KOOGLER & ASSOCIATES, INC.
ENVIRONMENTAL SERVICES

4014 NW 13th STREET
GAINESVILLE, FL 32609-1923
www.kooglerassociates.com
352/377-5822 ■ FAX/377-5822

KA 307-15-02
February 12, 2015
Via email only
David.Read@dep.state.fl.us

David Read
Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blairstone Road, MS 5505
Tallahassee, Florida 32399-2400

RE: Application for Installation of a Lime Injection System
Kiln No. 2 System, Brooksville South Cement Plant
CEMEX Construction Materials Florida, LLC; Facility ID: 0530021

Dear Mr. Koerner:

This cover letter serves to provide the enclosed air construction permit application for the installation of a lime injection system on the Kiln No. 2 system at the CEMEX Construction Materials Florida, LLC Brooksville South Cement Plant.

Also, CEMEX would like to identify a discrepancy in the Title V permit (0530021-047-AV) in which the Annual Operating Report permit language states a due date of March 1st that should be April 1st (see Condition C.26). Upon revision of the Title V permit, we will request to incorporate that change.

Please feel free to contact me at (352) 377-5822 or mlee@koooglerassociates.com or George Townsend at (352) 799-7881 or george.townsend@cemex.com if you have any questions regarding this submittal. I sincerely appreciate your time and consideration for this project.

Regards,

Max Lee, PhD., P.E.
KOOGLER AND ASSOCIATES, INC.

cc: George Townsend, CEMEX Construction Materials Florida, LLC
James Daniel, CEMEX Construction Materials Florida, LLC
Lillian Deprimo, CEMEX Construction Materials Florida, LLC
Shelley Huskey, CEMEX Construction Materials Florida, LLC

Department of
Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **CEMEX Construction Materials Florida, LLC**	
2. Site Name: **Brooksville South Cement Plant**	
3. Facility Identification Number: **0530021**	
4. Facility Location... Street Address or Other Locator: **10311 Cement Plant Road** City: **Brooksville** County: **Hernando** Zip Code: **34601**	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☒ Yes ☐ No

Application Contact

1. Application Contact Name: **Maxwell R. Lee, Ph. D, P. E.**
2. Application Contact Mailing Address... Organization/Firm: **Koogler and Associates, Inc** Street Address: **4014 NW 13th Street** City: **Gainesville** State: **Florida** Zip Code: **32609**
3. Application Contact Telephone Numbers... Telephone: **(352) 377 - 5822** ext. **13** Fax: **(352) 377 - 7158**
4. Application Contact E-mail Address: **mlee@kooglerassociates.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

☒ Air construction permit.

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

☐ Initial Title V air operation permit.

☐ Title V air operation permit revision.

☐ Title V air operation permit renewal.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

☐ Air construction permit and Title V permit revision, incorporating the proposed project.

☐ Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

This application is for installation and shakedown of equipment for the injection of lime for the Kiln 2 system. The lime injection system will be installed for the purposes of compliance to NESHAP Subpart LLL.

The regulatory analysis and the project description are detailed in Appendix 1.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
044	Kiln No. 2, Pre-heater, Pre-Calciner, and Clinker Cooler	N/A	N/A

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☒ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name :
   Mr. Jim 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** 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

   2/9/15
   Date

APPLICATION INFORMATION

Application Responsible Official Certification - NA

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   ☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

   ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   ☐ The designated representative at an Acid Rain source, CAIR source, or Hg Budget source.

3. Application Responsible Official Mailing Address...
   Organization/Firm:
   Street Address: City: State: Zip Code:

4. Application Responsible Official Telephone Numbers...
   Telephone: **( )** ext. Fax: **( )**

5. Application Responsible Official E-mail Address:

6. Application Responsible Official Certification:

   I, the undersigned, am a responsible official of the Title V source 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 applicable requirements identified in this application to which the Title V source 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. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

   _____ _____
   Signature Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **Maxwell R. Lee, Ph. D, P. E.**
   Registration Number: **58091**
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.**13** Fax: **(352) 377-7158**
4. Professional Engineer E-mail Address: **mlee@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 2/9/15

Date

(seal)

MAXWELL R. LEE LICENSE No. 58091 STATE OF FLORIDA PROFESSIONAL ENGINEER

* Attach any exception to certification statement.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone **17** **360.0** East (km) **3162.5** North (km)		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **32**	6. Facility SIC(s): **3241**
7. Facility Comment : **None**			

Facility Contact

1. Facility Contact Name: **George Townsend - Environmental Manager**
2. Facility Contact Mailing Address... Organization/Firm: **CEMEX Construction Materials Florida, LLC** Street Address: **10311 Cement Plant Road** City: **Brooksville** State: **Florida** Zip Code: **34601**
3. Facility Contact Telephone Numbers: Telephone: **352-799-7881** Fax: **352-799-6088**
4. Facility Contact E-mail Address: gtownsend@cemexusa.com

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: ( ) - ext. Fax: ( ) -
4. Facility Primary Responsible Official E-mail Address:

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1. ☐ Small Business Stationary Source	☒ Unknown
2. ☐ Synthetic Non-Title V Source	
3. ☒ Title V Source	
4. ☒ Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. ☐ Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. ☒ Major Source of Hazardous Air Pollutants (HAPs)	
7. ☐ Synthetic Minor Source of HAPs	
8. ☒ One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. ☒ One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. ☒ One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. ☐ Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	

See Appendix 1

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	**A**	**N**
PM_{10}	**A**	**N**
SO_2	**A**	**N**
NOx	**A**	**N**
CO	**A**	**N**
HAPs	**A**	**N**
D/F	**B**	**N**
H114 (Hg)	**B**	**N**
H106 (HCl)	**B**	**N**

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility-Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
N/A					

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date: **TV Renewal**
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date: **TV Renewal**
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date: **TV Renewal**

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location:
   ☐ Attached, Document ID: _____ ☒ Not Applicable (existing permitted facility)
2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):
   ☒ Attached, Document ID: **Appendix 1** ☐ Not Applicable (existing permitted facility)
3. Rule Applicability Analysis:
   ☒ Attached, Document ID: **Appendix 1** ☐ Not Applicable (existing permitted facility)
4. List of Exempt Emissions Units:
   ☐ Attached, Document ID: _____ ☒ Not Applicable
5. Fugitive Emissions Identification:
   ☒ Attached, Document ID: **Appendix 1** ☐ Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.):
   ☐ Attached, Document ID: _____ ☒ Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.):
   ☐ Attached, Document ID: _____ ☒ Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):
   ☐ Attached, Document ID: _____ ☒ Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):
   ☐ Attached, Document ID: _____ ☒ Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):
    ☐ Attached, Document ID: _____ ☒ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:
   ☐ Attached, Document ID:_____ ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities: (Required for initial/renewal applications only)
   ☐ Attached, Document ID: _____ ☒ Not Applicable

2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)
   ☐ Attached, Document ID:_____
   ☒ Not Applicable (revision application with no change in applicable requirements)

3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)
   ☐ Attached, Document ID:_____
   Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)
   ☐ Attached, Document ID:_____
   ☐ Equipment/Activities Onsite but Not Required to be Individually Listed
   ☒ Not Applicable

5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)
   ☐ Attached, Document ID:_____ ☒ Not Applicable

6. Requested Changes to Current Title V Air Operation Permit:
   ☐ Attached, Document ID: _____ ☒ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:

   Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable (not an Acid Rain source)

   Phase II NO_X Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable

   New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable (not a CAIR source)

3. Hg Budget Part (DEP Form No. 62-210.900(1)(c)):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable (not a Hg Budget unit)

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [1] of [2] **Kiln No. 2, In-line Raw Mill, Pre-Heater, Pre-Calciner and Clinker Cooler**

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section: **In-Line Cement Kiln 2, Pre-heater, Pre-Calciner and Clinker Cooler**

3. Emissions Unit Identification Number: **044**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A	NA	NA	**32**

8. Federal Program Applicability: (Check all that apply) **N/A**

☐ Acid Rain Unit

☐ CAIR Unit

☐ Hg Budget Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

This AC permit application will only modify the conditions of this emissions unit for compliance to NESHAP Subpart LLL. A new lime injection system will allow this emission unit to use an alternative method to demonstrate compliance to the upcoming HCl limit by use of the SO_2 CMS as SO_2 surrogate for HCl. No other changes are requested by this permit application. While the lime injection system will control emissions from EU044, emissions from the lime injection equipment will vent separately from the kiln system and are not part of the kiln. However, the vented emissions from the limestone injection equipment will be subject to NESHAP Subpart LLL standards as a storage bin of raw material. The equipment emissions are requested to be regulated under EU047 for raw material handling.

Emissions Unit Control Equipment/Method: Control **1** of **3**

1. Control Equipment/Method Description: **Baghouse – High Temperature**
2. Control Device or Method Code: **016**

Emissions Unit Control Equipment/Method: Control **2** of **3**

1. Control Equipment/Method Description: **Selective Noncatalytic Reduction (SNCR) for NOx**
2. Control Device or Method Code: **107**

Emissions Unit Control Equipment/Method: Control **3** of **3**

1. Control Equipment/Method Description: **LFA for NOx**
2. Control Device or Method Code: **025**

Emissions Unit Control Equipment/Method: Control **NEW**

1. Control Equipment/Method Description: **Lime injection System (dry)** ***Note that the process inherently provides dry scrubbing in the preheater tower. This injector will supplement that control.***
2. Control Device or Method Code: **041**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **See below**
2. Maximum Production Rate: **See below**
3. Maximum Heat Input Rate: **490** million Btu/hr **(pyroprocessing system)**
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: **24** hours/day **7** days/week **52** weeks/year **8,760** hours/year
6. Operating Capacity/Schedule Comment: **See 0530021-047-AV permit condition D.4** **Clinker production rates** **156 TPH** **3,500 TPD** **1,227,500 TPY**

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: **Kiln No. 2**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **Equipment ID 331.BF300**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **318** feet	7. Exit Diameter: **10.1** feet
8. Exit Temperature: **285**°F	9. Actual Volumetric Flow Rate: **335,000** acfm	10. Water Vapor: **13.5**%
11. Maximum Dry Standard Flow Rate: **214,000** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude… Latitude (28°/34’/57’’) Longitude (82°/25’/52’’)	
15. Emission Point Comment: **Stack emission parameters based on average of past 5 years of compliance testing for PM on raw mill up conditions.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment **1** of **X – only include for new limestone injection**

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products: Bulk Material Storage Bins: Limestone**		
2. Source Classification Code (SCC): **3-05-102-05**	3. SCC Units: **Tons stored**	
4. Maximum Hourly Rate: **0.025**	5. Maximum Annual Rate: **43.8**	6. Estimated Annual Activity Factor: **1**
7. Maximum % Sulfur: **Negligible**	8. Maximum % Ash: **Negligible**	9. Million Btu per SCC Unit: **NA**
10. Segment Comment: **Based on estimate of needed injection at 50 lb/hr max and a 8760 hr/yr usage at average of 10 lb/hr**		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**016**		**EL**
PM_{10}	**016**		**EL**
SO_2	**041**		**EL**
NO_x	**107/025**		**EL**
CO			**EL**
VOC/THC			**EL**
H114 (Hg)			**EL**
GHG			**NS**
H106 HCl	**041**		**EL (9/9/15)**
Note that b/c the only regulated pollutant affected by this permit is HCl and SO2, only those two are modified in the details below. All other information should be as currently permitted.			

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: **SO_2**	2. Total Percent Efficiency of Control: **99+***
3. Potential Emissions: **28.8** lb/hour tons/year	4. Synthetically Limited? ☐ Yes No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.185 lb/ton clinker** Reference: **Permit No. 0530021-047-AV**	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:
156 ton/hr x 0.185 lb/ton = 28.8 lb/hr

*** The production process is inherently and very efficiently controlled for SO2 emissions by the alkaline scrubbing by raw materials in the preheater tower. The lime proposed injection system will provide further control.**

11. Potential, Fugitive, and Actual Emissions Comment:

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: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.185 lb/ton clinker, 28.8 lb/hr**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: **Continuous emissions monitoring**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on BACT.** **While the upcoming NESHAP LLL applicable amendments/changes do not directly limit SO_2 emissions, CEMEX plans to use SO_2 CMS as a surrogate for monitoring for HCl emissions. Per NESHAP (40 CFR 63.1348(b)(8)(iv), the SO_2 concentration monitor will be used along with HCl stack testing by Method 321 to develop an SO_2 "operating" limit. This allowance and the operating limit is further explained in the Appendix.**	

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: **H106 (Hydrochloric Acid)**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **4.34** lb/hour **19.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **3 ppmvd @ 7%O2** Reference: **NESHAP LLL emission limit starting 9/9/15**	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:

NESHAP emissions limit as of 9/9/15 = 3 ppmvd @ 7% O_2. Potential emissions are based on an estimated maximum airflow rate of 255,000 dscfm @ 7% O_2. Maximum airflow based on average of past 5-years of PM stack test data plus 20 percent and review of maximum air flow on CEMS hourly data for 2014.

255,000 dcsfm x 3/10^6 x 1lbmol/385 dscf x 36.46 lb/lbmol x 60 min/hr = 4.34 lb/hr
8760 hr x 3.65 lb/hr /2000 lb/ton = 19.0 ton/yr

11. Potential, Fugitive, and Actual Emissions Comment:

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: **RULE**	2. Future Effective Date of Allowable Emissions: **9/9/15***
3. Allowable Emissions and Units: **3 ppmvd 7% O2**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: **Two options, HCL CMS or SO2 CMS as a surrogate**	
6. Allowable Emissions Comment (Description of Operating Method): **Per NESHAP LLL, 40 CFR 63.1348(b)(8)(iv)**	

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation **1** of **1**

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **10**% Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Continuous Opacity Monitor; 6-minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530021-047-AV.**	

Visible Emissions Limitation: Visible Emissions Limitation __ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor **1** of **1**

1. Parameter Code: **EM**	2. Pollutant(s): **NO, NO_2, SO_2**
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **ABB** Model Number: **Limas 11 UV**	Serial Number: **04731961/5001**
5. Installation Date: **4/25/2010**	6. Performance Specification Test Date: **3/19/2010**

7. Continuous Monitor Comment: **required by BACT.**

Per 40 CFR 63.1350(l) provision, the SO_2 monitor will be used in conjunction with HCl stack testing to develop an "operating limit" that will serve as a surrogate monitoring for HCl. The NESHAP requires that an emissions monitoring plan be developed. The proposed emissions monitoring plan has been developed. If Cemex elects to use SO_2 monitoring as a surrogate, then SO_2 CMS will also be required by NESHAP rule in addition to BACT. Per the NESHAP, compliance for HCL by SO2 CMS will not cause the SO2 monitor to be used for any NESHAP SO2 emissions limit but only a surrogate for HCl emissions.

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date **On file with DEP**

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: : _____ ☒ Previously Submitted, Date **On file with DEP**

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date **On file with DEP**

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID_____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date **On file with DEP**
   ☐ Not Applicable

6. Compliance Demonstration Reports/Records:
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested:_____
   ☐ To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Not Applicable

   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:
   Attached, Document ID:

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☒ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
EU047 includes currently three baghouse IDs. See table in box 11.

3. Emissions Unit Identification Number: **047**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A	**NA**	**NA**	

8. Federal Program Applicability: (Check all that apply) **N/A**

☐ Acid Rain Unit

☐ CAIR Unit

☐ Hg Budget Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

This new lime injection system will allow the kiln unit to use an alternative method to demonstrate compliance to the upcoming HCl limit by use of the SO_2 CMS as SO_2 surrogate for HCl. Cemex is requesting that the system be added to EU047 (which is part of the raw material handling process) as a new emission point, EU047-LIME, rather than a new emission unit entirely. The new emission point will be called "EU047-LIME, Lime Injection System". The current emission points in EU047 are listed below.

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

Emissions Unit Control Equipment/Method: Control **1** of **1**

1. Control Equipment/Method Description: **Baghouse – Low Temperature**
2. Control Device or Method Code: **018**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **See below**	
2. Maximum Production Rate: **See below**	
3. Maximum Heat Input Rate: **NA** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,760** hours/year
6. Operating Capacity/Schedule Comment:	

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:	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **The emission point name is "047-LIME"** **The description is the emissions points from the EU-47 Lime Injection System, emissions point EU047-LIME**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **351.BF420 – Kiln Feed Transport** **341.BF410 – Blend Silo Discharge** **351.BF410 – Kiln Feed Bin**		
5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: **390** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude… Latitude (**28°/34'/57''**) Longitude (**82°/25'/52''**)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment **1** of **X – only include for new limestone injection**

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products: Bulk Material Storage Bins: Limestone**		
2. Source Classification Code (SCC): **3-05-102-05**	3. SCC Units: **Tons stored**	
4. Maximum Hourly Rate: **0.025**	5. Maximum Annual Rate: **43.8**	6. Estimated Annual Activity Factor: **1**
7. Maximum % Sulfur: **Negligible**	8. Maximum % Ash: **Negligible**	9. Million Btu per SCC Unit: **NA**
10. Segment Comment: **Based on estimate of needed injection at 50 lb/hr max and a 8760 hr/yr usage at average of 10 lb/hr**		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**018**		**NS**

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: **99+**
3. Potential Emissions: **0.0167** lb/hour **0.073** tons/year	4. Synthetically Limited? ☐ Yes No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.005 gr/dscf** Reference: **Manufacturer specification**	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:

390 dscfm x 0.005 gr/dscf x 60 min/hr x 1 lb/7000 grains = 0.0167 lb/hr

0.0167 lb/hr x 8760 hr/yr x 1 ton/2000 lb = 0.073 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

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 **NA**

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):	

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation **1** of **1**

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **10**% Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **3/1 hour every 5-yr upon TV permit renewal a VE test**	
5. Visible Emissions Comment: limit per 63.1345 and test requirement per 63.1349(b)(2) **Per NESHAP LLL, once per prior to TV permit renewal, must VE test the emissions to whether it meets 10% opacity (40 CFR 63.1345). Testing must be during representative operating conditions.**	

(2) *Opacity tests.* If you are subject to limitations on opacity under this subpart, you must conduct opacity tests in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of paragraphs (b)(2)(i) through (b)(2)(ii) of this section apply. For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating.

(i) There are no individual readings greater than 10 percent opacity;

(ii) There are no more than three readings of 10 percent for the first 1-hour period.

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation _2_ of 2_

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other

3. Allowable Opacity:
Normal Conditions: **10** % Exceptional Conditions: %
Maximum Period of Excess Opacity Allowed: min/hour

4. Method of Compliance: **Annual 30-minute VE test.**

FDEP rule, 297-310.(7)(a)(4), FAC
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;**
b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
c. **Each NESHAP pollutant, if there is an applicable emission standard.**

5. Visible Emissions Comment:
During the NESHAP LLL 5-yr interval testing, the 3/1 hour VE test data can be also used to show compliance to this annual 30-min VE test length per 62-297.310(4)(a)2, FAC.

(4) Applicable Test Procedures.
(a) Required Sampling Time.
1. 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.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a 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 opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor **NA**

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date **On file with DEP**

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: : _____ ☒ Previously Submitted, Date **On file with DEP**

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date **On file with DEP**

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID_____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☒ Previously Submitted, Date **On file with DEP**
   ☐ Not Applicable

6. Compliance Demonstration Reports/Records:
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested:_____
   ☐ To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Not Applicable

   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:
   Attached, Document ID:

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☒ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements Comment

APPENDIX 1

CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC

FACILITY ID: 0530021

APPLICATION FOR AIR CONSTRUCTION PERMIT AUTHORIZING CONSTRUCTION OF LIME INJECTION SYSTEM ON KILN 2

APPENDIX 1

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APPENDIX 1

CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC

FACILITY ID: 0530021

APPLICATION FOR AIR CONSTRUCTION PERMIT AUTHORIZING CONSTRUCTION OF LIME INJECTION SYSTEM ON KILN 2

Description

1. INTRODUCTION

CEMEX Construction Materials Florida, LLC (CEMEX) owns and operates a cement plant located in Brooksville, Florida, designated as the Brooksville South Cement Plant in the current Title V permit (0530021-047-AV). The cement plant consists of two dry-process in-line kiln/raw mill systems (Line 1 and Line 2). Line 1 is permitted to produce 1,277,500 tons of cement and Line 2 is permitted to produce 1,800,000 tons of cement in any consecutive 12-month period.

CEMEX requests authorization for the installation of equipment for the injection of lime to Line 2 kiln (EU 044) pyroprocessing system for the purpose of hydrochloric acid (HCl) control as allowed by the Portland Cement NESHAP (40 CFR 63, Subpart LLL). The emissions limit will be 3 ppmvd @ 7% O_2 starting 9/9/15.

As discussed in the regulatory analysis section, the requested air construction permit will assure compliance with the upcoming hydrochloric acid (HCl) emissions limit for NESHAP. Therefore, CEMEX is requesting to have the option in its permitting allowances to use an alternative continuous monitoring approach via SO2 CMS and correspondingly required limestone injection to comply with the HCl emissions limit. The limestone injection system has a separate venting baghouse that emits separately from the kiln. Because the limestone will be raw material to the cement production, the emission point from the limestone injector is requested to be part of EU047 which is part of the Process: Raw Mix and Raw Meal Handling and Storage System.

The regulatory requirements for the use of the injection system can be used to show compliance to the NESHAP HCl emissions limit.

2. REGULATORY APPLICABILITY ANALYSIS

2.1 FEDERAL

KILN NO. 2 (EU 044)

NESHAP 63 Subpart LLL (Cement MACT), 40 CFR 63.1340-63.1358
– *Applicable*

40 CFR 63 Subpart LLL (commonly referred to as the Cement MACT) currently applies to individual equipment and emission units at the Brooksville South Cement Plant other than to the cement kilns and in-line raw mills.

Emissions Limit

The kiln No. 2 will be subject to a HCl emissions limit of 3 ppmvd @ 7%O_2 beginning September 9, 2015 per 40 CFR 63.1343(b).

§63.1348(a)(8)

> (8) *HCl Compliance.* If you are subject to limitations on HCl emissions under §63.1343(b), you must demonstrate compliance using the performance test methods and procedures in §63.1349(b)(6).
>
> > (i)….
> >
> > (ii) For an affected source that is equipped with a wet scrubber, tray tower or a dry sorbent injection system, you may demonstrate compliance using the monitoring methods and procedures in §63.1350(l)(2).

HCl Emissions Testing

§1349(b)(6)

(6) *HCl emissions tests.* For a source subject to limitations on HCl emissions you must conduct performance testing by one of the following methods:

(i)(A) If the source is equipped with a wet scrubber, tray tower or dry scrubber, you must conduct performance testing using Method 321 of appendix A to this part unless you have installed a CEMS that

meets the requirements §63.1350(l)(1). For kilns with inline raw mills, testing should be conducted for the raw mill on and raw mill off conditions.

(B) You must establish site specific parameter limits by using the CPMS required in §63.1350(l)(1). For a wet scrubber or tray tower, measure and record the pressure drop across the scrubber and/or liquid flow rate and pH in intervals of no more than 15 minutes during the HCl test. Compute and record the 24-hour average pressure drop, pH, and average scrubber water flow rate for each sampling run in which the applicable emissions limit is met. For a dry scrubber, measure and record the sorbent injection rate in intervals of no more than 15 minutes during the HCl test. Compute and record the 24-hour average sorbent injection rate and average sorbent injection rate for each sampling run in which the applicable emissions limit is met.

(ii)(A)…

(B)…

(iii) As an alternative to paragraph (b)(6)(i)(B) of this section, you may choose to monitor SO_2 emissions using a CEMS in accordance with the requirements of §63.1350(l)(3). You must establish an SO_2 operating limit equal to the highest 1 hour average recorded during the HCl stack test. This operating limit will apply only for demonstrating HCl compliance.

(iv)….

Sorbent Injection Rate Monitoring

(9) *Mass flow rate (for sorbent injection) monitoring requirements.* If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (*e.g.,* weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (m)(9)(i) through (iii) of this section. These requirements also apply to the sorbent injection equipment of a dry scrubber.

(i) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(ii) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(iii) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

Establishing an SO2 CEMs Operating Limit

§1349.(b)(8) HCl Emissions Tests with SO_2 Monitoring. If you choose to monitor SO_2 emissions using a CEMS to demonstrate HCl compliance, follow the procedures in (b)(8)(i) through (ix) of this section and in accordance with the requirements of §63.1350(l)(3). You must establish an SO_2 operating limit equal to the average of the SO_2 emissions recorded during the HCl stack test. This operating limit will apply only for demonstrating HCl compliance.

(i) Use Method 321 of appendix A to this part to determine emissions of HCl. Each performance test must consist of three separate runs under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). Each run must be conducted for at least one hour.

(ii) At the same time that you are conducting the performance test for HCl, you must also determine a site-specific SO_2emissions limit by operating an SO_2 CEMS in accordance with the requirements of §63.1350(l). The duration of the performance test must be three hours and the average SO_2 concentration (as calculated from the 1-minute averages) during the 3-hour test must be calculated. You must establish your SO_2 operating limit and determine compliance with it according to paragraphs (b)(8)(vii) and (viii)of this section.

(iii) If your source has an in-line kiln/raw mill you must use the fraction of time the raw mill is on and the fraction of time that the raw mill is off and calculate this limit as a weighted average of the SO_2 levels measured during raw mill on and raw mill off testing.

(iv) Your SO_2 CEMS must be calibrated and operated according to the requirements of §60.63(f).

(v) Your SO_2 CEMS measurement scale must be capable of reading SO_2 concentrations consistent with the requirements of §60.63(f), including mill on or mill off operation.

(vi) If your kiln has an inline kiln/raw mill, you must conduct separate performance tests while the raw mill is operating (“mill on”) and while the raw mill is not operating (“mill off”). Using the fraction of time the raw mill is on and the fraction of time that the raw mill is off, calculate this limit as a weighted average of the THC levels measured during raw mill on and raw mill off compliance testing with Equation 17.

$$R=(y*t)+x*(t-1) \qquad \text{(Eq. 17)}$$

Where:

R = Operating limit as SO_2, ppmvw.

y = Average SO_2 CEMS value during mill on operations, ppmvw.

t = Percentage of operating time with mill on, expressed as a decimal.

x = Average SO_2 CEMS value during mill off operations, ppmvw.

t−1 = Percentage of operating time with mill off, expressed as a decimal.

(vii) To determine continuous compliance with the SO_2 operating limit, you must record the SO_2 CEMS output data for all periods when the process is operating and the SO_2 CEMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly

average data collected by the SO_2 CEMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (ppmvw) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 18 to determine the 30 kiln operating day average.

$$30\text{kiln operating day} = \frac{\sum_{i=1}^{n} Hpv_i}{n} \qquad \text{(Eq. 18)}$$

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Where:

Hpvi = The hourly parameter value for hour i, ppmvw.

n = The number of valid hourly parameter values collected over 30 kiln operating days.

(viii) Use EPA Method 321 of appendix A to part 60 of this chapter to determine HCl emissions. For each performance test, conduct at least three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. If your source has an in-line kiln/raw mill you must conduct three separate test runs with the raw mill on, and three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur with the mill off.

(ix) If the SO_2 level exceeds by 10 percent or more your site-specific SO_2 emissions limit, you must

(A) As soon as possible but no later than 30 days after the exceedance, conduct an inspection and take corrective action to return the SO_2 CEMS measurements to within the established value. and

(B) Within 90 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct another performance test to determine compliance with the HCl limit and to verify or re-establish your site-specific SO_2 emissions limit.

(c) *Performance Test Frequency.* Except as provided in §63.1348(b), performance tests are required at regular intervals for affected sources that are subject to a dioxin, organic HAP or HCl emissions limit and must be repeated every 30 months except for pollutants where that specific pollutant is monitored using CEMS. Tests for PM are repeated every 12 months.

SO2 surrogate Monitoring Requirements

§63.1350(l)

(l) *HCl Monitoring Requirements.* If you are subject to an emissions limitation on HCl emissions in §63.1343, you must monitor HCl emissions continuously according to paragraph (l)(1) or (2) and

paragraphs (m)(1) through (4) of this section or, if your kiln is controlled using a wet or dry scrubber or tray tower, you alternatively may parametrically monitor SO_2 emissions continuously according to paragraph (l)(3) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of this section.

(1)…

(2) Install, operate, and maintain a CMS to monitor wet scrubber or tray tower parameters, as specified in paragraphs (m)(5) and (7) of this section, and dry scrubber, as specified in paragraph (m)(9) of this section.

(3) If the source is equipped with a wet or dry scrubber or tray tower, and you choose to monitor SO_2 emissions, monitor SO_2emissions continuously according to the requirements of §60.63(e) through (f) of part 60 subpart F of this chapter. If SO_2 levels increase above the 30-day rolling average SO_2 operating limit established during your performance test, you must:

(i) As soon as possible but no later than 48 hours after you exceed the established SO_2 value conduct an inspection and take corrective action to return the SO_2 emissions to within the operating limit; and

(ii) Within 60 days of the exceedance or at the time of the next compliance test, whichever comes first, conduct an HCl emissions compliance test to determine compliance with the HCl emissions limit and to verify or re-establish the SO_2 CEMS operating limit.

Development of emissions monitoring plan

§1350(b)(4)

Develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (p)(4) of this section.

(p) *Development and submittal (upon request) of monitoring plans.* If you demonstrate compliance with any applicable emissions limit through performance stack testing or other emissions monitoring, you must develop a site-specific monitoring plan according to the requirements in paragraphs (p)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under paragraph (o) of this section and §63.8(f). If you use a BLDS, you must also meet the requirements specified in paragraph (p)(5) of this section.

(1) For each CMS required in this section, you must develop, and submit to the permitting authority for approval upon request, a site-specific monitoring plan that addresses paragraphs (p)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 30 days before your initial performance evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(2) In your site-specific monitoring plan, you must also address paragraphs (p)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

FDEP Rules

– Not *Applicable*

LIMESTONE INJECTOR EQUIPMENT (ADD TO MATERIALS HANDLING ACTIVITIES)

NESHAP 63 Subpart LLL (Cement MACT), 40 CFR 63.1340-63.1358

– Applicable

40 CFR 63 Subpart LLL (commonly referred to as the Cement MACT) currently applies to individual equipment at the Brooksville South Cement Plant other than the kiln unit.

There are dust filters (see Figure 1) on the injector system and PM emissions from the injector system will be separately regulated from the kiln but subject to NESHAP LLL for the following reasons.

1) The injection system has two small dust filters for PM emissions control from limestone storage and injection (see Figure 1),

2) The limestone injected will end up eventually in the cement product and thus is effectively a *raw material*.

3) NESHAP LLL listed the following subject equipment which includes raw materials storage bins.

> *§63.1340(b)(6) Each raw material, clinker, or finished product storage bin at any portland cement plant that is a major source;*

Therefore, the materials handling activities under Subsection E of 0530021-047-AV permit will need to be modified to incorporated this equipment after completing the AC permitting requirements. The calculated emissions from the dust filters are as follows. The max flowrate is based on design specs from the manufacturer. The grain loading is also from the manufacturer.

PM (lb/hr): max baghouse flowrate 390 dscfm x 0.005 gr/dscf x 60 min/hr x 1 lb/7000 grains =

0.0167 lb/hr

PM (ton/yr): 0.0167 lb/hr x 8760 hr/yr x 1 ton/2000 lb =

0.073 ton/yr

CEMEX believes that the baghouse vents are subject to NESHAP standards for opacity limit of 10% (60 CFR 63.1345) and thus requiring monthly Method 22s (40 CFR 63.1350(f)), initial and once each 5 year Method 9 testing (40 CFR 63.1348(A)(2)).

For FDEP rules, CEMEX understands the annual VE testing for 30 minutes is required as discussed below.

§63.1345 EMISSIONS LIMITS FOR AFFECTED SOURCES OTHER THAN KILNS; CLINKER COOLERS; NEW AND RECONSTRUCTED RAW MATERIAL DRYERS.

The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent.

FDEP Rules

– Applicable

Based on FDEP rule 62-297.310(7)(a)4, injector baghouse emissions require annual VE testing.

> *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;

The unit is subject to a 10% opacity standard due to the NESHAP LLL 40 CFR 63.1343(b). Therefore, the baghouse will need to be VE tested annually due to the FDEP rule above. The length of the VE test will be 30 minutes based on the potential emissions calculated above and FDEP rule 62-297.310(4)(a).2.:

> *Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a 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 opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.*

Note that additional truck traffic is very minor (see below) and these emissions should be included as part of current truck traffic operations.

Suggested AC permit language

EU047 – new emission point, EU047-LIME. EU047 a part of Raw Mix and Raw Meal Handling and Storage System.

Current emissions points are listed as follows.

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
Add new emissions point to EU 047 will be called EU047-LIME		

NESHAP Compliance

Visible Emissions Limit. Pursuant to 40 CFR 63.1343(b), visible emissions from this conveying system baghouse emission point shall not exceed 10% opacity.

Initial Performance Test Requirements. The permittee must demonstrate compliance with the opacity standards and operating limits by using the test methods and procedures in §§63.1349(b)(2) and 63.7. The compliance date for this new source is upon startup. The facility shall have 90 days after startup to complete initial performance testing. [Rule 62-4.070(3), F.A.C. and 40 CFR 63.1349, 63.1351(c) and 63.7] .

Opacity tests. The permittee must conduct opacity tests in accordance with Method 9 of appendix A-4 of 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30, 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the following conditions in paragraphs (a) and (b) apply.

(a) There are no individual readings greater than 10 percent opacity; and

(b) There are no more than three readings of 10 percent for the first 1-hour period. For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. Use the maximum 6-minute average opacity

exhibited during the performance test period to determine whether the affected source is in compliance with the standard. [40 CFR 63.1348(a)(2) and 63.1349]

Opacity Monitoring Requirements.

(a) The permittee must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of this section.

(b) Failure to comply with the continuous monitoring requirements of this section is a violation.

(c) The permittee must conduct a monthly 10-minute visible emissions test of each affected source in accordance with Method 22 of appendix A-7 to part 60 of this chapter. The performance test must be conducted while the affected source is in operation.

1. If no visible emissions are observed in six consecutive monthly tests, the permittee may decrease the frequency of performance testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, you must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. Note, if transloading is not conducted each month, then this condition may be satisfied if:

    a. There are at least six tests conducted within the 6-month period and all tests within the 6-month period indicate no visible emissions were observed; or

    b. The first six tests are conducted over a period of 7 to 12-months and all six tests indicate no visible emissions were observed.

2. If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of performance testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual performance test, the permittee must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

3. If visible emissions are observed during any Method 22 performance test, of appendix A-7 to part 60 of this chapter, the permittee must conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The Method 9 performance test, of appendix A-4 to part 60 of this chapter, must begin within 1 hour of any observation of visible emissions.

4. The permittee must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of this section. However, 40 CFR 63.1350(p) requires the development and submittal (*upon request*) of monitoring plans. The periodic monitoring (EPA Method 22 observations) required above are deemed to be a sufficient monitoring plan.

[40 CFR 63.1350(a) and (f)]

Notifications and Reporting. In addition to the requirements listed above, the permittee shall also comply with the notification, recordkeeping and reporting requirements contained in 40 CFR 63, Subparts A and LLL found at the following links: Link to Subpart A. Link to Subpart LLL. [40 CFR 63.1353, 63.1354 & 63.1355]

State of Florida Rule Compliance

Annual VE Testing. 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 visible emissions (equipment is subject to 10% opacity standard per NESHAP LLL).

[62-297.310(7)(a)4, F.A.C.]

The length of the VE test will be 30 minutes based on the potential emissions of less than 100 tpy.

[62-297.310(4)(a).2., F.A.C.]

3. LIME INFRASTRUCTURE AND OPERATIONS

3.2 LIME RECEIVING, PROCESSING, TRANSPORT, HANDLING, AND STORAGE

Delivery by truck of limestone is expected to be less than 3 trucks per year based on projected usage or less than 50 tons per year. As a conservative measure, these fugitive PM calculations assume delivery of 20 trucks per year which is 500 tons per year. See Figure 2 below for the estimated path of trucks through the facility. Also see Table 1 below for calculation of additional truck traffic from Lime delivery. This traffic emissions calculation is conservative and accounts for both a longer truck route and/or additional truck over the expected amount.

3.4 LIME INJECTION EQUIPMENT DESCRIPTION

Each system will consist of one bulk bag unloading station as detailed below in Figure 2. The system will discharge bulk bags into a confinement hopper for dust collection. The confinement hopper will discharge to the gravimetric feeder. The gravimetric feeder will then discharge into a rotary airlock which creates a barrier between the feeding system and the convey line. The material will be transported into the existing duct.

CEMEX estimates that the time frame for completing equipment installation (following issuance of the air construction permit) will take approximately six to twelve months. CEMEX therefore requests a one - year construction permit for this project.

Figure 1: Expected path of trucks for lime delivery to Kiln 2 (~1 mile)

Table 1: Calculation of truck traffic from Lime delivery and Project emissions

Lime Injection System - ***Potential Emissions***

Step	Action/Task	Unit of Measurement	% of Total Throughput	PM Emission Factor	PM_{10} Emission Factor	$PM_{2.5}$ Emission Factor	PM Emissions	PM_{10} Emissions	$PM_{2.5}$ Emissions
1	Lime Transport to Silo[a]	50 miles	100%	0.556 lb/VMT	0.453 lb/VMT	0.111 lb/VMT	0.01 tons/yr	0.01 tons/yr	0.00 tons/yr
2	Lime Storage [b.]	500 tons	100%	*negligible, stored in sealed silo .Emissions accounted for by baghouse filter emissions from silo*					
					Total:		0.01 tons/yr	0.01 tons/yr	0.00 tons/yr

Sample Calculations:

a. $E=[k(sL)^{0.91}(W)^{1.02}]x(1-P/4N)$

$E=[0.0027(12)^{0.91}(22)^{1.02}]x(1-120/(4(365)))=0.556$

where from AP-42 and references, k=0.0027 (PM), k=0.0022 (PM10), k=0.00054 (PM2.5) sL=12, W=22, p=120, N=365

b. $(2.0\ miles)/[[trip]]^{d}$ x $[[trip]]^{d}/(20\ tons)$x *500 tons lime = 45 miles*

a. Potential PM emissions from truck traffic from paved roads are calculated based on AP- 42, Chapter 13.2.1-1, Equation 2 and sample calculation a. above.
b. based on maximum annual usage of 114 lb/hr limestone.

Project Potential PM emissions increase

Action/Task	PM Emissions	PM_{10} Emissions	$PM_{2.5}$ Emissions
Lime Transport to Silo[a]	0.014 tons/yr	0.011 tons/yr	0.003 tons/yr
Lime Storage [b.]	*negligible*		
Llime Silo Baghouse[c.]	0.073 tons/yr	0.01 tons/yr	0.00 tons/yr
Total:	0.09 tons/yr	0.02 tons/yr	0.01 tons/yr

a. See table above for calculation
b. Accounted for by PM emissions from baghouse
c. Based on manufacturer baghouse gaurantee and design flowrate
d. Calculation of PM10 and PM2.5 based on AP-42, Table 11.19.2-4 ratios of product storage for PM, PM10 and P2.5

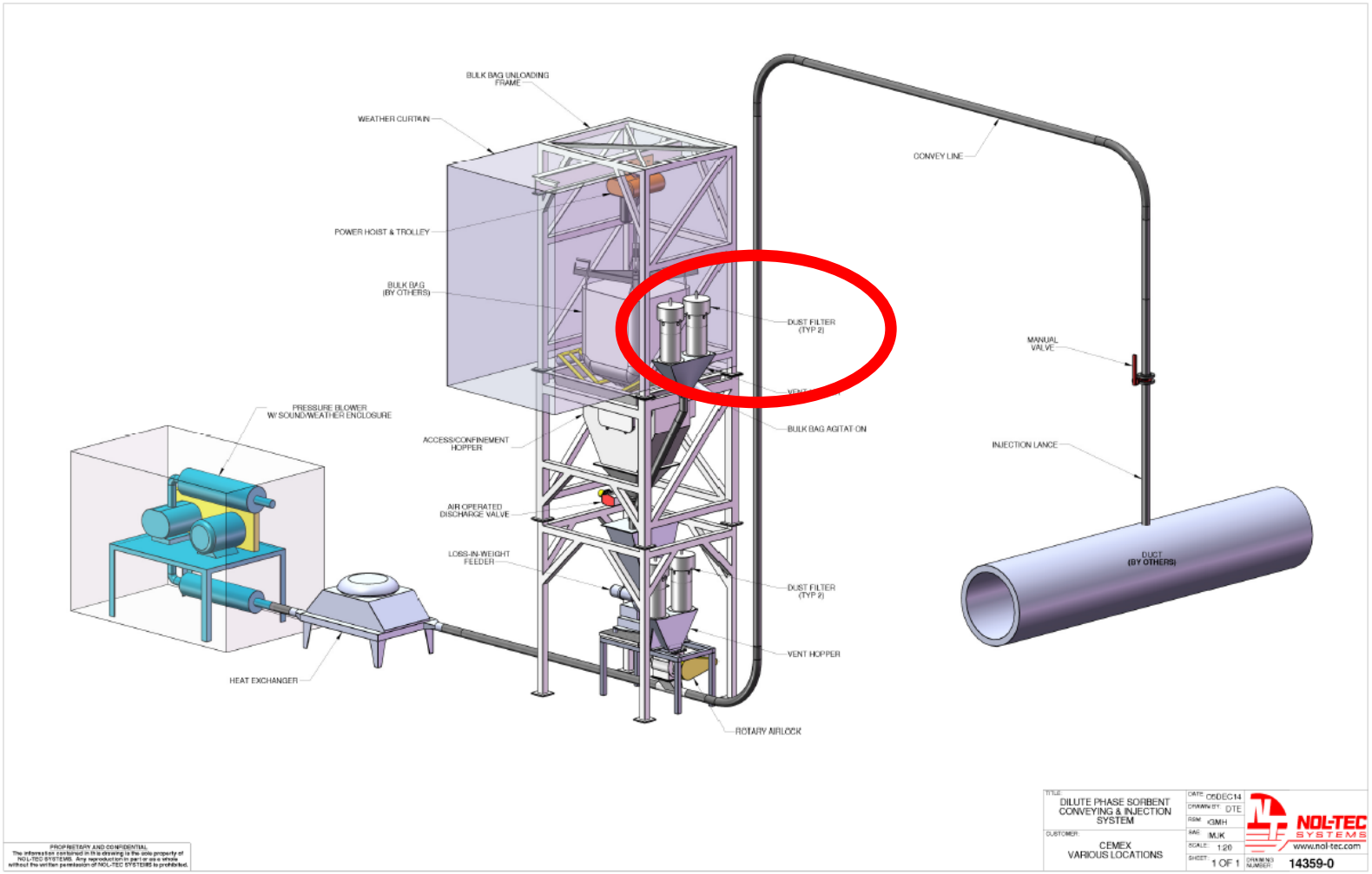

Figure 2: Lime Injection System Schematic