KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

KA 521-05-11
October 14, 2005

Mr. Al Linero
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road MS 5500
Tallahassee, Florida 32399-2400

RE: PSD Air Construction Permit Application for Modifications to the CEMEX Cement, Inc., Brooksville Facility (ID No. 0530010)

Project No.: 0530010-018-AC
PSD-FL-362

Dear Al,

Enclosed please find six (6) copies of a PSD air permit application for modifications to the CEMEX Cement, Inc., Brooksville facility (ID No. 0530010). Also enclosed is a check to cover the permit fee of $7,500. A CD containing the modeling files will be sent under separate cover to Cleve Holladay.

Please feel free to contact me at (352) 377-5822 or FBergen@kooglerassociates.com, or Charles Walz, CEMEX Cement Inc., at (352) 799-2011, if you have any questions regarding this submittal.

Very truly yours,

KOOGLER & ASSOCIATES

Fawn W. Bergen, P.E.
Project Engineer

FB

Enclosure: 6 copies-PSD Permit Application
Application fee check--$7,500

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

October 19, 2005

Mr. Gregg M. Worley, Chief
Air Permits Section
U.S. EPA, Region 4
61 Forsyth Street
Atlanta, Georgia 30303-8960

RE: CEMEX Cement, Inc.
Brooksville Cement Plant
0530010-018-AC, PSD-FL-362

Dear Mr. Worley:

Enclosed for your review and comment is a PSD application submitted by CEMEX Cement, Inc. for modifications at their Brooksville facility in Brooksville, Hernando County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact Scott Sheplak, review engineer, at 850/921-9532.

Sincerely,

Patty Adams

for A. A. Linero, P.E., Administrator
South Permitting Section

AAL/pa

Enclosure

cc: S. Sheplak

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
5014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 • FAX 377-7158

Letter of Transmittal

Path for files

DATE:	10/24/05	**PROJECT NO:**	521-05-11
TO:	FDEP, Tallahassee		
ATTENTION:	**Scott Sheplak, PE**		
REGARDING:			
CEMEX PSD application—electronic files			

WE ARE FORWARDING TO YOU THE FOLLOWING:

Copies	Description
2	CDs containing all of the electronic files

THESE ARE TRANSMITTED BY:

____	REGULAR MAIL	____	DELIVERED
____	OVERNIGHT	____	CLIENT PICK UP
X	2 DAY	____	OTHER: _____

REMARKS:
Scott - Enclosed please find two (2) copies of CDs containing all of the electronic files. I did not include the modeling files as these were sent separately to Cleve Holladay.

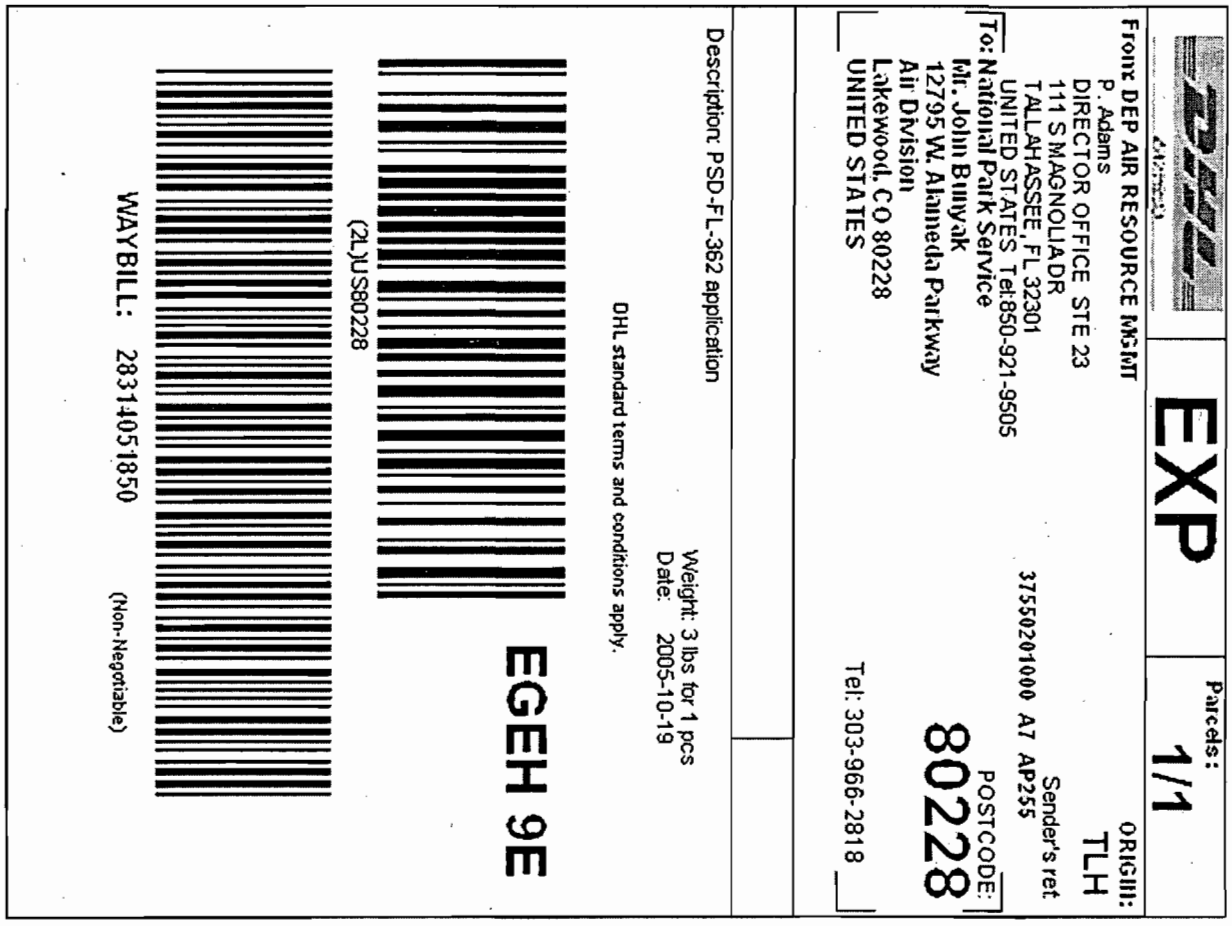
cc: _____

SIGNED: Jan Bergen

If enclosures are not as noted, kindly notify us at once.

APPLICATION FOR A PSD
CONSTRUCTION PERMIT

CEMEX Cement, Inc.
Brooksville, Hernando County, Florida
Facility ID No. 0530010
10/14/05



▲ PEEL HERE PEEL HERE ▲

Please fold or cut in half

DO NOT PHOTOCOPY

Using a photocopy could delay the delivery of your package and will result in additional shipping charge

SENDER'S RECEIPT
Waybill #: 28314051850

To(Company):
National Park Service
Air Division
12795 W. Alameda Parkway

Lakewood, CO 80228
UNITED STATES

Attention To: Mr. John Bunyak
Phone#: 303-966-2818

Sent By: P. Adams
Phone#: 850-921-9505

Rate Estimate: 14.81
Protection: Not Required
Description: PSD-FL-362 application

Weight (lbs.): 3
Dimensions: 0 x 0 x 0

Ship Ref: 37550201000 A7 AP255
Service Level: Next Day 12:00 (Next business day by 12 PM)

Special Svc:

Date Printed: 10/19/2005
Bill Shipment To: Sender
Bill To Acct: 778941286

DHL Signature (optional) _____ Route _____ Date _____ Time _____

For Tracking, please go to www.dhl-usa.com or call 1-800-225-5345

Thank you for shipping with DHL

Create new shipment ▶ View pending shipments Print waybill

PEEL HERE PEEL HERE

Please fold or cut in half

DO NOT PHOTOCOPY

Using a photocopy could delay the delivery of your package and will result in additional shipping charge

SENDER'S RECEIPT
Waybill #: 28314201053

To(Company):
DEP Southwest District Office
Air Resources
3804 Coconut Palm Drive

Tampa, FL 33619
UNITED STATES

Attention To: Mr. Jason Waters
Phone#: 813-744-6100

Sent By: P. Adams
Phone#: 850-921-9505

Rate Estimate: 6
Protection: Not Required
Description: PSD-FL-362 application

Weight (lbs.): Letter
Dimensions: 0 x 0 x 0

Ship Ref: 37550201000 A7 AP255
Service Level: Next Day 12:00 (Next business day by 12 PM)

Special Svc:

Date Printed: 10/19/2005
Bill Shipment To: Sender
Bill To Acct: 778941286

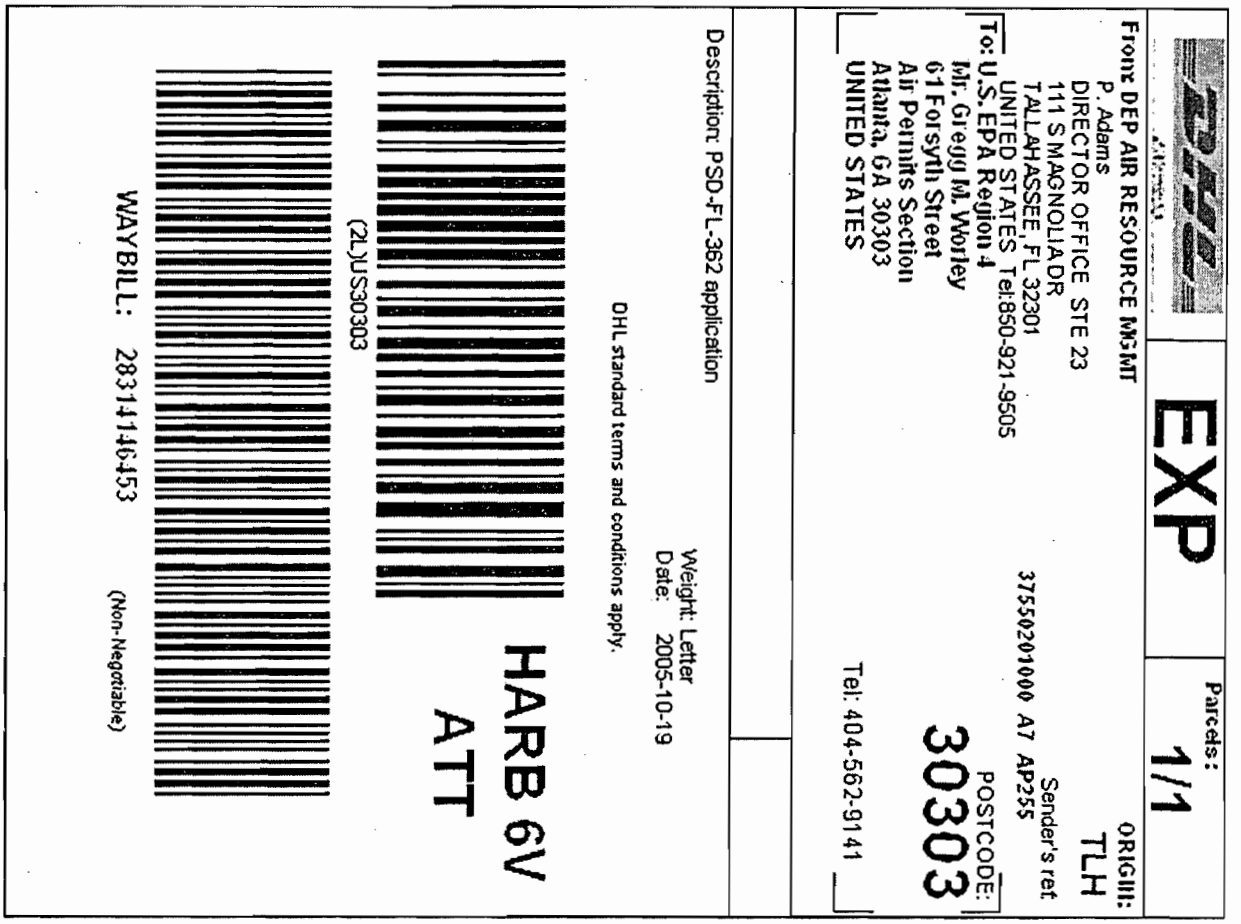
DHL Signature (optional) _____ Route _____ Date _____ Time _____

For Tracking, please go to www.dhl-usa.com or call 1-800-225-5345

Thank you for shipping with DHL

Create new shipment ▶ View pending shipments Print waybill

DHL EXPRESS



PEEL HERE PEEL HERE

Please fold or cut in half

DO NOT PHOTOCOPY

Using a photocopy could delay the delivery of your package and will result in additional shipping charge

SENDER'S RECEIPT
Waybill #: 28314146453

To(Company):
U.S. EPA Region 4
Air Permits Section
61 Forsyth Street

Atlanta, GA 30303
UNITED STATES

Attention To: Mr. Gregg M. Worley
Phone#: 404-562-9141

Sent By: P. Adams
Phone#: 850-921-9505

Rate Estimate: 6
Protection: Not Required
Description: PSD-FL-362 application

Weight (lbs.): Letter
Dimensions: 0 x 0 x 0

Ship Ref: 37550201000 A7 AP255
Service Level: Next Day 12:00 (Next business day by 12 PM)

Special Svc:

Date Printed: 10/19/2005
Bill Shipment To: Sender
Bill To Acct: 778941286

DHL Signature (optional) _____ Route _____ Date _____ Time _____

For Tracking, please go to www.dhl-usa.com or call 1-800-225-5345

Thank you for shipping with DHL

Create new shipment ▶ View pending shipments Print waybill

DHL EXPRESS

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 a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

Air Operation Permit – Use this form to apply for:

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

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **CEMEX Cement, Inc.**	
2. Site Name: **Brooksville Plant**	
3. Facility Identification Number: **0530010**	
4. Facility Location...: Street Address or Other Locator: **1630 Ponce de Leon Blvd.** 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: **Fawn Bergen, PE, Project Engineer**
2. Application Contact Mailing Address... Organization/Firm: **Koogler & Associates** Street Address: **4014 N.W. 13th Street** City: **Gainesville** State: **Florida** Zip Code: **32609**
3. Application Contact Telephone Numbers... Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Application Contact Email Address: **fbergen@kooglerassociates.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	11-20-12
2. Project Number(s):	0530010-037-AC
3. PSD Number (if applicable):	PSD-FL-381A
4. Siting Number (if applicable):	

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 a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

Air Operation Permit – Use this form to apply for:

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

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **CEMEX Cement, Inc.**	
2. Site Name: **Brooksville Plant**	
3. Facility Identification Number: **0530010**	
4. Facility Location...: Street Address or Other Locator: **1630 Ponce de Leon Blvd.** 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: **Fawn Bergen, PE, Project Engineer**
2. Application Contact Mailing Address... Organization/Firm: **Koogler & Associates** Street Address: **4014 N.W. 13th Street** City: **Gainesville** State: **Florida** Zip Code: **32609**
3. Application Contact Telephone Numbers... Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Application Contact Email Address: **fbergen@kooglerassociates.com**

Application Processing Information (DEP Use)

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

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

☒ Air construction permit.

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 a non-PSD Air Construction Permit to authorize the use of petroleum coke and TDF in the No. 2 Kiln System and petroleum coke in the No. 1 Kiln System; the installation of new burners and SNCR emission control systems for the No. 1 and No. 2 Kiln; increased transfer/production rates for the Finish Mills Nos. 1 and 2, Clinker Storage Silo Nos. 1 and 2, Clinker Silo No. 3, and Additive Material Storage Bin, Raw Material Storage Silos & Feed System, and Raw Material Storage Bin; and increased maximum operating hours for the Cement Bag Loadout System.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
003	No. 1 Cement Kiln	AC1A	$7,500
014	No. 2 Cement Kiln	AC1A	
005	Finish Mills Nos. 1 and 2	AC1A	
006	Clinker Storage Silo Nos. 1 and 2	AC1A	
011	Raw Material Storage Silos & Feed System	AC1A	
016	Clinker Silo No. 3	AC1A	
024	Raw Material Pre-Mix Bin	AC1A	
025	Additive Material Storage Bin	AC1A	
026	Cement Bag Loadout System	AC1A	

Application Processing Fee

Check one: ☒ Attached - Amount: $ 7,500 ☐ 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 :
   Michael A. Gonzoles, Plant Manager
2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **CEMEX Cement, Inc.**
   Street Address: **Post Office Box 6**
   City: **Brooksville** State: **Florida** Zip Code: **34605-0006**
3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(352) 796-7241** ext. Fax: **(352) 754-9836**
4. Owner/Authorized Representative Email Address: **mgonzoles@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

10/14/2005
Date

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V 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.

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 Email 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: **Fawn Bergen, P.E.**
   Registration Number: **61614**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler & Associates**
   Street Address: **4014 N.W. 13th Street**
   City: **Gainesville** State: **Florida** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Professional Engineer Email Address: **fbergen@kooglerassociates.com**
5. Professional Engineer Statement:

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

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

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

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

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

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

Fawn Bergen
Signature

10/14/05
Date

(seal)

NO. 61614 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** East (km) **356.9** North (km) **3169.0**		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) **28/38/34** Longitude (DD/MM/SS) **82/28/25**	
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: **Charles E. Walz, Environmental Manager**
2. Facility Contact Mailing Address... Organization/Firm: **CEMEX Cement, Inc.** Street Address: **Post Office Box 6** City: **Brooksville** State: **Florida** Zip Code: **34605-0006**
3. Facility Contact Telephone Numbers: Telephone: **(352) 796-7241** ext. Fax: **(352) 754-9836**
4. Facility Contact Email Address: **cwalz@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: **N/A**
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 Email 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:	

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**
NO_X	**A**	**N**
SO_2	**A**	**N**
CO	**A**	**N**
VOC	**A**	**N**
HCl	**A**	**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 Nos. Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment:
Not Applicable

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: **Attachment A** ☐ Previously Submitted, Date:_____
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: **Attachment A** ☐ Previously Submitted, Date:_____
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: **Attachment A** ☐ Previously Submitted, Date:_____

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 or Modification:
   ☒ Attached, Document ID: **Attachment A**
3. Rule Applicability Analysis:
   ☒ Attached, Document ID: **Attachment A**
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.):
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.):
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.):
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.):
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.):
   ☐ Attached, Document ID: **Attachment A** ☐ Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):
    ☐ Attached, Document ID:_____ ☒ Not Applicable

FACILITY INFORMATION

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):
   ☐ Attached, Document ID: ☒ Not Applicable (no exempt units at facility)

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 (revision application)

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 On site 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

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 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 for air permit. 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 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/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. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** 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 construction permitting and insignificant emissions units 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: **Cement Kiln No. 1**

3. Emissions Unit Identification Number: **003**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**N/A**	**N/A**	**32**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

016 – Baghouse – High Temperature (Fuller Draco Custom ID No. E-55)
205 – Low NO_x burners
032 – Ammonia injection (SNCR)

2. Control Device or Method Code(s): **016, 205, 032**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **165 TPH; 1,300,000 TPY preheater feed (12-consecutive month period)**
2. Maximum Production Rate:
3. Maximum Heat Input Rate: **300** million Btu/hr **(30-day average)**
4. Maximum Incineration Rate: pounds/hr tons/day **N/A**
5. Requested Maximum Operating Schedule: hours/day days/week 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: **No. 1 Kiln Stack**		2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **N/A**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **N/A**		
5. Discharge Type Code: **V**	6. Stack Height: **150 feet**	7. Exit Diameter: **13.0 feet**
8. Exit Temperature: **285°F**	9. Actual Volumetric Flow Rate: **315,00 acfm**	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: **195,785 dscfm**		12. Nonstack Emission Point Height: **N/A** feet
13. Emission Point UTM Coordinates... Zone: **17** East (km): **356.250** North (km): **3168.370**		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Preheater Kiln**		
2. Source Classification Code (SCC): **3-05-006-22**	3. SCC Units: **Tons Processed**	
4. Maximum Hourly Rate: **165**	5. Maximum Annual Rate: **1,300,000**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **N/A**
10. Segment Comment: **Segment represents preheater feed rate. Annual rate based on 150 TPH and 8,760 hr/yr and an operating factor of 99%.**		

Segment Description and Rate: Segment 2 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Preheater Kiln**		
2. Source Classification Code (SCC): **3-05-006-22**	3. SCC Units: **Tons Clinker Produced**	
4. Maximum Hourly Rate: **99.0**	5. Maximum Annual Rate: **780,000**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **N/A**
10. Segment Comment: **The maximum rates are based on the maximum preheater rates times 0.60:** **Maximum hourly rate = 165 TPH x 0.60 = 99.0 TPH** **Maximum annual rate = 1,300,000 TPY x 0.60 = 780,000 TPY**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Distillate Oil (No. 2); Cement Kiln**		
2. Source Classification Code (SCC): **3-90-005-02**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **2.116**	5. Maximum Annual Rate: **18,536.2**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **141.3**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

Segment Description and Rate: Segment 4 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Distillate Oil (No. 4); Cement Kiln**		
2. Source Classification Code (SCC): **3-90-005-02**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **2.06**	5. Maximum Annual Rate: **18,045.6**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **145.6**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 5 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Residual Oil (No. 5); Cement Kiln**		
2. Source Classification Code (SCC): **3-90-004-02**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **2.016**	5. Maximum Annual Rate: **17,660.16**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **148.8**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

Segment Description and Rate: Segment 6 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Residual Oil (No. 6); Cement Kiln**		
2. Source Classification Code (SCC): **3-90-004-02**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **1.982**	5. Maximum Annual Rate: **17,362.32**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **151.3**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 7 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Natural Gas; Cement Kiln**		
2. Source Classification Code (SCC): **3-90-006-02**	3. SCC Units: **Million Cubic Feet Burned**	
4. Maximum Hourly Rate: **0.293**	5. Maximum Annual Rate: **2,563.9**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **1,025**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

Segment Description and Rate: Segment 8 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Bituminous Coal; Cement Kiln**		
2. Source Classification Code (SCC): **3-90-002-01**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **12.0**	5. Maximum Annual Rate: **10,5120**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **25**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 9 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Solid Waste; Tires [Whole Tire-Derived Fuel (WTDF)]**		
2. Source Classification Code (SCC): **3-90-012-99**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **2.14**	5. Maximum Annual Rate: **18,746.4**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **28**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr. The maximum utilization/firing rate of WTDF shall not exceed 20% of the total Btu heat input, or 2.14 TPH (daily average).**		

Segment Description and Rate: Segment 10 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Petroleum Coke**		
2. Source Classification Code (SCC): **3-90-008-89**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **11.28**	5. Maximum Annual Rate: **98,813**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **26.6**
10. Segment Comment: **Maximum rates are based on the heat input rate of 300 MMBtu/hr and a heating value of 13,300 Btu/lb.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 11 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Liquid Waste – On-site Generate Non-Hazardous Waste Used Oil and Grease**		
2. Source Classification Code (SCC): **3-90-013-89**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: **5.0 (rolling-monthly basis)**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit:
10. Segment Comment: **Maximum rate based on Permit No. 0530010-002-AV.**		

Segment Description and Rate: Segment _ of _

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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**	**None**	**EL**
PM_{10}	**016**	**None**	**EL**
SO_2	**None**	**None**	**EL**
NO_X	**205/032**	**None**	**EL**
CO	**None**	**None**	**EL**
VOC	**None**	**None**	**EL**
DIOX	**None**	**None**	**EL**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **14.2** lb/hour **56.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **0.086 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.086 lb/ton dry preheater feed x 165 TPH preheater feed = 14.22 lb/hr** **0.086 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 56.0 TPY**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Emission limit is equivalent to 0.14 lb/ton of clinker.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **0.086 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **14.2** lb/hour **56.0** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **11.2** lb/hour **44.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **0.068 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

0.068 lb/ton dry preheater feed x 165 TPH preheater feed = 11.2 lb/hr
0.068 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 44.0 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Emission limit is equivalent to 0.11 lb/ton of clinker.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **0.068 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **11.2** lb/hour **44.0** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **6.35** lb/hour **25.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **0.038 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

0.038 lb/ton dry preheater feed x 165 TPH preheater feed = 6.35 lb/hr
0.038 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 25.0 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Emission limit is equivalent to 0.06 lb/ton of clinker.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **0.038 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **6.35** lb/hour **25.0** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 6C.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NO_X**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **199.7** lb/hour **786.5** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **1.21 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

1.21 lb/ton dry preheater feed x 165 TPH preheater feed = 199.7 lb/hr
1.21 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 786.5 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Emission limit is equivalent to 2.02 lb/ton of clinker.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **1.21 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **199.7** lb/hour **786.5** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 7E.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **316.8** lb/hour **1,387.6** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **1.92 lb/ton dry preheater feed** Reference: **Proposed BACT**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

1.92 lb/ton dry preheater feed x 165 TPH preheater feed = 316.8 lb/hr
1.92 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 1,387.6 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Emission limit is equivalent to 3.2 lb/ton of clinker.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **1.92 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **316.8** lb/hour **1,387.6** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 10.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed BACT.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **16.5** lb/hour **65.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **0.10 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

0.10 lb/ton dry preheater feed x 165 TPH preheater feed = 16.5 lb/hr
0.10 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 65.0 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Emission limit is equivalent to 0.17 lb/ton of clinker.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **0.10 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **16.5** lb/hour **65.0** tons/year
5. Method of Compliance: **Compliance test using EPA Method 25A; when required.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **DIOX**	2. Total Percent Efficiency of Control: **N/A**
2. Potential Emissions: **2.7 E-07** lb/hour (max) **7.1 E-07** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **– 0.4 ng/dscm at 7% O_2 - R.M. operating 0.2 ng/dscm at 7% O_2 – R.M. not operating** Reference: Permit No. **40 CFR 63, Subpart LLL**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

Assume Raw Mill (R.M.) operates 90% of the time.

R.M. Operating:

0.4 ng/dscm x 3230 dscm/min @ 7% O_2 x 60 min/hr x f (1) = 1.7 E-07 lb/hr (max hrly)

R.M. Not Operating:

0.2 ng/dscm x 3230 dscm/min @ 7% O_2 x 60 min/hr x f (1) = 0.85 E-07 lb/hr

Annual:

[(1.7 x 0.9) + (0.85 x 0.1)] x E-07 x 8,760 hr/yr x 1/2,000 lb/ton = 7.1 E-07 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:

(1) f = conversion from ng to lb

(2) No changes in actual or potential emissions are expected or requested as a result of this project.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **N/A**
3. Allowable Emissions and Units: **0.4 ng/dscm at 7% O_2 (T<400°F)** **0.2 ng/dscm at 7% O_2 (T>400°F)**	4. Equivalent Allowable Emissions: **1.7 E-07** lb/hour **71. E-07** tons/year
5. Method of Compliance: **Compliance testing using EPA Method 23.**	
6. Allowable Emissions Comment (Description of Operating Method): **No changes in actual or potential emissions are expected or requested as a result of this project.**	

Allowable Emissions Allowable Emissions 1 of 1

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

Allowable Emissions Allowable Emissions _____ of _____

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

G. VISIBLE EMISSIONS INFORMATION

Complete 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: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20%** Exceptional Conditions: **20%** Maximum Period of Excess Opacity Allowed: **0** min/hour	
4. Method of Compliance: **COM & EPA Method 9**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV and 40 CFR 63.1343(b)(2).**	

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

Continuous Monitoring System: Continuous Monitor **1** of **5**

1. Parameter Code: **VE**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Existing** Model Number:	Serial Number:
5. Installation Date: **Unknown**	6. Performance Specification Test Date: **Unknown**
7. Continuous Monitor Comment: **Continuous Opacity Monitor (COM). Based on Permit No. 0530010-002-AV and 40 CFR 63.1350(c)(1).**	

Continuous Monitoring System: Continuous Monitor **2** of **5**

1. Parameter Code: **EM**	2. Pollutant(s): **CO and/or O_2**
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **Existing** Model Number:	Serial Number:
5. Installation Date: **Unknown**	6. Performance Specification Test Date: **Unknown**
7. Continuous Monitor Comment: **Process monitors, not for compliance. Based on Permit No. 0530010-002-AV.**	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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

Continuous Monitoring System: Continuous Monitor **3** of **5**

1. Parameter Code: **TEMP**	2. Pollutant(s): **Temperature**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Existing** Model Number:	Serial Number:
5. Installation Date: **Unknown**	6. Performance Specification Test Date: **Unknown**
7. Continuous Monitor Comment: **Based on 40 CFR 63.1350(f)(1).**	

Continuous Monitoring System: Continuous Monitor **4** of **5**

1. Parameter Code: **EM**	2. Pollutant(s): **CO**
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: **Servomex** Model Number: **4900 Continuous Emissions Analyzer** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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

Continuous Monitoring System: Continuous Monitor **5** of **5**

1. Parameter Code: **EM**	2. Pollutant(s): **NOx**
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: **Servomex** Model Number: **4900 Continuous Emissions Analyzer** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor _ of _

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 **Unknown**

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: **Attachment A** ☐ Previously Submitted, Date _____

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: **Attachment A** ☐ Previously Submitted, Date _____

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 **Unknown**
   ☐ 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: _____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements
   ☐ Attached, Document ID: **Not Applicable**
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
5. Acid Rain Part Application **Not Applicable**
   - ☐ Certificate of Representation (EPA Form No. 7610-1)
     - ☐ Copy Attached, Document ID:_____
   - ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ 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 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 for air permit. 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 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/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. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** 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 construction permitting and insignificant emissions units 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: **Cement Kiln No. 2**

3. Emissions Unit Identification Number: **014**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**N/A**	**N/A**	**32**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment: **The application is for the use of WTDF and petroleum coke as supplemental fuels in the No. 2 Cement Kiln (EU 014). The requested tire usage rate is the same as for the No. 1 Kiln, previously permitted to burn tires. Continuous utilization/firing of whole tires as supplemental fuel to coal is requested. The maximum utilization/firing rate is 20.0% of the total BTU heat input; about 2.15 tons per hour, or 60 mmBTU/hr.**

Emissions Unit Control Equipment

3. Control Equipment/Method(s) Description:

016 – Baghouse – High Temperature (Fuller Draco Custom ID No. E-55)
205 – Low NO_x burners
032 – Ammonia injection (SNCR)

2. Control Device or Method Code(s): **016, 205, 032**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **165 TPH, 1,300,000 TPY preheater feed (12-consecutive 12-month period)**
2. Maximum Production Rate:
3. Maximum Heat Input Rate: **300** million Btu/hr
4. Maximum Incineration Rate: pounds/hr tons/day **N/A**
5. Requested Maximum Operating Schedule: hours/day days/week 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: **No. 2 Kiln Stack**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **N/A**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **N/A**		
5. Discharge Type Code: **V**	6. Stack Height: **105 feet**	7. Exit Diameter: **14.0 feet**
8. Exit Temperature: **250°F**	9. Actual Volumetric Flow Rate: **315,000 acfm**	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: **N/A** feet	
13. Emission Point UTM Coordinates... Zone: **17** East (km): **356.300** North (km): **3168.380**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Preheater Kiln**		
2. Source Classification Code (SCC): **3-05-006-22**	3. SCC Units: **Tons Processed**	
4. Maximum Hourly Rate: **165**	5. Maximum Annual Rate: **1,300,000**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **N/A**
10. Segment Comment: **Segment represents preheater feed rate. Annual rate based on 150 TPH and 8,760 hr/yr and an operating factor of 99%.**		

Segment Description and Rate: Segment 2 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Preheater Kiln**		
2. Source Classification Code (SCC): **3-05-006-22**	3. SCC Units: **Tons Clinker Produced**	
4. Maximum Hourly Rate: **99.0**	5. Maximum Annual Rate: **780,000**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **N/A**
10. Segment Comment: **The maximum rates are based on the maximum preheater rates times 0.60: Maximum hourly rate = 165 TPH x 0.60 = 99.0 TPH Maximum annual rate = 1,300,000 TPY x 0.60 = 780,000 TPY**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Distillate Oil (No. 2); Cement Kiln**		
2. Source Classification Code (SCC): **3-90-005-02**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **2.116**	5. Maximum Annual Rate: **18,536.2**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **141.3**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

Segment Description and Rate: Segment 4 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Distillate Oil (No. 4); Cement Kiln**		
2. Source Classification Code (SCC): **3-90-005-02**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **2.06**	5. Maximum Annual Rate: **18,045.6**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **145.6**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 5 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Residual Oil (No. 5); Cement Kiln**		
2. Source Classification Code (SCC): **3-90-004-02**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **2.016**	5. Maximum Annual Rate: **17,660.16**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **148.8**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

Segment Description and Rate: Segment 6 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Residual Oil (No. 6); Cement Kiln**		
2. Source Classification Code (SCC): **3-90-004-02**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **1.982**	5. Maximum Annual Rate: **17,362.32**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **151.3**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 7 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Natural Gas; Cement Kiln**		
2. Source Classification Code (SCC): **3-90-006-02**	3. SCC Units: **Million Cubic Feet Burned**	
4. Maximum Hourly Rate: **0.293**	5. Maximum Annual Rate: **2,563.9**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **1,025**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

Segment Description and Rate: Segment 8 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Bituminous Coal; Cement Kiln**		
2. Source Classification Code (SCC): **3-90-002-01**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **12.0**	5. Maximum Annual Rate: **10,5120**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **25**
10. Segment Comment: **Maximum rates based on Permit No. 0530010-002-AV. Maximum annual rate based on the hourly rate and 8,760 hr/yr.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 9 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Solid Waste; Tires [Whole Tire-Derived Fuel (WTDF)]**		
2. Source Classification Code (SCC): **3-90-012-99**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **2.14**	5. Maximum Annual Rate: **18,746.4**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **28**
10. Segment Comment: **Rates based on the current permitted rates (Permit No. 0530010-002-AV) for the Cement Kiln No. 1. The maximum utilization/firing rate of WTDF shall not exceed 20% of the total Btu heat input, or 2.14 TPH (daily average).**		

Segment Description and Rate: Segment 10 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Petroleum Coke**		
2. Source Classification Code (SCC): **3-90-008-89**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **11.28**	5. Maximum Annual Rate: **98,813**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **26.6**
10. Segment Comment: **Maximum rates are based on the heat input rate of 300 MMBtu/hr and a heating value of 13,300 Btu/lb.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 11 of 11

1. Segment Description (Process/Fuel Type): **Industrial Processes; In-Process Fuel Use; Liquid Waste – On-site Generate Non-Hazardous Waste Used Oil and Grease**		
2. Source Classification Code (SCC): **3-90-013-89**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: **5.0 (rolling-monthly basis)**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit:
10. Segment Comment: **Maximum rate based on Permit No. 0530010-002-AV.**		

Segment Description and Rate: Segment _ of _

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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**	**None**	**EL**
PM_{10}	**016**	**None**	**EL**
SO_2	**None**	**None**	**EL**
NO_X	**205/032**	**None**	**EL**
CO	**None**	**None**	**EL**
VOC	**None**	**None**	**EL**
DIOX	**None**	**None**	**EL**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **14.2** lb/hour **56.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **0.086 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

0.086 lb/ton dry preheater feed x 165 TPH preheater feed = 14.22 lb/hr
0.086 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 56.0 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Emission limit is equivalent to 0.14 lb/ton of clinker.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **0.086 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **14.2** lb/hour **56.0** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **11.2** lb/hour **44.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **0.068 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.068 lb/ton dry preheater feed x 165 TPH preheater feed = 11.2 lb/hr** **0.068 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 44.0 TPY**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Emission limit is equivalent to 0.11 lb/ton of clinker.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **0.068 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **11.2** lb/hour **44.0** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **6.35** lb/hour **25.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **0.038 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

0.038 lb/ton dry preheater feed x 165 TPH preheater feed = 6.35 lb/hr
0.038 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 25.0 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Emission limit is equivalent to 0.06 lb/ton of clinker.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **0.038 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **6.35** lb/hour **25.0** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 6C.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NO_X**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **199.7** lb/hour **786.5** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **1.21 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **1.21 lb/ton dry preheater feed x 165 TPH preheater feed = 199.65 lb/hr** **1.21 lb/ton dry preheater feed x 1,300,000 TPY x 1 ton/2,000 lb = 786.5 TPY**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Emission limit is equivalent to 2.02 lb/ton of clinker.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **1.21 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **199.7** lb/hour **786.5** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 7E.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **316.8** lb/hour **1,387.6** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **1.92 lb/ton dry preheater feed** Reference: **Proposed BACT**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

1.92 lb/ton dry preheater feed x 165 TPH preheater feed = 316.8 lb/hr
1.92 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 1,387.6 TPY

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Emission limit is equivalent to 3.2 lb/ton of clinker.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **1.92 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **316.8** lb/hour **1,387.6** tons/year
5. Method of Compliance: **Annual compliance test using EPA Method 10.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on the proposed BACT.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **16.5** lb/hour **65.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: **0.10 lb/ton dry preheater feed** Reference: **Proposed Permit Limit**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.10 lb/ton dry preheater feed x 165 TPH preheater feed = 16.5 lb/hr** **0.10 lb/ton dry preheater feed x 1,300,000 TPY preheater feed x 1 ton/2,000 lb = 65.0 TPY**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Emission limit is equivalent to 0.17 lb/ton of clinker.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **ESCPSD**	2. Future Effective Date of Allowable Emissions: **N/A**
3. Allowable Emissions and Units: **0.10 lb/ton dry preheater feed**	4. Equivalent Allowable Emissions: **16.5** lb/hour **65.0** tons/year
5. Method of Compliance: **Compliance test using EPA Method 25A; when required.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on proposed permit limit.**	

Allowable Emissions Allowable Emissions _____ of _____

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

Allowable Emissions Allowable Emissions _____ of _____

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **DIOX**	2. Total Percent Efficiency of Control: **N/A**
4. Potential Emissions: **4.7 E-07** lb/hour (max) **7.2 E-07** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **Not Applicable** to tons/year	
6. Emission Factor: – **0.4 ng/dscm at 7% O_2 - R.M. operating** **0.2 ng/dscm at 7% O_2 – R.M. not operating** Reference: Permit No. **40 CFR 63, Subpart LLL**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

Assume Raw Mill (R.M.) operates 90% of the time.

R.M. Operating:

0.4 ng/dscm x 3,230 dscm/min @ 7% O_2 x 60 min/hr x f (1) = 1.7 E-07 lb/hr (max hourly)

R.M. Not Operating:

0.2 ng/dscm x 3230 dscm/min @ 7% O_2 x 60 min/hr x f (1) = 0.85 E-07 lb/hr

Annual

[(1.7 x 0.9) + (0.85 x 0.1)] x E-07 x 8,760 hr/yr x 1/2,000 lb/ton = 7.1 E-07 tpy

9. Pollutant Potential/Estimated Fugitive Emissions Comment:

(3) f = conversion from ng to lb

(4) No changes in actual or potential emissions are expected or requested as a result of this project.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete 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: **N/A**
3. Allowable Emissions and Units: **0.4 ng/dscm at 7% O_2 (T<400°F)** **0.2 ng/dscm at 7% O_2 (T>400°F)**	4. Equivalent Allowable Emissions: **1.7 E-07** lb/hour **71. E-07** tons/year
5. Method of Compliance: **Method 23**	
6. Allowable Emissions Comment (Description of Operating Method): **No changes in actual or potential emissions are expected or requested as a result of this project.**	

Allowable Emissions Allowable Emissions 1of 1

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

Allowable Emissions Allowable Emissions _____ of _____

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

G. VISIBLE EMISSIONS INFORMATION

Complete 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: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20%** Exceptional Conditions: **20%** Maximum Period of Excess Opacity Allowed: **0** min/hour	
4. Method of Compliance: **COM & EPA Method 9**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV and 40 CFR 63.1343(b)(2).**	

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

Continuous Monitoring System: Continuous Monitor 1 of 5

1. Parameter Code: **VE**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Existing** Model Number:	Serial Number:
5. Installation Date: **Unknown**	6. Performance Specification Test Date: **Unknown**
7. Continuous Monitor Comment: **Continuous Opacity Monitor (COM). Based on Permit No. 0530010-002-AV and 40 CFR 63.1350(c)(1).**	

Continuous Monitoring System: Continuous Monitor 2 of 5

1. Parameter Code: **EM**	2. Pollutant(s): **CO and/or O_2**
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **Existing** Model Number:	Serial Number:
5. Installation Date: **Unknown**	6. Performance Specification Test Date: **Unknown**
7. Continuous Monitor Comment: **Process monitors, not for compliance. Based on Permit No. 0530010-002-AV.**	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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

Continuous Monitoring System: Continuous Monitor **3** of **5**

1. Parameter Code: **TEMP**	2. Pollutant(s): **Temperature**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Existing** Model Number: Serial Number:	
5. Installation Date: **Unknown**	6. Performance Specification Test Date: **Unknown**
7. Continuous Monitor Comment: **Based on 40 CFR 63.1350(f)(1).**	

Continuous Monitoring System: Continuous Monitor **4** of **5**

1. Parameter Code: **EM**	2. Pollutant(s): **CO**
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: **Servomex** Model Number: **4900 Continuous Emissions Analyzer** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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

Continuous Monitoring System: Continuous Monitor **5** of **5**

1. Parameter Code: **EM**	2. Pollutant(s): **NOx**
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: **Servomex** Model Number: **4900 Continuous Emissions Analyzer** Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor _ of _

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 **Unknown**

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: **Attachment A** ☐ Previously Submitted, Date _____

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: **Attachment A** ☐ Previously Submitted, Date _____

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 **Unknown**
   ☐ 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 **Unknown**
   ☐ 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: _____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☒ Attached, Document ID: **Attachment A** ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements
   ☐ Attached, Document ID: **Not Applicable**
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
5. Acid Rain Part Application **Not Applicable**
   - ☐ Certificate of Representation (EPA Form No. 7610-1)
     - ☐ Copy Attached, Document ID:_____
   - ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Not Applicable

Additional Requirements Comment

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:
Finish Mill Nos. 1 and 2 with Dust Collectors

3. Emissions Unit Identification Number: **005**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**NA**	**NA**	**32**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Baghouse - Western Precipitation Pulse Flow 6012 (ID G-23)

2. Control Device or Method Code(s): **017**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **105 TPH (transfer rate)**	
2. Maximum Production Rate:	
3. Maximum Heat Input Rate: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: hours/day weeks/year	days/week **8,760** hours/year
6. Operating Capacity/Schedule Comment: **The maximum transfer rate represents both Finish Mills combined.**	

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: **EPN:05**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **Stack EPN:05, Fugitive F-100,103,104,105**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **NA**		
5. Discharge Type Code: **V**	6. Stack Height: **70** feet	7. Exit Diameter: **2.60** feet
8. Exit Temperature: **200°F**	9. Actual Volumetric Flow Rate: **15,000** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: **17** East (km): **356.200** North (km):**3168.600**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **Field 5 note: There are also fugitives associated with this unit.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Clinker Grinding**		
2. Source Classification Code (SCC): **3-05-006-17**	3. SCC Units: **Tons Cement Transferred**	
4. Maximum Hourly Rate: **105**	5. Maximum Annual Rate: **919,800**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **The maximum transfer rates represent both of the Finish Mills combined. The maximum annual rate is based on the hourly rate and 8,760 hr/yr.**		

Segment Description and Rate: Segment __ of __

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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	**017**		**EL**
PM_{10}	**017**		**NS**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **18.0** lb/hour **78.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **0.90 to 1.50 tons/year**	
6. Emission Factor: **18.0 lb/hr (each Finish Mill)** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Potential emissions represent each Finish Mill. The PM limit contained in Permit No. 0530010-002-AV (36.0 lb/hr, 157.7 TPY) represents both Finish Mills combined. CEMEX requests separate PM limits for each Finish Mill instead of a combined limit.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **18.0 lb/hr**	4. Equivalent Allowable Emissions: **18.0** lb/hour **78.8** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 9 in lieu of EPA Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530010-002-AV. Represents each Finish Mill.**	

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **18.0** lb/hour **78.8** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **0.90 to 1.50 tons/year**	
6. Emission Factor: **18.0 lb/hr (each Finish Mill)** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Potential emissions represent each Finish Mill.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation **1** of **3**

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **5** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Rule 62-297.310(7)(c), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation **2** of **3**

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: **Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV, Rule 62-204.800, F.A.C., and 40 CFR 60.62(c).**	

G. VISIBLE EMISSIONS INFORMATION (CONTINUED)

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

Visible Emissions Limitation: Visible Emissions Limitation **3** of **3**

1. Visible Emissions Subtype: **VE00**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **0** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Method 22 daily; 6 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV and Rule 62-213.440(1)(b)1.b., Rule 62-297.310(8), F.A.C., and 40 CFR 63.1350(c). Applies to the mill sweep and air separator baghouse.**	

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

Continuous Monitoring System: Continuous Monitor __ of __

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:	

Continuous Monitoring System: Continuous Monitor ___ of ___

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 **March 18, 2005**

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: **N/A** ☐ Previously Submitted, Date _____

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 **March 18, 2005**

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 **March 18, 2005**
   ☐ 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 **March 18, 2005**
   ☐ 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: _____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) 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 (Rule 62-212.400(5)(h)6., F.A.C., and Rule 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
5. Acid Rain Part Application
   ☐ Certificate of Representation (EPA Form No. 7610-1)
      ☐ Copy Attached, Document ID:
   ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Not Applicable

Additional Requirements Comment

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:
Clinker Storage Silos Nos. 1 and 2

3. Emissions Unit Identification Number: **006**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**NA**	**NA**	**32**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

   Baghouse - Western Precipitation Pulse Flow (ID F31)

2. Control Device or Method Code(s): **017**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **93 TPH (maximum silo loading rate, daily average basis)**
2. Maximum Production Rate:
3. Maximum Heat Input Rate: million Btu/hr
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: hours/day days/week 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: **EPN:06**		2. Emission Point Type Code: **2**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **NA**		
5. Discharge Type Code: **V**	6. Stack Height: **150** feet	7. Exit Diameter: **2.70** feet
8. Exit Temperature: **200**°F	9. Actual Volumetric Flow Rate: **15,000** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates... Zone: **17** East (km): **356.260** North (km): **3168.600**		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Clinker Transfer**		
2. Source Classification Code (SCC): **3-05-006-16**	3. SCC Units: **Tons Clinker Transferred**	
4. Maximum Hourly Rate: **93**	5. Maximum Annual Rate: **814,680**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Maximum annual rate is based on the hourly rate and 8,760 hr/yr. The hourly rate is on a daily average basis.**		

Segment Description and Rate: Segment __ of __

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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	**017**		**EL**
PM_{10}	**017**		**NS**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **1.45** lb/hour **5.72** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **0.90 to 1.50 tons/year**	
6. Emission Factor: **1.45 lb/hr** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.45 lb/hr**	4. Equivalent Allowable Emissions: **1.45** lb/hour **5.72** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 9 in lieu of EPA Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530010-002-AV.**	

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **1.45** lb/hour **5.72** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **0.90 to 1.50 tons/year**	
6. Emission Factor: **1.45 lb/hr** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 3

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **5%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV and Rule 62-297.310(7)(c), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 3

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **10%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV, Rule 62-204.800, F.A.C., and 40 CFR 60.62(c).**	

G. VISIBLE EMISSIONS INFORMATION (CONTINUED)

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

Visible Emissions Limitation: Visible Emissions Limitation 3 of 3

1. Visible Emissions Subtype: **VE00**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **0%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Method 22 monthly; 1-minute**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV, Rule 62-213.440(1)(b)1.b., F.A.C., and 40 CFR 63.1350(a)(4).**	

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

Continuous Monitoring System: Continuous Monitor __ of __

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:	

Continuous Monitoring System: Continuous Monitor __ of __

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 **March 18, 2005**

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: **NA**_____ ☐ Previously Submitted, Date _____

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 **March 18, 2005**

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 **March 18, 2005**
   ☐ 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 **March 18, 2005**
   ☐ 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: _____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))
   ☐ Previously Submitted, Date _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 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
5. Acid Rain Part Application
   ☐ Certificate of Representation (EPA Form No. 7610-1)
      ☐ Copy Attached, Document ID:
   ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Not Applicable

Additional Requirements Comment

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:
Raw Material Storage Silos & Feed System

3. Emissions Unit Identification Number: **011**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**NA**	**NA**	**32**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
   1 Baghouse - Western Precipitator Joy Model PF 60-12-60 (ID C-11)
   1 Baghouse – American Air Filter Model 12-48-770 (ID C-11A)

2. Control Device or Method Code(s): **018**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **330 TPH (dry basis, daily average)**	
2. Maximum Production Rate:	
3. Maximum Heat Input Rate: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: hours/day weeks/year	days/week **8,760** hours/year
6. Operating Capacity/Schedule Comment: **The maximum rate represents the rate of transfer of raw material from the Raw Material Storage Silos to the Raw Pre-Mix Bin.**	

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: **EPN:11**	2. Emission Point Type Code: **2**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **Fly ash silo** **Sand Silo**		
5. Discharge Type Code: **V**	6. Stack Height: **80** feet	7. Exit Diameter: **2.20** feet
8. Exit Temperature: 77°F	9. Actual Volumetric Flow Rate: **15,000** acfm	10. Water Vapor: 2.0 %
11. Maximum Dry Standard Flow Rate: **14,943** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: **17** East (km): **356.110** North (km):**3168.440**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Raw Material Transfer**		
2. Source Classification Code (SCC): **3-05-006-12**	3. SCC Units: **Tons Handled**	
4. Maximum Hourly Rate: **330**	5. Maximum Annual Rate: **2,890,800**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **The maximum annual rate is based on the hourly rate and 8,760 hr/yr.**		

Segment Description and Rate: Segment __ of __

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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**		**EL**
PM_{10}	**018**		**NS**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **2.15** lb/hour **9.43** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: **1.29 lb/hr + 0.86 lb/hr** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**

8. Calculation of Emissions:

Hourly: 1.29 lb/hr (Raw Material Silos) + 0.86 lb/hr (Transfer Belt) = 2.15 lb/hr (total)

Annual: 5.66 TPY (Raw Material Silos) + 3.77 TPY (Transfer Belt) = 9.43 TPY (total)

9. Pollutant Potential/Estimated Fugitive Emissions Comment:

The potential emissions represent the combined emissions from the Raw Material Silos (1.29 lb/hr, 5.66 TPY) and the Transfer Belt (0.86 lb/hr, 3.77 TPY).

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.29 lb/hr**	4. Equivalent Allowable Emissions: **1.29** lb/hour **5.66** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 9 in lieu of Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530010-002-AV. Represents the Raw Material Silos.**	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.86 lb/hr**	4. Equivalent Allowable Emissions: **0.86** lb/hour **3.77** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 9 in lieu of Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530010-002-AV. Represents the Transfer Belt.**	

Allowable Emissions Allowable Emissions __ of ___

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **2.15** lb/hour **9.43** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: **1.29 lb/hr + 0.86 lb/hr** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**

8. Calculation of Emissions:
Hourly: 1.29 lb/hr (Raw Material Silos) + 0.86 lb/hr (Transfer Belt) = 2.15 lb/hr (total)
Annual: 5.66 TPY (Raw Material Silos) + 3.77 TPY (Transfer Belt) = 9.43 TPY (total)

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
The potential emissions represent the combined emissions from the Raw Material Silos (1.29 lb/hr, 5.66 TPY) and the Transfer Belt (0.86 lb/hr, 3.77 TPY).

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1of 3

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **5%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV and Rule 62-297.620(4), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation 2of 3

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: **EPA Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV.**	

G. VISIBLE EMISSIONS INFORMATION (CONTINUED)

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

Visible Emissions Limitation: Visible Emissions Limitation 3 of 3

1. Visible Emissions Subtype: **VE00**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **0%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 22 monthly, 1-minute**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV, Rule 62-213.440(1)(b)1.b., F.A.C., and 40 CFR 63.1350(a)(4).**	

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

Continuous Monitoring System: Continuous Monitor __ of __

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:	

Continuous Monitoring System: Continuous Monitor ___ of ___

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 **March 18, 2005**

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 **March 18, 2005**

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 **March 18, 2005**

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 **March 18, 2005**
☐ 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 **March 18, 2005**
☐ 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: _____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) 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 (Rule 62-212.400(5)(h)6., F.A.C., and Rule 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
5. Acid Rain Part Application
   - ☐ Certificate of Representation (EPA Form No. 7610-1)
     - ☐ Copy Attached, Document ID:
   - ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Not Applicable

Additional Requirements Comment

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:
Clinker Silo No. 3

3. Emissions Unit Identification Number: **016**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**NA**	**NA**	**32**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
Baghouse - Flex Kleen Model 100 WRW-112 (ID L-07)

2. Control Device or Method Code(s): **017**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **93 TPH (clinker loading rate)**	
2. Maximum Production Rate:	
3. Maximum Heat Input Rate: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: hours/day weeks/year	days/week **8,200** 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: **EPN:16**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **NA**		
5. Discharge Type Code: **V**	6. Stack Height: **145** feet	7. Exit Diameter: **1.60** feet
8. Exit Temperature: **185**°F	9. Actual Volumetric Flow Rate: **8,500** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: **17** East (km): **356.320** North (km): **3168.600**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Clinker Transfer**		
2. Source Classification Code (SCC): **3-05-006-16**	3. SCC Units: **Tons Handled**	
4. Maximum Hourly Rate: **93**	5. Maximum Annual Rate: **762,600**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **The maximum annual rate is based on the hourly rate and 8,200 hr/yr. The 93 TPH rate is the maximum clinker loading rate to the silo.**		

Segment Description and Rate: Segment __ of __

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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	**017**		**EL**
PM_{10}	**017**		**NS**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **1.45** lb/hour **5.95** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: **1.45 lb/hr** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.45 lb/hr**	4. Equivalent Allowable Emissions: **1.45** lb/hour **5.95** tons/year
5. Method of Compliance: **Compliance testing using EPA Method 9 in lieu of Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530010-002-AV.**	

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **1.45** lb/hour **5.95** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: **1.45 lb/hr** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 3

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **5%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV and Rule 62-297.620(4), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 3

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: **EPA Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV.**	

G. VISIBLE EMISSIONS INFORMATION (CONTINUED)

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

Visible Emissions Limitation: Visible Emissions Limitation 3 of 3

1. Visible Emissions Subtype: **VE00**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **0%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 22 monthly; 1-minute**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV, Rule 62-213.440(1)(b)1.b., F.A.C., 40 CFR 63.1350(a)(4).**	

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

Continuous Monitoring System: Continuous Monitor __ of __

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:	

Continuous Monitoring System: Continuous Monitor ___ of ___

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 **March 18, 2005**

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 **March 18, 2005**

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 **March 18, 2005**

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 **March 18, 2005**
   ☐ 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 **March 18, 2005**
   ☐ 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: _____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) 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 (Rule 62-212.400(5)(h)6., F.A.C., and Rule 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
5. Acid Rain Part Application
   - ☐ Certificate of Representation (EPA Form No. 7610-1)
     - ☐ Copy Attached, Document ID:
   - ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☒ Not Applicable

Additional Requirements Comment

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:
Raw Material Pre-Mix Bin (M2280)

3. Emissions Unit Identification Number: **024**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**NA**	**NA**	**32**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
   Baghouse - American Air Filter Fabri-Pulse 12-96 (ID M2280)

2. Control Device or Method Code(s): **018**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **330 TPH (dry basis, 1-hour maximum)**	
2. Maximum Production Rate:	
3. Maximum Heat Input Rate: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: hours/day weeks/year	days/week **8,760** hours/year
6. Operating Capacity/Schedule Comment: **The maximum rate is 300 TPH (dry basis, rolling 30-calendar day average).**	

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: **EPN:24**	2. Emission Point Type Code: **2**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **NA**		
5. Discharge Type Code: **V**	6. Stack Height: **85** feet	7. Exit Diameter: **1.90** feet
8. Exit Temperature: **70**°F	9. Actual Volumetric Flow Rate: **10,000** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: **17** East (km): **356.310** North (km): **3168.450**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Raw Material Transfer**		
2. Source Classification Code (SCC): **3-05-006-12**	3. SCC Units: **Tons Handled**	
4. Maximum Hourly Rate: **330**	5. Maximum Annual Rate: **2,628,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **The maximum hourly rate is a 1-hour average. The maximum annual rate is based on the 30-calendar day average of 300 TPH and 8,760 hr/yr. Based on Permit No. 0530010-005-AC.**		

Segment Description and Rate: Segment __ of __

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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**		**EL**
PM_{10}	**018**		**NS**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.60** lb/hour **2.54** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: **0.60 lb/hr** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

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

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.60 lb/hr**	4. Equivalent Allowable Emissions: **0.60** lb/hour **2.54** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 9 in lieu of Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530010-002-AV.**	

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 3

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **5%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9 annually; 30-minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV and Rule 62-297.620(4), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 3

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **10%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9 annually; 30-minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV.**	

G. VISIBLE EMISSIONS INFORMATION (CONTINUED)

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

Visible Emissions Limitation: Visible Emissions Limitation 3 of 3

1. Visible Emissions Subtype: **VE00**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: 0% Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 22 monthly, 1-minute**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV, Rule 62-213.440(1)(b)1.b., F.A.C., 40 CFR 63.1350(a)(4).**	

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

Continuous Monitoring System: Continuous Monitor __ of __

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:	

Continuous Monitoring System: Continuous Monitor ___ of ___

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 **March 18, 2005**

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 _____

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 **March 18, 2005**

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 **March 18, 2005**
☐ 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 **March 18, 2005**
☐ 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: _____ ☒ Not Applicable

EMISSIONS UNIT INFORMATION
Section [7] of [9] **Raw Material Pre-Mix Bin**

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) 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 (Rule 62-212.400(5)(h)6., F.A.C., and Rule 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
5. Acid Rain Part Application
   - ☐ Certificate of Representation (EPA Form No. 7610-1)
     - ☐ Copy Attached, Document ID:
   - ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
     - ☐ Attached, Document ID:_____
     - ☐ Previously Submitted, Date:_____
   - ☐ Not Applicable

Additional Requirements Comment

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:
Additive Material Storage Bin (M1171)

3. Emissions Unit Identification Number: **025**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**NA**	**NA**	**32**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
Baghouse - American Air Filter Fabri-Pulse 12-144 (ID M-1171)

2. Control Device or Method Code(s): **018**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **36 TPH (material transfer rate to or from the Storage Bin), daily average basis**
2. Maximum Production Rate:
3. Maximum Heat Input Rate: million Btu/hr
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: hours/day days/week 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: **EPN:25**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **NA**		
5. Discharge Type Code: **V**	6. Stack Height: **25** feet	7. Exit Diameter: **2.40** feet
8. Exit Temperature: **150°F**	9. Actual Volumetric Flow Rate: **10,000** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: **17** East (km): **356.240** North (km): **3168.600**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Bulk Materials Storage Bins; Other Not Classified**		
2. Source Classification Code (SCC): **3-05-102-99**	3. SCC Units: **Tons Processed**	
4. Maximum Hourly Rate: **36**	5. Maximum Annual Rate: **315,360**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **The maximum annual rate is based on the maximum hourly rate and 8,760 hr/yr.**		

Segment Description and Rate: Segment __ of __

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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**		**EL**
PM_{10}	**018**		**NS**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **2.57** lb/hour **11.30** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: **0.02 gr/dscf** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

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

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.02 gr/dscf**	4. Equivalent Allowable Emissions: **2.57** lb/hour **11.30** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 9 in lieu of Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530010-002-AV.**	

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **2.57** lb/hour **11.30** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: **0.02 gr/dscf** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 3

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **5%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9 testing annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV and Rule 62-297.620(4), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 3

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **10%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9 testing annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV.**	

G. VISIBLE EMISSIONS INFORMATION (CONTINUED)

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

Visible Emissions Limitation: Visible Emissions Limitation 3 of 3

1. Visible Emissions Subtype: **VE00**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **0%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 22 monthly, 1-minute**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV, Rule 62-213.440(1)(b)1.b., F.A.C., 40 CFR 63.1350(a)(4).**	

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

Continuous Monitoring System: Continuous Monitor __ of __

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:	

Continuous Monitoring System: Continuous Monitor ___ of ___

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 **March 18, 2005**

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 _____

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 **March 18, 2005**

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 **March 18, 2005**
☐ 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 **March 18, 2005**
☐ 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: _____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) 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 (Rule 62-212.400(5)(h)6., F.A.C., and Rule 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
5. Acid Rain Part Application
   ☐ Certificate of Representation (EPA Form No. 7610-1)
      ☐ Copy Attached, Document ID:
   ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Not Applicable

Additional Requirements Comment

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:
M3514 Cement Bag Loadout System

3. Emissions Unit Identification Number: **026**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**NA**	**NA**	**32**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
Baghouse - American Air Filter Fabri-Pulse 12-96 (ID M-3514)

2. Control Device or Method Code(s): **018**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **47 TPH (maximum loadout rate)**	
2. Maximum Production Rate:	
3. Maximum Heat Input Rate: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule: hours/day weeks/year	days/week **7,400*** hours/year
6. Operating Capacity/Schedule Comment: ***Per any consecutive 12-month period.**	

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: **EPN:26**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **NA**		
5. Discharge Type Code: **V**	6. Stack Height: **25** feet	7. Exit Diameter: **1.90** feet
8. Exit Temperature: **70°F**	9. Actual Volumetric Flow Rate: **10,000** acfm	10. Water Vapor: **2.29** %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: **17** East (km): **356.430** North (km): **3168.600**	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Cement Loadout**		
2. Source Classification Code (SCC): **3-05-006-19**	3. SCC Units: **Tons Cement Produced**	
4. Maximum Hourly Rate: **47**	5. Maximum Annual Rate: **347,800**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **The maximum annual rate is based on the hourly rate and 7,400 hr/yr.**		

Segment Description and Rate: Segment __ of __

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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**		**EL**
PM_{10}	**018**		**NS**

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.60** lb/hour **2.22** tons/year	4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: **0.60 lb/hr** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.60 lb/hr x 7,400 hr/yr x 1 ton/2,000 lb = 2.22 TPY**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.60 lb/hr**	4. Equivalent Allowable Emissions: **0.60** lb/hour **2.22** tons/year
5. Method of Compliance: **Annual compliance testing using EPA Method 9 in lieu of Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on Permit No. 0530010-002-AV and the proposed annual operating hours of 7,400 hr/yr.**	

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete 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 permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.60** lb/hour **2.22** tons/year	4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive Emissions (as applicable):	
6. Emission Factor: **0.60 lb/hr** Reference: **Permit No. 0530010-002-AV**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.60 lb/hr x 7,400 hr/yr x 1 ton/2,000 lb = 2.22 TPY**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

Allowable Emissions Allowable Emissions __ of __

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

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation **1** of **3**

1. Visible Emissions Subtype: **VE05**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **5%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV and Rule 62-297.620(4),F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation **2** of **3**

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: **EPA Method 9 annually; 30 minutes**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV.**	

G. VISIBLE EMISSIONS INFORMATION (CONTINUED)

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

Visible Emissions Limitation: Visible Emissions Limitation 3 of 3

1. Visible Emissions Subtype: **VE00**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **0%** Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 22 monthly, 1-minute**	
5. Visible Emissions Comment: **Based on Permit No. 0530010-002-AV, Rule 62-213.440(1)(b)1.b., F.A.C., 40 CFR 63.1350(a)(4).**	

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

Continuous Monitoring System: Continuous Monitor __ of __

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:	

Continuous Monitoring System: Continuous Monitor ___ of ___

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 **March 18, 2005**

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 **March 18, 2005**

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 **March 18, 2005**

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 **March 18, 2005**
   ☐ 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 **March 18, 2005**
   ☐ 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: _____ ☒ Not Applicable

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) 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 (Rule 62-212.400(5)(h)6., F.A.C., and Rule 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
5. Acid Rain Part Application
   ☐ Certificate of Representation (EPA Form No. 7610-1)
      ☐ Copy Attached, Document ID:
   ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
      ☐ Attached, Document ID:_____
      ☐ Previously Submitted, Date:_____
   ☐ Not Applicable

Additional Requirements Comment

REPORT IN SUPPORT OF
AN APPLICATION FOR A PSD
CONSTRUCTION PERMIT REVIEW

CEMEX Cement, Inc.

Cement Plant

Brooksville, Hernando County, Florida

October 14, 2005

TABLE OF CONTENTS

TABLE OF TABLES

TABLE OF ATTACHMENTS

1. Introduction

This report is in support of an application for an air construction permit. CEMEX Cement, Inc. (CEMEX) is proposing to modify its existing Brooksville Cement Plant. CEMEX produces Portland cement at its Brooksville facility. This facility consists of two cement kilns and associated material handling, storage, packaging, and shipping facilities. Cement Kilns No. 1 and 2 are currently permitted to burn coal; Nos. 2, 4, 5, and 6 fuel oil; natural gas; and waste oil. Cement Kiln No. 1 is also permitted to burn whole tire-derived fuel (TDF).

CEMEX is proposing to combust TDF in Cement Kiln No. 2 and to burn petroleum coke in both Cement Kiln No. 1 and No. 2. The maximum process preheater feed rate for the No. 1 and No. 2 Kiln shall not exceed 165 tons per hour (TPH) and 1,300,000 tons per year (TPY). The No. 2 Cement Kiln's maximum utilization/firing rate of TDF shall not exceed 20 percent of the total Btu heat input, or 2.14 TPH (daily average basis), which is the current permitted maximum rate of the No. 1 Cement Kiln.

Particulate matter (PM) emissions from each Cement Kiln are currently controlled by baghouses. CEMEX recently installed low-NO_x burners and an ammonia injection system to control nitrogen oxides (NO_x) emissions from the Cement Kilns.

CEMEX is also proposing the following changes to the following emission units:

- Cement Kiln No. 1—remove the requirement to perform daily sampling and recording of thallium concentrations in the baghouse dust;
- Cement Kiln No. 1—change the requirement for liquid fuel records to be based on analysis of a sample representative of the shipment to be based on supplier's records;
- Finish Mills Nos. 1 and 2—Increase the maximum transfer rate to 105 TPH and limit the PM emissions from each mill to 18.0 lb/hr, rather than 36 lb/hr combined;

- Clinker Storage Silo Nos. 1 and 2—Increase the maximum silo loading rate to 93 TPH;
- Raw Material Storage Silos & Feed System—Increase the maximum transfer rate to 330 TPH daily average (dry basis);
- Clinker Silo No. 3—Increase the maximum silo loading rate to 93 TPH;
- Raw Material Pre-Mix Bin— Increase the maximum transfer rate to 330 TPH daily average (dry basis);
- Additive Material Storage Bin—Increase the maximum material transfer rate to 36 TPH; and
- Cement Bag Loadout System—Increase the maximum operating hours to 7,400 hours per year.

1.1 Applicant

Michael A. Gonzoles, Plant Manager
CEMEX Cement, Inc.
PO Box 6
Brooksville, Florida 34605-0006

2. Description of Proposed Construction

This section of the report provides a detailed description of the proposed modification project.

2.1 Proposed New Emissions Units

This section includes a description of the proposed modification to the Brooksville Cement Plant.

2.1.1 Nos. 1 and 2 Cement Kilns

Cement Kiln No. 1 is currently permitted to burn whole tire-derived fuel (WTDF), coal, Nos. 2, 4, 5, and 6 fuel oils, natural gas, and on-site generated non-hazardous waste used oil and grease. The maximum process preheater feed rate is 165 tons per hour (TPH), 1-hour maximum, and 150 TPH, rolling 30-calendar day average. The maximum heat input rate is 300 million British thermal units per hour (MMBtu/hr), daily average.

Cement Kiln No. 2 is currently permitted to burn coal, Nos. 2, 4, 5, and 6 fuel oils, natural gas, and on-site generated non-hazardous waste used oil and grease. The maximum process preheater feed rate is 165 tons per hour (TPH), 1-hour maximum, and 150 TPH, rolling 30-calendar day average. The maximum heat input rate is 300 million British thermal units per hour (MMBtu/hr), daily average.

CEMEX is proposing to burn petroleum coke in both kilns as well as to burn WTDF in Kiln No. 2. The requested maximum process preheater feed rate of each kiln will remain at 165 TPH and the annual feed rate will remain at 1,300,000 TPY. The No. 2 Cement Kiln's maximum utilization/firing rate of WTDF shall not exceed 20-percent of the total Btu heat input, or 2.14 TPH (daily average basis), which is the current permitted maximum rate of the No. 1 Cement Kiln. It is request that petroleum coke firing be permitted in each kiln at a rate of up to 300 MMBtu/hr; or 100-percent of the total heat input (each).

CEMEX may be limited in the ability to burn 100-percent petroleum coke based on the sulfur/alkali ratio and/or other factors. The company requests however, the opportunity to fire up to 100-percent petroleum coke should conditions allow.

CEMEX recently installed new kiln burners (low-NOx) and a selective non-catalytic reduction (SNCR) system (ammonia injection). CEMEX is requesting an after-the-fact construction permit for the addition of the new burners and the SNCR system.

CEMEX is also requesting the removal of the requirement to perform daily sampling and recording of thallium concentrations in the baghouse dust and to change the requirement for liquid fuel records to be based on vendor data.

2.1.2 Finish Mills Nos. 1 and 2

CEMEX is requesting an increase in the maximum combined transfer rate from 98 TPH (daily average basis) to 105 TPH (daily average basis) for the Finish Mills Nos. 1 and 2. CEMEX is also requesting separate particulate matter (PM) emission limits for each Finish Mill. The current PM for both Finish Mills is 36.0 lb/hr and 157.7 TPY. CEMEX is requesting to split the PM limit so it is 18.0 lb/hr and 78.9 TPY for each Finish Mill.

2.1.3 Clinker Storage Silos Nos. 1 and 2

CEMEX is requesting an increase in the clinker silo loading rate from 84 TPH (daily average basis) to 93 TPH (daily average basis) for the Clinker Storage Silos Nos. 1 and 2. CEMEX is not requesting an increase in the current permitted emission limits and there will not be any physical modification to this emissions unit.

2.1.4 Raw Material Storage Silos & Feed System

CEMEX is requesting in an increase of the maximum transfer rate of raw material from the Raw Material Storage Silos to the Raw Material Pre-Mix Bin from 290 TPH (daily average basis) to 330 TPH dry basis (daily average basis).

CEMEX is not requesting an increase in the current permitted emission limits and there will not be any physical modification to this emissions unit.

2.1.5 Clinker Silo No. 3

CEMEX is requesting an increase in the maximum silo loading rate from 84 TPH to 93 TPH for the Clinker Silo No. 3. CEMEX is not requesting an increase in the current permitted emission limits and there will not be any physical modification to this emissions unit.

2.1.6 Raw Material Pre-Mix Bin

CEMEX is requesting an increase of the maximum transfer rate of raw material to the Raw Material Pre-Mix Bins from 290 TPH (daily average basis) to 330 TPH dry basis (daily average basis).

CEMEX is not requesting an increase in the current permitted emission limits and there will not be any physical modification to this emissions unit.

2.1.7 Additive Material Storage Bin

CEMEX is requesting an increase in the maximum material transfer rate to or from the Additive Material Storage Bin from 30 TPH (daily average basis) to 36 TPH (daily average basis). CEMEX is not requesting an increase in the current permitted emission limits and there will not be any physical modification to this emissions unit.

2.1.8 Cement Bag Loadout System

CEMEX is requesting an increase in the maximum operating hours from 6,240 hours per year (hr/yr) to 7,400 hr/yr (any 12-month consecutive period). CEMEX is not requesting an increase in the maximum operation rate or current permitted emission limits and there will not be any physical modification to this emissions unit.

2.1.9 Affects on Other Emission Units

There will not be any affects on other emission units as a result of the proposed project. The requested changes to the emission units described above are for the purpose of correcting inconsistencies in currently permitted conditions.

2.2 Fugitive Emissions Identification

This section addresses precautions to prevent emissions of unconfined particulate matter. CEMEX is proposing revisions to the existing precautions. The proposed revisions are detailed below.

2.3 Precautions to Prevent Emissions of Unconfined Particulate Matter

Reasonable precautions to prevent emissions of unconfined particulate matter at this facility may include, but shall not be limited to the following:

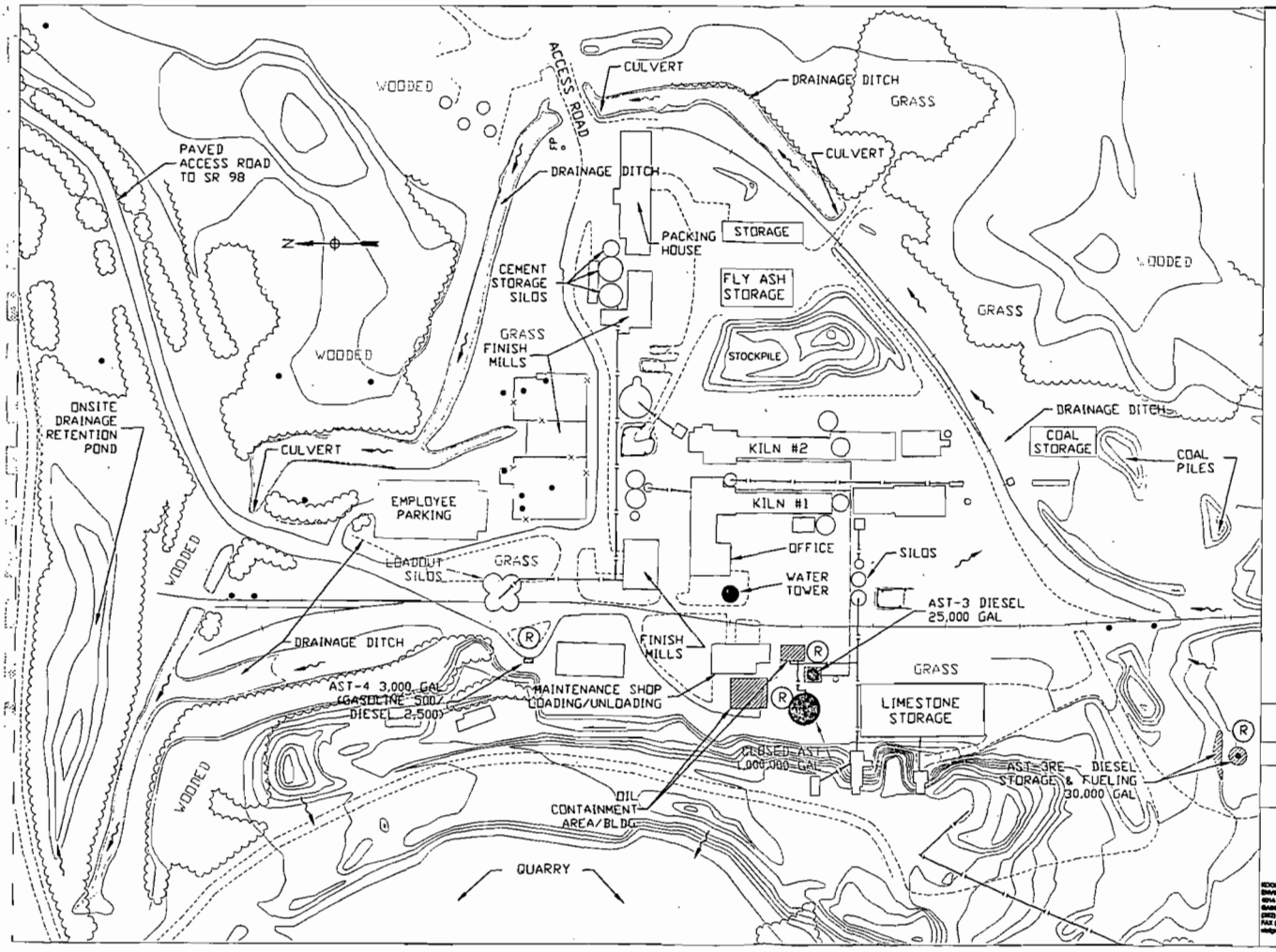
1. Paving and maintenance of roads, parking areas and yards.
2. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
3. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved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

[Rules 62-296.320(4)(c)1., 3., & 4. F.A.C.]

2.4 Facility Plot Plan

This report provides a plot plan of the facility showing the location of manufacturing processes, control equipment, stacks, vents, identifiable sources of fugitive emissions and principal buildings. The plot plan is drawn to scale, shows the precise location of the new emissions units and their emission points, includes at least one UTM coordinate point, and shows the compass direction. The plot plan also provides corner locations and heights of any buildings or structures that may affect dispersion of pollutants from the new emissions units. These building dimensions were used for air quality modeling studies performed by the applicant in support of the air construction permit application.

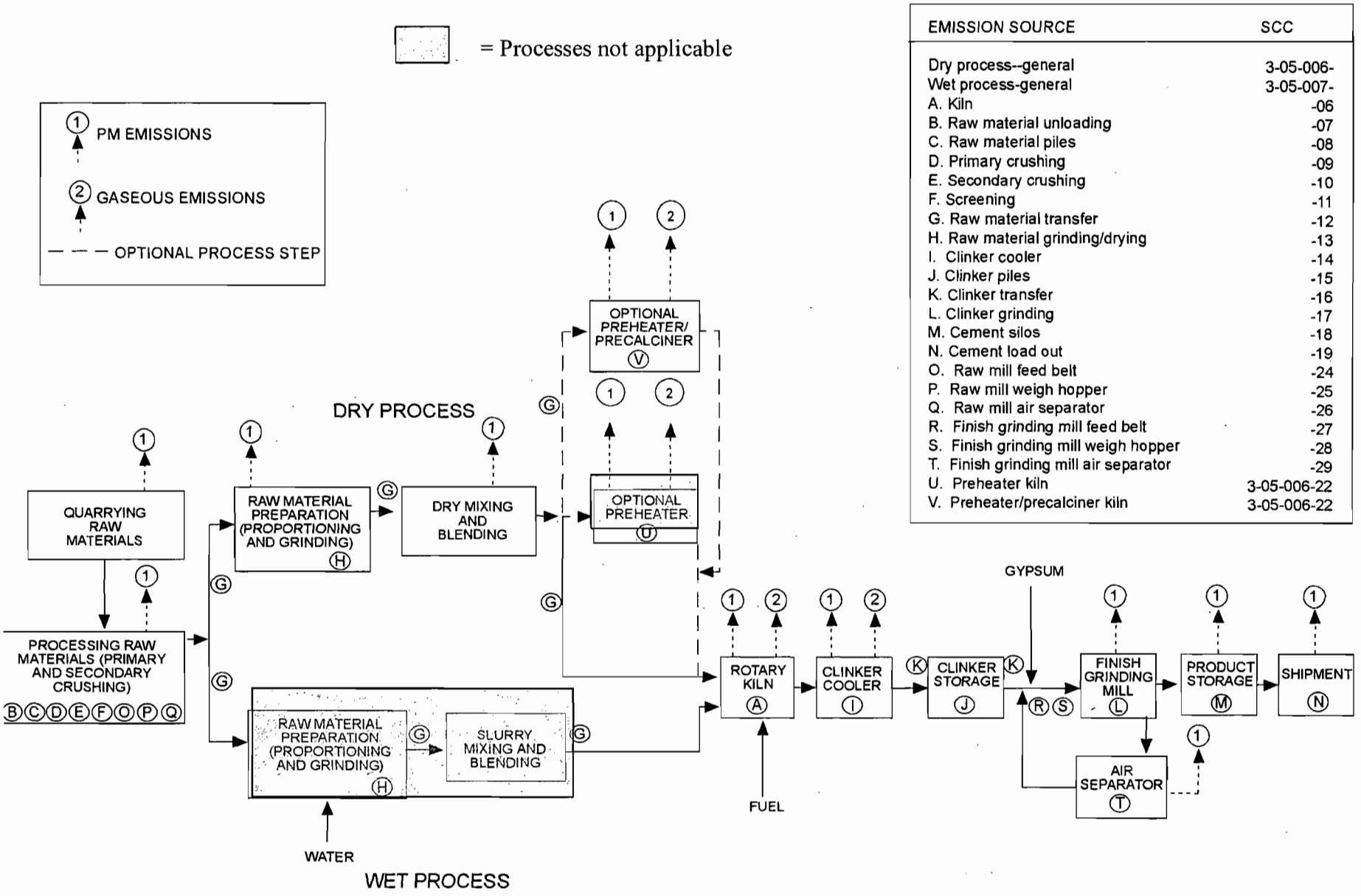
BEST AVAILABLE COPY



2.5 Process Flow Diagram

A general process flow diagram for cement manufacturing, from AP-42 section 11.6 is reproduced below.

Figure 11.6-1. Process flow diagram for portland cement manufacturing.
(SCC = Source Classification Code.)



EMISSION SOURCE	SCC
Dry process--general	3-05-006-
Wet process-general	3-05-007-
A. Kiln	-06
B. Raw material unloading	-07
C. Raw material piles	-08
D. Primary crushing	-09
E. Secondary crushing	-10
F. Screening	-11
G. Raw material transfer	-12
H. Raw material grinding/drying	-13
I. Clinker cooler	-14
J. Clinker piles	-15
K. Clinker transfer	-16
L. Clinker grinding	-17
M. Cement silos	-18
N. Cement load out	-19
O. Raw mill feed belt	-24
P. Raw mill weigh hopper	-25
Q. Raw mill air separator	-26
R. Finish grinding mill feed belt	-27
S. Finish grinding mill weigh hopper	-28
T. Finish grinding mill air separator	-29
U. Preheater kiln	3-05-006-22
V. Preheater/precalciner kiln	3-05-006-22

2.6 Fuel Analysis or Specification

Two emissions units include fuel combustion devices and this report provides typical fuel specifications for these fuels. The Nos. 1 and 2 Cement Kiln combust coal, natural gas, distillate oil (No. 2 and 4), residual oil (No. 5 and 6), petroleum coke, tires, and used oil. The typical fuel specification gives the density, heat value, and percent content by weight of sulfur, nitrogen, and ash; where determined based on reasonably available information.

TABLE 1 – TYPICAL FUEL SPECIFICATIONS

Fuel	Density	Heat Value	Sulfur %	Nitrogen %	Ash %
Natural Gas[A,B]	1 lb/23.8 ft^3	1,050 Btu/ft^3	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE
Distillate Fuel Oil[A,B]	7.05 lb/gal	140,000 Btu/gal	0.2 – 1.0	<0.5	NEGLIGIBLE
Residual Fuel Oil[A,B]	7.88 lb/gal	150,000 Btu/gal	0.5 – 4.0	0.9	0.05 – 1.0
Coal[A,B]	47-50 lb/ft^3	13,000 Btu/lb	0.6 – 5.4	<2	4 – 20
Used Oil[AC]	7.7 lb/gal	140,000 Btu/gal	0.0 – 4.0	NOT DETERMINED	0.4 – 1.5
Petroleum Coke[A,D]	80-100 lb/ft^3	13,300 Btu/lb	1.5 – 10	NOT DETERMINED	0.05 – 2.8
Tires[E,F]	7.4 lb/ft^3	15,500 Btu/lb	0.91 – 1.8	<0.1 – 0.3	1.5 – 25.2

2.7 Description of Control Equipment

The Cement Kilns Nos. 1 and 2 currently utilize baghouses to control PM emissions. CEMEX recently installed new kiln burners (low-NO_x) and an SNCR system. The new burners and SNCR system will prevent and reduce NO_x emissions from the Cement Kilns. Information about

---

[A] AP-42, Appendix A

[B] http://www-mugc.cc.monash.edu.au/~barbie/env3627/fossilfuel.htm

[C] XERAY Systems, December 1998; Rinker, April 1996.

[D] http://pangea.stanford.edu/~lbcf/meeting/chemeng.pdf

[E] *Scrap Tire & Rubber Users Directory,* Recycling Research Institute, 1998

[F] *Air Emissions Associated with the Combustion of Scrap Tires for Energy Recovery,* Malcolm Pirnie, 1991

[G] *Combustion Evaluation of Residual Fuel Oil from Two-Stage Liquefaction,* Arand, JK; Chrisman, LJP; Mansour, MN; Muzio, LJ; February 1, 1983.

the new burners is included in Attachments 1 and 2. The burners are described in more detail in Section 6.

2.8 Description of Stack Sampling Facilities

There will not be any new emission units or new or modified stacks installed as part of this proposed project. Therefore, there will not be any changes to the existing stack sampling facilities. Existing sampling facilities comply with Rule 62-297.310(6), F.A.C.

3. Rule Applicability Analysis

This section identifies state, federal, and local air pollution control rules applicable to the facility and to the emissions units, based on the nature, location, design capacity, operating schedule, emissions, and other relevant information. This section also provides a detailed analysis of how the various provisions of Chapter 62-212, F.A.C. (Stationary Sources – Preconstruction Review), apply on a pollutant-by-pollutant basis, including general preconstruction review requirements, and prevention of significant deterioration (PSD) review. The facility is located in an area designated as attainment for criteria air pollutants, therefore nonattainment area (NAA) new source review does not apply. The project includes a PSD applicability analysis to determine which pollutants are subject to PSD review.

If any exemptions or special provisions of Chapter 62-212, F.A.C. apply, this section provides all information necessary for the department to verify applicability of each such exemption or special provision.

The project does not involve relaxation of a federally enforceable limitation on the pollutant emitting capacity of the facility, and does not trigger retroactive application of PSD or NAA new source review.

3.1 Applicable Federal Requirements

The facility is subject to applicable provisions of three New Source Performance Standards (NSPS) and applicable provisions of one National Emission Standards for Hazardous Air Pollutants (NESHAP).

New Source Performance Standards (NSPS)

Subpart F: Standards of Performance for Portland Cement Plants (40CFR60.60)

- Superseded by NESHAP Subpart LLL

Subpart Y: Standards of Performance for Coal Preparation Plants (40CFR60.250)

- For coal handling and coal mills

Subpart OOO: Standards of Performance for Nonmetallic Mineral Processing Plants (40CFR60.670)

- For raw material processing prior to raw material storage

National Emission Standards for Hazardous Air Pollutants (NESHAP)

NESHAP Subpart LLL*: Standards of Performance for Portland Cement Plants (40CFR63.1340)

- Subject as a Greenfield major source

*NOTE: The facility is presumed major for HAPS.

3.2 Rule 62-212.300 – General Preconstruction Review

This section discusses the requirements of Rule 62-212.300. This rule applies to the proposed modification of the emissions units described in the application for an air construction permit, pursuant to Rule 62-210.300(1), F.A.C.

3.2.1 Rule 62-212.300(1) – General Prohibitions

(a) Air Construction Permit Required

No emissions unit or facility subject to this rule will be constructed or modified without obtaining an air construction permit from the Department in accordance with the requirements of

Rule 62-212.300(3), F.A.C. This report accompanies an application for an air construction permit.

(b) Ambient Air Quality Standards

The proposed modification of the emissions units at the facility will not cause or contribute to a violation of any ambient air quality standard. The ambient impact analysis section of this report provides all required documentation. The facility is not located in a nonattainment area or area of influence.

(c) Baseline Areas

The modification of the emissions units at the facility will not cause or contribute to an ambient concentration at any point within a baseline area that exceeds either the appropriate baseline concentration for the point plus the appropriate maximum allowable increase or the appropriate ambient air quality standard, whichever is less.

For this project the baseline area is the PSD Class II area, and the maximum allowable increases are the PSD Class II increments. The ambient impact analysis section of this report provides all required documentation.

3.2.2 Rule 62-212.300(2) – Applicability

(a) Relationship of General Preconstruction Review Requirements to Other Preconstruction Review Requirements

The requirements of Rule 62-212.300, F.A.C., apply to the proposed project in addition to other preconstruction review requirements under Rules 62-204.800(8) [NSPS] and (10) [NESHAP], as described above.

Rule 62-212.400 also applies, and compliance with the requirements is detailed below. Rules 62-212.500 and 62-212.600, F.A.C. are not applicable to the proposed project.

(b) Pollutants Subject to General Preconstruction Review

The pollutants subject to the general preconstruction review requirements of this rule are those pollutants not subject to preconstruction review under Rule 62-204.800 or 62-212.400, F.A.C.

The pollutants subject to Rule 62-204.800, F.A.C. (NSPS & NESHAPS) include PM, PM_{10}, opacity, dioxin/furan, and THC. The pollutants subject to Rule 62-212.400, F.A.C. (PSD) include PM, PM_{10}, SO_2, NOx, CO, and Ozone (VOC),

The pollutants subject to general preconstruction review include the following:

- Sulfuric acid mist
- Fluorides
- Lead
- Mercury
- Any single HAP
- Total HAP

3.2.3 Rule 62-212.300(3) – Permitting Requirements

(a) Required Information

In this report and accompanying application, the applicant for an air construction permit is providing the Department with the following information:

1. The nature and amounts of emissions from each emissions unit. This information is included in the application.

2. The location, design, construction, and operation of each emissions unit to the extent necessary to allow the Department to determine whether construction of the emissions unit would result in violations of any applicable provisions of Chapter 403, Florida Statutes, or Department air pollution rules, or whether the construction would interfere with the attainment and maintenance of any state or national ambient air quality standard. This information is included in the application and in this report.

(b) Information Required by 40 CFR 63.43(e)

This project does not include emissions units subject to 40 CFR 63.43(e), *Application Requirements for a Case-by-case MACT Determination.* This requirement is found at Rule 62-204.800**(11)**(d)2., F.A.C., not at Rule 62-204.800(10)(d)2., F.A.C.

NESHAP Subpart LLL is applicable, and obviates the need for a case-by-case determination.

3.3 Rule 62-212.400 – Prevention of Significant Deterioration

This section discusses the requirements of Rule 62-212.400(1)-(6). Please note that Rules 62-212.400(7), (8) and (9) do not contain substantive requirements for the applicant. The provisions of this rule generally apply to the construction of air pollutant emitting facilities in those parts of the state in which the state ambient air quality standards are being met. The provisions of this rule also establish various requirements for existing emissions units and facilities in such areas, including specific construction/operation permit requirements.

3.3.1 Rule 62-212.400(1) – General Prohibitions

(a) Ambient Air Quality Standards

The proposed modification of the emissions units at the facility will not cause or contribute to a violation of any ambient air quality standard. The ambient impact analysis section of this report provides all required documentation. The facility is not located in a nonattainment area or area of influence.

(b) Baseline Areas

The modification of the emissions units at the facility will not cause or contribute to an ambient concentration at any point within a baseline area that exceeds either the appropriate baseline concentration for the point plus the appropriate maximum allowable increase or the appropriate ambient air quality standard, whichever is less.

3.3.2 *Rule 62-212.400(2) – Applicability*

This section establishes that the proposed project is subject to the PSD preconstruction review requirements of this rule.

(a) Facility and Project Exemptions

As detailed below, the proposed project does not qualify for any of the exemptions of Rule 62-212.400(2)(a), F.A.C.

The modified facility will not be a nonprofit health or nonprofit educational institution. The proposed project is not being added, replaced, or used at an existing electric utility steam generating unit. The proposed project is not being undertaken for the purpose of complying with the hazardous air pollutant emission reduction requirements of 40 CFR Part 63, Subpart S, adopted and incorporated by reference at Rule 62-204.800, F.A.C. The proposed project is not being undertaken for the purpose of complying with the non-methane organic compound emission reduction requirements of 40 CFR Part 60, Subpart Cc or WWW, adopted and incorporated by reference at Rule 62-204.800, F.A.C. The proposed project is not the installation, operation, cessation, or removal of a temporary clean coal technology demonstration project that meets the requirements of 40 CFR 52.21(b)(2)(iii)(i), adopted and incorporated by reference at Rule 62-204.800, F.A.C. The proposed project is not the installation or operation of a permanent clean coal technology demonstration project that constitutes repowering. The proposed project is not the reactivation of a very clean-coal fired electric utility steam generating unit, as defined under 40 CFR 52.21(b)(38), adopted and incorporated by reference at Rule 62-204.800, F.A.C.

(b) Fugitive Emissions Exemption

As detailed below, the proposed project does not qualify for the exemption of Rule 62-212.400(2)(b), F.A.C.

The facility belongs to one of the facility categories listed in Table 212.400-1, Major Facility Categories (Portland Cement Plants), as shown in the following table.

TABLE 2 – MAJOR FACILITY CATEGORIES (LIST OF 28)

Fossil fuel fired steam electric plants of more than 250 million Btu/hr heat input
Coal cleaning plants (with thermal dryers)
Kraft pulp mills
PORTLAND CEMENT PLANTS
Primary zinc smelters
Iron and steel mill plants
Primary aluminum ore reduction plants
Primary copper smelters
Municipal incinerators capable of charging more than 250 tons of refuse per day
Hydrofluoric acid plants
Sulfuric acid plants
Nitric acid plants
Petroleum refineries
Lime plants
Phosphate rock processing plants
Coke oven batteries
Sulfur recovery plants
Carbon black plants (furnace process)
Primary lead smelters
Fuel conversion plants
Sintering plants
Secondary metal production plants
Chemical process plants
Fossil fuel boilers (or combinations thereof) totaling more than 250 MMBtu/hr heat input
Petroleum storage and transfer units with total storage capacity exceeding 300,000 barrels
Taconite ore processing plants
Glass fiber processing plants
Charcoal production plants

Reference: Table 62-212.400-1, F.A.C.

(c) Alternative Fuel or Raw Material Exemption

As detailed below, the proposed project does not qualify for the exemption of Rule 62-212.400(2)(c), F.A.C.

The proposed project does not include the use of an alternative fuel or raw material by reason of any order under Sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 or the Power Plant and Industrial Fuel Use Act of 1978, or by reason of a natural gas curtailment plan pursuant to the Federal Power Act. The proposed project does not include the use of an alternative fuel by reason of an order or rule under Section 125 of the Act. The

proposed project is not at a steam generating unit using municipal solid waste as fuel. The proposed project does not include the use of an alternative fuel or raw material which the facility was capable of accommodating before January 6, 1975. The proposed project does not include the use of an alternative fuel or raw material which the facility is approved to use under any permit issued under 40 CFR 52.21 or Rule 17-2.500 (transferred) or 62-212.400, F.A.C.

(d) New and Modified Facilities

The facility is not a proposed new minor facility. The facility is an existing major facility. The proposed project is not a proposed modification to a minor facility. The proposed project is a proposed modification to a major facility. The proposed project is not exempted under Rule 62-212.400(2)(a), (b) or (c), F.A.C.

The proposed project constitutes a modification to an existing major facility, and is subject to the PSD preconstruction review requirements of Rule 62-212.400, F.A.C.. The project will result in a significant net emissions increase (as set forth in Rule 62-212.400(2)(e)2., F.A.C.) of certain pollutants regulated under the Act, as shown in the table below.

TABLE 3 – REGULATED AIR POLLUTANTS—PSD APPLICABILITY

	Annual Emissions (TPY)					
	CO	NO_x	PM	PM_{10}	SO_2	VOC
Past Actual						
Kiln No. 1	666.50	715.00	35.50	30.00	6.00	45.29
Kiln No. 2	620.00	819.50	54.00	45.00	6.00	47.21
Finish Mills Nos. 1 and 2	--	--	143.22	121.72	--	--
Clinker Storage Silo Nos. 1 and 2	--	--	1.53	1.44	--	--
Clinker Silo No. 3	--	--	5.78	4.91	--	--
Additive Material Storage Bin	--	--	10.30	8.76	--	--
Cement Bag Loadout System	--	--	1.36	1.16	--	--
Truck Traffic	--	--	8.63	0.85	--	--
Total Past Actual	**1,286.50**	**1,534.50**	**260.31**	**213.83**	**12.00**	**92.49**
Future Potential						
Kiln No. 1	1,387.58	786.00	56.00	44.00	25.00	65.00
Kiln No. 2	1,387.58	786.00	56.00	44.00	25.00	65.00
Finish Mills Nos. 1 and 2	--	--	78.80	78.80	--	--
Clinker Storage Silo Nos. 1 and 2	--	--	5.72	5.72	--	--
Clinker Silo No. 3	--	--	5.95	5.95	--	--
Additive Material Storage Bin	--	--	11.30	11.30	--	--
Cement Bag Loadout System	--	--	2.22	2.22	--	--
Truck Traffic	--	--	8.63	0.85	--	--
Total Future Potential	**2,775.17**	**1,572.00**	**224.62**	**192.84**	**50.00**	**130.00**
Net Emissions Increase	**1,488.67**	**37.50**	**-35.69**	**-20.99**	**38.00**	**37.51**
Contemporaneous Emissions						
2 New Finish Mill Clinker Feed Hoppers (0530010-016-AC)	--	--	0.56	0.48	--	--
Total Net Change Due to Project	1,488.67	37.50	-35.13	-20.51	38.00	37.51
PSD Significant Emission Rate	**100**	**40**	**25**	**15**	**40**	**40**
PSD Review Triggered? (Yes/No)	**Yes**	**No**	**No**	**No**	**No**	**No**

The facility to be modified is not located within 10 kilometers of a Class I area. Ambient impacts to Class I areas are addressed in the ambient impact analysis of this report.

(e) Emissions Increases

The proposed project results in net emissions increases for pollutants regulated under the Act. No contemporaneous creditable decreases in actual emissions are requested for this project. Creditable increases from the project itself and increases in quantifiable fugitive emissions are greater than zero.

The proposed facility results in significant net emissions increases for certain pollutants regulated under the Act. The net emissions increases are greater than the applicable significant emission rate listed in Table 212.400-2, Regulated Air Pollutants – Significant Emission Rates, for carbon monoxide (CO) only.

The date on which any increase in the actual emissions or in the quantifiable fugitive emissions of the facility occurs is the date on which the owner or operator of the facility begins, or projects to begin, operation of the emissions units resulting in the increase. No decreases in the actual emissions or in the quantifiable fugitive emissions of the facility are considered for this project.

(f) Pollutants Subject to PSD Preconstruction Review

The preconstruction review requirements of Rule 62-212.400, F.A.C. apply to all pollutants regulated under the Act for which the sum of the potential emissions and the quantifiable fugitive emissions of the facility would be equal to or greater than the significant emission rates listed in Table 212.400-2, Regulated Air Pollutants – Significant Emission Rates, as shown in the preceding section.

The facility is not located within 10 kilometers of a Class I area. The facility is not located in an area designated as nonattainment for any pollutant other than ozone under Rule 62-204.340, F.A.C. The facility is not located in an ozone nonattainment area.

(g) Relaxations of Restrictions on Pollutant Emitting Capacity

The proposed project is not subject to the preconstruction review requirements of this rule solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility to emit a pollutant (such as a restriction on hours of operation).

3.3.3 Rule 62-212.400(3) – Limited Exemptions and Special Provisions

The provisions of Rule 62-212.400(3), F.A.C. establish exemptions and exclusions from certain of the General Provisions of Rule 62-212.400(4), F.A.C., and PSD Review Requirements of Rule 62-212.400(5), F.A.C.

(a) Relocatable Facilities

The proposed facility is not a relocatable facility.

(b) Voluntary Fuel Conversions (Reserved)

(c) Temporary Emissions

No temporary emissions exemptions are being claimed.

(d) Modifications Under Fifty Tons Per Year

The facility (cement plant) was in existence on March 1, 1978. However, the CO emissions increase due to the proposed project is greater than 50 TPY. Therefore, this exemption does not apply.

(e) General Ambient Monitoring Exemption

The general ambient monitoring exemption is discussed in the ambient impact analysis section of this report.

(f) Temporary Exclusions From Increment Consumption

Concentrations of PM attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified facilities shall be excluded in determining compliance with any maximum allowable increase.

By an Order issued by the Secretary, the following ambient concentrations shall be excluded in determining compliance with any maximum allowable increase, provided the addition of such concentrations shall not cause or contribute to a violation of any ambient air quality standard. No exclusion of such concentrations shall apply more than five years after the effective date of the latest applicable plan or order as set forth in Rule 62-212.400(3)(f)2.a. or b., F.A.C.

- The facility has not converted from the use of petroleum products, natural gas, or both by reason of an order in effect under Sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 or the Power Plant and Industrial Fuel Use Act of 1978.
- The facility has not converted from using natural gas by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act.

The facility is not affected by SIP revisions approved by the Administrator.

By an Order issued by the Secretary, concentrations attributable to any federally enforceable interim allowable emissions resulting from the use of innovative control technology that are in excess of the final allowable emissions based on the application of BACT, shall be excluded in determining compliance with any maximum allowable increase, provided such Order shall:

a. Specify the time period over which the interim allowable emissions would occur (such time period shall not exceed four years, however such Order may be renewed for a period not to exceed an additional three years if the innovative control technology fails and the additional time period is needed to apply BACT through a demonstrated system of control).
b. Allow no emissions that would:
    (i) Have a significant impact on any Class I area or area where an applicable maximum allowable increase is known to be violated; or
    (ii) Cause or contribute to a violation of any ambient air quality standard.

c. Require limitations to be in effect by the end of the time period specified in Rule 62-212.400(3)(f)4.a., F.A.C., above, which would ensure that the emission levels from the emissions units using the innovative control technology would not exceed those that are equivalent to the application of BACT.

(g) Permanent Exclusions From Increment Consumption

The increase in ambient concentrations attributable to new emissions units outside the United States over the concentrations attributable to emissions units which are included in the baseline emissions shall be excluded in determining compliance with any maximum allowable increase.

3.3.4 Rule 62-212.400(4) – General Provisions

(a) Facilities Affecting Class I Areas

The Department shall comply with the additional notification requirements of Rule 62-210.350(2)(h), FAC, for a modified existing facility that would be located within 100 kilometers of, or whose emissions may affect, any Federal Class I area.

The Federal Land Manager (FLM) of any lands contained in a Class I area which may be affected by emissions from a proposed new or modified facility may demonstrate to the Department that the emissions from the proposed new or modified facility would have an adverse impact on the air quality-related values (including visibility) of the Federal Class I area, notwithstanding that the change in air quality resulting from emissions from such facility would not cause or contribute to concentrations which would exceed any maximum allowable increase for a Class I area.

If this demonstration is received by the Department within thirty (30) days after the Department has mailed or transmitted to the FLM a complete application pursuant to Rule 62-210.350(2)(b), FAC, it shall be considered in the Department's preliminary determination and proposed agency action on the permit application. If this demonstration is received within the public comment period on the Department's proposed agency action, it shall be considered in the Department's final determination and final agency action on the permit application.

If the Department finds that the FLM's analysis does not demonstrate to the Department's satisfaction that an adverse impact on the air quality related values (AQRV), including visibility, of a Class I area would occur, a written explanation of the reasons for such finding shall be included in the Department's preliminary or final determination as provided in Rule 62-212.400(4)(a)2.b., FAC. If the Department is satisfied that the FLM has demonstrated an adverse impact on the AQRVs (including visibility) of a Class I area, the Department shall not issue the permit.

(b) Baseline Related Provisions

The establishment of a minor source baseline date for a pollutant establishes the baseline area for that pollutant based on the designations of individual prevention of significant deterioration (PSD) areas under Rule 62-204.360, F.A.C. The boundary of the baseline area may be changed only by redesignating the boundaries of the affected PSD areas in accordance with the redesignation provisions of Rule 62-204.320, F.A.C. The minor source baseline date for an area may be disestablished or changed as the result of such redesignation of PSD areas.

The establishment of a baseline area requires the determination of the baseline emissions that affect the baseline area. The baseline emissions are determined for each pollutant for which maximum allowable increases are established under Rule 62-204.260, F.A.C., and are used to compute the baseline concentration levels for each point within the baseline area. The baseline concentration is the ambient concentration value to which the applicable maximum allowable increase is added to determine the maximum allowable ambient concentration for each point within the area.

(c) Ambient Monitoring Quality Assurance Requirements

If ambient monitoring is required, the applicant for the proposed facility will meet the requirements of 40 CFR Part 58, Appendix B, during the operation of ambient air quality monitoring stations required pursuant to the provisions of Rule 62-212.400(5)(f) or (g), F.A.C.

3.3.5 Rule 62-212.400(5) – Preconstruction Review Requirements

(a) General

The proposed project subject to the preconstruction review requirements of this subsection shall be reviewed and permitted in accordance with the provisions of Rules 62-212.400(5)(b) through (h), F.A.C., below, unless specifically exempted from one or more of those requirements pursuant to Rule 62-212.400(3), F.A.C., Exemptions and Exclusions.

The applicant will not begin construction prior to obtaining a permit to construct in accordance with all applicable provisions of this rule and Rule 62-210.300, F.A.C.

(b) Technology Review

The modified facility will comply with all applicable emission limitations.

(c) Best Available Control Technology

The modified facility will apply Best Available Control Technology (BACT) for each pollutant subject to preconstruction review requirements as set forth in Rule 62-212.400(2)(f), F.A.C.

(d) Ambient Impact Analysis

The owner or operator of the modified facility is demonstrating to the Department that the increase in federally enforceable allowable emissions from the modified facility, together with all other applicable increases and decreases in emissions resulting from the construction (including secondary emissions), will not cause or contribute to a violation of any ambient air quality standard or maximum allowable increase.

(e) Additional Impact Analyses

The owner or operator of the modified facility is providing the Department with the required additional impact analyses. The analyses were carried out using EPA-approved methods, if available. These requirements are addressed in the additional impact analyses section of this report.

(f) Preconstruction Air Quality Monitoring and Analysis

This requirement is addressed in the ambient impact analysis section of this report.

(g) Postconstruction Monitoring

The applicant is requesting that the Department waive the discretionary requirement for postconstruction air quality monitoring.

(h) Permit Application Information Required

The applicant is submitting this report and a completed application form to the Department. These documents provide the following information to the Department:

1. A description of the nature, location, design capacity and typical operating schedule of the modified emission units;

2. A detailed description of the system of continuous emissions reduction proposed as BACT, emissions estimates and any other information as necessary to determine that BACT would be applied for applicable pollutants;

3. Information relating to the air quality impact of the facility, including meteorological and topographical data necessary to estimate such impact;

4. Information relating to the air quality impacts of, and the nature and extent of, all general commercial, residential, industrial and other growth which has occurred since August 7, 1977, in the area the facility would affect; and

5. A good-engineering-practice stack height, or other dispersion techniques, analysis to demonstrate compliance with Rule 62-210.550, FAC.

Project Description

The application and this report provide a description of the nature, location, design capacity and typical operating schedule of the facility.

BACT Proposal

The BACT section of this report provides a detailed description of the system of continuous emissions reduction proposed as BACT, and includes emissions estimates and any other information as necessary to determine that BACT would be applied to the facility.

Ambient Impact Analysis

The ambient impact analysis section of this report provides information relating to the air quality impact of the facility, including meteorological and topographical data necessary to estimate such impact.

Growth Since 1977

This section of the report provides information relating to the air quality impacts of, and the nature and extent of, all general commercial, residential, industrial and other growth which has occurred since August 7, 1977, in the area the facility would affect.

For the purposes of this report, the area the facility will affect is defined as the area of significant impact. For conservatism, the area of significant impact is based on high-first-high concentrations. Since CO is not significant in the Class II area, there is not a significant impact area. For purposes of this report, an area of 1-kilometer radius surrounding the plant was used. This specific area is sparsely populated, and generally supports agricultural and mining land uses. The closest contiguous county is greater than 12 kilometers from the facility.

Hernando County has experienced steady growth in most areas since 1977. The population was 34,300 in 1977 and was forecasted to be 156,012 in 2005. Total housing units increased from 17,735 in 1980 to 65,736 forecasted for 2005. Employment increased in the civilian labor force from 13,641 in 1980 to 54,034 forecasted for 2005. Manufacturing establishments increased from 19 in 1977 to 129 in 2002, while retail trade establishments increased from 312 in 1977 to 397 in 2002.

The air impacts from this growth are addressed with the background air quality concentrations, when comparing with the ambient air quality standards.

Good Engineering Practice Stack Height

Good engineering practice stack height is addressed in the ambient impact analysis section of this report.

3.3.6 Rule 62-212.400(6) – Best Available Control Technology

(a) BACT Determination

Following receipt of a complete application for a permit to construct or modifiy an emissions unit or facility which requires a determination of Best Available Control Technology (BACT), the Department shall make a determination of Best Available Control Technology during the permitting process.

(b) Phased Construction Projects

For phased construction projects, the determination of BACT shall be reviewed and modified in accordance with 40 CFR 51.166(j)(4), adopted and incorporated by reference in Rule 62-204.800, F.A.C. The modified facility is not presented as a phased construction project.

(c) Use of Innovative Control Technology

With the consent of the Governor(s) of other affected state(s), the Department shall approve, through the permitting process, the use of a system of innovative control technology if the proposed system would comply with the requirements of 40 CFR 51.166(s)(2)(i) through (v).

(d) Test Methods and Procedures

All emissions tests performed pursuant to the requirements of this rule will comply with the following requirements.

Pollutants for Which a Standard has Been Established Pursuant to 40 CFR Part 60, 40 CFR Part 61, or 40 CFR Part 63

The test methods shall be as specified in 40 CFR Part 60, Appendix A, 40 CFR Part 61, Appendix B, or 40 CFR Part 63, Appendix B, adopted and incorporated by reference in Rule 62-204.800(7), (8), (9), F.A.C.

Pollutants for Which No Standard has Been Established Pursuant to 40 CFR 60, 40 CFR 61, or 40 CFR 63

The test methods shall be as specified in the BACT determination.

4. Ambient Impact Analysis

The proposed project is subject to PSD review, and this section of the report provides a demonstration in accordance with the provisions of Rule 62-212.400(5)(d), F.A.C., that the increase in emissions from the modified facility, together with all other increases and decreases in emissions resulting from the construction (including secondary emissions), will not cause or contribute to a violation of any ambient air quality standard or maximum allowable increase (PSD increment). The project submittal includes all input and output files necessary for the department to verify proper application of the air quality models used for ambient impact analysis.

The EPA and the State of Florida have adopted ambient air quality standards (AAQS). Primary AAQS protect the public health while secondary AAQS protect the public welfare from adverse effects of air pollution. Areas of the country have been designated as attainment or nonattainment for specific pollutants. Areas not meeting the AAQS for a given pollutant are designated as nonattainment areas for that pollutant. Any new source or expansion of existing sources in or near these nonattainment areas are subject to more stringent air permitting requirements. Projects proposed in attainment areas are subject to air permit requirements that would ensure continued attainment status.

In promulgating the 1977 CAA Amendments, Congress quantified concentration increases above an air quality baseline for sulfur dioxide (SO_2) and PM that would constitute significant deterioration. The size of the allowable increment depends on the classification of the area in which the source would be located or have an impact. Class I areas include specific national parks, wilderness areas and memorial parks. Class II areas are all areas not designated as Class I areas and Class III areas are industrial areas in which greater deterioration than Class II areas would be allowed. There are no Class III areas in Florida.

In 1988, EPA promulgated PSD regulations for NO_x and PSD increments for nitrogen dioxide (NO_2) concentrations. FDEP adopted the NO_2 increments in July 1990.

A source impact analysis is required for the proposed facility for each pollutant for which the increase in emissions exceeds the significant net emissions increase. Specific atmospheric dispersion models are required in performing the impact analysis. The analysis demonstrates the project's compliance with AAQS and allowable PSD increments. The modeling demonstrated compliance with all applicable standards, including Ambient Air Quality Standards (AAQS), PSD Class II increments, and PSD Class I increments.

4.1 Applicable Pollutants

The PSD air quality evaluation for the modified major facility addresses the pollutants for which the allowable yearly emissions exceed any of the designated significant net emission increases. The proposed facility results in significant net emissions increases for certain pollutants regulated under the Act. The net emissions increases are greater than the applicable significant emission rate listed in Table 212.400-2, Regulated Air Pollutants – Significant Emission Rates, for CO only.

Both the applicable National Ambient Air Quality Standards (NAAQS) and the PSD increments are subject to air quality analyses in this PSD review. The following table lists the applicable ambient standards and increments, as relevant to this project.

TABLE 4 – PSD INCREMENTS AND NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

Expressed in $\mu g/m^3$

Pollutant	Averaging Period	Primary NAAQS	Secondary NAAQS	PSD Class II Increment	State Ambient Standard	PSD Class I Increment
SO_2	3-Hour	None	1,300	512	1,300	25
	24-Hour	365	None	91	260	5
	Annual	80	None	20	60	2
PM_{10}	24-Hour	150	150	30	150	8
	Annual	50	50	17	50	4
NO_2	Annual	100	100	25	None	2.5
CO	1-Hour	40,000	40,000	None	40,000	None
	8-Hour	10,000	10,000	None	10,000	None
O_3	1-Hour	235	235	None	None	None
	8-Hour	157	157	None	None	None
	Daily	None	None	None	235	None

4.2 Source Information

The PSD Air Quality analysis includes source information. A map showing the location of the source under review is provided. A scaled map of the facility clearly delineating the locations of all sources modeled, all buildings considered in the downwash analysis, and plant property boundaries is provided. Building sizes and shapes on the map are drawn to scale.

Rural dispersion coefficients were used in the modeling, as the surrounding area can be classified as rural. The modeling input files identify all past actual and future potential sources used in the modeling, including all applicable stack parameters (UTM coordinate locations, emission rate, height, exit velocity, exit temperature and inner diameter).

4.2.1 Good Engineering Practice (GEP) Review

A GEP review was conducted for each modified source to determine if building downwash effects needed to be included in the modeling and to determine the appropriate stack heights to be used with the models. Listed below are the steps conducted in performing this review.

The dimensions (length, width, height) of all structures at the facility were acquired. Tiered structures, if any, were considered as separate buildings. A scaled plant diagram showing the location of each structure and stack is included in this submittal. EPA has developed a program called Building Profile Input Program (BPIP) that was used to generate direction-specific building dimensions.

In accordance with Chapter 62-210, FAC, the degree of emission limitation required for control of any pollutant is not to be affected by a stack height that exceeds GEP, or any other dispersion technique. The criteria for good engineering practice stack height in FAC Rule 62-210.550 states that the height of a stack should not exceed:

- 65 meters (m), or
- A height established by applying the formula:

$$H_g = H + 1.5\ L$$

where:

H_g = GEP stack height,

H = Height of the structure or nearby structure, and

L = Lesser dimension, height or projected width of nearby structure

The GEP stack height regulations require that the stack height used in modeling for determining compliance with AAQS and PSD increments not exceed the GEP stack height. The actual stack height may be higher or lower. This stack height policy is designed to prevent achieving ambient air quality goals solely through the use of excessive stack heights and air dispersion.

CEMEX is not installing or modifying any stacks as part of this project. All of the existing stacks at the Brooksville facility meet the GEP stack height requirements.

4.3 Meteorological Data

Five years of representative meteorological data was used for the modeling. For the ISC modeling, surface data from Tampa, Florida was used with upper air data from Tampa, Florida for the period 1991 through 1995. These data are considered most representative of site.

4.4 Modeling Methodology

4.4.1 Applicable Models

The air quality models used are those listed in the "Guideline on Air Quality Models", 40 CFR Part 51 Appendix W. All air quality analyses were performed using the current available versions of EPA guideline models. For ISC, version 02035 was used.

4.4.2 Significant Impact Area Determination Modeling

a. Significant Impact Area

Determination of the Significant Impact Area (SIA) is based on modeling of the modified emission units only. Sources were modeled at their net emissions increase (future maximum allowable emission rate minus the past actual emission rate). SIA determination modeling was performed with the ISCST3 model in default mode with five years of representative meteorological data. Building downwash was also included. The table below shows the past actual and future maximum short-term emission rates used in the significant impact modeling analysis.

TABLE 5 – SIGNIFICANT IMPACT LEVELS FOR CLASS II AREAS

	Past Actual		**Future Potential**		**Net Change**	
Kiln 1	165.5 lb/hr	20.85 g/s	316.8 lb/hr	39.92 g/s	151.3 lb/hr	19.1 g/s
Kiln 1	171.6 lb/hr	21.62 g/s	316.8 lb/hr	39.92 g/s	145.2 lb/hr	18.3 g/s

Receptor elevations were not considered in the modeling because the terrain in the modeling domain is mostly flat to gently rolling. The mixed Cartesian/polar grid used with this modeling shows the distance to where highest (high-first-high) short term and long term ambient concentrations fall below the appropriate significance levels. For this report, this distance is

called the critical distance. The SIA is defined as a circular area centered on the proposed source with a radius equal to the critical distance. The SIA was established for every averaging period of every applicable pollutant for every year of meteorological data. The SIA, for each applicable pollutant, over which NAAQS and increment compliance modeling is performed, is the largest of these areas.

Modeling to determine significance was conducted using facility fenceline receptors with 100-meter spacing, discrete receptors on a polar grid with radial rings using 10^{o} spacing from 2 kilometer meters to 10 kilometers at 1-kilometer intervals. The polar grid started at 2 km because the entire 1-km polar ring was located within the property boundary.

Where predicted concentrations are below the significance levels for a given pollutant, no further modeling is required for that pollutant. The following table shows the significance levels in the Class II area.

TABLE 6 – SIGNIFICANT IMPACT LEVELS FOR CLASS II AREAS

Pollutant	Annual	24-Hour	8-Hour	3-Hour	1-Hour
CO	--	--	500 $\mu g/m^3$	--	2,000 $\mu g/m^3$

The following table shows the SIA for each year and averaging period for each pollutant.

TABLE 7 – EVALUATION OF SIGNIFICANT IMPACTS FOR CLASS II AREAS

		1991	1992	1993	1994	1995
CO	8-Hour	96	115	150	155	**283**
	1-Hour	430	457	**461**	431	455

CO was determined to have less than significant impacts in the Class II area. This demonstrates compliance with ambient air quality standards and PSD increments for these pollutants. No further dispersion modeling was performed in the Class II area.

4.4.3 *Preconstruction Monitoring*

The initial SIA determination modeling analysis also addresses preconstruction monitoring requirements for proposed or modified sources whose predicted ambient impact exceeds any of the de minimis monitoring concentrations specified below. The required steps for addressing preconstruction monitoring are outlined below:

Only the modified sources were modeled and computed concentrations were compared against the de minimis monitoring levels. The sources included in this modeling were the same as those included in the SIA determination modeling. Where these levels are not exceeded, monitoring is not required. Representative ambient monitoring data is available, which may exempt the applicant from preconstruction monitoring.

The proposed facility is exempt from the monitoring requirements of Rule 62-212.400(5)(f) and (g), F.A.C., for ozone because less than 100 TPY of VOC is proposed; and for NO_x, PM/PM_{10}, SO_2, lead, fluorides, mercury, and hydrogen sulfide because these pollutants are not subject to PSD review.

The proposed facility is exempt from the monitoring requirements of Rule 62-212.400(5)(f) and (g), F.A.C., for CO because the net emissions increases of this pollutants from the facility would not have an impact on any area equal to or greater than that listed in the following table.

TABLE 8 – DE MINIMIS AMBIENT IMPACTS

Pollutant	Averaging Period	Concentration ($\mu g/m^3$)	Modeled Concentration [H1H] ($\mu g/m^3$)
Nitrogen dioxide	Annual	14	Not Subject to PSD Review
Sulfur dioxide	24-hour	13	
PM_{10}	24-hour	10	
Carbon monoxide	8-hour	575	283 $\mu g/m^3$ [1995]
Ozone	Not Applicable – Less Than 100 tons/year VOC		
Lead	Quarterly	0.1	Not Subject to PSD Review
Fluorides	24-hour	0.25	
Mercury	24-hour	0.25	
Hydrogen sulfide	1-hour	0.2	

Reference: Table 62-212.400-3, F.A.C.

4.4.4 Federal Class I Areas

Since CO is the only pollutant subject to PSD review for this project, a Class I modeling analysis was not performed. Class I significant impact levels are not established for CO and CO is not a pollutant that contributes to either visibility or sulfur or nitrogen deposition.

5. Additional Impact Analyses

Federal Secondary AAQS were established to protect the public welfare including the protection of animal and plant life, property, visibility and atmospheric clarity, and the enjoyment of life and property.

The U. S. Environmental Protection Agency (EPA) was directed by Congress to develop primary and secondary AAQS. The primary standards were to protect human health and the secondary standards were to:

"... protect the public welfare from any known or anticipated adverse effects of a pollutant."

The public welfare was to include soils, vegetation and visibility.

As a basis for promulgating the air quality standards, EPA undertook studies related to the effects of all major air pollutants and published criteria documents summarizing the results of the studies. The studies included in the criteria documents were related to both acute and chronic effects of air pollutants. Based on the results of these studies, the criteria documents recommended air pollutant concentration limits for various periods of time that would protect against both chronic and acute effects of air pollutants with a reasonable margin of safety.

The modified facility will not cause or contribute to any exceedance of established ambient air quality standards. The emissions from the facility will result in ambient impacts that are less than significant and are considered to be de minimis, for all regulated pollutants.

5.1 Impairment to Visibility, Soils & Vegetation

The impacts to ambient air resulting from emissions of CO are well below the Class I significant impact levels. It is concluded that there will be no adverse effect to the soils or vegetation of the area. Impacts to visibility at Class I areas was not addressed by this application since CO does

not contribute to visibility impairment. Therefore, the proposed project is not expected to impact visibility in the vicinity of the Class I areas.

In accordance with the *Draft New Source Review Workshop Manual*, the depth of the analysis depends on existing air quality, the quantity of emissions, and the sensitivity of local soils and vegetation in the source's impact area. The analysis fully documents all sources of information, and underlying assumptions utilized as a part of the analysis. This guidance confirms that the geographical scope of the additional impact analyses is the significant impact area, 3 km in this case.

The PSD pollutant for this project is CO.

Impacts to soils, vegetation, and wildlife from the PSD pollutants could result from ambient concentrations or from deposition. Screening concentrations[G] for exposure to ambient air concentrations of CO were compared to site-specific modeling results for CO.

5.1.1 Soils

The soils in the impact area are described by the *Soil Survey of Hernando County, Florida.* The general soils map in the soil survey shows three major soil complexes within the surrounding area of the facility:

- 1. Candler-Tavares-Paola;
- 2. Arredondo-Sparr-Kendrick; and
- 5. Nobleton-Blichton-Flemington.

The general soil map shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape. Typically, a map unit consists of one or more major soils and some minor soils. It is named for the major soils. The general soil map can be used to compare the suitability of large areas for general land uses.

[G] A Screening Procedure for the Impacts of Air Pollution Sources on Plants, Soils, and Animals, EPA 450/2-81-078, December 1980.

Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

1. Candler-Tavares-Paola

Nearly level to sloping, excessively drained and moderately well-drained soils that are sandy throughoutl some have thin lamellae of loamy sand and sandy loam at a depth of 78 to 80 inches. Most of these soils are in the west-central and eastern part of Hernando County.

2. Arredondo-Sparr-Kendrick

Nearly level to sloping, well-drained and somewhat poorly drained soils that are sandy to a depth of 20 to more than 40 inches over loamy material. Most of these soils are in the central and eastern part of Hernando County.

5. Nobleton-Blichton-Flemington.

Nearly level to strongly sloping, somewhat poorly drained and poorly drained fine sandy loams to sands less than 40 inches thick over loamy and clayey material. Most of these soils are in the central part of Hernando County.

5.1.2 Vegetation

Vegetation having significant commercial or recreational value was identified by the *Soil Survey*. The soils in the impact area are described by the *Soil Survey of Hernando County*.

1. Candler-Tavares-Paola

The natural vegetation is bluejack, post, and turkey oaks and scattered longleaf and slash pines with a sparse understory of native grasses and annual forbs. In areas of Paola soils, the natural vegetation is sand pine, scrub live oak, scattered turkey and bluejack oaks, and an understory of scattered sawpalmetto, creeping dodder, rosemary, cacti, mosses, and lichens. In the more poorly drained areas, the natural vegetation is slash and longleaf pines, inkberry, and oak. The wet, swampy areas are mostly bay, gum, cypress, and water-tolerant grasses and sedges.

2. Arredondo-Sparr-Kendrick

The natural vegetation is slash, longleaf, and loblolly pines; live, laurel, and water oaks; magnolia; hickory; dogwood; and an understory of native grasses and annual forbs. Most of this association is in improved pasture or citrus. Most the remaining areas are still in natural vegetation. A few areas have been subdivided and are used for residential areas. A few areas are in crops. Wooded areas provide cover and a fair supply of food for wildlife.

5. Nobleton-Blichton-Flemington

The natural vegetation is slash, loblolly, and longleaf pines; laurel, live, and water oaks; and sweetgum, hickory, magnolia, dogwood, ironwood, and scattered red cedar. The understory is chiefly waxmyrtle, inkberry, American beautyberry, huckleberry, deer tongue, scattered sawpalmettos, and native grasses.

A more detailed review of commercially significant vegetation was conducted for the major soil types described within the general soil types:

- 14. Candler
- 15. Candler
- 49. Tavares
- 39. Paola
- Arredondo
- Arredondo
- 47. Sparr
- 48. Sparr
- 29. Kendrick
- 36. Nobleton
- 11, 12. Blichton
- 13. Blichton
- 20, 21. Flemington.
- 22. Flemington.

Various tables in the Soil Survey were reviewed for these soil types.

TABLE 9 – LAND CAPABILITY CLASSES AND YIELDS PER ACRE OF CROPS AND PASTURE

[Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil]

Map Unit	Oranges (boxes)	Grapefruit (boxes)	Corn (bushels)	Soybeans (bushels)	Watermelons (tons)	Bahiagrass (animal-unit-month)	Grass-clover (animal-unit-month)
14. Candler	425	625	35	--	10.0	7.0	--
15. Candler	400	600	--	--	--	6.5	--
49. Tavares	425	600	--	--	8.0	8.0	--
39. Paola	250	300	--	--	--	4.5	--
6. Arredondo	450	650	--	25	10.0	8.0	--
7. Arredondo	450	650	--	25	9.5	8.0	--
47. Sparr	415	615	50	25	10.0	9.0	--
48. Sparr	415	615	50	--	9.5	9.0	--
29. Kendrick	525	725	60	35	--	10.0	--
36. Nobleton	475	675	60	30	11.0	10.0	--
11, 12. Blichton	400	600	50	35	9.0	10.0	12.0
13. Blichton	400	600	45	25	9.0	10.0	12.0
20,21. Flemington.	--	--	--	35	8.0	10.0	12.0
22. Flemington.	--	--	--	--	--	8.0	9.5

TABLE 10 – WOODLAND MANAGEMENT AND PRODUCTIVITY

[Only the soils suitable for production of commercial trees are listed. Absence of an entry indicates that information was not available]

Map Unit	Trees to Plant
14. Candler	Sand pine, slash pine
15. Candler	Sand pine, slash pine
49. Tavares	Slash pine
39. Paola	Sand pine
6. Arredondo	Slash pine
7. Arredondo	Slash pine
47. Sparr	Slash pine
48. Sparr	Slash pine
29. Kendrick	Slash pine, loblolly pine
36. Nobleton	Slash pine, loblolly pine
11, 12. Blichton	Slash pine
13. Blichton	Slash pine
20,21. Flemington.	Slash pine
22. Flemington.	Slash pine

TABLE 11 – RECREATIONAL DEVELOPMENT

[Terms describe level of restrictions to use based on soil limitations and features. Absence of an entry indicates that the soil was not rated]

Map Unit	Camp areas	Picnic areas	Playgrounds	Paths and trails
14. Candler	Severe	Severe	Severe	Severe
15. Candler	Severe	Severe	Severe	Severe
49. Tavares	Moderate	Moderate	Severe	Moderate
39. Paola	Severe	Severe	Severe	Severe
6. Arredondo	Moderate	Moderate	Severe	Moderate
7. Arredondo	Moderate	Moderate	Severe	Moderate
47. Sparr	Moderate	Moderate	Severe	Moderate
48. Sparr	Moderate	Moderate	Severe	Moderate
29. Kendrick	Moderate	Moderate	Severe	Moderate
36. Nobleton	Moderate	Moderate	Severe	Moderate
11,12. Blichton	Severe	Severe	Severe	Severe
13. Blichton	Severe	Severe	Severe	Severe
20,21. Flemington.	Severe	Severe	Severe	Severe
22. Flemington.	Severe	Severe	Severe	Severe

A Screening Procedure for the Impacts of Air Pollution Sources on Plants, Soils, and Animals was reviewed. The document provided ambient concentrations for various pollutants in relation to vegetation sensitivity. The concentration for the most sensitive vegetation for each pollutant is compared to the modeled concentration in the following table. Where reasonable to do so, concentrations for atypical averaging periods were estimated through the use of the ISC model. The comparisons used the highest-first-high from any year modeled (1991 - 1995).

Pollutant	Averaging Time	Screening Concentration	Modeled Concentration
CO	24 hours	1 week = 1,800,000 $\mu g/m^3$	(8-hour) 283 $\mu g/m^3$
	1 month		(8-hour) 283 $\mu g/m^3$

All modeled source-alone concentrations are much less than the screening concentrations.

Based on the above analysis, adverse impacts to vegetation as a result of source emissions are not expected.

5.1.3 Wildlife

The wildlife in Hernando County is described the Florida Natural Areas Inventory. An online search showed 104 Total Elements (biological occurrences) in Hernando County. The lists included the following:

- Amphibians
- Reptiles
- Birds
- Mammals
- Amphipods
- Decapods (crabs, crayfishes, and shrimp)
- Beetles
- Plants

Although the lists included certain plants, commercially significant vegetation was identified by the soil survey and is discussed above. The soil survey also included a table describing potential as habitat for openland wildlife, woodland wildlife, and wetland wildlife.

TABLE 12 – WILDLIFE HABITAT

Map Unit	Potential for habitat for:		
	Openland wildlife	Woodland wildlife	Wetland wildlife
14. Candler	Fair	Fair	Very Poor
15. Candler	Fair	Fair	Very Poor
49. Tavares	Fair	Fair	Very Poor
39. Paola	Poor	Poor	Very Poor
6. Arredondo	Fair	Fair	Very Poor
7. Arredondo	Fair	Fair	Very Poor
47. Sparr	Fair	Fair	Very Poor
48. Sparr	Fair	Fair	Very Poor
29. Kendrick	Fair	Good	Very Poor
36. Nobleton	Fair	Fair	Very Poor
11. Blichton	Fair	Good	Fair
12, 13. Blichton	Fair	Good	Very Poor
20. Flemington.	Fair	Good	Fair
21,22. Flemington.	Fair	Good	Poor

No information was identified for evaluating direct impacts to wildlife from emissions of PSD pollutants. Some information was reviewed that described indirect effects to wildlife resulting from impacts to vegetation, including habitat alteration and ingestion of vegetation. The screening procedures were not applicable for this project.

For the purposes of this application, it is assumed that the AAQS and Class II area increments provide adequate protection from impacts to wildlife resulting from source emissions of PSD pollutants.

5.2 Air Quality Impact as a Result of Growth Associated with the Facility

No quantifiable air quality impacts are projected for the area as a result of general commercial, residential, industrial and other growth associated with the facility.

The proposed project is not expected to result in any new jobs at the cement plant. Hernando County's unemployment rate was 4.7% in July 2005 (preliminary) and the unemployment number was 2,653. No increase in residential or commercial construction is expected in the area surrounding the plant as a result of this facility. Therefore, no additional growth impacts are expected as a result of the proposed project. General commercial, residential, and other growth within plant's vicinity is expected to continue at approximately the current rate.

6. Best Available Control Technology Analysis

6.1 Carbon Monoxide

In Portland cement plants of the preheater design, carbon monoxide emissions can result from two independent sources. The first is carbon monoxide resulting from the combustion processes in the kiln and the second is from the oxidation of carbonaceous material in the raw feed introduced to the preheater. Another potential source which is not considered significant is the reduction of carbon dioxide generated during the calcination of raw meal in the preheater tower.

The carbon monoxide that is generated by the combustion processes is a function of the oxygen maintained at the back end of the kiln (the feed end) and the efficiency of the kiln burner. The generation of CO that is feed related is a function of the organic or elemental carbon content of the raw feed and the volatility of this carbon.

6.1.1 Proposed BACT

The CO emission limit proposed as BACT is 3.2 pounds per ton of clinker, 30-day rolling average. This will be achieved by good combustion practices and raw materials management.

The 30-day averaging time for the proposed CO limit is necessary because of normal fluctuations in CO levels in the kiln system as described in the following sections.

6.1.2 CO from Combustion Sources

In preheater cement plants, all fuel (with the exception of tire derived fuel, if used) is fired through the kiln burner. With this firing, combustion air sufficient to maintain an oxygen level at the back end of the kiln of 1.5-2.0 percent is provided. This provides the oxidizing conditions in the kiln necessary for clinkering and provides oxygen for the burnout of significant CO. The CO at the back end of the kilns at Cemex is generally maintained below 2,000 ppm.

When whole tires (WTDF) are used as a supplemental fuel, they can provide about 20 percent of the pyroprocessing system heat input (Kiln Nos. 1 and 2 permit limits). The WTDF fired in Kiln No. 1 at the Cemex Brooksville Cement Plant is fed through a double airlock feeder at the back of the preheater. The WTDF that will be fired in Kiln No. 2 will be introduced through a similar feeder. From the feeder, the WTDF falls onto the kiln feed shelf and enters the kiln with the partially calcined raw meal. Additional combustion air is not supplied with the WTDF, therefore there is a potential for CO emissions to increase when WTDF is used.

Regarding potential increases in CO emissions, or increases in the emission rates of any other regulated and non-regulated air pollutants when WTDF is used, testing at all three preheater cement plants in the Brooksville, Florida area during the 1991-1992 period, demonstrated that the use of WTDF at up to 15 percent of the pyroprocessing system heat input caused no emissions increase. These tests were conducted under Department permits to evaluate the efficacy of using WTDF as a fuel supplement. All test reports were provided to the Department as required by permit.

Carbon monoxide at the back end of the kiln is a balance between the efficiency of the kiln burner, the combustion air provided at the burner and the manner in which the air is supplied, the amount of secondary combustion air and plant operating conditions. As previously stated, oxidizing conditions are required in the kiln for proper clinkering, but too much excess

combustion air increases the specific heat consumption and affects the gas flow through the preheater.

Operating factors that affect this combustion balance include changes in the burnability of the mix, material build-up at the kiln inlet, material flushes, changes in the heat value of the fuel and other such factors.

These factors result in continually changing combustion conditions and hence, continually changing CO levels in the gases exiting the kiln. Cemex generally maintains the CO concentration in the gases exiting the kiln below 2,000 ppm, but the factors just discussed do cause CO levels to continually vary. To maintain stable kiln operations and good clinker quality, gradual changes in operating conditions are made. These adjustments have a built in time lag, which in turn results in a time lag for changes in CO levels in gases exiting the kiln. Drastic adjustments to kiln operations can be made, for purposes of maintaining CO levels below a prescribed level, but the consequences or energy costs, clinker quality and plant wear are equally drastic. Additionally, changes in the operation of a preheater plant to reduce CO emissions will result in an increase of nitrogen oxides emissions. The use of SNCR by Cemex will counteract this inverse CO/NOx relationship, but at the expense of adding more ammonia.

To assure controlled combustion in the kilns, Cemex has installed Pillard Rotoflam® burners operating in a Pillard Directflam® system. This is a semi-direct firing configuration. The burner system supplied by Pillard for the two Cemex kilns is described in the attached Pillard quotation (Attachment 1—Quotation 040194, rev. 2, October 5, 2004).

In addition to the Pillard burner system, Cemex found it necessary to provide an additional primary air booster fan to the burner system on each kiln. The specifications for booster fans are provided in Attachment 2.

The Pillard burner on each of the two kilns, along with the primary air booster fans assure efficient combustions (as well as flame shaping to extend refactory life), thus maintaining CO levels as low as possible within the constraints of effective and efficient kiln operation.

Regardless of kiln operation and burner efficiency, another factor that must be taken into consideration when evaluating potential CO emissions from the combustion process is the use of SNCR for nitrogen oxide control. The oxidation of CO to CO_2 in the lower section of the preheater involves the same OH* radicals that react with ammonia to produce the NH_2* radicals. Thus, there will be a competition between ammonia and CO for the radicals.

Polysius conducted work in Germany and found that CO emissions can increase with SNCR as a result of the aforementioned competition for radicals. At a molar ratio of ammonia to NOx of 0.4, the CO emissions could increase between 0 and 0.5 pounds per ton of clinker, at a molar ratio of 0.8, CO emissions could increase 0.3-1.0 pounds per ton of clinker and at a molar ratio of 1.0, CO emissions could increase 0.5-1.5 pounds per ton of clinker.[H]

Based on the above findings including the use of SNCR for nitrogen oxides control, a reasonable equivalent CO emission rate entering the lower stages of the preheater would be in the range of 2.0-3.0 pounds per ton of clinker from the combustion related CO.

6.1.3 CO from Raw Materials

In Florida cement plants, the materials mined on site are fortuitously very low in carbonaceous material. The most significant source of carbon compounds in raw materials in cement production is the unburned carbon in the power plant ash that is commonly used as a source of aluminum, iron and alkalis. In Florida, this ash is most typically a byproduct of coal fired electric power generating stations.

The carbon content of the ashes (typically referred to as Loss On Ignition, or LOI) ranges from 5-40 percent, and even higher. Cemex does not intend to use the high LOI flyash. The LOI of ash used by Cemex is generally below 16 percent and the ash (which will comprise approximately 4-6 percent of the raw meal) will be introduced into the raw mill. Cemex

---

[H] Erpelding, R.M. *Latest Developments in NOx Reduction Technology in the Cement Industry.* Cement Plant Environmental Handbook, 2003.

presently grinds the flyash with the other raw materials in the raw mill before introducing it into the pyroprocessing system, however there is a proposed project to introduce flyash directly into the kiln inlet (feed shelf). This will be addressed as a separate project when CEMEX is ready to proceed.

Regarding the substitution of other materials (without a carbon component) for flyash, Cemex has, in the past, used bauxite as a source of alumina but has found the substitution unsatisfactory for several reasons. The main reasons include handling problems, a significant reduction in the strength of concrete and the difficulty in finding a viable alternative source of alkalis; the latter being a significant component of flyash. Alkalis become even more important when trying to maintain a proper sulfur/alkali balance while burning pet coke; one of the modifications requested by this permit application.

Another factor that influences potential CO emissions from feed materials is the volatility of the carbon in the feed. It has been reported[1] that carbon volatilizing in the range of 450-550°C (temperatures in the upper part of the preheater) will produce more CO than carbon that volatilizes in the range of 600-800°C (temperatures in the lower part of the preheater). The reason is that carbon volatilizing in the lower section of the preheater stands a better chance of being oxidized to CO_2 than carbon volatilizing in the upper portions of the tower where the temperatures are much lower.

6.1.4 Total CO Emissions

In addition to the design and material characteristics affecting CO emissions, there are variations in operating conditions that continually occur in a well operated cement plant that create a great deal of variability in CO emissions. These include issues such as material flushes, build up, blockages, false air, poor material burnability, and changes in fuel and feed characteristics. These factors require constant adjustments in plant operations to maintain a smooth running plant and a uniform clinker quality.

---

[1] Titan America, LLC. *Data Provided to the Florida Department of Environmental Protection.* Date unknown.

These adjustments are accomplished through a series of control loops that adjust fuel and feed rates, fan speeds, and other factors. The process operates best if the adjustments are made in small increments to avoid excessively overshooting or undershooting the set point of the burning zone temperature and kiln exit gas composition. These small incremental adjustments result in a built in time lag. Drastic control measures can be taken, including the shutdown of the plant to cope with some of the normally encountered excursions in a cement plant; however, energy costs, wear on the plant, and poor clinker quality can be the result.

Based on approximately six months of operating data provided to the Department by Rinker[J] for a preheater/precalciner plant, the CO concentrations in the downcomer duct ranged from less than 400 ppm to over 1200 ppm (one hour averages) under normal operating conditions. These data are referenced only as an example of the variability in CO emissions from a Portland cement plant under normal operating conditions.

Considering that combustion related CO without SNCR is approximately 2.0 pounds per ton of clinker, considering that SNCR at a molar ratio of 0.8 could increase CO emissions 0.3-1.0 pounds per ton of clinker, and considering that the carbon in ash used in the raw meal can increase CO emissions 0.4-0.6 pounds per ton of clinker (with the LOI of the ash in the range 0-12 percent), a CO emission rate, without add on controls, a range of 2.7-3.6 pounds per ton of clinker can be expected. This emission rate does not take into consideration the short term fluctuations brought on by operating fluctuations and variations in feed and fuel as previously discussed. Considering these factors and the variability in emissions due to plant operating issues, a CO emission rate for the two Cemex kilns of 3.2 pounds per ton of clinker, 30-day rolling average can be expected.

[J] FDEP. *Technical Evaluation and Preliminary Determination* – CRS Rinker Materials Corporation. Miami-Dade County, Florida, December 14, 2004.

6.1.5 Control of Carbon Monoxide

The control mechanisms discussed thus far are related to plant design and operating features and material selection. Further reduction in CO emissions can only be accomplished in add-on controls. Such controls would involve some type of thermal oxidation.

To date, two thermal oxidizers have been installed on cement plants in the U.S. TXI Operations, LP (TXI) installed a Regenerative Thermal Oxidizer (RTO), a wet scrubber, and a baghouse on a kiln permitted at their Midlothian facility in November 1998. TXI elected to install this air pollution control system in order to "net-out" of a PSD review for the project[K].

After operating the plant for about a year, TXI approached the Texas Commission on Environmental Quality (TCEQ) and requested that they be allowed to discontinue the operation of the RTO. The request was based on an alleged inferior design of the RTO, high operating cost due to the sharp increase in the price of natural gas used to fire the RTO and an excessively high pressure drop across the RTO. In evaluating the request, TCEQ determined that the RTO was technically feasible but economically unreasonable[K].

It should be noted that the RTO was installed to control both VOC and carbon monoxide. During the consideration of the TXI request to discontinue the use of the RTO, cost analyses were performed by TCEQ and by TXI. The cost of control for carbon monoxide at the TXI plant was estimated to be approximately $1400 per ton of CO removed. This cost was higher than what was considered BACT for CO by the TCEQ[K]. Using cost figures developed by TCEQ and scaling to the Cemex kilns, the estimated control cost is in the range of $5000-$6000 per ton of CO removed. This is for 75 percent CO control; the control proposed for TXI under their amended permit.

Even though TCEQ agreed with TXI that the RTO was not BACT, TXI agreed in a settlement with petitioners to continue to operate the RTO, but at a reduced operating temperature. Such

---

[K] Texas Commission on Environmental Quality. *Construction Permit Amendment – Review Analysis and Technical Review, Permit No. 1360A/PSD-TX-632M1.* September 9, 2005.

operation would meaningfully reduce natural gas usage, electrical consumption, and kiln limitations created by exceeding system pressure drop safety operating margins. With the RTO, the CO limit for the No. 5 Kiln at the TXI Midlothian facility is 1.56 pounds per ton of clinker.

The only other known RTO operating in the U.S. is at the Holcim Plant in Dundee, Michigan. This RTO was installed for the control of VOCs resulting from high levels of kerogen in the limestone. Without the RTO, the VOC emissions from the two wet process kilns would be about 7200 tons per year. The driving force for installing the RTO at the Holcim Plant was part of a consent agreement to abate odors resulting from the high VOC emissions.

It has been reported[K] that the Holcim RTO has had problems with material build up, probably related to its packed bed design, and has required a large-scale rebuilding to improve performance.

6.1.6 Previous BACT Determinations

A summary of previous CO BACT determinations from the last ten years is listed is Table 6-1 (refer to Attachment 4). As shown, the only means of controlling CO emissions has been good combustion practices and kiln design. Two RTOs have been installed on cement kilns in the past, but neither was required by BACT.

6.1.7 BACT Selection

The operation of an RTO at Cemex would increase the energy and environmental impacts as fossil fuel (natural gas) would be required to provide the thermal energy for the system operation. The use of this fuel would increase emissions of NOx and result in minor increases in other pollutants. Additionally, electrical energy would be necessary to operate the system and this would have secondary environmental impacts.

Based on the operating experience with RTOs at plants in Texas and Michigan and the cost of controlling CO with an RTO (at $5000-$6000 per ton of CO), the application of an RTO or other thermal oxidizers to control CO is rejected as BACT. Good combustion practices, plant design

and material selection will be used to limit carbon monoxide emissions to 3.2 pounds per ton of clinker, 30-day rolling average. This is proposed as BACT for the two Cemex Kilns.

7. Conclusion

The proposed allowable emission rates of particulate matter (PM), particulate matter (PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOC) and mercury from CEMEX's Brooksville Cement Plant as described in this report will not cause or contribute to a violation of any air quality standard, PSD increment, or any other provision of Chapter 62-212, FAC.

The modified plant project description information from the application and report provide the Department with reasonable assurance that the construction and operation, of the facility will not discharge, emit, or cause pollution in contravention of Department standards or rules.

ATTACHMENT 1

PILLARD

COMBUSTION EQUIPMENT & CONTROL SYSTEMS

VISIT OUR WEB SITE
www.pillard.com

DIRECTFLAM® SYSTEMS FOR KILNS N°1 AND N°2

CEMEX - USA

BROOKSVILLE

USA

Quotation n° 040194 Rev. 2
dated October 5, 2004

PILLARD 13, rue Raymond Teissère - 13272 Marseille Cedex 8 - France
Phone (33) 4 91 80 90 21 - **Fax** (33) 4 91 25 72 71 - **E-mail** : info@pillard.com - **Web** http://www.pillard.com

Chapter 1 - PLANT TECHNICAL DATA CONFIRMED BY CLIENT

The equipment to be supplied by PILLARD will be designed exclusively according to the following data without recourse to any other one.
(* to be advised by client before order.)

1.1 - ROTARY KILNS

- Kilns n°		1 and 2
- Process		Dry
- Product		Clinker
- Kiln output	TPD	1900
	STPD	*2 094*
- Kiln diameter	m	4.4
		14ft 6in.
- Kiln length	m	70
	ft	*230*
- Rotation		acw/cw*
- Secondary air temperature	°C	830
	°F	*1 526*
- Specific heat consumption	kcal/kg	820-880
	MMBtu/ston	*3-3.2*
- Cooler type		Grate

Note: kilns n°1 and n°2 are identical.

1.2 - FUELS

1.2.1 - Diesel oil (for start-up only)

- L H V (estimated)	kcal/kg	9 600
	Btu/lbs	*17 280*

1.2.2 - Pulverised fuel

- Type		Coal	Petcoke
- L H V	kcal/kg	6 500	7 660
	Btu/lbs	*11 700*	*13 788*
- Coal and conveying air mixture temperature	°C	52	52
	°F	126	126
- Residual moisture content (as fired)	% wt max	0.4-8	7
- Volatile matter	% wt	28-35	11
- Sulfur content	% wt	0.4-1	3.5-7
- Ash content	% wt	10-15	0.49
- Fineness:			
Retained at 90 µm	% wt max	15-20	5
Retained at 200 µm	% wt max	<1	<1

1.3 - COAL MILLS EXHAUST FANS DATA

- Available pressure at fans outlet	daPa	400
	Inch W.G.	*17.75*
- Available air flow at fans outlet	Nm^3/hr	8 400
	SCFM	*4 950*
- Air temperature	°C	70
	°F	*160*

Note: coal mills and coal mills exhaust fans for kiln n°1 and kiln n°2 are identical.

1.4 - UTILITIES

Electricity supply

- For instruments	120 V, 1 Ph, 60 Hz
- For motors	460 V, 3 Ph, 60 Hz
- Motor insulation	IP 65 / NEMA 13
- Transmitter output	24V, 4-20mA

Instrument air

- Pressure (to be confirmed)	bar g max.	7
	psi	*101.5*
	bar g mini.	5
	psi	*72.5*
- Quality (to be confirmed)	Dry, clean and oil free	

Geological conditions

- Atmosphere	non aggressive/non corrosive	
- Altitude	m(asl)	30.5
	ft	*100*
- Installation	indoor	

Plant site conditions

- Ambient temperature	°C max.	32
	°F	*89.6*
	°C min.	10
	°F	*50*
- Relative humidity	% nom.	75
- Dust	Cement plant atmosphere	

Chapter 2 - SPECIFICATIONS

2.1 - TWO (2) DIRECTFLAM® FIRING SYSTEMS FOR KILNS 1 AND 2

Each system comprising:

ONE (1) ROTAFLAM® ROTARY KILN BURNER FOR COAL/PETCOKE FIRING.

- Burner output	MW max.	83.1
	MMBtu/hr	*283.6*
- Burner hot end length	m	5
	Ft	*16.4*
- Total length (approx.)	m	10.5
	Ft	*34.44*
- Weight with refractory lining (approx.)	kg	8 000
	Lb	*17 637*
- Refractory lining (recommended thickness)	mm	80
	In	*3.15*
- Total combustion air flow	Nm^3/hr	89 242
	SCFM	*48 847*
- Coal flow rate	kg/hr max.	11 000
	lb/hr	*24 250*
- Petcoke flow rate	kg/hr max.	9 300
	lb/hr	*20 500*

comprising :

- One burner with swirl, axial, central primary air and coal streams. The outer firing tube hot end is easily replaceable.
- The relative position of axial air and radial air pipes is adjustable so as to be able to modify the tip flow rate of each stream and hence enable flame shaping to suit the kiln (jacks are supplied for axial and radial air circuits).
- Burner tips made out of heat resisting cast iron, and easily replaceable.
- Coal inlet section complete with interchangeable wear insert.
- Throttle valves for swirl/axial/central air adjustment during start-up only, with locking device.
- Air flow measuring elements for total, axial and radial primary air amount delivered loose, to be installed by others on the primary air ducts.
- One (1) set of pressure gauges for primary air, and coal conveying air.
- One (1) central jacket tube with internal diameter 70mm for water injection. Water lance is to be supplied by others.
- One (1) central jacket tube for ignitor.
- One (1) central jacket tube with swirling device for solid alternative fuels injection with internal diameter 100mm. The existing oil gun will be fitted inside this jacket tube for burner start-up operation.
- Anchors and refractory lining of outer pipe are to be supplied and installed by others. PILLARD to provide full specification and drawings for installation at site.

ONE (1) GAS ELECTRIC IGNITOR

- One (1) gas/electric ignitor with :
  - one (1) HT transformer.
  - two (2) flexible hoses for gas and air
  - one (1) ionization rod c/w flame relay
  - one (1) ignition electrode.
  - one (1) manual isolating valve at gas line inlet
  - one (1) Y filter.
  - one (1) hand operated pressure control valve
  - one (1) pressure indicator
  - two (2) 2-way safety shut-off valves
  - one (1) control panel including :
    - * circuit breaker on power supply
    - * two (2) push buttons : stop and start
    - * two (2) lights : flame detection and power on
    - * one (1) set of terminal strips for connection of instruments and interfaces

The ignitor panel is supplied internally wired and shop tested. All the internal wiring is tagged.

ONE (1) PRIMARY AIR BOOSTER FAN

- Type		Centrifugal
- Static pressure	daPa	1 200
	Inch WG	*47.2*
- Air flow	Nm^3/hr	17 000
	SCFM	*10 011*
- Coal dust concentration	gr/m^3 max.	22.2
- Air temperature	°C max.	80
	°F max.	*176*

Our supply includes :

- One (1) primary air fan, with wear protection of the wheel

- One (1) electrical motor : installed power 160 kW

- One (1) frequency converter (delivered loose).

- One (1) inlet silencer with fresh air valve c/w limit switches for kiln start up

- Two (2) flexible hoses (length = 4 m max.) for connection to burner.

- One (1) pressure transmitter (delivered loose to be installed on radial air duct by others).

- One (1) pressure controller (delivered loose).

Note : The connection pipe between fan outlet and the flexible hoses is excluded from our supply.

ONE (1) FRESH AIR FAN FOR CENTRAL AIR AND COOLING AIR OF THE JACKET TUBES

- Type		Centrifugal
- Static pressure	daPa	1 500
	Inch WG	*59*
- Air flow	Nm^3/hr	3 800
	SCFM	*2 237*

Our supply includes :

- One (1) primary air fan, centrifugal type, direct driven.

- One (1) electrical motor : installed power 45 kW

- One (1) inlet silencer.

- One (1) flexible hose (length = 4 m max.) for connection to burner.

Note : The connection pipe between air fan outlet and the flexible hoses is excluded from our supply.

ONE (1) TELESCOPIC COAL CONNECTION PIPE

Average length 4 250 mm (167.3 in.), adjustment range ± 750 mm (29.5 in.). The telescopic pipe enables horizontal, vertical and axial adjustments of burner position without alteration of main coal line connections.

- The pipe length comprises :
  - two (2) sliding tubes, flanged connections.
  - seal at outer pipe end to ensure tightness with inner pipe.
  - two (2) knuckle joints with seals.
  - c/w flanges and fixing device.

ONE (1) SET OF NEW BURNER TROLLEY DRAWINGS

The trolley enables horizontal, vertical and axial adjustments of burner position in the kiln. All angle adjustments will be manual whilst travel in and out of the kiln will be motorized.

Pillard to supply details drawings for local manufacturing of the burner trolley to be carried out at site by others.

- Pillard needs with the order, following up to date drawings :
  - supporting rails position
  - kiln hood
  - burner platform

Note : 1 - Mechanical checking of travel rails has to be done by customer. Travel rails for trolley are not part of our supply.
2 - Our drawings are based on equipment available on the French market. Conversion to local Standards is to be made by yourselves.

ONE (1) COAL INJECTION SET
Supplied loose, to be installed by others, comprising :

- Two (2) rotary valves, to be installed in series by others, with electric motor drive.
- Three (3) manual shut off valves c/w limit switches.
- One (1) PILLARD injector.
- One (1) flow control valve hand operated

2.2 - TWO (2) SETS OF SPARE PARTS FOR BURNERS

Each set comprising:

- One (1) outer pipe without refractory lining and anchors.

- One (1) set of burner tips including :
  - one (1) outer pipe nozzle.
  - one (1) axial air stream nozzle.
  - one (1) radial air stream nozzle.
  - one (1) coal stream nozzle.
  - one (1) stabilizer.

- One (1) coal wear plate.

Chapter 3 - LIMIT OF SUPPLY

INCLUDED IN OUR SUPPLY

- General arrangement drawings for supplied equipment, including loads for civil work guidance.
- Flow sheet.
- Part list.
- User guide line hard copy on paper (1 copy) and on CD ROM format (2 copies) including :
  - specification for start-up and maintenance
  - documentation for accessories

  Software in pdf format, exclusively Office 95 and Autocad 2000
- Painting as per Pillard and as per Pillard's subcontractors standards
- Packing.
- FOB European seaport of Pillard's choice.

EXCLUDED FROM OUR SUPPLY

- Emergency air fan
- Cyclone (on coal mill circuit)
- Explosion vent(s)
- Any erection work
- Kiln hood refractory work adjustment around our burner (if necessary).
- Any refractory works.
- Any lagging or tracing of any fuel line.
- Electrical control cabinet.
- Instrument air/plant air/any fuel/electricity supply.
- Site installation of equipment of our supply.
- Interconnecting piping at site between our shop assembled sets.
- Any electrical works.
- Any alteration to existing equipment and to civil works.
- Transport from European port to site.
- Assistance for commissioning and/or erection final inspection and/or test run (please refer to attached rate).
- Calculation to seismic condition

And generally, anything not specifically mentioned in this quotation.

ATTACHMENT 2

John Koogler

From: charles.walz@cemexusa.com
Sent: Friday, October 07, 2005 5:10 PM
To: jkoogler@kooglerassociates.com
Subject: Pillard Burners

040194-2.PDF (146 KB)

John

Please look over and let me know if there is any other information you need.

Charles Walz
Environmental Manager
CEMEX Brooksville Cement Plant
352-799-2011
Charles.Walz@CEMEXUSA.COM

----- Forwarded by CHARLES WALZ/Fla/Usa/Cemex on 10/07/2005 05:08 PM -----

MATT STONE
10/07/2005 04:35 PM

To: CHARLES WALZ/Fla/Usa/Cemex@CEMEX
cc:
Subject: Pillard Burners

Charlie,

Attached is the proposal from Pillard on the burner they supplied.

Also, the specifications for the "booster" fan that was added to supply conveying air for the main coal channel are as follows:

Volume, ACFM:	4,934
Static Pressure IN. WC:	48.00
Temperature, deg F:	113
Gas Density, lb/cu.ft.:	0.0694
Speed, RPM:	1780
Power, BHP:	85

If you need additional information, let me know,

Regards,
Matt

Matt Stone
CEMEX USA

office: 352-799-2078
cell: 352-428-2758

ATTACHMENT 3

DETAILED INFORMATION ABOUT SNCR SYSTEM

CEMEX will use selective non-catalytic reduction (SNCR) to control NOx emissions as needed to achieve the permitted NOx emission limit of 2.0 lb/ton of clinker. The SNCR system consists of a storage tank for 19-percent aqua-ammonia, or an equivalent ammonia solution; pumps; injection nozzles and a control system. The system has been installed. This application is for an after-the-fact permit for the system.

The ammonia injection on each kiln is identical. There are three injection nozzles in the riser duct and one injection nozzle at the kiln inlet. CEMEX has found it necessary to use only the one nozzle at the kiln inlet where the temperature is within the optimum range for NOx reduction with ammonia; 850° – 1,150°C (1,550° – 2,100°F). Furthermore, oxygen is present typically at 1.5 – 2.0-percent at this location.

The aqua ammonia (19-percent solution) injection rate from the single injection can be varied from 0-15 liters per minute; or up to about 0.35 pound-moles of ammonia per minute or 20 pound-moles per hour. Assuming an ammonia utilization efficiency of 75-percent, based on tests at other plants in Florida, this translates to a potential NOx reduction of up to about 15 pound-moles per hour. Considering that a NOx reduction of about 4-5 pound-moles per hour is required to reduce NOx emissions from a present maximum emission rate of about 4.0 lb/ton of clinker to a proposed (by this permit application) emission rate of 2.0 lb/ton of clinker, there is assurance that the SNCR system is capable of delivering the required ammonia. The mole ratio for this reduction is in the range of 0.6- 0.7 (NH_3/NOx).

Even with potentially greater NOx emissions during the firing of petroleum coke or a coke/coal mixture, there is sufficient ammonia delivery capability with only the single kiln inlet ammonia injection to stay within the NOx emission limit of 2.0 lb/ton of clinker.

ATTACHMENT 4

Table 6-1. Summary of Recent BACT Determinations for CO Emissions from Cement Kilns, Calciners, and Preheaters at Portland Cement Plants

RBLC ID	Facility Name	State	Permit No.	Date Issued	Process Type	Fuel Used	Throughput	Emission Limit (as presented in Clearinghouse)	Emission Limit (converted *)	% Effic.	Control Equipment Description
	FLORIDA CRUSHED STONE COMPANY	FL	PSD-FL-351/0530021-009-AC	Draft--7/7/05	PREHEATER/PRECALCINER KILN	COAL	125.00 TPH CLINKER	450 LB/HR	3.60 lb ton clinker		Combustion Control
WV-0022	CAPITOL CEMENT DIVISION--MARTINSBURG PLANT	WV	R14-0026	6/2/2005	PREHEATER/PRECALCINER,KILN	COAL	5,900 TPD	39 LB/HR	4.0 lb ton clinker		GOOD COMBUSTION PRACTICES
IA-0070	LEHIGH CEMENT COMPANY - MASON CITY PLANT	IA	17-01-005	12/11/2003	KILN CALCINER PREHEATER	COAL	350 TPH Clinker	3.7 LB/T	3.7 LB/T		PROPER KILN DESIGN AND OPERATION
SD-0003	GCC DACOTAH - DACOTAH QUARRY/S LIMESTONE	SD	28.1101-PSD	4/10/2003	ROTARY KILN #6	COAL	2,250 T/D	3,250 LB H; 2,002 TPY	34.67 lb ton (hourly); 4.68 lb ton (annual)		GOOD COMBUSTION PRACTICES
MO-0059	CONTINENTAL CEMENT COMPANY, LLC	MO	2002-02-038	9/24/2002	RDTARY KILN	COAL	183 T/H	12 lb ton clinker (1-hr); 10 l bton (8-hr)	12 lb ton clinker (1-hr; 10 lb ton (8-hr		PYROCLON
AL-0200	CEMEX, INC.	AL	105-0002-2004	9/13/2002	CEMENT KILN	COAL	230 T/H	725 LB/H	3.72 LB/T		
IA-0052	LAFARGE CORPORATION	IA	PROJECT NUMBER 00-057	7/1/2002	PREHEATER/PRECALCINER KILN	COAL	3,458 T/D	4.5 lb ton clinker	4.5 lb ton clinker		GOOD COMBUSTION PRACTICES
WA-0307	PORTLAND CEMENT CLINKERING PLANT	WA	PSD-90-03	10/5/2001	KILN EXHAUST STACK			1045 PPM @ 10%O2; 538 lb/hr (8-hr)			NONE INDICATED.
TX-0355	PORTLAND CEMENT MANUFACTURING PLANT	TX	PSD-TX-145 M1	6/29/2001	GRINDING/ PREHEATING KILN, K-19			460 LB H; 1,932 TPY			GCPs AND GOOD COMBUSTION UNIT DESIGN
CO-0043	RIO GRANDE PORTLAND CEMENT CORP.	CO	98PB0893	9/25/2000	PREHEATER/PRECALCINER, KILN		950,000 T/YR CEMENT CLINKER	2.11 LB/T	2.11 lb/ton (12-month rolling avg.)		90 MULTI-STAGE COMBUSTION AND GCP
MD-0027	LEHIGH PORTLAND CEMENT COMPANY	MD	06-6-0356R	6/8/2000	PREHEATER/PRECALCINER	COAL	2,214,000 T/YR	3328 T/YR	3.01 lb/ton (12-month rolling avg.)		Process Modification and Operational Monitoring
FL-0139	SUWANNEE AMERICAN CEMENT COMPANY, INC.	FL	1210465-001-AC	6/1/2000	IN LINE KILN & RAW MILL	NAT. GAS	178 T/H	3.6 LB/T CLINKER	3.6 LB/T CLINKER		COMBUSTION CONTROL
MI-0287	HOLNAM, INC.	MI	60-71L	3/20/2000	CEMENT KILNS, WET PROCESS (2)	COAL	100 T/H FEED				FABRIC FILTER, SLURRY SCRUBBER, R.T.O.
KS-0022	MONARCH CEMENT COMPANY	KS	10069	1/27/2000	2 PRECALCINERS (EACH)	NAT. GAS	120 MMBTU/H	5,000 LB H; 2,093.3 TPY			99 NATURAL GAS
KS-0020	ASH GROVE CEMENT	KS	1330001	8/26/1999	PREHEATER/PRECALCINER KILN	COAL	331 T/H	5,000 LB H; 1,409 TPY	15.11 lb ton (hourly); 0.97 lb ton (annual)		Computerized process monitoring, GCP
CO-0047	HOLNAM, FLORENCE	CO	98-FR-0895	7/29/1999	Kiln Preheater Bypass & Clinker Cooler Exhaust			3988.7 T/YR			GOOD COMBUSTION
IN-0081	LONE STAR INDUSTRIES, INC.	IN	133-10159	4/16/1999	KILN OPERATION	COAL	360 T/H	2930 T/YR	3.65 LB/T clinker		GOOD COMBUSTION PRACTICES
TX-0279	NORTH TEXAS CEMENT COMPANY	TX	PSD-TX-893	3/4/1999	MAIN KILN/ SCRUBBER STACK	COAL	3,100 T/D	2209 LB H; 5,225 TPY	17.10 lb ton (hourly); 5.70 lb ton (annual)		GOOD COMBUSTION PRACTICES
IN-0112	LONE STAR INDUSTRIES, INC.	IN	133-5886-00002-3241	9/18/1998	CEMENT KILN, WET PROCESS.	TDF	75 T/H	22.8 LB/H	0.30 lb ton clinker (wet process)		
TX-0282	CAPITOL CEMENT DIVISION	TX	PSD-TX-1120M3	9/16/1998	WET KILN/ EXHAUST BAGHOUSE		378,650 T/YR CLINKER	80 LB/H; 350 TPY	1.85 lb ton		NONE
MI-0354	HOLNAM, INC	MI	60-71K	6/23/1998	CEMENT KILNS, WET PROCESS. (2)	COAL	100 T/H	3515 T/YR	6.4 LB/T clinker		
TN-0086	SIGNAL MOUNTAIN CEMENT COMPANY,	TN	47-065-3070	5/29/1998	DRY FEED KILN	PET. COKE	160 T/H	248 LB H; 1,085 TPY	1.55 lb ton clinker		GOOD COMBUSTION PRACTICES
OR-0036	DURKEE FACILITY	OR	01-0029	2/26/1998	KILN			490 LB H; 8-hr			NONE
MO-0048	LAFARGE CORPORATION	MO	0897-019	8/20/1997	RAW MILL, PREHEATER PRECALCINER KILN		1,584,071 TONS	842 TON-YR	1.06 lb ton		GOOD COMBUSTION practices
FL-0173	SOUTHDOWN, INC.	FL	PSD-FL-233	6/27/1997	KILN		165 T/H (1-hr)	1.2 LB/T	1.2 lb ton kiln feed		COMBUSTION CONTROLS
OR-0022	ASH GROVE CEMENT COMPANY	OR	01-0029	3/10/1997	PYROPROCESSING KILN	NAT. GAS	113 TON CLINKER/H	490 LB/H	4.34 lb ton		GCP as monitored by CO and O2 CEMS
PR-0003	PUERTO RICAN CEMENT COMPANY, INC.	PR	PR-0101	2/25/1997		COAL	4,100 TPD Clinker	296.6 LB H; 8-H	1.74 lb ton clinker		COMBUSTION CONTROLS
FL-0224	FLORIDA ROCK INDUSTRIES, INC.	FL	PSD-FL-228	12/23/1996	KILN, PORTLAND	COAL	14 T/H	2.5 LB/T	2.5 LB/T clinker		COMBUSTION CONTROLS
UT-0062	HOLNAM, DEVIL'S SLIDE PLANT	UT	DAQE-522-96	5/13/1996	KILN	COAL		438 LB/H			COMBUSTION CONTROLS
FL-0110	FL CRUSHED STONE	FL	PSD-FL-227	11/17/1995	KILN	COAL	83 T/H	2 LB/T	2 LB/T clinker, 1-hr		GOOD COMBUSTION PRACTICES
NV-0032	GREAT STAR CEMENT CORP./UNITED ROCK PRODUCT	NV	A139	10/24/1995	CEMENT KILN-CLINKER COOLER			5.67 LB/TON CLINKER	5.67 LB/TON CLINKER		GOOD COMBUSTION PRACTICE, AIR FUEL
WY-0044	MOUNTAIN CEMENT COMPANY-LARAMIE FACILITY	WY	CT-1137	3/6/1995	KILN, COAL	COAL	45.3 T/H COAL	3.2 LB/H			PROPER COMBUSTION/BURNER

* Based on 8,760 hours per year.

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 a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

Air Operation Permit – Use this form to apply for:

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

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **CEMEX Cement, Inc.**
2. Site Name: **Brooksville Plant**
3. Facility Identification Number: **0530010**
4. Facility Location...:
   Street Address or Other Locator: **1630 Ponce de Leon Blvd.**
   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: **Fawn Bergen, PE, Project Engineer**
2. Application Contact Mailing Address...
   Organization/Firm: **Koogler & Associates**
   Street Address: **4014 N.W. 13th Street**
   City: **Gainesville** State: **Florida** Zip Code: **32609**
3. Application Contact Telephone Numbers...
   Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Application Contact Email Address: **fbergen@kooglerassociates.com**

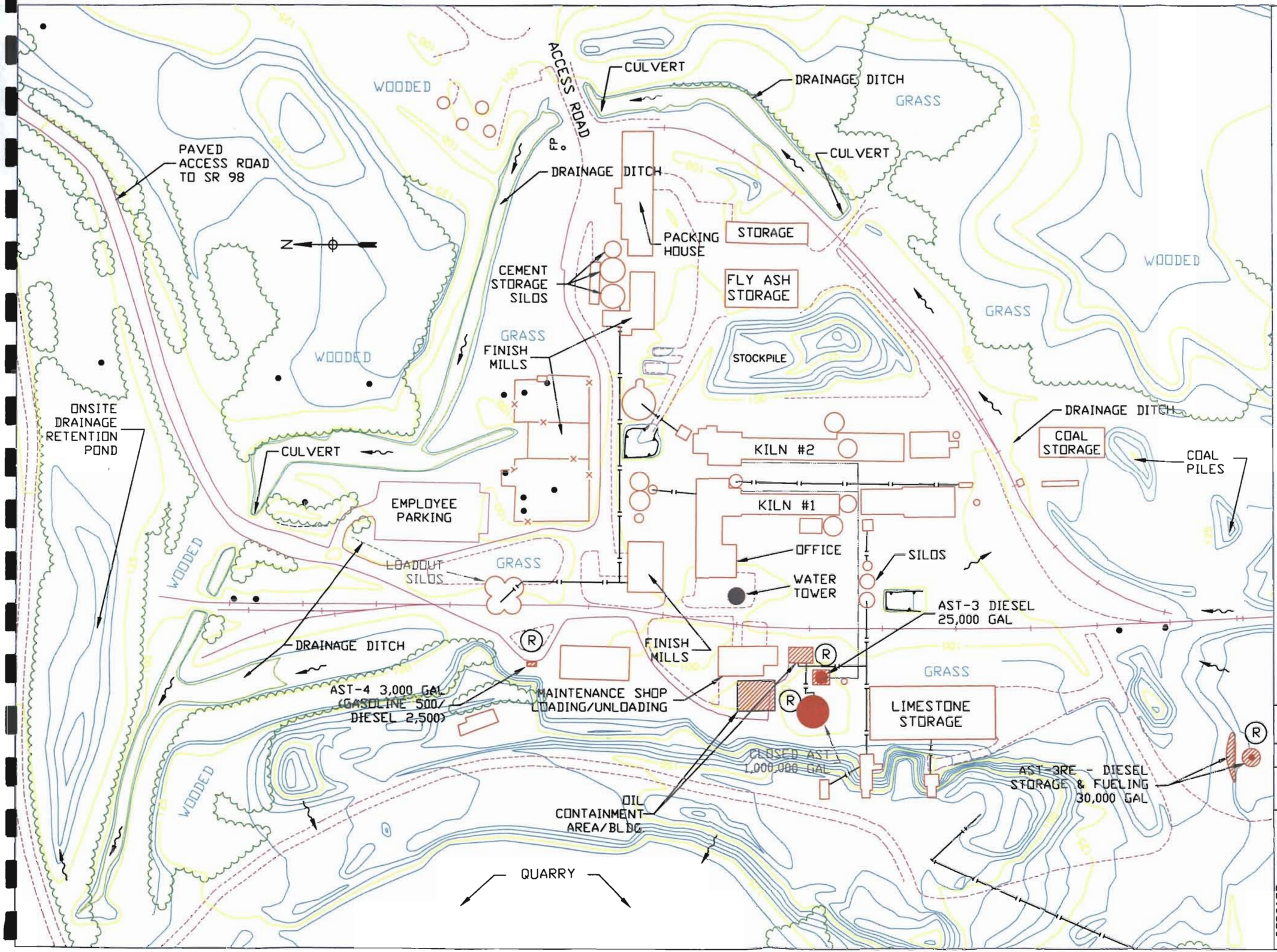
Application Processing Information (DEP Use)

1. Date of Receipt of Application:	10-14-15
2. Project Number(s):	0530010-018-AC
3. PSD Number (if applicable):	PSD-FL-362
4. Siting Number (if applicable):	

Table 6-1. Summary of Recent BACT Determinations for CO Emissions from Cement Kilns, Calciners, and Preheaters at Portland Cement Plants

RBLC ID	Facility Name	State	Permit No.	Date Issued	Process Type	Fuel Used	Throughput	Emission Limit (as presented in Clearinghouse)	Emission Limit (converted [a])	% Effic.	Control Equipment Description
	FLORIDA CRUSHED STONE COMPANY	FL	PSD-FL-351/0530021-009-AC	Draft--7/7/05	PREHEATER/PRECALCINER KILN	COAL	125.00 TPH CLINKER	450 LB/HR	3.60 lb/ton clinker		Combustion Control
WV-0022	CAPITOL CEMENT DIVISION--MARTINSBURG PLANT	WV	R14-0026	6/2/2005	PREHEATER/PRECALCINER KILN	COAL	5,900 TPD	39 LB/HR	4.0 lb/ton clinker		GOOD COMBUSTION PRACTICES
IA-0070	LEHIGH CEMENT COMPANY - MASON CITY PLANT	IA	17-01-005	12/11/2003	KILN/CALCINER/PREHEATER	COAL	150 TPH Clinker	3.7 LB/T	3.7 LB/T		PROPER KILN DESIGN AND OPERATION
SD-0003	GCC DACOTAH - DACOTAH QUARRYS LIMESTONE	SD	28.1101-PSD	4/10/2003	ROTARY KILN #6	COAL	2,250 T/D	3,250 LB/H; 2.002 TPY	34.67 lb/ton (hourly); 4.88 lb/ton (annual)		GOOD COMBUSTION PRACTICES
MO-0059	CONTINENTAL CEMENT COMPANY, LLC	MO	2002-02-038	9/24/2002	ROTARY KILN	COAL	183 T/H	12 lb/ton clinker (1-hr); 10 l/bton (8-hr)	12 lb/ton clinker (1-hr); 10 lb/ton (8-hr)		PYROCLON
AL-0200	CEMEX, INC.	AL	105-0002-Z004	9/13/2002	CEMENT KILN	COAL	230 T/H	725 LB/H	3.72 LB/T		
IA-0052	LAFARGE CORPORATION	IA	PROJECT NUMBER 00-057	7/1/2002	PREHEATER/PRECALCINER KILN	COAL	3,488 T/D	4.5 lb/ton clinker	4.5 lb/ton clinker		GOOD COMBUSTION PRACTICES
WA-0307	PORTLAND CEMENT CLINKERING PLANT	WA	PSD-90-03	10/5/2001	KILN EXHAUST STACK			1045 PPM @ 10%O2; 538 lb/hr (8-hr)			NONE INDICATED.
TX-0355	PORTLAND CEMENT MANUFACTURING PLANT	TX	PSD-TX-145 M1	6/29/2001	GRINDING/ PREHEATING/ KILN, K-19			460 LB/H; 1,932 TPY			GCPs AND GOOD COMBUSTION UNIT DESIGN
CO-0043	RIO GRANDE PORTLAND CEMENT CORP.	CO	98PB0893	9/25/2000	PREHEATER/PRECALCINER, KILN		950,000 T/YR CEMENT CLINKER	2.11 LB/T	2.11 lb/ton (12-month rolling avg.)	90	MULTI-STAGE COMBUSTION AND GCP
MD-0027	LEHIGH PORTLAND CEMENT COMPANY	MD	06-6-0356R	6/8/2000	PREHEATER/PRECALCINER	COAL	2,214,000 T/YR	3328 T/YR	3.01 lb/ton (12-month rolling avg.)		Process Modification and Operational Monitoring
FL-0139	SUWANNEE AMERICAN CEMENT COMPANY, INC.	FL	1210465-001-AC	6/1/2000	IN LINE KILN & RAW MILL	NAT. GAS	178 T/H	3.6 LB/T CLINKER	3.6 LB/T CLINKER		COMBUSTION CONTROL
MI-0287	HOLNAM, INC.	MI	60-71L	3/20/2000	CEMENT KILNS, WET PROCESS (2)	COAL	100 T/H FEED				FABRIC FILTER, SLURRY SCRUBBER, RTO.
KS-0022	MONARCH CEMENT COMPANY	KS	10069	1/27/2000	2 PRECALCINERS (EACH)	NAT. GAS	120 MMBTU/H	5,000 LB/H; 2,093.3 TPY		99	NATURAL GAS
KS-0020	ASH GROVE CEMENT	KS	1330001	8/26/1999	PREHEATER/PRECALCINER KILN	COAL	331 T/H	5,000 LB/H; 1,409 TPY	15.11 lb/ton (hourly); 0.97 lb/ton (annual)		Computerized process monitoring, GCP
CO-0047	HOLNAM, FLORENCE	CO	98-FR-0895	7/29/1999	Kiln/Preheater/Bypass & Clinker Cooler Exhaust			3988.7 T/YR			GOOD COMBUSTION
IN-0081	LONE STAR INDUSTRIES, INC.	IN	133-10159	4/16/1999	KILN OPERATION	COAL	360 T/H	2930 T/YR	3.65 LB/T clinker		GOOD COMBUSTION PRACTICES
TX-0279	NORTH TEXAS CEMENT COMPANY	TX	PSD-TX-893	3/4/1999	MAIN KILN/SCRUBBER STACK	COAL	3,100 T/D	2209 LB/H; 3,225 TPY	17.10 lb/ton (hourly); 5.70 lb/ton (annual)		GOOD COMBUSTION PRACTICES
IN-0112	LONE STAR INDUSTRIES, INC.	IN	133-5886-00002-3241	9/18/1998	CEMENT KILN, WET PROCESS,	TDF	75 T/H	22.8 LB/H	0.30 lb/ton clinker (wet process)		
TX-0282	CAPITOL CEMENT DIVISION	TX	PSD-TX-120M3	9/16/1998	WET KILN EXHAUST BAGHOUSE		378,650 T/YR CLINKER	80 LB/H; 350 TPY	1.85 lb/ton		NONE
MI-0354	HOLNAM, INC	MI	60-71K	6/23/1998	CEMENT KILNS, WET PROCESS. (2)	COAL	100 T/H	3515 T/YR	6.4 LB/T clinker		
TN-0086	SIGNAL MOUNTAIN CEMENT COMPANY,	TN	47-065-3070	5/29/1998	DRY FEED KILN	PET. COKE	160 T/H	248 LB/H; 1,085 TPY	1.55 lb/ton clinker		GOOD COMBUSTION PRACTICES
OR-0036	DURKEE FACILITY	OR	01-0029	2/26/1998	KILN			490 LB/H; 8-hr			NONE
MO-0048	LAFARGE CORPORATION	MO	0897-019	8/20/1997	RAW MILL, PREHEATER/PRECALCINER KILN		1,584,071 TONS	842 TON/YR	1.06 lb/ton		GOOD COMBUSTION practices
FL-0173	SOUTHDOWN, INC.	FL	PSD-FL-233	6/27/1997	KILN		165 T/H (1-hr)	1.2 LB/T	1.2 lb/ton kiln feed		COMBUSTION CONTROLS
OR-0022	ASH GROVE CEMENT COMPANY	OR	01-0029	3/10/1997	PYROPROCESSING KILN	NAT. GAS	113 TON CLINKER/H	490 LB/H	4.34 lb/ton		GCP as monitored by CO and O2 CEMS
PR-0003	PUERTO RICAN CEMENT COMPANY, INC.	PR	PR-0101	2/25/1997		COAL	4,100 TPD Clinker	296.6 LB/H, 8-H	1.74 lb/ton clinker		COMBUSTION CONTROLS.
FL-0224	FLORIDA ROCK INDUSTRIES, INC.	FL	PSD-FL-228	12/23/1996	KILN, PORTLAND	COAL	14 T/H	2.5 LB/T	2.5 LB/T clinker		COMBUSTION CONTROLS
UT-0062	HOLNAM, DEVIL'S SLIDE PLANT	UT	DAQE-522-96	5/13/1996	KILN	COAL		438 LB/H			COMBUSTION CONTROLS
FL-0110	FL CRUSHED STONE	FL	PSD-FL-227	11/17/1995	KILN	COAL	83 T/H	2 LB/T	2 LB/T clinker, 1-hr		GOOD COMBUSTION PRACTICES
NV-0032	GREAT STAR CEMENT CORP./UNITED ROCK PRODUCT	NV	A139	10/24/1995	CEMENT KILN/CLINKER COOLER			5.67 LB/TON CLINKER	5.67 LB/TON CLINKER		GOOD COMBUSTION PRACTICE. AIR/FUEL
WY-0044	MOUNTAIN CEMENT COMPANY-LARAMIE FACILITY	WY	CT-1137	3/6/1995	KILN, COAL	COAL	45.3 T/H COAL	3.2 LB/H			PROPER COMBUSTION/BURNER

[a] Based on 8,760 hours per year.



NOTE:
THE CONTOURS DEPICTED ON THIS MAP WERE COMPILED TO NATIONAL MAP ACCURACY STANDARDS BY KUCERA INTERNATIONAL INC., WILLOUGHBY, OHIO, USING PHOTOGRAMMITERIC METHODS FROM AERIAL PHOTOGRAPHY 03-29-05. CONTOURS WHICH ARE IN WOODED OR DENSE VEGETATION AREAS ARE APPROXIAMATIONS ONLY AND SHOULD BE TREATED AS DASHED CONTOURS.

CONTOUR INTERALS = 10 FEET

CEMEX USA
BROOKSVILLE, FLORIDA

Figure 1 – Facility Plot Plan

DRAWN BY	Koogler & Associates - NAL
DATE	10/2005
FILENAME	CEMEXspccp.dwg

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW 13TH STREET
GAINESVILLE, FLORIDA 32609
(352) 377-5822
FAX (352) 377-7158