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

September 2, 2008

Electronically sent – Received Receipt requested.

jdaniel@cemex.com
James S. Daniel, Plant Manager
Florida Crushed Stone, Company (d.b.a. CEMEX Cement, Inc.)
Brooksville South Cement Plant
10311 Cement Plant Road
Brooksville, Florida 34601

Re: **Request for Additional Information**
Brooksville South Cement Plant
Project No. 0530021-016-AC
Install a Tire Injection Mechanism (TIM) at the front end of Cement Kiln No. 1

Dear Mr. Daniel:

On August 7, 2008, the Department received your application for an air construction permit to construct and install a Tire Injection Mechanism (TIM) system to introduce tires at the front end of Kiln No.1. The application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the items below require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. The application does not state what construction permit and permit condition(s) you are proposing to modify. Please provide this information.
2. What is the historical heat input due to tire derived fuel? If the historical heat input is less than the permitted maximum firing rate of 15.0 percent of the total BTU heat input, conduct a Baseline Actual-to-Projected Actual Applicability Test for Modifications at Existing Emissions Units according to Rule 62-212.400(2)(a)1. Florida Administrative Code (F.A.C.) in order to determine Prevention of Significant Deterioration applicability.
3. If the heat input due to tire derived fuel is within 90 percent of the permitted firing rate, please provide the necessary documents to substantiate the claim.

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3) of the Florida Administrative Code (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. For any material changes to the application,

please include a new certification statement by the authorized representative or responsible official. You are reminded that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days or to provide a written request for an additional period of time to submit the information.

If you have any questions regarding this matter, please contact Cleve Holladay (850/921-8986).

Sincerely,

Syed Arif, P.E.
New Source Review Section

This letter was sent by electronic mail with received receipt requested to the following people:

James S. Daniel, CEMEX: jdaniel@cemex.com
Mara Nasca, DEP SWD: mara.nasca@dep.state.fl.us
John Koogler, P.E. K&A: jkoogler@kooglerassociates.com
Fawn Bergen, P.E., K&A: FBergen@kooglerassociates.com
Kathy Forney, EPA Region 4: Forney.Kathleen@epamail.epa.gov

Walker, Elizabeth (AIR)

From: Walker, Elizabeth (AIR)
Sent: Tuesday, September 02, 2008 12:10 PM
To: 'jdaniel@cemexusa.com'
Cc: Arif, Syed
Subject: FW: RAI - Brooksville South Cement Plant 0530021-016-AC
Attachments: RAI-0530021-016-AC.pdf

Mr. Daniel,

Our email address on file for you was incorrect. This is an attempt to resend this correspondence from earlier today. Please confirm receipt as prescribed below.

Thank you.

Elizabeth Walker
Bureau of Air Regulation
(850) 921-9505

From: Walker, Elizabeth (AIR)
Sent: Tuesday, September 02, 2008 11:55 AM
To: 'jdaniel@cemex.com'
Cc: Arif, Syed; Holladay, Cleve; Nasca, Mara; 'jkoogler@kooglerassociates.com'; 'fbergen@kooglerassociates.com'; 'Forney.Kathleen@epamail.epa.gov'; Gibson, Victoria
Subject: RAI - Brooksville South Cement Plant 0530021-016-AC

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The 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.

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. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

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

Walker, Elizabeth (AIR)

From: Exchange Administrator
Sent: Tuesday, September 02, 2008 12:10 PM
To: Walker, Elizabeth (AIR)
Subject: Delivery Status Notification (Relay)
Attachments: ATT232406.txt; FW: RAI - Brooksville South Cement Plant 0530021-016-AC

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

jdaniel@cemexusa.com

Walker, Elizabeth (AIR)

From: Exchange Administrator
Sent: Tuesday, September 02, 2008 11:56 AM
To: Walker, Elizabeth (AIR)
Subject: Delivery Status Notification (Relay)
Attachments: ATT232302.txt; RAI - Brooksville South Cement Plant 0530021-016-AC

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

jkoogler@kooglerassociates.com
fbergen@kooglerassociates.com

Walker, Elizabeth (AIR)

From: Exchange Administrator
Sent: Tuesday, September 02, 2008 12:10 PM
To: Walker, Elizabeth (AIR)
Subject: Delivery Status Notification (Relay)
Attachments: ATT232406.txt; FW: RAI - Brooksville South Cement Plant 0530021-016-AC

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

jdaniel@cemexusa.com

January 31

Department of Environmental Protection

RECEIVED
DEC 03 2008
BUREAU OF AIR REGULATION

Charlie Crist
Governor

2600 Blair Stone Road, MS 5500
Tallahassee, Florida 32399-2400

Michael W. Sole
Secretary

WAIVER OF 90 DAY TIME LIMIT
UNDER SECTIONS 120.60(2) AND 403.0876, FLORIDA STATUTES

LICENSE (PERMIT, CERTIFICATION) APPLICATION NO: **Permit Nos. 0530021-017-AC**

APPLICANT'S NAME: **CEMEX, Inc.; Brooksville South Cement Plant**
COMPANY/OWNER

The undersigned has read Sections 120.60(2) and 403.0876, Florida Statutes, and fully understands the applicant's rights under that section.

With regard to the above referenced license permit application, the applicant hereby with full knowledge and understanding of its rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right under Sections 120.60(2) and 403.0876, Florida Statutes, to have the application approved or denied by the State of Florida Department of Environmental Protection within the 90 day time period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes. Said waiver is made freely and voluntarily by the application, is in its self-interest, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Protection.

This waiver shall expire on the 31st day of January 2009.

The undersigned is authorized to make this waiver on behalf of the applicant.

Lawrence Lucarelli, P.E.
NAME (PLEASE TYPE OR PRINT)

LAWRENCE LUCARELLI LICENSE No. 58956 STATE OF FLORIDA PROFESSIONAL ENGINEER

SIGNATURE

2 December 2008
DATE SIGNED

"More Protection, Less Process"

United States Operations
840 Gessner, Suite 1400, Houston, TX 77024. USA, (713) 650-6200

Section 120.60, Florida Statutes

(2) When an application for a license is made as required by law, the agency shall conduct the proceedings required with reasonable dispatch and with due regard to the rights and privileges of all affected parties or aggrieved persons. Within 30 days after receipt of an application for a license, the agency shall examine the application, notify the applicant of any apparent errors or omissions, and request any additional information the agency is permitted by law to require. Failure to correct an error or omission or to supply additional information shall not be grounds for denial of the license unless the agency timely notified the applicant within this 30 day period. The agency shall notify the applicant if the activity for which he seeks a license is exempt from the licensing requirement and return any tendered application fee within 30 days after receipt of the original application or within 10 days after receipt of the timely requested additional information or correction of errors or omissions. Every application for license shall be approved or denied within 90 days after receipt of the original application or receipt of the timely requested additional information or correction of errors or omissions unless a shorter period of time for agency action is provided by law. The 90-day or shorter time period shall be tolled by the initiation of a proceeding under Section 120.57 and shall resume 10 days after the recommended order is submitted to the agency and the parties. Any application for a license not approved or denied within the 90-day period or shorter time period within 15 days after conclusion of a public hearing held on the application, or within 45 days after the recommended order is submitted to the agency and the parties, whichever is latest, shall be deemed approved and, subject to the satisfactory completion of an examination, if required as prerequisite to licensure, the license shall be issued. The Public Service Commission, when issuing a license, and any other agency, if specifically exempted by law, shall be exempt from the time limitations within this subsection. Each agency, upon issuing or denying a license, shall state with particularity the grounds or basis for the issuance or denial of same, except where issuance is a ministerial act. On denial of a license application on which there has been no hearing, the denying agency shall inform the applicant of any right to a hearing pursuant to Section 120.57.

Section 403.0876, Florida Statutes

Permits; processing. ---Within 30 days after receipt of an application for a permit under this chapter, the department shall review the application and shall request submittal of all additional information the department is permitted by law to require. If the applicant believes any departmental request for additional information is not authorized by law or departmental rule, the applicant may request a hearing pursuant to S.. 120.57. Within 30 days after receipt of such additional information, the department shall review it and may request only that information needed to clarify such additional information or to answer new questions raised by or directly related to such additional information. If the applicant believes the request of the department for such additional information is not authorized by law or departmental rule, the department, at the applicant's request, shall proceed to process the permit application. Permits shall be approved or denied within 90 days after receipt of the original application, the last item of timely requested additional material, or the applicant's written request to begin processing the permit application.

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		

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
October 2, 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 Dated 7-13-09—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 July 13, 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 No. 0530021-017-AC

The application for the trial burning of alternative fuels (0530021-017-AC) remains incomplete at least until the matters related to the "as-built" configuration are resolved.

Response: Comment noted.

DEP File No. 0530021-018

Regarding the application for the "as-built" configuration, please provide the following information:

1. *Test Reports*: Please provide copies of the initial compliance test reports conducted during the first half of 2009 for cement Line 2 pursuant to Specific Condition 19. In addition provide details regarding use of the selective non-catalytic reduction (SNCR) system during the testing including the ammonia (NH_3) injection rate (as 100% NH_3 or as NH_3 solution with concentration specified).

Response: The requested stack test reports were shipped to the Department (sent directly to Al Linero) on July 15, 2009. The ammonia injection rate (SNCR system) in pounds per hour (lb/hr) of 100-percent ammonia for the May 13, 2009, Kiln 2 compliance test, are included in the stack test reports submitted. For reference, they are as follows:

Run 1 – 60.7

Run 2 – 62.0

Run 3 – 60.0

Average = 60.9

2. *Continuous Emission Monitoring System (CEMS)*: Please provide the CEMS certification report and also the CEMS records since certification CO, SO_2, NO_x, and HC. Include similar information regarding the NH_3 injections rates.

Response: The requested stack test reports were shipped to you on July 15, 2009. The ammonia injection rate (SNCR system) in pounds per hour (lb/hr) of 100-percent ammonia for the May 13, 2009, Kiln 2 compliance test, is included in the stack test reports submitted. Hourly CEMS data for CO, SO_2, NOx, THC, and ammonia for September 1 through September 28, 2009, has been emailed to the Department.

3. *Mercury (Hg) Mass Balances*: Please provide the results to-date of the daily sampling, monthly compositing and analysis of materials and fuel Hg pursuant to Specific Condition 22. Please provide the running total of Hg entering the system to-date.

Response: Refer to Attachment 1 for the mercury input from the raw mill, coal, and tires for December 2008 through August 2009.

4. *Finish Mill System*: Note that for this emission unit (EU 052), the present particulate matter (PM/PM_{10}) emission rate limits are 2.3/1.6 pounds per hour (lb/hr) and 7.1/10.1 tons per year (TPY). The revisions requests future limits of 13.8/9.7 lb/hr and 60.5/42.4 TPY. This EU will now account for one-fourth or more of the facility's total PM/PM_{10} emissions. Please provide the technical explanation for the increase.

Response: 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. The vertical mill (existing Finish Mill No. 2 design) requires more air sweep to function. However, after further review of the Finish Mill No. 2

design, it is shown (refer to Attachment 2, Figures 2-1a, 2-1b, and 2-1c) that the system re-circulates a portion of the flow exiting the baghouse back through the vertical Finish Mill, while the remaining portion exits the stack. The mill was designed with new technology to save energy, in which it must use the recycled hot gases from the exit of the baghouse, heated further by the hot gas generator, for the mill to operate.

CEMEX performed some flow tests on the Finish Mill to determine how much flow was actually exiting the stack and how much was actually being diverted back to the Finish Mill. As shown in Attachment 2, Table 2-1 and Figures 2-1a, 2-1b, and 2-1c, the portion of the total baghouse flow rate exhausting the stack varied between 17% to 35%. Based on this information, and the Finish Mill design, the maximum flow rate out of the stack is estimated to be less than 100,000 dry standard cubic feet per minute (dscfm). This is conservative since this about 56% of the total baghouse exit flow rate. Although this flow of 100,000 dscfm is higher than what was measured during the flow tests, this will account for the variation in flow rates during actual operation.

The potential PM/PM_{10} emissions that were included in the as-built modification to the construction permit (No. 0530021-009-AC/PSD-FL-351) were calculated using the maximum design flow rate of the baghouse. However, the potential PM/PM_{10} emission rates should be based on the portion exiting the stack (a lower flow rate). Based on this, the potential PM/PM_{10} emissions have been recalculated to be 37.5 TPY of PM and 26.3 TPY of PM_{10} (refer also to Attachment 3 for revised application pages). As shown on revised application page number 3, the net change in emissions due to the Kiln 2 as-built system (based on revised Finish Mill flow rate) is an overall decrease in potential PM and PM_{10} emissions by about 1.6 TPY and 1.1 TPY, respectively.

Does it include the PM/PM_{10} emissions from the heater?

Response: Yes, the requested PM/PM_{10} emissions limit includes emissions from the heater.

Were any PM/PM_{10} stack tests conducted on the finish mill with or without the heater in operation? The increase in emission limits may necessitate testing requirements in addition to the visible emission testing already required by the permit.

Response: Since there was no specific requirement to conduct PM/PM_{10} stack tests on the Finish Mill, PM/PM_{10} stack tests were not conducted. In accordance with the air construction permit, visible emissions testing was conducted on the Finish Mill stack on March 4, 2009.

5. *Finish Mill Process Air Heater*: According to the most recent information, the conservative assumption was made that all SO_2 from the air heater will be emitted via the finish mill stack.

- **Were any SO_2 stack tests conducted on the finish mill with the heater in operation?**

Response: Since there was no specific requirement to conduct SO_2 stack tests on the Finish Mill, SO_2 stack tests were not conducted.

- **Were any NO_x stack tests conducted on the finish mill with the heater in operation?**

Response: Since there was no specific requirement to conduct NO_x stack tests on the Finish Mill, NO_x stack tests were not conducted.

- **We note than in 2008 and 2009, CEMEX used virgin fuel oil in its operations containing much less sulfur (< 0.05% sulfur) than in its operation during 2003 to 2007 when the sulfur content < 0.5%. Has CEMEX changed the fuel specification or has the supplier changed the available fuel? The use of the lower sulfur fuel or inherent scrubbing by cement/clinker in the finish mill would be more consistent with the Department's original best available control technology (BACT) determination than assuming that all sulfur in the higher sulfur fuel is emitted as SO_2.**

Response: CEMEX will accept a limit of 0.05% sulfur content for the fuel oil used in the No. 2 Finish Mill air heater.

- **Provide a rule analysis for the applicability of New Source Performance Standards, Subpart Dc to this process air heater.**

Response: 40 CFR 60 Subpart Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, applies to steam generating units constructed, modified, or reconstructed after June 9, 1989 with a design heat input capacity between 2.9 megawatts (MW) or 10 million British thermal units per hour (MMBtu/hr) and 29 MW or 100 MMBtu/hr. Subpart Dc defines a steam generating unit as:

A device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

The Subpart defines "process heaters" as:

A device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Since the hot gas air heater does not meet the definition of a "steam generating unit" under Subpart Dc, it is therefore, not subject to this Subpart.

6. *Cement Line 2 Total Emissions*: Please reconcile the total emissions (including fugitives and the air heater emissions) under the "as-built" configuration with the values on Page 3 of the existing permit and the application for the as-built configuration.

Response: An updated version of the PSD applicability table that is presented on Page 3 of Permit No. 0530021-009-AC/PSD-FL-351 to reflect the as-built emission changes is presented below.

Pollutant	PSD Significance Levels	Facility-Wide Maximum Emissions [a] (Permit -009-AC + As-Built Increase =)	Subject to PSD Review?[b]
PM/PM_{10}	25/15 TPY	**PM:** (256.4 – 1.6 =) **254.8 TPY** **PM_{10}:** (256.4 – 1.1 =) **255.3 TPY**	Yes
SO_2	40 TPY	(122.7 + 26.3 =) **149 TPY**	Yes
NOx	40 TPY	(1126.2 + 38.7 =) **1164.9 TPY**	Yes
CO	100 TPY	(2133.6 + 22.3 =) **2155.9 TPY**	Yes
VOC (Ozone)	40 TPY	(105.3 + 2.97 =) **108.3 TPY**	Yes
Mercury	200 lb/yr	(122 + 0 =) **122 lb/yr**	No

[a] Maximum emissions based on values presented on Page 3 of Permit No. 0530021-009-AC/PSD-FL-351 plus the emissions increase due to the Kiln 2 system as-built design (vs. original Kiln 2 system plant design).

[b] PSD review was addressed in the original PSD application (approved by Permit No. 0530021-009-AC/PSD-FL-351).

DEP File No. 0530021-020-AC

The permit is extended at least until the Department takes final action on the extension request concurrently with the "as-built" configuration. Please advise the requested date for the permit extension to insure that the TIM construction will be completed within a reasonable time.

Response: CEMEX requests an extension date of September 30, 2010 to complete the installation of the TIMS system.

DEP File No. 0530021-021-AV

The initial Title V permit revision to reflect the operation of Kiln 2 was originally sealed by Mr. Lawrence Lucarelli, PE. That application was almost identical to the application for the "as-built" configuration and may not have addressed a few matters related to the Title V program such as compliance assurance monitoring plans (CAM) or compliance plans detailing the remaining activities to complete the work under the existing construction permit(s). Such incompleteness matters related to the separate Title permit revision application will be addressed in greater detail in a separate letter than will be sent to you soon.

Response: CEMEX responded to the comments related to this permitting project under separate cover on September 1, 2009.

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: Attachment 1, Attachment 2, Attachment 3
copy to: J. Daniel, CEMEX (via email)
L. DePrimo, CEMEX (via email)
G. Townsend, CEMEX (via email)

ATTACHMENT 1

MERCURY INPUT MASS BALANCE

CEMEX Brooksville South Cement Plant - Kiln No. 2
Mercury Input Mass Balance

Limit	122	Lbs/Yr. 12 Month Rolling Total	Data Averaging	0
0.0100 - Method detection limit			Input Cells	

Hg_I - Based on the proportional sum of material Hg results, wet basis, of the raw materials used for the month

	Lbs. Hg = (mg/kg Hg X 0.002) X Total Tons of Material											
	Where:	0.002	= mg/kg -To- Lbs./Ton Conversion Factor CRC									
		Raw Mill			Coal			Tires				
Year	Month	Hg_I mg/kg	Total Tons	Pounds Input Hg	Hg mg/kg	Total Tons	Pounds Input Hg	Hg mg/kg	Total Tons	Pounds Input Hg	Total Pounds Hg	12 Month. Rolling Total Lbs. Hg
2008	Jan			0.000			0.000			0.000	0.00	0.00
	Feb			0.000			0.000			0.000	0.00	0.00
	Mar			0.000			0.000			0.000	0.00	0.00
	Apr			0.000			0.000			0.000	0.00	0.00
	May			0.000			0.000			0.000	0.00	0.00
	Jun			0.000			0.000			0.000	0.00	0.00
	Nov			0.000			0.000			0.000	0.00	0.00
	Dec	0.0279	42,138	2.354	0.016	1,725.0	0.055	0.0000	0.0	0.000	2.41	2.41
2009	Jan	0.0464	67,897	6.301	0.012	3,902.0	0.094	0.0000	0.0	0.000	6.40	8.80
	Feb	0.0373	67,533	5.042	0.011	4,509.0	0.099	0.0000	0.0	0.000	5.14	13.95
	Mar	0.0360	60,273	4.340	0.0130	4,997.0	0.130	0.0000	0.0	0.000	4.47	18.42
	Apr	0.0138	10,577	0.293	**0.010**	803.0	0.016	**0.0100**	0.0	0.000	0.31	18.72
	May	0.0375	123,906	9.303	**0.010**	8,992.0	0.180	**0.0100**	0.0	0.000	9.48	28.21
	Jun	0.0324	28,662	1.855	0.045	1,710.0	0.154	**0.0100**	0.0	0.000	2.01	30.22
	Jul	0.0281	39,892	2.245	0.011	2,983.0	0.066		0.0	0.000	2.31	32.53
	Aug	0.0263	37,901	1.995	0.046	2,934.2	0.270	**0.0100**	0.0	0.000	2.26	34.79
	Sep	0.0356	109,833	7.829			0.000			0.000	7.83	42.62
	Oct	0.0000		0.000			0.000			0.000	0.00	42.62
	Nov	0.0000		0.000			0.000			0.000	0.00	42.62
	Dec	0.0000		0.000			0.000			0.000	0.00	40.21

ATTACHMENT 2

FINISH MILL STACK FLOW
RATE INFORMATION

Table 2-1. Finish Mill Rate Profile Summary, CEMEX Brooksville South
Finish Mill No. 2

Date		ACFM	SCFM	* Stack Gas H_2O	DSCFM	Portion of Total Baghouse Flow Existing the Stack
	Baghouse Flow	281,590	201,590			
	Flow Recirculated-To-FM	281,836	159,447			
January 15, 2009	**FM Stack Flow**	55,598	42,143	4.02%	40,449	20%
	Baghouse Flow	261,652	188,159			
	Flow Recirculated-To-FM	203,460	154,627			
January 23, 2009	**FM Stack Flow**	43,828	33,532	3.95%	32,207	17%
	Baghouse Flow	264,119	192,919			
	Flow Recirculated-To-FM	159,598	122,737			
January 27, 2009	**FM Stack Flow**	91,642	70,182	0.30%	69,971	35%

SCFM corrected for temperature and pressure only
* - Calculated Moisture

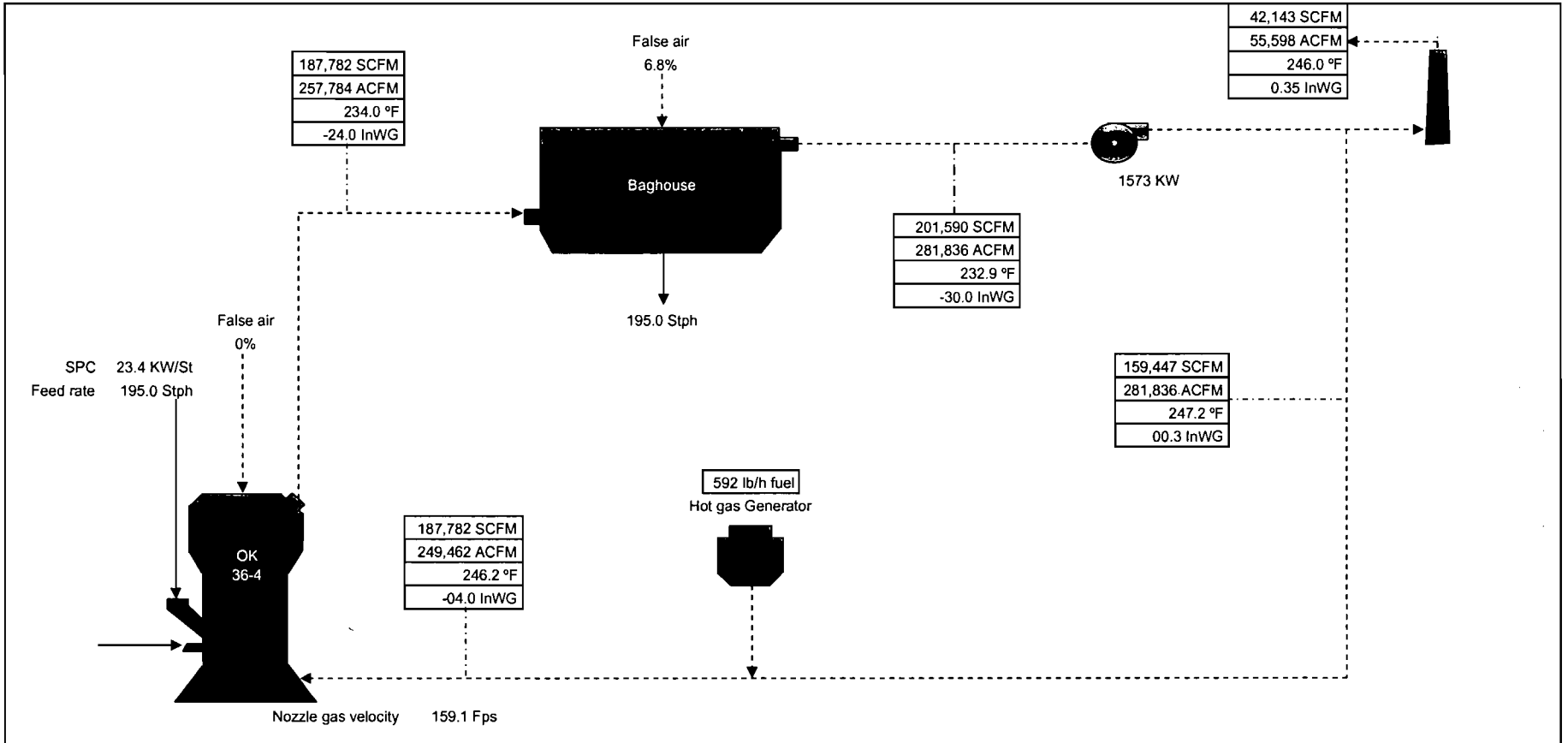

Figure 2-1a. Finish Mill Process Profile, CEMEX Brooksville South; Finish Mill No. 2
Flow Test Date: 1/15/09

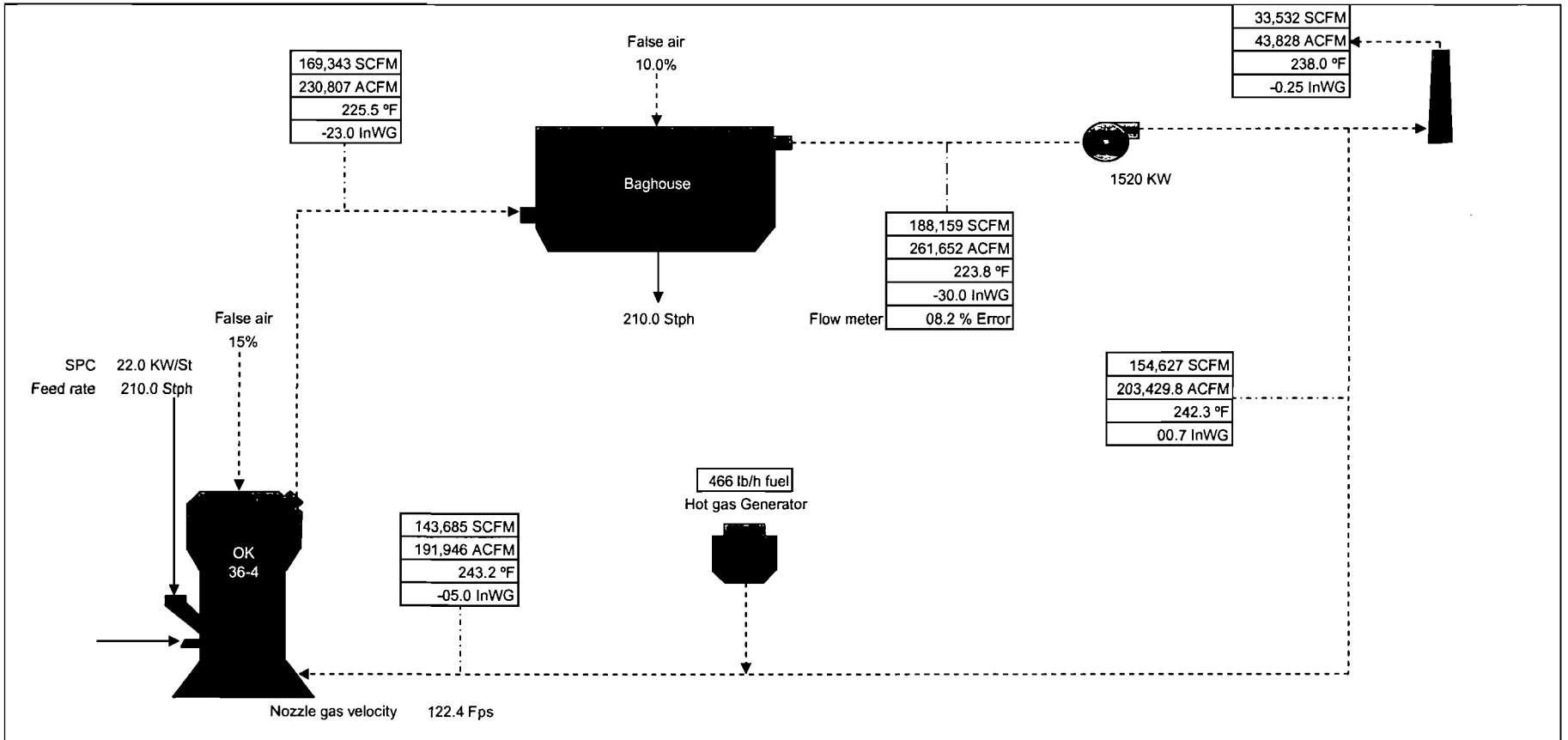

Figure 2-1b. Finish Mill Process Profile, CEMEX Brooksville South; Finish Mill No. 2
Flow Test Date: 1/23/09

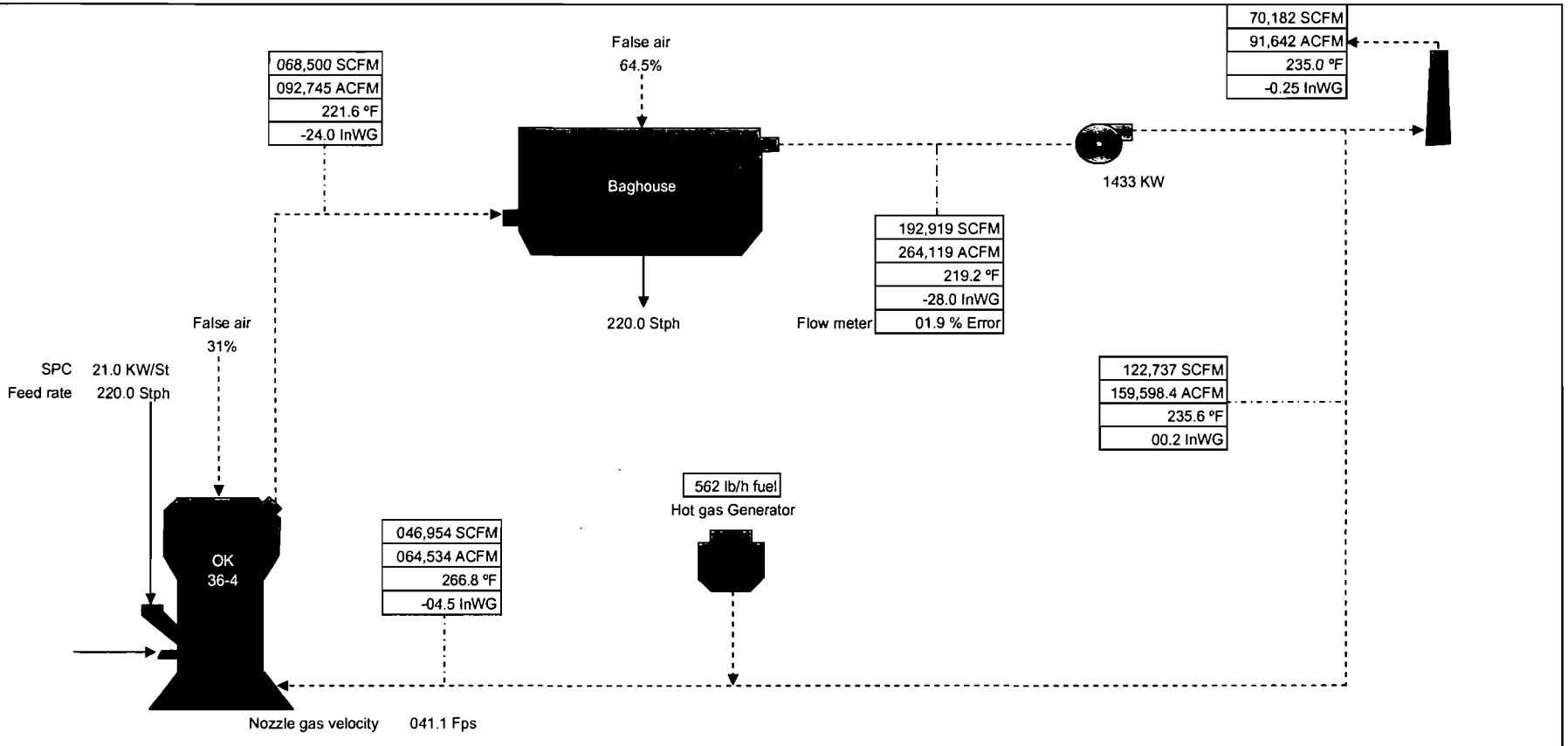

Figure 2-1c. Finish Mill Process Profile, CEMEX Brooksville South; Finish Mill No. 2
Flow Test Date: 1/27/09

ATTACHMENT 3

REVISED APPLICATION PAGES

APPLICATION INFORMATION

Application Comment

This application requests minor modification to Permit No. 0530021-009-AC, PSD-FL-351. The referenced permit is for the construction of the second kiln line at the existing cement plant. The following changes are requested, reflective of as-built configuration:

1. **EU 044: Correct the natural gas rate to reflect 432,000 cf/hr**
2. **EU 044: Revise the CEMS requirement language (Condition 16)**
3. **EU 044: Change equipment ID, flow rate, and exit temperature of baghouse**
4. **EU 045: Add baghouse to this emissions unit: Filter Dust Bin Loadout Spout**
5. **EU 045: Change equipment ID, flow rate, and exit temperature of baghouses**
6. **EU 046: Change equipment ID, flow rate, and exit temperature of baghouse**
7. **EU 047: Add baghouses to this emissions unit: Blend Silo Discharge, Kiln Feed Bin, and Kiln Feed Transport**
8. **EU 047: Change equipment ID, flow rate, and exit temperature of baghouses**
9. **EU 048: Change equipment ID, flow rate, and exit temperature of baghouse**
10. **EU 049: Gypsum Bin eliminated (never constructed)**
11. **EU 050: Add baghouses to this emissions unit: Clinker Silo Discharge 1, Clinker Silo Discharge 2, Clinker Storage Silo**
12. **EU 050: Change equipment ID, flow rate, and exit temperature of baghouses**
13. **EU 051: Change equipment ID, flow rate, and exit temperature of baghouse**
14. **EU 052: Add new hot gas generator unit at Finish Mill**
15. **EU 052: Change equipment ID, flow rate, and exit temperature of baghouse**
16. **EU 053: Air Slide eliminated (individual baghouse never installed—constructed as part of Finish Mill System)**
17. **EU 054: Change equipment ID, flow rate, and exit temperature of baghouse**
18. **EU 055: High Efficiency Separator eliminated (never constructed)**
19. **EU 056: Cement Cooler eliminated (individual baghouse never installed)**
20. **EU 057: Add baghouses to this emissions unit: Finish Mill Cement Transport and Finish Mill Rejects Transport**
21. **EU 057: Change equipment ID, flow rate, and exit temperature of baghouses**
22. **EU 058: Add baghouses to this emissions unit: Cement Silo 5, Cement Silo 5 Loading Bin, Cement Silo 5 Loadout Spout N, Cement Silo 5 Loadout Spout S**
23. **EU 058: Change equipment ID, flow rate, and exit temperature of baghouses**
24. **EU 059: Add baghouses to this emissions unit: Multi-Cell Cement Silo, Multi-Cell Cement Silo Alleviator, Multi-Cell Loadout Transport, Multi-Cell Loadout Spout**
25. **EU 059: Change equipment ID, flow rate, and exit temperature of baghouses**
26. **EU 060: Change equipment ID, flow rate, and exit temperature of baghouse**
27. **EU 061: Change equipment ID, flow rate, and exit temperature of baghouse**
28. **No ID: New emissions unit: Packing Plant**

The change in emissions from the original project (Permit No. 0530021-009-AC) to the "as-built" plant design are as follows:

PM (baghouses only, except kiln):
82.32 TPY ("as-built" design) – 83.92 TPY (Permit -009-AC) = decrease by 1.6 TPY

PM_{10} (baghouses only, except kiln):
57.62 TPY ("as built" design) – 58.75 TPY (Permit -009-AC) = decrease by 1.1 TPY

SO_2: increase by 26 TPY (EU 052—new hot gas air heater)
NOx: increase by 39 TPY (EU 052—new hot gas air heater)
VOC: increase by 3 TPY (EU 052—new hot gas air heater)
CO: increase by 22 TPY (EU 052—new hot gas air heater)

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name:
   Mr. James S. Daniel, Plant Manager
2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **CEMEX Construction Materials Florida, LLC**
   Street Address: **10311 Cement Plant Road**
   City: **Brooksville** State: **Florida** Zip Code: **34601**
3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(352) 799-7881** ext. Fax: **(352) 540-4794**
4. Owner/Authorized Representative E-mail Address: **jdaniel@cemexusa.com**
5. Owner/Authorized Representative Statement:

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

   Signature

   Date 10/2/09

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **Fawn Bergen, PE**
   Registration Number: **61614**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler and Associates, Inc.**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **Florida** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 377-5822** ext.**15** Fax: **(352) 377-7158**
4. Professional Engineer E-mail Address: **FBergen@kooglerassociates.com**
5. Professional Engineer Statement:

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

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

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

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

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature 10/2/09
Date

STATE OF FLORIDA PROFESSIONAL ENGINEER FAWN BERGEN 10-2-09 (seal)

* Attach any exception to certification statement.

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **Finish Mill**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **Baghouse ID 531.BF500**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **207** feet	7. Exit Diameter: **6.58** feet
8. Exit Temperature: **302**°F	9. Actual Volumetric Flow Rate: **147,263** acfm	10. Water Vapor: **2%**
11. Maximum Dry Standard Flow Rate: **100,000** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **Flow rates represent the flow out of the stack. A portion of the flow from the baghouse is diverted back to the Finish Mill instead of exhausting through the stack.**		

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

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.6** lb/hour **37.5** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.01 gr/dscf** Reference: **Permit No. 0530021-009-AC**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
Hourly: 0.01 gr/dscf x 100,000 dscfm x 1 lb/7,000 gr x 60 min/hour = 8.57 lb/hr
Annual: 8.57 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 37.5 TPY

11. Potential, Fugitive, and Actual Emissions Comment:
Change in emissions: 37.5 TPY (as-built design) – 10.12 TPY (-009-AC) = increase by 27.4 TPY.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

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

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.01 gr/dscf**	4. Equivalent Allowable Emissions: **8.6** lb/hour **37.5** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 9 in lieu of Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530021-009-AC.**	

Allowable Emissions Allowable Emissions __ of ___

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions __ of ___

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **6.0** lb/hour **26.3** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.007 gr/dscf** Reference: **Permit No. 0530021-009-AC**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:
Hourly: 0.007 gr/dscf x 100,000 dscfm x 1 lb/7,000 gr x 60 min/hour = 6.0 lb/hr
Annual: 6.0 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 26.3 TPY

11. Potential, Fugitive, and Actual Emissions Comment:
Change in emissions: 26.3 TPY (as-built design) – 7.08 TPY (-009-AC) = increase by 19.22 TPY.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

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

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.007 gr/dscf**	4. Equivalent Allowable Emissions: **6.0** lb/hour **26.3** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 9 in lieu of Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530021-009-AC.**	

Allowable Emissions Allowable Emissions __ of __

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions __ of __

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

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

RECEIVED
MAR 09 2010
BUREAU OF AIR REGULATION

KA 307-08-11
March 5, 2010

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

RE: ***CEMEX Construction Materials Florida LLC***
Brooksville South Cement Plant; Brooksville, Florida; Facility ID 0530021
Withdrawal of Permit 0530021-017-AC, Alternative Fuels – Kiln 2

Dear Al,

On behalf of Cemex Construction Materials Florida LLC, this letter is submitted to request withdrawal of air construction permit application 0530021-017-AC. This follows your emails with George Townsend on February 22, 2010. If you should have any questions regarding this request, please do not hesitate to contact me at (352) 377-5822 or Mlee@kooglerassociates.com, or Mr. George Townsend, CEMEX Environmental Manager, at (352) 799-7881 or GTownsend@cemexusa.com.

Regards,

Max Lee, Ph.D., P.E.
KOOGLER AND ASSOCIATES, INC.

copy to: J. Daniel, CEMEX
L DePrimo, CEMEX
G. Townsend, CEMEX

CEMEX

October 8, 2009

Mr. A. A. Linero, P.E.
Program Administration, Special Projects
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone
Tallahassee, Florida 32399-2400

Re: Request for Additional Information Dater 07-13-09 Response, DEP File Nos. 0530021-017-AC, 018-AC, and 020-AC; Kiln No. 2 As-Built Configuration, Permit Extension & Trial Burn of Alternative Fuels CEMEX Construction Materials Florida, LLC, Brooksville South Cement Plant

Dear Mr. Linero:

Please find enclosed the signed original of the Authorized Representative Statement for inclusion into the response to the RIA provided by Ms. Fawn W. Bergen, Koogler & Associates; dated October 2, 2009.

Should you have any questions and/or comments concerning this submittal or require additional information, please contact me at 352-799-7881, ext 104, email - gtownsend@cemexusa.com.

Respectfully,

George Townsend

George Townsend
Environmental Manager

pc: James S. Daniel, Plant Manager all/via email
Fawn W. Bergen, P.E.

D:\Documents and Settings\gtownsend\My Documents\Brooksville South\Kiln 2\As-Built Application\RAI 10-2-09 Response RO Certification.doc

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

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name:
   Mr. James S. Daniel, Plant Manager
2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **CEMEX Construction Materials Florida, LLC**
   Street Address: **10311 Cement Plant Road**
   City: **Brooksville** State: **Florida** Zip Code: **34601**
3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(352) 799-7881** ext. Fax: **(352) 540-4794**
4. Owner/Authorized Representative E-mail Address: **jdaniel@cemexusa.com**
5. Owner/Authorized Representative Statement:

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

   Signature

   10/2/09
   Date