0 lb/hour	24 hours [5]	BACT
VOC	0.12 lb/ton of clinker [2]	15.0 lb/hour [2]	30 days [6]	BACT
VE	10% opacity		6 minutes [7]	BACT
Mercury	**41 µg/dscm** [8]			**Subpart LLL**
		122 lb/yr	**Annual**	**Avoid PSD**

1. NOx emissions shall not exceed 2.4 lb/ton of clinker and 306.25 lb/hour (30 day rolling average) during the first 180 operating day after initial startup. After 180 operating days after initial plant startup, emissions of NOx shall not exceed the limits shown in the table.
2. VOC emissions shall be expressed as propane.
3. The averaging times for PM and PM_{10} correspond to the required length of sampling for the initial and subsequent emission tests.
4. The averaging time for SO_2 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.

5. The CO emissions limit will have a 30-day averaging period for the first 180 days after initial startup; thereafter, the CO limits will be a 24-hour limit. 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.
6. The averaging time for VOC shall be a 30-day block average specified in 40 CFR 63.1350(h).
7. The averaging time for visible emissions shall be a 6-minute block average that shall be computed from a minimum of one measurement every 15 seconds. The 6 minute block averages shall start at the beginning of each hour.
8. **Micrograms per dry standard cubic meter (µg/dscm) per 76518 Federal Register / Vol. 71, No. 244 / Wednesday, December 20, 2006 / Rules and Regulations. "As an alternative to meeting the 41 µg/dscm standard you (the operator) may route the emissions through a packed bed or spray tower wet scrubber with a liquid-to-gas ratio of 30 gallons per 1000 actual cubic feet per minute or more and meet a site-specific emissions limit based on the measured performance of the wet scrubber".**

These emission limits, along with annual production limits, effectively limit annual emissions to: PM, 117.6; PM_{10}, 102.3; SO_2, 117.6; NO_x, 996.7 (after 180 days); CO, 1840 (including 30-day average for first 180 days); and VOC, 61.3 tons per year. First year NOx emissions are effectively limited to 1595.4 tons per year. These emission limits are based on 2,800 tons per day and 1,022,000 tons per year of clinker production. [Rules 62-4.070(3), 62-212.400, F.A.C., and BACT]

13. 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 condition 12, the exclusion of NOx data collected during periods of malfunction and/or repair of the SNCR system is allowed when demonstrating compliance with the 30 day NOx 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.
[Rules 62-4.070(3), F.A.C.]

14. Data Exclusion for CO: In accordance with the limits in condition 12, 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 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.]

15. 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.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

16. Continuous Emission Monitoring Systems: The owner or operator shall install, calibrate, maintain, and operate a continuous emission monitoring (CEM) system in the in-line kiln/raw mill stack to measure and record the emissions of NOx, SO_2, CO and VOC from the in-line kiln/raw mill, in a manner sufficient to demonstrate compliance with the emission limits of this permit. Compliance with the emission limit for NOx and the initial 30-day CO limit shall be based on a 30-day calendar

rolling average that shall be recomputed daily from the individual hourly averages. Compliance with the emission limit for SO_2 and the 24-hour CO limits 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 CEM 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 BACT]

17. Continuous Opacity Monitor (COM) and Continuous Emissions Monitors (CEM) Systems: Continuous opacity monitor (COM) systems shall be installed, operated, and maintained at the kiln/raw mill baghouse stack pursuant to 40 CFR 63.1350. A continuous emission monitor for emissions of total hydrocarbon is required pursuant to 40 CFR 63.1349 and 63.1350. 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.

18. CEM System Requirements: The selection, installation, calibration, maintenance, operation, record keeping, and reporting of the CEM system 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]

    [Note: 40 CFR 60 Appendix B and Appendix F have been omitted for brevity. See the Code of Federal Regulations for the text of these sections.]

19. Emission Tests Required: 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 initially and annually using the test methods of 40 CFR 60 Appendix A and 40 CFR 61 Appendix B 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.

POLLUTANT	TEST METHOD
PM	Method 5 [1]
PM_{10}	Method 5, assuming all PM measured is PM_{10}
SO_2	Method 6 or 6C
NOx	Method 7 or 7E [2]
VE	Method 9
CO	Method 10 or 10A
VOC	Method 25 or 25A
Hg	**Method 29 or the Ontario Hydro Method for Subpart LLL Hg Tests**

[1] The minimum sample volume shall be 30 dry standard cubic feet.

[2] ~~**NOx emissions testing shall be conducted with the air heater operating at the highest heat input possible during the test.**~~ **{Note for Draft Permit: This air heater was not built. An air heater will be included in Emissions Unit 052}**

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

[Rules 62-4.070(3), 62-296.701(4)(a), (c) and (d), and 62-297.310(7), F.A.C. and BACT]

20. Emissions Tests and Fuel Scenarios: Emission tests of emissions unit 044 shall be conducted for the pollutants in condition 18 upon initial operation under the fuel scenario representing the highest potential for generating emissions:

PRIMARY FUEL	SECONDARY FUEL
Coal	Whole tires directly into the pyroprocessing system, petroleum coke, and flyash

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.

21. **Long-Term** Mercury Emissions Determination: Materials Balance testing in condition 22 will be used to determine mercury emissions.

[Rules 62-4.070(3), 62-296.701(4)(a), (c) and (d), and 62-297.310(7), F.A.C. and BACT]

[Note: 40 CFR 60 Appendix A has been omitted for brevity. See the Code of Federal Regulations for the text of this section.]

22. 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.

~~**To determine the mercury content of the feed material and fuels to be used in the monthly calculation, sampling and analysis shall be performed in accordance with the following schedule:**~~

~~**i. During the first quarter of plant operation, sample each month analyze each month's composite sample.**~~

~~**ii. After the first quarter, sample for one month of each quarter and analyze that month's composite sample.**~~

[Rule 62-4.070(3), F.A.C.]

{Note for Draft Permit. This condition is being revised to allow for removal of Hg via filter dust to the cement mill or waste. Continued monthly reporting is required given compliance test results submitted by the applicant and their intermittent use of power plant fly ash previously destined for Kiln 1}

[Rule 62-4.070(3), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

23. 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. and BACT]

24. 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.]

25. 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.]

26. Material Balance Records of Mercury: The owner or operator shall demonstrate compliance with the mercury throughput limitation by material balance as required by condition 22 and making and maintaining records of monthly and rolling 12-month mercury throughput
[Rule 62-4.070(3), F.A.C.]

27. Appendices: This emissions unit is subject to all applicable requirements of Appendices A, B, C and GC of this permit.

SUBSECTION B.
The following specific conditions apply to the following emissions units after construction:

EMISSIONS UNIT NO.	BAGHOUSE ID NO.	EMISSIONS UNIT DESCRIPTION
Process: Raw Mix and Raw Meal Handling and Storage System		
045	331.BF640	Filter Dust Bin
	311.LS609	Filter Dust Bin Loadout Spout
046	341.BF400	Blend Silo
047	351.BF420	Kiln Feed Transport
	341.BF410	Blend Silo Discharge
	351.BF410	Kiln Feed Bin
Process: Clinker Handling and Storage		
048	471.BF110	Clinker Transport
050	471.BF120	Clinker Storage Silo
	481.BF155	Clinker Silo Discharge 1
	481.BF165	Clinker Silo Discharge 2
Process: Finish Mill System		
051	511.BF650	Finish Mill Additives
052	531.BF500	Finish Mill and Air Heater
054	531.BF020	Finish Mill Bucket Elevator
57	531.BF400	Finish Mill Cement Transport
	531.BF290	Finish Mill Rejects Transport
Process: Cement Silos & Loadout		
058	612.BF005	Cement Silo 5
	612.BF620	Cement Silo 5 Loading Bin
	622.LS140	Cement Silo 5 Loadout Spout N
	622.LS160	Cement Silo 5 Loadout Spout S
059	611.BF005	Multi Cell Cement Silo
	611.BF045	Multi Cell Cement Silo Alleviator
	611.BF610	Multi Cell Loadout Transport
	611.LS760	Multi Cell Loadout Spout
062	640.BF150	Packing Plant

{Note for Draft Permit. The table in the original permit was revised to reflect the as-built configuration including designations of baghouse identification numbers and descriptions of each emissions unit}

These Emissions units are subject to 40 CFR 60 Subpart F, Standards of Performance for Portland Cement Plants (40 CFR 60.60 – 60.66) and 40 CFR 60 Subpart A. These emissions units are also 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. These emissions units are also subject to the requirements of the state rules as indicated in this permit, particularly Rule 62-212.400, F.A.C., Prevention of Significant Deterioration.

[The numbering of the original federal rules in the following conditions has been preserved for ease of reference. Inapplicable paragraphs have been omitted for clarity and brevity. The term "Administrator" when used in 40 CFR 60 shall mean the Secretary of the Department or the Secretary's designee.]

1. Emissions Limits: Emissions from the following emissions units shall not exceed the following limits for the following pollutants:

EMISSIONS UNIT	BAGHOUSE ID NO.	EMISSION LIMIT PM/PM_{10} (LB/HR)	AVERAGING TIME [1]	OPACITY (%) [2]
Process: Raw Mix and Raw Meal Handling and Storage System				
045	331.BF640 311.LS609	0.60/0.42	3 hours	5
046	341.BF400	0.55/0.30	3 hours	5
047	341.BF410 351.BF410 351.BF420	2.64/1.84	3 hours	5
048	471.BF110	0.22/0.15	3 hours	5
Process: Clinker Handling and Storage				
050	481.BF155 481.BF165 471.BF120	0.99/0.70	3 hours	5
Process: Finish Mill System				
051	511.BF650	0.57/0.40	3 hours	5
052	531.BF500	8.57/6.0	3 hours	5
054	531.BF020	0.60/0.42	3 hours	5
057	531.BF400 531.BF290	0.44/0.31	3 hours	5
Process: Cement Silos & Loadout				
058	612.BF005 612.BF620 622.LS140 622.LS160	0.95/0.65	3 hours	5
059	611.BF005 611.BF045 611.BF610 611.LS760	0.78/0.54	3 hours	5
062	640.BF150	1.17/0.82	3 hours	5

[1] The averaging times for PM and PM_{10} correspond to the required length of sampling for the initial and subsequent emission tests.

[2] 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., and BACT]

{Note for Draft Permit. The above table in the original permit was revised to reflect the emissions from each baghouse under the as-built configuration. Tons per year (TPY) limits were removed because annual emissions are already limited by continuous lb/hr limits. The opacity limits already apply from condition 2 below and were added to the table for completeness. The net PM/PM_{10} increases caused by the changes are approximately 2.3/1.6 TPY of PM/PM_{10}}

2. Particulate Matter Emissions Control: Particulate matter (PM) emissions from these emissions units shall not exceed 0.01 grains/dscf, and PM_{10} emissions shall not exceed 0.007 grains/dscf. Particulate matter emissions from each emission point of this emissions unit shall be controlled by a baghouse. Visible emissions from each emission point of this emissions unit shall not exceed 5% opacity (no visible emissions).

   Emissions of NO_x, SO_2, CO and VOC will be controlled by emissions unit 044 **and 052**.

   With the exception of Emissions Unit 052, initial and annual compliance testing for PM and PM_{10} emissions from these emissions units is waived, and an alternative standard of 5% opacity (no visible emissions) is imposed, pursuant to Rule 62-297.620(4), F.A.C. If the Department has reason to believe that the particulate weight emission standard is not being met, it shall require that compliance be demonstrated using EPA Method 5, as described in 40 CFR 60 Appendix A.

   [Rules 62-4.070(3), 62-210.700(5), 62-212.400 and 62-297.620(4), F.A.C, 40 CFR 63.1348; BACT and applicant request]

3. Visible Emission Tests Required –The owner or operator shall demonstrate compliance with the visible emission limits of this subsection annually, using the methods specified in this subsection. [Rule 62-297.310(7)(a)4.a., F.A.C.]

4. Appendices: These emissions units are subject to all applicable requirements of Appendices A, B, C and GC of this permit.

5. Air Heater: The permittee may install an air heater associated with the Finish Mill at Emissions Unit 052.

a. **The maximum heat input of the air heater shall be limited to 45 MMBtu/hr.**

b. **The operation of the air heater shall be limited to 2,500 hours per year.**

c. **The air heater may be fired only with propane and a maximum 0.05% sulfur distillate oil.**

[Application and Rule 62-212.400, F.A.C. (BACT)]

6. Emission Limits and Test Requirements for Finish Mill and Air Heater – Emissions Unit 052:

a. **Emission Limits: This emissions unit shall comply with the following emission limits:**

Pollutant	SO_2	NOx	CO	PM/PM_{10}	Opacity
Mode	lb/hr	lb/hr	lb/hr	lb/hr	(%)
Air Heater On	2.1	30.92	17.84	8.6/6.0	5%
Air Heater Off	Not applicable	Not Applicable	Not Applicable	8.6/6.0	5%

b. **Testing Requirements: The finish mill shall be initially stack tested with the air heater off to determine initial compliance for PM/PM_{10}. The finish mill shall be stack tested with the air heater on to demonstrate initial and annual compliance with the emission standards for CO, PM/PM_{10}, NO_X and visible emissions. Compliance with the SO_2 limit shall be demonstrated by compliance with the maximum 0.05% sulfur fuel limitation. The tests shall be conducted before July 1, 2010.**

c. **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
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
ASTM Methods	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 the initial and 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 each subsequent fuel delivery, the permittee shall maintain a permanent file of the certified fuel sulfur analysis from the fuel vendor.

d. **Notification, Recordkeeping and Reporting Requirements: The permittee shall maintain records of the amount of oil and propane used in the finish mill air.**

[Application and Rules 62-212.400, (BACT), 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]

SUBSECTION C.

The following specific conditions apply to the following emissions units after construction:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
Process: Coal Mill Handling and Grinding System	
060	Coal Mill
061	Fine Coal Bin

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 as indicated in this permit, particularly the requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration.

The numbering of the original rules in the following conditions has been preserved for ease of reference to the rules. Inapplicable paragraphs have been omitted for clarity and brevity. The term "Administrator" when used in 40 CFR 60 shall mean the Secretary or the Secretary's designee.]

STATE REQUIREMENTS

OPERATIONAL REQUIREMENTS

1. Hours of Operation: This emissions unit may operate continuously, i.e., 8,760 hours per year. [Rule 62-210.200, F.A.C., Definitions -- potential to emit (PTE)]
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 165,000 tons annually. [Rule 62-210.200, F.A.C., Definitions -- potential to emit (PTE)]
3. O&M Plan for Baghouses: The owner or operator shall prepare 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. The O&M plan shall be submitted to the Department's Southwest District office prior to expiration of this permit. [Rule 62-4.070(3), F.A.C.]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

4. Emissions Limits: The emissions units correspond shall have the following emission points:

EMISSIONS UNIT NO.	EMISSION POINT	DESCRIPTION
060	461.BF400	Coal Mill
061	461.BF560	Fine Coal Bin

Particulate matter (PM) emissions from emissions unit 060 shall not exceed 0.01 grains/dscf (1.96 lb/hr), and PM_{10} emissions shall not exceed 0.007 grains/dscf (1.37 lb/hr).

Particulate matter (PM) emissions from emissions unit 061 shall not exceed 0.01-grains/dscf (0.03 lb/hr), and PM_{10} emissions shall not exceed 0.007 grains/dscf (0.02 lb/hr).

{Note for Draft Permit. The above paragraphs in the original permit were revised to reflect the emissions from each baghouse under the as-built configuration. Tons per year (TPY) limits were removed because annual emissions are already limited by continuous operation lb/hr limits.}

Particulate matter emissions from each emission point of this emissions unit shall be controlled by a baghouse. Visible emissions from each emission point of this emissions unit shall not exceed 5% opacity (observations for the initial compliance test shall be made for 3 hours (thirty 6-minute averages).

Initial and annual compliance testing for PM emissions from each emissions unit is waived, and an alternative standard of 5% opacity is imposed, pursuant to Rule 62-297.620(4), F.A.C. If the Department has reason to believe that the particulate weight emission standard is not being met, it shall require that compliance be demonstrated using EPA Method 5, as described in 40 CFR 60 Appendix A.

[Rules 62-4.070(3), 62-210.700(5), 62-212.400, and 62-297.620(4), F.A.C., BACT]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

5. Emission Tests Required: The owner or operator shall demonstrate compliance with the visible emissions standard for emissions unit 060 annually using EPA Method 9, as described in 40 CFR 60 Appendix A. The owner or operator shall demonstrate initial compliance with the particulate matter (PM) limits of this permit for emissions unit 061 using EPA Method 5, 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. and BACT]

REPORTING AND RECORD KEEPING REQUIREMENTS

6. 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.]

FEDERAL NSPS REQUIREMENTS

APPLICABILITY AND DEFINITIONS

7. Pursuant to 40 CFR 60.250 Applicability and Designation of Affected Facility:

(a) The provisions of this subpart are applicable to any of the following affected facilities in coal preparation plants which process more than 200 tons per day: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems.

[40 CFR 60.250]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

8. Pursuant to 40 CFR 60.252 Standards for particulate matter:

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any thermal dryer gases which:

(1) Contain particulate matter in excess of 0.070 g/dscm (0.031 gr/dscf).

(2) Exhibit 20 percent opacity or greater.

(c) On and after the date on which the performance test required to be conducted by § 60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

[40 CFR 60.252(a) and (c)]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

9. Pursuant to 40 CFR 60.253 Monitoring of operations:

   (a) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:
   (1) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within ±3° Fahrenheit.

   (b) All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under 40 CFR 60.13(b).
   [40 CFR 60.253(a) and (b)]

10. Pursuant to 40 CFR 60.254 Test methods and procedures:

   (a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

   (b) The owner or operator shall determine compliance with the particular matter standards in § 60.252 as follows:
   (1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin.
   (2) Method 9 and the procedures in § 60.11 shall be used to determine opacity.
   [40 CFR 60.254(a) and (b)]

11. Appendices: These emissions units are subject to all applicable requirements of Appendices A, B, C and GC of this permit.

FIGURE 1--SUMMARY REPORT--GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE

[Note: This form is referenced in 40 CFR 60.7, Subpart A-General Provisions]

Pollutant *(Circle One)*: SO_2 NOx TRS H_2S CO Opacity

Reporting period dates: From _____ to _____

Company: _____

Emission Limitation: _____

Address: _____

Monitor Manufacturer and Model No.: _____

Date of Latest CMS Certification or Audit: _____

Process Unit(s) Description: _____

Total source operating time in reporting period [1]: _____

Emission data summary [1]	CMS performance summary [1]
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown ..... ____	a. Monitor equipment malfunctions ... ___
b. Control equipment problems ..... ____	b. Non-Monitor equipment malfunctions __ .....
c. Process problems ..... ____	c. Quality assurance calibration ..... ___
d. Other known causes ..... ____	d. Other known causes ..... ___
e. Unknown causes ..... ____	e. Unknown causes ..... ___
2. Total duration of excess emissions ..... ____	2. Total CMS Downtime ..... ___
3. [Total duration of excess emissions] x (100) / [Total source operating time] ..... ___ % [2]	3. [Total CMS Downtime] x (100) / [Total source operating time] ..... ____ % [2]

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 CFR 60.7(c) shall be submitted.

Note: On a separate page, describe any changes since last quarter in CMS, process or controls.

I certify that the information contained in this report is true, accurate, and complete.

Name: _____

Signature: _____

Title: _____

Date: _____

Following is a summary of the BACT determination for Line 2. The details are available in the original documents for Permit 0530021-009-AC, Appendix A, pages BD-1 through BD-19 available at:

http://arm-permit2k.dep.state.fl.us/psd/0530021/000013D3.pdf

Emissions unit 044 shall have one emission point, the stack of the Kiln #2, Pre-Heater, Pre-Calciner and Clinker Cooler, designated by the permittee as 331.BF300. Particulate matter emissions from this emissions unit shall be controlled by a baghouse.

Emissions from this unit shall not exceed the following limits for the following pollutants.

POLLUTANT	EMISSION LIMIT		AVERAGING TIME	BASIS
PM	0.136 lb/ton of dry preheater feed; 0.23lb/ton of clinker	28.8 lb/hr	3 hours [3]	BACT
PM_{10}	0.118 lb/ton of dry preheater feed; 0.20 lb/ton of clinker	25.0 lb/hr	3 hours [3]	BACT
SO_2	0.23 lb/ton of clinker	28.8 lb/hour	24 hours [4]	BACT
NOx	1.95 lb/ton of clinker [1]	243.75 lb/hour [1]	30 day	BACT
CO	3.6 lb/ton of clinker	450.0 lb/hour	24 hours [5]	BACT
VOC	0.12 lb/ton of clinker [2]	15.0 lb/hour [2]	30 days [6]	BACT
VE	10% opacity		6 minutes [7]	BACT

1. NOx emissions shall be controlled by a selective non-catalytic reduction (SNCR) system. NOx emissions shall not exceed 2.4 lb/ton of clinker and 306.25 lb/hour (30 day rolling average) during the first 180 operating day after initial startup. After 180 operating days after initial plant startup, emissions of NOx shall not exceed the limits shown in the table.
2. VOC emissions shall be expressed as propane.
3. The averaging times for PM and PM_{10} correspond to the required length of sampling for the initial and subsequent emission tests.
4. The averaging time for SO_2 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.
5. The CO emissions limit will have a 30-day averaging period for the first 180 days after initial startup; thereafter, the CO limits will be a 24-hour limit. 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.
6. The averaging time for VOC shall be a 30-day block average specified in 40 CFR 63.1350(h).
7. The averaging time for visible emissions shall be a 6-minute block average that shall be computed from a minimum of one measurement every 15 seconds. The 6 minute block averages shall start at the beginning of each hour. The department will require the applicant to install continuous opacity monitoring systems (COMS) on the kiln's stack.

BACT for other enclosed emission sources will be control of particulate matter emissions using baghouses to meet respective PM and PM_{10} emission limits of 0.01 and 0.007 grains per dry standard cubic foot. Visible emissions from these sources shall not exceed 5 percent opacity.

BACT for unenclosed sources is generally control of particulate matter emissions by inherent or applied moisture. Unpaved roads will be sprayed with water to prevent unconfined particulate matter emissions. Material and fuel storage piles will be stored under roof or in enclosed vessels. Storage piles shall be shaped, compacted and oriented to minimize wind erosion. Storage piles shall be wetted with devices located near such piles when visual inspection determines wetting is needed. Paving of the manufacturing area and access roadways is required. Sweeping of paved road will be required.

BACT for the air heater located at the finish mill is use of propane and distillate fuel oil with a maximum sulfur content of 0.05 percent and filtration through the finish mill baghouse.

1. Pursuant to 40 CFR 60 Subparts F and A:

   The owner or operator shall comply with all applicable provisions of 40 CFR 60 Subpart F and A, which are available at the following links:

   40 CFR 60, Subpart A

   40 CFR 60, Subpart F

APPENDIX C. 40 CFR 63 SUBPART LLL AND 40 CFR 63 GENERAL PROVISIONS

1. Pursuant to 40 CFR 63 Subparts LLL and A:

   The owner or operator shall comply with all applicable provisions of 40 CFR 63 Subpart LLL and A, which are available at the following links.

   40 CFR 63, Subpart A

   40 CFR 63, Subpart LLL

APPENDIX GC. GENERAL PERMIT CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
   a. Have access to and copy and records that must be kept under the conditions of the permit;
   b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
   c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

   Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
   a. A description of and cause of non-compliance; and
   b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S.. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.
11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
    a. Determination of Best Available Control Technology;
    b. Determination of Prevention of Significant Deterioration; and
    c. Compliance with New Source Performance Standards.
14. The permittee shall comply with the following:
    a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
    b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
    c. Records of monitoring information shall include:
        1) The date, exact place, and time of sampling or measurements;
        2) The person responsible for performing the sampling or measurements;
        3) The dates analyses were performed;
        4) The person responsible for performing the analyses;
        5) The analytical techniques or methods used; and
        6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Walker, Elizabeth (AIR)

From: Walker, Elizabeth (AIR)
Sent: Friday, January 29, 2010 10:08 AM
To: 'gtownsend@cemexusa.com'
Subject: Proof of Publication for CEMEX Brooksville South Kiln 2 Project

Dear Mr. Townsend,

Please send the proof of publication affidavit with the original clipping for the Draft Air Construction Permit (0530021-018-AC) to me at the address below:

Elizabeth Walker
DEP, Division of Air Resource Management
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

Phone: 850/921-9505

Thank you for returning my call so quickly!

Elizabeth Walker
Bureau of Air Regulation
Division of Air Resource Management (DARM)
(850)921-9505

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

February 16, 2009

Electronically Sent – Received Receipt Requested.

jdaniel@cemexusa.com
James S. Daniel, Plant Manager
South Brooksville Cement Plant
Florida Crushed Stone, d.b.a. CEMEX, Inc.
10311 Cement Plant Road
Brooksville, Florida 32669

Re: DEP File No. 0530021-017-AC and
DEP File No. 0530021-018-AC
South Brooksville Cement Plant – Kiln 2
Trial Burning of Alternative Fuels and As-Built Configuration

Dear Mr. Daniel:

On January 20, 2009 CEMEX submitted further information regarding the alternative fuels it plans to use on Kiln 2 and proposed stack testing. Recently CEMEX also submitted an application to revise the previously issued construction permit for Kiln 2 to reflect the as-built configuration.

On December 24, 2008 we sent CEMEX a request for additional information (RAI) related to the modification of the construction permit for Kiln 2. The request addressed the possible triggering of a review of the prevention of significant deterioration (PSD) and associated dispersion modeling. The reason is that requested emissions from the as-built Kiln 2 are significantly greater than the previously permitted values.

We consider the alternative fuels application to be incomplete at least until the issues regarding the as-built project are resolved or we receive a sufficient response to the RAI sent to CEMEX on December 24.

Two members of our permitting staff (Mr. Read and Ms. Heron) will visit the facility on February 18 for the purpose of gaining a more precise understanding of the key differences between the as-built kiln and the issued permit. We discussed the importance of this visit with Mr. Townsend and Mr. Aller during a visit on February 12.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please advise the professional engineer to make sure he/she uses the correct seal in compliance with the applicable requirements of the Florida Board of Professional Engineers. Permit applicants are advised that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days.

If you have any questions, please contact the Project Engineer, Teresa Heron, at (850) 921-9529.

Sincerely,

A. A. Linero, Program Administrator
Bureau of Air Regulation
Special Projects Section

AAL/th

Cc: Mike Aller, CEMEX: maller@cemexusa.com
George Townsend, CEMEX: gtownsend@cemexusa.com
Lillian F. DePrimo, CEMEX: lillianf.deprimo@cemex.com
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Fawn Bergen, P.E., K&A: fbergen@kooglerassociates.com
Administrator, Hernando County: gkuhl@hernandocounty.us
Katy Forney, EPA Region 4: forney.kathleen@epamail.epa.gov
Heather Abrams, EPA Region 4: abrams.heather@epa.gov

Walker, Elizabeth (AIR)

From: Linero, Alvaro
Sent: Monday, February 16, 2009 4:17 PM
To: Walker, Elizabeth (AIR)
Subject: Cemex Brooksville South - Alternative Fuels
Attachments: 017INCFEB.pdf

Importance: High

Elizabeth

The referenced project is incomplete per the attached RAI.

Can you please print copy of this letter for physical file?

I already sent you and Sylvia the one and only received receipt that I am interested in receiving.

Thanks.

Al.

From: Linero, Alvaro
Sent: Monday, February 16, 2009 4:09 PM
To: 'Daniel, James S. (Jim)'
Cc: 'Lawrence A Lucarelli'; 'fbergen@kooglerassociates.com'; 'forney.kathleen@epa.gov'; 'Abrams.Heather@epamail.epa.gov'; Nasca, Mara; 'gkuhl@hernandocounty.us'; 'gtownsend@cemexusa.com'; 'Aller, Mike'; 'Lillian F Deprimo'
Subject: RE: Cemex Brooksville South - Alternative Fuels
Importance: High

Dear Mr. Daniel:

Please read the attached letter as it relates to the application to use alternative fuels in Kiln 2.

Thank you.

Alvaro Linero, Program Administrator
Bureau of Air Regulation
Special Projects Section
State of Florida DEP
850-921-9523

Florida Department of Environmental Protection
Bob Martinez Center
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor
Jeff Kottkamp
Lt. Governor
Michael W. Sole
Secretary

December 24, 2008

Electronically Sent – Received Receipt Requested.

jdaniel@cemexusa.com
James S. Daniel, Plant Manager
South Brooksville Cement Plant
Florida Crushed Stone, d.b.a. CEMEX, Inc.
10311 Cement Plant Road
Brooksville, Florida 32669

Re: DEP File No. 0530021-018-AC (PSD-FL-351C)
South Brooksville Cement Plant – Kiln 2
Revisions to Original Project to reflect "as built" Plant Design Configuration

Dear Mr. Daniel:

On November 24, 2008, you submitted an application for an air construction permit modification to change information originally submitted and replaced with "as built" design configuration on the recently permitted Kiln 2 at the facility identified above.

Pursuant to Sections 62-4.055, and 62-4.070, Florida Administrative Code (F.A.C.), Permit Processing, the Department requests submittal of the additional information prior to processing the application. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Regulations

1. The changes in emissions from the original project (Permit 0530021-009-AC) indicates increases in particulate matter (PM/PM_{10}) of 31.34/21.93 tons per year (tpy). These values are greater than the significant emission rates (SER) level of 25/10 tpy given in Section 62-210.200(280), F.A.C. The definition of SER is:

   (a) With respect to any emissions increase or any net emissions increase, or the potential of a facility to emit any of the following pollutants, significant emissions rate means a rate of pollutant emissions that would equal or exceed:

      1. A rate listed at 40 CFR 52.21(b)(23)(i), adopted by reference at Rule 62-204.800, F.A.C.; specifically, any of the following rates:

         d. Particulate matter:

            (I) 25 tpy of particulate matter emissions;

            (II) 15 tpy of PM10 emissions;

Refer to the submitted application form Page 3, under subsection entitled Application Comment. Explain further the statement that this project is a minor modification implying that it is not subject to the prevention of significant deterioration (PSD) rules in Section 62-212.400, F.A.C. Please provide basis for claiming status as a minor modification.

If PSD is applicable, please submit a complete BACT analysis for the affected pollutant.

2. Please redo the 24-hour PSD Class II increment analysis with the new proposed modifications on Kiln 2.

We will forward any comments received from other agencies as soon as we receive them. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please advise the professional engineer to make sure he/she uses the correct seal in compliance with the applicable requirements of the Florida Board of Professional Engineers.

Permit applicants are advised that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days.

If you have any questions, please contact the project engineer, Teresa Heron, at (850) 921-9529. Matters regarding modeling issues should be directed to Cleve Holladay at 850/921-8986.

Sincerely,

A.A. Linero, Program Administrator
Bureau of Air Regulation
Special Projects Section

AAL/th

Cc: Mike Aller, CEMEX: maller@cemexusa.com
George Townsend, CEMEX: gtownsend@cemexusa.com
Lillian F. DePrimo, CEMEX: lillianf.deprimo@cemex.com
Mara Nasca, DEP SWD: mara.nasca@dep.state.fl.us
Fawn Bergen, P.E., K&A: fbergen@kooglerassociates.com
Administrator, Hernando County gkuhl@hernandocounty.us
Katy Forney, EPA Region 4: forney.kathleen@epamail.epa.gov
Heather Abrams, EPA Region 4: abrams.heather@epa.gov

Walker, Elizabeth (AIR)

From: Linero, Alvaro
Sent: Monday, January 05, 2009 2:37 PM
To: Heron, Teresa; Walker, Elizabeth (AIR)
Subject: FW: Cemex Brooksville South - As-Built Kiln 2
Attachments: 018ACInc.pdf

Importance: High

From: Linero, Alvaro
Sent: Wednesday, December 24, 2008 4:31 PM
To: 'Daniel, James S. (Jim)'; 'Aller, Mike'; 'Lillian F Deprimo'
Cc: 'Lawrence A Lucarelli'; fbergen@kooglerassociates.com; 'forney.kathleen@epa.gov'; Abrams.Heather@epamail.epa.gov; Nasca, Mara; 'gkuhl@hernandocounty.us'; gtownsend@cemexusa.com
Subject: RE: Cemex Brooksville South - As-Built Kiln 2
Importance: High

Dear Mr. Daniel, Mr. Aller and Ms. DePrimo:

Please read the attached letter as it relates to the application for a permit to reflect the as-built Kiln 2.

Feel free to call me next week if you wish to discuss.

Thank you.

Alvaro Linero, Program Administrator
Bureau of Air Regulation
Special Projects Section
State of Florida DEP
850-921-9523

Walker, Elizabeth (AIR)

From: Linero, Alvaro
Sent: Monday, January 05, 2009 2:35 PM
To: Walker, Elizabeth (AIR); Heron, Teresa
Subject: FW: Cemex Brooksville South - As-Built Kiln 2

Importance: High

Read receipt.

Relates to Cemex Kiln No. 2 at Brooksville South.

I will send you the outgoing email in a minute that shows the letter (needs to be in file).

Other receipts don't matter - only the responsible official.

Al.

From: Daniel, James S. (Jim) [mailto:JDaniel@cemexusa.com]
Sent: Thursday, December 25, 2008 9:47 AM
To: undisclosed-recipients
Subject: Read: Cemex Brooksville South - As-Built Kiln 2
Importance: High

Your message

To: JDaniel@cemexusa.com
Subject:

was read on 12/25/2008 9:47 AM.

KOOGLER & ASSOCIATES, INC.
ENVIRONMENTAL SERVICES
4014 NW 13th STREET
GAINESVILLE, FL 32609-1923
352/377-5822 ▪ FAX/377-7158

January 28, 2010

Al Linero. P.E.
Special Projects Section
Bureau of Air Regulation
Division of Air Resource Management
Department of Environmental Protection
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

Subject: Comments on Draft Permit
DEP File No. 0530021-018-AC (PSD-FL-351C)
Brooksville South Cement Plant
Final Configuration – Portland Cement Line 2

Dear Mr. Linero,

This letter provides written comments on the referenced permit. Each comment item is reproduced, preserving your numbering. Strikethrough (~~strikethrough~~) is used for text proposed for deletion, and underline (<u>underline</u>) is used for text proposed for inclusion. A brief discussion of the justification for each proposed change is included with each comment.

We appreciate the opportunity to provide these comments. Please contact me if you wish to discuss any of the proposed changes.

Regards,

Steven C. Cullen, P.E.
Koogler & Associates, Inc.

Consultant to CEMEX Construction Materials Florida, Inc.

Copy to: George Townsend - CEMEX

Comments on Draft Permit 0530021-018-AC

Page 3, Project Details, Table
Emissions Unit 061, Emissions Unit Description
FROM: Fine Coal Mill
TO: Fine Coal ~~Mill~~ Bin
JUSTIFICATION: Correct description

Page 3, Project Details, Table
Emissions Unit 062, Baghouse ID No.
FROM: Emissions Unit No. 062 Baghouse ID No. 640.BF150
TO: Emissions Unit No. 062 Baghouse ID No. ~~640.BF150~~ 641.BF150
JUSTIFICATION: Correct ID number

Page 6, Section II – Facility-Wide Specific Conditions
1. Permitting Authority
FROM: b. For future…Southwest District, 3804 Coconut Palm Drive, Tampa, FL 33619-1352 and phone number (813) 744-6100.
TO: b. For future…Southwest District, ~~3804 Coconut Palm Drive, Tampa, FL 33619-1352 and phone number (813) 744-6100~~ 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926 and phone number (813) 632-7600.
JUSTIFICATION: Update

Page 7, Section II – Facility-Wide Specific Conditions
10. General Visible Emissions Standard
FROM: Except for…the density if…
TO: Except for…the density ~~if~~ of…
JUSTIFICATION: Clerical

Page 12, Section III – Emissions Units Specific Conditions
2. Fuels
FROM: b. Coal and/or…shall not exceed 432, 000 cf/hr…
TO: b. Coal and/or…shall not exceed ~~432, 000~~ 432,000 cf/hr…
JUSTIFICATION: Clerical, extra space

Page 14, Section III – Emissions Units Specific Conditions
11. Performance Testing
FROM:…a change in the LOI of the flyash…
TO:…a change in the LOI of the flyash of greater than 2%…
JUSTIFICATION: Serves to clarify what is a significant change.

Page 14, Section III – Emissions Units Specific Conditions
12. Emissions Limits (Table)
FROM: Mercury 41 ug/dscm & Footnote 8, Page 15
TO: ~~Mercury 41 ug/dscm & Footnote 8, Page 15~~
JUSTIFICATION: Permittee contends that they are an existing source for purposes of the NESHAP short-term and long-term mercury limits.

Page 16, Section III – Emissions Units Specific Conditions
19. Emission Tests Required (Table)
FROM: NOx Method 7 or 7E[2]
TO: NOx Method 7 or 7E[2]
JUSTIFICATION: Clerical, delete footnote reference as footnote is being deleted
Page 14, Section III – Emissions Units Specific Conditions
19. Emission Tests Required (Table)
FROM: Hg Method 29 or the Ontario Hydro Method for Subpart LLL Hg Tests
TO: ~~Hg Method 29 or the Ontario Hydro Method for Subpart LLL Hg Tests~~
JUSTIFICATION: Permittee contends that they are an existing source for purposes of the NESHAP short-term and long-term mercury limits.

Page 16, Section III – Emissions Units Specific Conditions
16. Continuous Emission Monitoring Systems
FROM: … The CEM system shall express the results in units of pounds per ton of clinker produced, and pounds per hour.
TO: … The CEM system shall express the results in units of pounds per ton of clinker produced, and pounds per hour. Pounds per ton of clinker shall be computed only when clinker from the kiln is produced at 80% or greater of production capacity (i.e., normal operation of the kiln). Pounds per hour must be calculated whenever fuel is fired to the kiln system.
JUSTIFICATION: Provides clarity.

Page 16, Section III – Emissions Units Specific Conditions
20. Emissions Tests and Fuel Scenarios
FROM: Emission tests of emissions unit 044 shall be conducted for the pollutants in condition 18…
TO: Emission tests of emissions unit 044 shall be conducted for the pollutants in condition 12 ~~18~~…
JUSTIFICATION: Correct internal reference.

Page 18, Section III – Emissions Units Specific Conditions
26. Material Balance Records of Mercury
FROM: The owner…12-month mercury throughput
TO: The owner…12-month mercury throughput.
JUSTIFICATION: Clerical, punctuation added

Page 19, Section III – Emissions Units Specific Conditions
Subsection B (Table)
Emissions Unit 062, Baghouse ID No.
FROM: Emissions Unit No. 062 Baghouse ID No. 640.BF150
TO: Emissions Unit No. 062 Baghouse ID No. ~~640.BF150~~ 641.BF150
JUSTIFICATION: Correct ID number

Page 20, Section III – Emissions Units Specific Conditions
1. Emission Limits (Table)
Emissions Unit 046, Emission Limit
FROM: 0.55/0.30
TO: 0.55/~~0.30~~ 0.39
JUSTIFICATION: Correct PM10 emission limit

Page 20, Section III – Emissions Units Specific Conditions
1. Emission Limits (Table)
Emissions Unit 048, Clinker Transport
FROM: [Above] Process: Clinker Handling and Storage
TO: [Below] Process: Clinker Handling and Storage
JUSTIFICATION: Correct process flow, consistency with Table on Page 19

Page 20, Section III – Emissions Units Specific Conditions
1. Emission Limits (Table)
Emissions Unit 062, Baghouse ID No.
FROM: Emissions Unit No. 062 Baghouse ID No. 640.BF150
TO: Emissions Unit No. 062 Baghouse ID No. ~~640.BF150~~ 641.BF150
JUSTIFICATION: Correct ID number

Page 21, Section III – Emissions Units Specific Conditions
6. Emission Limits and Test Requirements for Finish Mill and Air Heater
FROM: b. Testing Requirements…The finish mill shall be stack tested with the air heater on to demonstrate initial and annual compliance with the emission standards…
TO: b. Testing Requirements…The finish mill shall be stack tested with the air heater on to demonstrate initial ~~and annual~~ compliance with the emission standards…
JUSTIFICATION: This request is to remove the annual testing requirement as the air heater only will run a fraction of the time. It is normally used for preheating the mill only, not during normal steady-state operation. It is not run with the mill in production if it is not cold outside; as the mill would overheat and dehydrate the gypsum. This would have an adverse affect on cement quality.

Page 22, Section III – Emissions Units Specific Conditions
6. Emission Limits and Test Requirements for Finish Mill and Air Heater
FROM: d. Notification…mill air.
TO: d. Notification…mill air heater.
JUSTIFICATION: Clerical, added missing word "heater"

Page 24, Section III – Emissions Units Specific Conditions
5. Emission Tests Required
FROM: The owner or operator shall demonstrate compliance with the visible emissions standard for emissions unit 060 annually using EPA Method 9, as described in 40 CFR 60 Appendix A. The owner or operator shall demonstrate initial compliance with the particulate matter (PM) limits of this permit for emissions unit 061 using EPA Method 5, as described in 40 CFR 60 Appendix A. Should subsequent particulate matter testing be required for both emissions units, compliance shall be demonstrated using EPA Method 5.
TO: ~~The owner or operator shall demonstrate compliance with the visible emissions standard for emissions unit 060 annually using EPA Method 9, as described in 40 CFR 60 Appendix A. The owner or operator shall demonstrate initial compliance with the particulate matter (PM) limits of this permit for emissions unit 061 using EPA Method 5, as described in 40 CFR 60 Appendix A.~~ The owner or operator shall demonstrate initial compliance with the particulate matter (PM) limits of this permit for emissions unit **060** using EPA Method 5, as described in 40 CFR 60 Appendix A. The owner or operator shall demonstrate compliance with the visible emissions standard for emissions unit **061** annually using EPA Method 9, as described in 40 CFR 60 Appendix A. Should subsequent particulate matter testing be required for both emissions units, compliance shall be demonstrated using EPA Method 5.
JUSTIFICATION: The coal mill (060) is more likely to require PM testing than the coal bin (061), because it functions as a thermal dryer and because it is a larger (greater air flow) control device. This appears to be a historical error from the initial AC.

CEMEX

January 14, 2010

Via Certified Mail
Return Receipt Requested
Article No. 7009 1410 0001 1174 2981

Ms. Mara Grace Nasca
District Air Program Administrator
Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Parkway
Temple Terrace, FL 33667-0926

Re: Draft Permit No. 0530021-018-AC(PSD-FL-351C) Proof of Publication – Public Notice of Intent to Issue Draft "As-Built" Construction Permit, Kiln No. 2, Brooksville South Cement Plant

Dear: Ms. Nasca:

Pursuant to the above referenced Public Notice of Intent to Issue Draft "As-Built" Construction Permit, please find enclosed a copy of required affidavit with the article as published in the legal section of the Hernando Times (Hernando County addition of the St Pete Times) on January 8, 2010.

Should you have any questions and/or comments concerning this submittal or require additional information, please contact me at 352-799-7881 or gtownsend@cemexusa.com.

Respectfully,

George Townsend

George Townsend
Environmental Manager

pc: James S. Daniel, Plant Manager
Steve Cullen, P.E., Koogler & Associates

D:\Documents and Settings\gtownsend\My Documents\Brooksville South\Kiln 2\As-Built Application\Proof of Publicataion Submittal 01-14-10.doc

Florida Region
10311 Cement Plant Rd., Brooksville, Florida 34601. USA, (352) 799-7881, Fax: (352) 799-6088

1003182482

BEST AVAILABLE COPY

HERNANDO TIMES

An Edition of the St. Petersburg Times

Published Daily
Brooksville, Hernando County, Florida

STATE OF FLORIDA
COUNTY OF HERNANDO:

Before the undersigned authority personally appeared Mary Fanter who on oath says that she is Legal Clerk of the Hernando Times a daily newspaper published at Brooksville, in Hernando County, Florida: that the attached copy of advertisement, being a Legal Notice in the matter of RE: Public Notice of Intent To Issue Air Permit Draft Air Pemit No. 0530021-018-AC (PSD-FL-351C) in the Court was published in said newspaper in the issues of January 8, 2010

Affiant further says the said Hernando Times is a newspaper published at Brooksville, in said Hernando County, Florida, and that the said newspaper has heretofore been continuously published in said Hernando County, Florida, each day and has been entered as second class mail matter at the post office in Brooksville, in said Hernando County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, firm, or corporation any discount, rebat commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Mary Fanter
Signature of Affiant

Sworn to and subscribed before me this 8th day of January, 2010.

DEIRDRE ANN ALMEIDA
MY COMMISSION # DD848691
EXPIRES January 04, 2013
(407) 398-0153 FloridaNotaryService.com

Signature of Notary Public

Personally known x or produced identification ____

Type of identification produced ____

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation

Draft Air Permit No. 0530021-018-AC (PSD-FL-351C)
CEMEX Brooksville South Cement Plant - Line 2
As-Built Configuration
Hernando County

Applicant: The applicant for this project is CEMEX Construction Materials Florida, LLC (CEMEX). The applicant's authorized representative and mailing address is: Mr. James S. Daniel, Plant Manager, CEMEX Brooksville South Cement Plant, 10311 Cement Plant Road, Brooksville, Florida 32669.

Facility Location: The applicant, CEMEX, operates the existing Brooksville South Cement Plant, which is located in Hernando County at 10311 Cement Plant Road in Brooksville, Florida.

Project: The project is to issue an air construction permit to reflect the as-built configuration for the previously permitted and constructed Portland Cement Line 2. Line 2 has a capacity of 2,800 tons per day of clinker and was constructed pursuant to Air Permit 0530021-009-AC (PSD-FL-351) issued in 2005 to the previous owner, Rinker. A review for the Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) were conducted for Line 2. This line began operation in November 2008.

The key emission limits from Kiln 2 (the main emissions unit) are based on the following controls:

- Staged combustion calciner and raw material selection for the control of volatile organic compounds (VOC), carbon monoxide (CO) and nitrogen oxides (NOX);
- Selective non-catalytic reduction (SNCR) by ammonia injection to further control NOX;
- Dry scrubbing in the calciner and contact with moist limestone in the raw mill to control sulfur dioxide (SO2);
- Raw material and fuel selection to minimize mercury (Hg) emissions; and
- Fabric filter baghouses to control particulate matter (PM/PM10).

The present request is to modify the permit to reflect the differences between the original design based on one supplier and the final configuration based on the design practices of the selected equipment supplier. Those differences are related primarily to the sizes and flow rates in the fabric filter baghouses used for material conveyance, separation and storage. The other difference relates to the inclusion of a small 45 million BTU per hour diesel-fueled air heater located at the cement mill rather than at the raw mill. The Department has determined that BACT for the air heater is the use of low sulfur diesel fuel oil and filtration through the finish mill baghouse. No changes are requested in the key BACT, production or emission limits for Kiln 2.

This new permit will also incorporate: previously approved modifications to the original permit including minor corrections thereto; additional time to complete the previously approved construction of a whole tire injection mechanism (TIM); and a Hg standard that was finalized by the U.S. Environmental Protection Agency prior to commencement of construction.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida 32301 and the mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application and information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents as well as documents related to the previous permits for Line 2 are available at the following web link:

www.dep.state.fl.us/Air/emission/construction/rinker.htm

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 30-day period. If timely received comments result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner

the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

CEMEX

January 29, 2010

Via Certified Mail
Return Receipt Requested
Article No. 7009 1410 0001 1174 3131

Ms. Elizabeth Walker
Florida Department of Environmental Protection
Bureau of Air Regulation
Division of Air Resource Management
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

Re: Draft Permit No. 0530021-018-AC (PSD-FL-351C) Proof of Publication – Public Notice of Intent to Issue Draft "As-Built" Construction Permit, Kiln No. 2, Brooksville South Cement Plant

Dear: Ms. Walker:

The proof of publication of the Public Notice of Intent to Issue Draft "As-Built" Construction Permit was inadvertently sent to the Tampa District Office. The submittal to the District Office was a copy of the proof of publication; that was forwarded to your office. To comply with the requirement to submit the original article, please find enclosed the original affidavit and article as published in the legal section of the Hernando Times (Hernando County addition of the St. Pete Times) on January 8, 2010.

Should you have any questions and/or comments concerning this submittal or require additional information, please contact me at 352-799-7881 or gtownsend@cemexusa.com.

Respectfully,

George Townsend

George Townsend
Environmental Manager

pc: James S. Daniel, Plant Manager — All w/o Attachment
Steve Cullen, P.E., Koogler & Associates

D:\Documents and Settings\gtownsend\My Documents\Brooksville South\Kiln 2\As-Built Application\Proof of Publicataion Submittal 01-29-10.doc

Florida Region
10311 Cement Plant Rd., Brooksville, Florida 34601. USA, (352) 799-7881, Fax: (352) 799-6088

BEST AVAILABLE COPY

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609

GAINESVILLE FLORIDA
FL 326
[illegible] PM

Mr. Al Linero, P.E.
FL Dept. of Environmental Protection
2600 Blair Stone Road, MS#5505
Tallahassee, FL 32399-2400

32399+2400

CEMEX

Florida Region
10311 Cement Plant Rd., Brooksville, FL 3

7009 1410 0001 1174 2981

TAMPA FL 335
PETERSBURG FL
15 JAN 2010 PM

02 1P $ 005.54
0002525632 JAN 15 2010
MAILED FROM ZIP CODE 34601

19

RETURN RECEIPT REQUESTED

Ms. Mara Grace Nasca
District Air Program Administrator
Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926

1st NOTICE
2nd NOTICE
RETURNED

33637

33637$0926 R075