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		

CEMEX

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APR 13 2009
BUREAU OF AIR REGULATION

Mr. A. Linero
Program Administrator
Florida Department of Environmental Protection
Bureau of Air Regulation
2600 Blairstone Road
Tallahassee, FL 32399-2400

10 April 2009

Dear Mr. Linero

RE: DEP File No. 0530021-009-AC CEMEX, Inc. South Brooksville Cement Plant - Kiln 2 Revisions to Original Project to reflect "as built" Plant Design Configuration

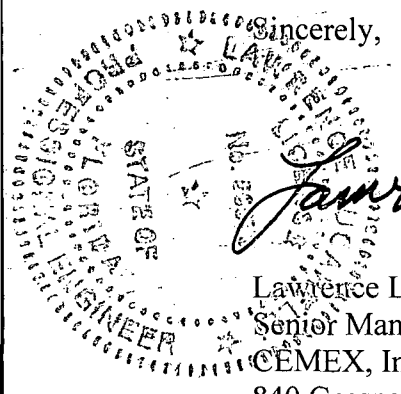
File # 0530021-020-AC/PSD-FL-357E

Dear Mr. Linero:

CEMEX, Inc. respectfully requests an extension of the expiration date for the construction permit for the Brooksville South Kiln 2 project. As the Florida Department of Environmental Protection is continuing to review the revisions to the as-built permit application, and as the compliance testing has yet to be completed, CEMEX, Inc. feels that an extension of the expiration date for the above referenced permit would benefit both parties and result in a more complete final permit.

If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,



Lawrence Lucarelli, P.E.
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