

Department of Environmental Protection

Jeb Bush Governor Southwest District 13051 North Telecom Parkway Temple Terrace, FL 33637-0926 Telephone: 813-632-7600

Colleen M. Castille Secretary

February 9, 2006

Mr. Michael Gonzales CEMEX Cement, Inc. P.O. Box 6 Brooksville, Florida 34605 RECEIVED

FEB 13 2006

BUREAU OF AIR REGULATION

Dear Mr. Gonzales:

Re: 2nd Request for Additional Information (RAI)

Air Construction Permit Application for Kiln No. 1 Cooling Dampers

(DEP Project No.: 1050010-019-AC)

The Department received the January 12, 2006 response from your consultant, Koogler & Associates, to the Department's request for additional information (RAI) on the construction permit application for the cooling dampers on Kiln No. 1 at the CEMEX Brooksville Cement Manufacturing Plant. Based on our review of this response letter we have determined that the application is incomplete. Therefore, the following information is needed in order to continue processing this application pursuant to Rules 62-213.420(1)(b) and 62-4.070(1), F.A.C. The item numbers correspond to those used in the original Department RAI and your response letter.

1. Damper Operation

It is not clear from the response whether the control room damper position percentage readout exists for both dampers or only for variable position Damper 323 N, which is controlled by an automatic damper positioner based on the bag house inlet temperature. Is there also a control room percentage readout for Damper 323 E to show its position? The response also did not respond to the question of what operation records are kept to document the position of each damper during each period of operation with the raw mill off?

2. Questions on No. 1 Kiln Preheater Flow Chart (fold out chart attached to application showing flow from kiln exit to kiln/mill baghouse)
Since D/F formation is based not only on gas temperature at the baghouse inlet, but also temperatures upstream of that in the bypass duct and on where the temperature reduction occurs (i.e., the temperature profile in the bypass duct), the Department needs to understand the use and operation of any dampers that can affect the bypass duct temperature profile to insure that normal raw mill down

Page 1 of 3 "More Protection, Less Process"

CEMEX Cement, Inc. 2nd Request for Additional Information Construction Permit Application 1050010-016-AC

operating conditions are as close as possible to those that existed during the successful compliance test. Please explain the function and use of the other dampers shown on this chart (ID Nos. 317, 317a, 318, 319, 320, 321, 322, 323, 323a) and whether the position of any of these dampers would be changed during raw mill down operation. What was the position of these dampers during the July 16, 2005 D/F compliance test?

3. Particulate Matter (PM) Emissions

Since there is an increase in the dscfm airflow rate when the dampers are used, please explain why there would not be an associated increase in actual PM emissions from the Kiln No. 1 bag house exhaust. If, as has been the standard assumption in other applications submitted for this facility, the baghouse outlet grains/dscfm concentration is assumed to be at a consistent level (and not directly proportional to changes in inlet loading), for example an outlet concentration of 0.02 gr/dscfm, then an increase in air flow through the baghouse should result in an increase in lbs/hour emissions (outlet concentration x airflow = emissions, and if outlet concentration is constant and airflow increases then emissions increase.) Please submit calculations of potential PM emissions (lbs/hour) with the dampers in use, and not in use (i.e. at the two different baghouse air flow rates associated with raw mill in and raw mill down operating conditions) to demonstrate whether there will be an increase in potential PM emissions. If there is an increase in potential lbs/hour emission rate, please include an analysis of the potential tons/year increase based on worst case (highest hours) of operation with the raw mill off.

Rule 62-4.050 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. As a result, your response to the above requests should be certified by a professional engineer just as the original applications were.

"Notice: Pursuant to the provisions of Section 120.600, F.S. and Subsection 62-12.070(5), F.A.C., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department will issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 90 days to develop, an application for new construction should be withdrawn and resubmitted when completed information is available."

CEMEX Cement, Inc. 2nd Request for Additional Information Construction Permit Application 1050010-016-AC

If you have any questions, please call David Zell of my staff at (813) 744-6100 extension 118 or via email at david.zell@dep.state.fl.us.

Sincerely,

Jason Waters, P.E. Air Permitting Supervisor Southwest District Office

DRZ/

copies to:

- William A. Proses, P.E., Koogler & Associates
- Al-Linero, FDEP, DARM, Bureau of Air Regulation



KA521-05-07 January 12, 2006

D.E.P SOUTHWEST DISTRICT

JAN 1 3 2005 6 m

Mr. Davis Zell
Florida Department of
Environmental Protection Southwest District
3804 Coconut Palm Drive
Tampa, FL 33619-8318

TAMPA

Subject:

Request for Additional Information

Air Construction Permit Application for Cooling Dampers

(DEP Project 0530010-019-AC)

CEMEX Brooksville Cement Manufacturing Plant

Dear Mr. Zell:

We remain concerned that this applied for change does not require a construction permit. None of the requirements of Rule 62-210.300(1)(b), FAC are triggered.

1.a. Any change that would constitute an administrative correction may be made pursuant to Rule 62-210.360, F.A.C.

No administrative correction is required.

1.b. Any change that would constitute a modification, as defined at Rule 62-210.200, FAC., shall be accomplished only through the issuance of an air construction permit; and

(169) "Modification" - Any physical change in change in method of operation of, or addition to a facility which would result in an increase in the actual emissions of any air pollutant subject to regulation under the Act, including any not previously emitted, from any unit or facility.

This installation does not constitute a modification as defined at Rule 62-210.200, FAC. There is no increase in any actual emission; in fact there is a reduction in dioxin/furan formation.

1.c. Any change in a permit limitation or requirement that originates from a permit issued pursuant to 40 C.F.R. 52.21, sub paragraph 62-204.800(10)(d)2., F.A.C., Rule 62-212.400, F.A.C., Rule 62-212.500, F.A.C., or any former codification of Rule 62-212.400, or Rule 62-212.500, F.A.C., shall be accomplished only through the issuance of a new or revised air construction permit under subparagraph 62-204.800(10)(b), F.A.C., Rule 62-212.400, or 62-212.500, F.A.C., as appropriate.

No changes in permit limitations or requirements are requested.

In response to your letter dated December 14, 2005 and received December 16, 2005 the attached responses are provided:

1. Damper Operation

Damper 323 E will be in the open position when the No.1 Raw Mill is down and in the closed position when the No.1 Raw Mill is in operation. There are no variable positions for Damper 323 E; it is either in the open or closed position.

Damper 323 N is controlled by an automatic damper positioner based on the bag house inlet temperature.

The bag house inlet temperature set point is based on the limitation established during the last compliance test and does not vary. 40 CFR 63.1344(b)

Damper operation/position is indicated to the control room operator by a percentage readout on the control monitor.

There is redundancy in the baghouse inlet temperature thermocouples. Two thermocouples exist for monitoring the bag house inlet temperature.

If the signal from the thermal couple is lost or otherwise determined to be in error the control room operator will refer to the secondary thermocouple reading.

2: Questions on No. 1 Kiln Preheater Flow Chart (fold out chart attached to application showing flow from kiln exit to kiln/mill baghouse)

Following the March/April 2005 compliance testing, CEMEX conducted an engineering study and model of temperatures profile across the raw mill bypass cooling system. Temporary temperature monitoring locations were identified to facilitate discussion between the CEMEX technical team regarding where physical temperatures were being manually collected. The data from these points were used to develop the computer model.

After completion of the computer model manual temperature readings were no longer required

Based upon 60 diagnostic stack tests and over 10 compliance tests, the cooling technique needed to control D/F emissions consists of the following

use of raw mill bypass cooling technique during mill-off conditions operation of the 323E in the open position during mill-off conditions modulation of the 323N damper to control the established baghouse inlet temperatures

Maintaining the baghouse inlet temperatures as established during the D/F compliance tests.

The other dampers are not used for the control DF emissions and were included on the drawing only to facilitate the identification and location of the 323 dampers.

3. Particulate Matter Emissions

There is an increase of acfm and/or dscfm) associated with the use of the dampers. The actual increase in air flow varies due to ambient air temperatures. There should not be a change in the projected actual emissions from the #1 kiln/mill bag house.

The increase in acfm falls within the design parameters for the baghouse to achieve its design PM control efficiency,

There has not been a PM compliance test done with the No. 1 Raw Mill down and dampers 323 E and 323 N in use as they were during the July 16, 2005 D/F compliance test.

Enclosure 1 is a new R.O. certification statement page from the DEP Form 62-210.900(1).

Enclosure 2 is a new P.E. certification statement page from the DEP Form 62-210.900(1).

Very truly yours,

William A. Proses PE

William A. Proses

KOOGLER & ASSOCIATES, Inc.

WAP/wp

cc: Michael Gonzales, CEMEX Charles Walz, CEMEX Enclosure 1

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name: Michael A. Gonzales

2. Owner/Authorized Representative Mailing Address...

Organization/Firm: CEMEX Cement, Inc.

Street Address: Post Office Box 6

City: Brooksville St

State: Florida

Zip Code: 34605

3. Owner/Authorized Representative Telephone Numbers...

Telephone: (352) 799 - 2057

ext. Fax: (352) 754 - 9836

4. Owner/Authorized Representative Email Address: mike.gonzales@cemexusa.com

5. Owner/Authorized Representative Statement:

I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.

Signature

Date

Enclosure 2

APPLICATION INFORMATION

Professional Engineer Certification	
1.	Professional Engineer Name: William A. Proses
	Registration Number: 52080
2.	Professional Engineer Mailing Address
	Organization/Firm: Koogler & Associates, Inc.
	Street Address: 4014 NW 13th Street
	City: Gainesville State: Florida Zip Code: 32609
3.	Professional Engineer Telephone Numbers
	Telephone: (352) 317 - 1030 ext. Fax: (813) 920 - 9539
4.	Professional Engineer Email Address: wproses@kooglerassociates.com
	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 X, 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
	(seal)

DEP Form No. 62-210.900(1) - Form Effective: 06/16/03

^{*} Attach any exception to certification statement.