Department of Environmental Protection

Division of Air Resource Management

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BUREAU OF AIR REGULATION

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: **Florida Rock Industries, Inc.**	
2. Site Name: **Thompson S. Baker Cement Plant - Newberry**	
3. Facility Identification Number: **0010087**	
4. Facility Location... Street Address or Other Locator: **4000 NW County Road 235** City: **Newberry** County: **Alachua** Zip Code: **32699**	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☒ Yes ☐ No

Application Contact

1. Application Contact Name: **William A. Proses, P.E.**
2. Application Contact Mailing Address... Organization/Firm: **Koogler and Associates, Inc.** Street Address: **4014 NW 13th Street** City: **Gainesville** State: **FL** Zip Code: **32609**
3. Application Contact Telephone Numbers... Telephone: **(352) 317 - 1030** ext. Fax: **(813) 920 - 9539**
4. Application Contact Email Address:

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	7-29-05
2. Project Number(s):	0010087-018-AC
3. PSD Number (if applicable):	

APPLICATION INFORMATION

4. Siting Number (if applicable):	

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

[X] 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

The purpose of this Air Construction permit is to expand the selection of fuels to include natural gas, to be fired in the existing Raw Mill Air Heater and Cement Kiln, and to change the kiln burner from the current Polysius model to a Unitherm Mono Airduct System (MAS) rotary kiln burner.

This application also requests an increase in Finish Mill throughput to 150 tph from the current limit of 136 tph.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
002	Raw Mill System	AV	0
003	Kiln System	AV	0
005	Finish Grinding Operation	AV	0
	No processing fee required. Reference SIP 62-4.050(4)2.		

Application Processing Fee

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

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name : **Chris Horner, Plant Manager**

2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **Florida Rock Industries, Inc. - Thompson S. Baker Cement Plant**
   Street Address: **4000 NW CR 235**
   City: **Newberry** State: **FL** Zip Code: **32669**

3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(352) 472 - ~~4277~~ 4722** ext. **130** Fax: **(352) 472 - 2449**

4. Owner/Authorized Representative Email Address: **chrish@flarock.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 7/28/05
   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: **William A. Proses, P.E.**
   Registration Number: **52080**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler and Associates, Inc.**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **FL** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 317 - 1030** ext. Fax: **(813) 920 - 9539**
4. Professional Engineer Email Address: **wproses@kooglerassociates.com**
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.

William A. Proses — Signature

7/27/05 — Date

(seal)

* 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) **346.9** North (km) **3,285.0**		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) **29/41/27** Longitude (DD/MM/SS) **82/34/57**	
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: **O. Henry Gotsch, P.E.**
2. Facility Contact Mailing Address... Organization/Firm: **Florida Rock Industries, Inc.** Street Address: **4000 NW CR 235** City: **Newberry** State: **FL** Zip Code: **32669**
3. Facility Contact Telephone Numbers: Telephone: **(352) 472 - 4722** ext. Fax: **(352) 472 - 2449**
4. Facility Contact Email Address: **hgotsch@flarock.com**

Facility Primary Responsible Official

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

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

NESAP Subpart LLL: National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry

NSPS Subpart F: Standards of Performance for Portland Cement Plants

NSPS Subpart Y: Standards of Performance for Coal Preparation Plants

NSPS Subpart OOO: Standards of Performance for Non-Mineral Processing Plants

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	**A**	**N**
PM10	**A**	**N**
SO_2	**B**	**N**
NOx	**A**	**N**
CO	**A**	**N**
VOC	**B**	**N**
SAM	**B**	**N**
DIOX	**B**	**N**

B. EMISSIONS CAPS N/A

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 No.s 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:
NONE

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:_____ [x] Previously Submitted, Date: (1)

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:_____ [x] Previously Submitted, Date: (1)

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:_____ [x] Previously Submitted, Date: (1)

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location:
   ☐ Attached, Document ID:_____ [x] Not Applicable (existing permitted facility)

2. Description of Proposed Construction or Modification:
   [x] Attached, Document ID: 1

3. Rule Applicability Analysis:
   [x] Attached, Document ID: 2

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

5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.):
   ☐ Attached, Document ID: 3 ☐ Not Applicable

6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.):
   ☐ Attached, Document ID:_____ [x] Not Applicable

7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.):
   ☐ Attached, Document ID:_____ [x] Not Applicable

8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.):
   ☐ Attached, Document ID:_____ [x] 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:_____ [x] Not Applicable

10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):
    ☐ Attached, Document ID:_____ [x] Not Applicable

FACILITY INFORMATION

Additional Requirements for FESOP Applications NA

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 NA

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

(1) Submitted with previous applications

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.

EMISSIONS UNIT INFORMATION
Section [1] of [3]

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.)

[x] 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).

[x] 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 Mill System**

3. Emissions Unit Identification Number: **002**

4. Emissions Unit Status Code: **A**	5. Commence Construction Date: **N/A**	6. Initial Startup Date: **11/20/99**	7. Emissions Unit Major Group SIC Code: **32**	8. Acid Rain Unit? [ ] Yes [x] No

9. Package Unit:
Manufacturer: **N/A** Model Number:

10. Generator Nameplate Rating: MW

Emissions Unit Comment: **Emission unit is limited operation under authority of permit 0010087-009-AV. Natural gas will be added to the fuels to be burned in the Raw Mill Air Heater at a maximum rate of 0.039 MCF per hour and 341.6 MCF natural gas per year.**

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
Fabric Filters - High Temperature
Fabric Filters - Medium Temperature

2. Control Device or Method Code(s): **016, 017**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **212 TPH**	
2. Maximum Production Rate: **N/A**	
3. Maximum Heat Input Rate: **40** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr **N/A** tons/day	
5. Requested Maximum Operating Schedule:	
hours/day **24**	days/week **7**
weeks/year **52**	hours/year **8760**
6. Operating Capacity/Schedule Comment: **None**	

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: **E-28, E-29, G-07, H-08**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **E-28: Recycle Dust and Raw Material to Homogenization Silo** **E-29: Recycle Dust Airlift** **G-07: Recycle Dust and Raw Meal to Homogenization Silo** **H-08: Raw Meal and Recycle Dust to Preheater**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **Raw Mill and Air Heater discharge through E-21 of EU 003**		
5. Discharge Type Code: **V**	6. Stack Height: **225** feet	7. Exit Diameter: **2.2** feet
8. Exit Temperature: **200** °F	9. Actual Volumetric Flow Rate: **15,000** acfm	10. Water Vapor: **2** %
11. Maximum Dry Standard Flow Rate: **11,800** dscfm	12. Nonstack Emission Point Height: **N/A** feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **G-07 is representative emission point with grearest emission rate.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type): **Mineral Products : Cement Manufacturing - Dry Process : Raw Material Grinding**		
2. Source Classification Code (SCC): **3-05-006-13**	3. SCC Units: **Tons Processed**	
4. Maximum Hourly Rate: **212**	5. Maximum Annual Rate: **1,857,120**	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: **None**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **In-Process Fuel Use : Distilate Oil : General**		
2. Source Classification Code (SCC): **3-90-005-89**	3. SCC Units: **1000 Gallons Burned**	
4. Maximum Hourly Rate: **0.28**	5. Maximum Annual Rate: **2486**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **141**
10. Segment Comment: **None**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type): **In-Process Fuel Use : Natural Gas : General**		
2. Source Classification Code (SCC): **3-05-006-02**	3. SCC Units: **Million Cubic Feet Processed**	
4. Maximum Hourly Rate: **0.039**	5. Maximum Annual Rate: **341.64**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **1025**
10. Segment Comment: **None**		

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/PM10	**017**	**None**	**EL**
SO2	**None**	**None**	**EL**
NOX	**None**	**None**	**EL**
CO	**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: **99%**
3. Potential Emissions: **2.29** lb/hour **10.0** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.01 gr/dscf** Reference: Permit No. **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.01 gr/dscf x 26680 dscfm x 60 min/hr x 1 lb/7,000 gr = 2.29 lb/hr @ 8,760 hours/year = 10.0 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **0.01 gr/dscf**	4. Equivalent Allowable Emissions: **2.29** lb/hour **10.0** tons/year
5. Method of Compliance: **Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **62-212.400, FAC**	

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: **SO2**	2. Total Percent Efficiency of Control: **NA**
3. Potential Emissions: **2.16** lb/hour **9.44** tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.05 % S** Reference: Permit No. **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.05 % S x 280 gal/hr X 7.7 lb/gal x 2 SO2/S = 2.16 lb/hr @8760 hr/yr = 9.44 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **0.05 % S**	4. Equivalent Allowable Emissions: **2.16** lb/hour **9.44** tons/year
5. Method of Compliance: **Fuel Certification by Supplier**	
6. Allowable Emissions Comment (Description of Operating Method): **62-212.400, FAC**	

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: **NOx**	2. Total Percent Efficiency of Control: **NA**
3. Potential Emissions: **5.60** lb/hour **24.5** tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **20 lb/1000 gal** Reference: Permit No. **AP-42 Table 1.3-1**	7. Emissions Method Code: **4**
8. Calculation of Emissions: **20 lb./1000 gal x 280 gal/hr = 5.60 lb/hr @ 8,760 hours/year = 24.5 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **20 lb/1000 gal**	4. Equivalent Allowable Emissions: **5.60** lb/hour **24.5** tons/year
5. Method of Compliance: **CEM - See EU 003**	
6. Allowable Emissions Comment (Description of Operating Method): **62-212.400, FAC**	

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: **NA**
3. Potential Emissions: **1.40** lb/hour **6.1** tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **5 lb/1000 gal** Reference: Permit No. **AP-42 Table 1.3-1**	7. Emissions Method Code: **4**
8. Calculation of Emissions: **5 lb/1000 gal x 280 gal/hr = 1.40 lb/hr @ 8,760 hours/year = 6.1 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **5 lb/1000 gal**	4. Equivalent Allowable Emissions: **1.40** lb/hour **6.1** tons/year
5. Method of Compliance: **Method 10**	
6. Allowable Emissions Comment (Description of Operating Method): **62-212.400, FAC**	

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: **VE05**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **5 %** Exceptional Conditions: **5 %** Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Method 9**	
5. Visible Emissions Comment: **62-212.400, FAC** **Baghouses**	

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:	
Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION NA

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:
6. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION
Section [1] of [3]

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 **(1)**

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: **4**_____ ☐ 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 **(1)**

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 **(1)**
   ☐ 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 **(1)**
   ☐ 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: **Will be submitted in accordance with Rule 62-297, FAC**
   ☐ 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: _____ [x] 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 NA

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

EMISSIONS UNIT INFORMATION
Section [2] of [3]

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.)

[x] 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)

[x] 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: **Kiln System**

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

4. Emissions Unit Status Code: **A**	5. Commence Construction Date: **N/A**	6. Initial Startup Date: **1/1/00**	7. Emissions Unit Major Group SIC Code: **32**	8. Acid Rain Unit? [ ] Yes [x] No

9. Package Unit:
Manufacturer: **N/A** Model Number:

10. Generator Nameplate Rating: MW

Emissions Unit Comment: **Natural gas will be added to the fuels to be burned in the kiln and allow use of a Unitherm Mono Airduct System (MAS) rotary kiln burner, with the current Polysius model as an approved replacement. The maximum usage rate of natural gas shall not exceed 0.36 MCF per hour and 400 MCF per year.**

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description: **Electrostatic Precipitator - High Efficiency**

2. Control Device or Method Code(s): **010**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **191.4 TPH Preheater Dry Feed (peak hourly rate)**
2. Maximum Production Rate: **115.0 TPH Clinker Production (peak hourly rate)**
3. Maximum Heat Input Rate: million Btu/hr **364 mmBtu/hr**
4. Maximum Incineration Rate: pounds/hr **N/A** tons/day
5. Requested Maximum Operating Schedule: hours/day **24** days/week **7** weeks/year **52** hours/year **8760**
7. Operating Capacity/Schedule Comment: Clinker Production: **115.0 TPH (peak hourly), 110.2 TPH (24-hour rolling average), 2650 TPD, 800,000 TPY** **Preheater Feed: 191.4 TPH (peak hourly), 183.4 TPH (24-hour rolling average), 1,331,000 TPY**

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **E-21**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **E-21: Main Stack**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **EU 002: Raw Mill and Heater discharge through E-21**		
5. Discharge Type Code: **V**	6. Stack Height: **250** feet	7. Exit Diameter: **9.42** feet
8. Exit Temperature: **215** °F	9. Actual Volumetric Flow Rate: **225,000** acfm	10. Water Vapor: **15** %
11. Maximum Dry Standard Flow Rate: **150,000** dscfm	12. Nonstack Emission Point Height: **N/A** feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **Fields 8-12 are with kiln and raw mill operating ; normal conditions.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 6

1. Segment Description (Process/Fuel Type): **Mineral Products : Cement Manufacturing - Dry Process : Preheater/Precalciner Kiln**		
2. Source Classification Code (SCC): **3-05-006-23**	3. SCC Units: **Tons Processes**	
4. Maximum Hourly Rate: **191.4**	5. Maximum Annual Rate: **1,331,000**	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: **Preheater feed rate: Peak hourly rate and annual rate**		

Segment Description and Rate: Segment 2 of 6

1. Segment Description (Process/Fuel Type): **Mineral Products : Cement Manufacturing - Dry Process : Preheater/Precalciner Kiln**		
2. Source Classification Code (SCC): **3-05-006-23**	3. SCC Units: **Tons Clinker**	
4. Maximum Hourly Rate: **115.0**	5. Maximum Annual Rate: **800,000**	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: **Clinker production rate: Peak hourly rate and annual rate**		

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

Segment Description and Rate: Segment 3 of 6

1. Segment Description (Process/Fuel Type): **In-process Fuel Use : Distillate Oil : Cement Kiln**		
2. Source Classification Code (SCC): **3-90-005-02**	3. SCC Units: **1,000 Gallons Burned**	
4. Maximum Hourly Rate: **0**	5. Maximum Annual Rate: **0**	6. Estimated Annual Activity Factor: **125**
7. Maximum % Sulfur: **.05**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **141**
10. Segment Comment: **No change requested in this application.**		

Segment Description and Rate: Segment 4 of 6

1. Segment Description (Process/Fuel Type): **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: **14.0**	5. Maximum Annual Rate: **122,640**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **1.75**	8. Maximum % Ash: **10**	9. Million Btu per SCC Unit: **26**
10. Segment Comment: **Maximum sulfur of 1,75% requested in earlier application submitted May 2005**		

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

Segment Description and Rate: Segment 5 of 6

1. Segment Description (Process/Fuel Type): **In-process Fuel Use : Tires**		
2. Source Classification Code (SCC): **3-90-012-99**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **4.2**	5. Maximum Annual Rate: **36,792**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **26**
10. Segment Comment: **No change requested in this application.**		

Segment Description and Rate: Segment 6 of 6

1. Segment Description (Process/Fuel Type): **In-process Fuel Use : Natural Gas**		
2. Source Classification Code (SCC): **3-05-006-02**	3. SCC Units: **Million Cubic Feet Processed**	
4. Maximum Hourly Rate: **0.36**	5. Maximum Annual Rate: **400**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1025**
10. Segment Comment: **Additional fuel option.**		

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	**010**	**None**	**EL**
PM10	**010**	**None**	**EL**
SO_2	**None**	**None**	**EL**
NOx	**None**	**None**	**EL**
CO	**None**	**None**	**EL**
VOC	**None**	**None**	**EL**
SAM	**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: **99%**
3. Potential Emissions: **25.9** lb/hour **94** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.14 lb/ton dry feed** Reference: Permit No. **0010087-006-AC**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.14 lb/ton x 183.4 tons/hr = 25.9 lb/hr** **0.14 lb/ton x 1,331,000 tons/yr x 1.0 ton/2000 lb = 94 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **0.14 lb/ton dry feed**	4. Equivalent Allowable Emissions: **25.9** lb/hour **94** tons/year
5. Method of Compliance: **Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **None**	

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: **PM10**	2. Total Percent Efficiency of Control: **99%**
3. Potential Emissions: **22.1** lb/hour **80** tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.20 lb/ton clinker** Reference: **Permit No. 0010087-006-AC**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.20 lb/ton x 110.2 tons/hr = 22.1 lb/hr** **0.20 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 80 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **0.20 lb/ton clinker**	4. Equivalent Allowable Emissions: **22.1** lb/hour **80** tons/year
5. Method of Compliance: **Method 5 for total PM**	
6. Allowable Emissions Comment (Description of Operating Method): **None**	

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: **17.7** lb/hour **64** tons/year		4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year		
6. Emission Factor: **0.16 lb/ton clinker** Reference: **Permit No. 0010087-006-AC**		7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.16 lb/ton x 110.2 tons/hr = 17.7 lb/hr** **0.16 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 64 tons/year**		
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**		

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: **0.16 lb/ton clinker**	4. Equivalent Allowable Emissions: **17.7** lb/hour **64** tons/year
5. Method of Compliance: **CEM**	
6. Allowable Emissions Comment (Description of Operating Method): **Hourly emission limit is 24-hour rolling average.**	

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: **NOx**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **271** lb/hour **980** tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **2.45 lb/ton clinker** Reference: **Permit No. 0010087-006-AC**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **2.45 lb/ton x 110.2 tons/hr = 271 lb/hr** **2.45 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 980 tons/year** **Unitherm's proposal, Attachment 5, includes a guarantee that the NOx emissions by the MAS burner will not exceed the present measured NOx emission level.**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **2.45 lb/ton clinker**	4. Equivalent Allowable Emissions: **271** lb/hour **980** tons/year
5. Method of Compliance: **CEM**	
6. Allowable Emissions Comment (Description of Operating Method): **Hourly emission limit is 24-hour rolling average.**	

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: **276** lb/hour **1,000** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **2.50 lb/ton clinker** Reference: **Permit No. 0010087-006-AC**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **2.50 lb/ton x 110.2 tons/hr = 276 lb/hr** **2.50 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 1,000 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **2.50 lb/ton clinker**	4. Equivalent Allowable Emissions: **276** lb/hour **1,000** tons/year
5. Method of Compliance: **Method 10**	
6. Allowable Emissions Comment (Description of Operating Method): **None**	

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: **11.8** lb/hour **43** tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.11 lb/ton Clinker** Reference: **Permit No. 0010087-006-AC**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.11 lb/ton x 110.2 tons/hr = 11.8 lb/hr** **0.11 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 43 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **0.11 lb/ton clinker**	4. Equivalent Allowable Emissions: **11.8** lb/hour **43** tons/year
5, Method of Compliance: **Method 25/25A (CEM for reasonable assurance only)**	
6. Allowable Emissions Comment (Description of Operating Method): **None**	

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: **SAM**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **0.25** lb/hour **1** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.0025 lb/ton Clinker** Reference: **Permit No. 0010087-006-AC**	7. Emissions Method Code: **3**
8. Calculation of Emissions: **0.0025 lb/ton x 110.2 tons/hr = 0.25 lb/hr** **0.0025 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 1 ton/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **0.0025 lb/ton Clinker**	4. Equivalent Allowable Emissions: **0.25** lb/hour **1** tons/year
5, Method of Compliance: **Method 8**	
6. Allowable Emissions Comment (Description of Operating Method): **None**	

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**
3. Potential Emissions: **0.00000014** lb/hour **0.0000006** tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **1.7 x 10^{-10} gr/dscf TEQ at 7% O_2** Reference: **40CFR 63.1343(b)(3)**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **1.7 x 10^{-10} gr/dscf x 150,000 dscfm x (20.9 - 12.0)/920.9 -7.0) x 60mon/hour x 1.0 lb/7,000 gr = 0.00000014 lb/hour** **@8760 hours/yr = 0.0000006 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **1.7 x 10^{-10} gr/dscf TEQ at 7% O_2**	4. Equivalent Allowable Emissions: **0.00000014** lb/hour **0.0000006** tons/year
5, Method of Compliance: **Method 23**	
6. Allowable Emissions Comment (Description of Operating Method): **NESHAP Subpart LLL**	

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: **VE10**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **10 %** Exceptional Conditions: **10 %** Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Method 9**	
5. Visible Emissions Comment: **BACT**	

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): **Opacity**
3. CMS Requirement:	[x] Rule [ ] Other
4. Monitor Information... Manufacturer: **Sick AG Environmental Monitoring** Model Number: **OMD41** Serial Number: **00035 8008**	
5. Installation Date: **12/2000**	6. Performance Specification Test Date: **1/17/2001**
7. Continuous Monitor Comment: **COMS was recertified in July 2001** **NESHAP Subpart LLL**	

Continuous Monitoring System: Continuous Monitor 2 of 5

1. Parameter Code: **EM**	2. Pollutant(s): **SO_2, NOx**
3. CMS Requirement:	[x] Rule [ ] Other
4. Monitor Information... Manufacturer: **Sick AG Environmental Monitoring** Model Number: **GM31-3** Serial Number: **8040 8002**	
5. Installation Date: **12/2000**	6. Performance Specification Test Date: **1/17/2001**
8. Continuous Monitor Comment: **62-212.400, FAC** **CEMS was recertified in July 2001**	

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: **EM**	2. Pollutant(s): **THC**
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **Bernath Atomic GmbH & Co.** Model Number: **EuroFID Model 3010** Serial Number: **4387**	
5. Installation Date:	6. Performance Specification Test Date: **7/30/2001**
7. Continuous Monitor Comment: **Reasonable Assurance only.**	

Continuous Monitoring System: Continuous Monitor 4 of 5

1. Parameter Code: **TEMP**	2. Pollutant(s): **N/A**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: : **Sick AG Environmental Monitoring** Model Number: **GM31-3** Serial Number: **8040 8002**	
5. Installation Date: **12/2000**	6. Performance Specification Test Date: **1/2001**
7. Continuous Monitor Comment: **NESHAP Subpart LLL**	

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: **Flow**	2. Pollutant(s): **N/A**
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **Sick AG Environmental Monitoring** Model Number: **FLSE160-350** Serial Number: **7042096**	
5. Installation Date:	6. Performance Specification Test Date: **7/20/2000**
7. Continuous Monitor Comment: **None**	

EMISSIONS UNIT INFORMATION
Section [2] of [3]

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 (1)

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: 4 ☐ 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 (1)

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 (1)
   ☐ 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 (1)
   ☐ 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: **Will be submitted in accordance with Rule 62-297, FAC**
   _____
   ☐ 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: _____ [x] Not Applicable

EMISSIONS UNIT INFORMATION
Section [2] of [3]

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 NA

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

None.

EMISSIONS UNIT INFORMATION
Section [3] of [3]

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.)

[X] 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).

[X] 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 Grinding Operations**

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

4. Emissions Unit Status Code: **A**	5. Commence Construction Date: **N/A**	6. Initial Startup Date: **12/9/99**	7. Emissions Unit Major Group SIC Code: **32**	8. Acid Rain Unit? [ ] Yes [X] No

9. Package Unit:
Manufacturer: **N/A** Model Number:

10. Generator Nameplate Rating: MW

Emissions Unit Comment: **This application requests an increase in finish mill throughput to 150 tph from the current limit of 136 tph.**

EMISSIONS UNIT INFORMATION
Section [3] of [3]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
   Fabric Filters - Medium Temperature
   Fabric Filters - Low Temperature

2. Control Device or Method Code(s): **017, 018**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **NA**	
2. Maximum Production Rate: **150 TPH**	
3. Maximum Heat Input Rate: million Btu/hr **NA**	
4. Maximum Incineration Rate: pounds/hr **N/A** tons/day	
5. Requested Maximum Operating Schedule: hours/day **24**	days/week **7**
weeks/year **52**	hours/year **8760**

8. Operating Capacity/Schedule Comment:

The finish mill throughput can be increased because the type of Portland cement produced by FRI has changed and is therefore easier to grind, which allows throughput to increase by 10%. No production equipment or control devices are changed or affected. Emissions from the finish mill will not increase nor exceed BACT limit.

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: **M-07, M-08, N-09, N-12, N-14, Q-25, Q26, Q-27**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **M-07: Clinker to finish mill** **M-08: Clinker to finish mill** **N-09: Finish mill separator** **N-12: Finish mill** **N-14: Cement handling in finish mill** **Q-25, Q26, Q-27: Cement Storage silos**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **NA**		
5. Discharge Type Code: **V**	6. Stack Height: **123** feet	7. Exit Diameter: **3.1** feet
8. Exit Temperature: **210** °F	9. Actual Volumetric Flow Rate: **30,000** acfm	10. Water Vapor: **2** %
11. Maximum Dry Standard Flow Rate: **23,200** dscfm	12. Nonstack Emission Point Height: **N/A** feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **N-12 is representitive emission point with greatest emission rate.**		

EMISSIONS UNIT INFORMATION
Section 3] of [3]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Mineral Products : Cement Manufacturing - Dry Process : Finish Grinding Mill**		
2. Source Classification Code (SCC): **3-05-006-17**	3. SCC Units: **Tons Processes**	
4. Maximum Hourly Rate: **150**	5. Maximum Annual Rate: **1,314,000**	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: **None**		

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, 018**	**None**	**EL**
PM10	**017, 018**	**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: **99%**
3. Potential Emissions: **6.2** lb/hour **27.2** tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** to tons/year	
6. Emission Factor: **0.01 gr/dscf** Reference: Permit No. **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.01 gr/dscf x 72293 dscfm x 60 min/hr x 1 lb/7000 gr = 6.20 lb/hr** **6.20 lb/hr x 8760 hr/year / 2000 lb/ton = 27.2 tons/year**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **None**	

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: **0.01 gr/dscf**	4. Equivalent Allowable Emissions: **6.20** lb/hour **27.2** tons/year
5. Method of Compliance: **Method 5**	
6. Allowable Emissions Comment (Description of Operating Method): **62-214.400, FAC**	

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: **VE05**	2. Basis for Allowable Opacity: [x] Rule [ ] Other
3. Allowable Opacity: Normal Conditions: **5 %** Exceptional Conditions: **5 %** Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Method 9**	
5. Visible Emissions Comment: **62-212.400, FAC Baghouses**	

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 NA

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): **Opacity**
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
9. 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:
Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION
Section [3] of [3]

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 **(1)**

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: **4** ☐ 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 **(1)**

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 **(1)**
   ☐ 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 **(1)**
   ☐ 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: **Will be submitted in accordance with Rule 62-297, FAC** _____
   _____
   ☐ 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: _____ [x] Not Applicable

EMISSIONS UNIT INFORMATION
Section [3] of [3]

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 NA

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

None.

Attachment 1

Description of Proposed Construction or Modification

Florida Rock Industries, Inc. (FRI) will add natural gas as a fuel for firing the Raw Mill Air Heater and Cement Kiln at their Thompson S. Baker Cement Plant in Newberry, Florida. FRI will also replace the current Polysius burner with a Unitherm Mono Airduct System (MAS) rotary kiln burner. Unitherm has stated that they will include in their performance guarantee that the current level of NOx will not be exceeded.

The Raw Mill Air Heater (EU 002) is addressed in the present Title V permit 0010087-009-AV and provides emission limits for VE, PM, and Sulfur content of the fuel oil being fired. The permit application for the Title V permit addressed NOx referencing AP-42 Table 1.3-1 (Boilers < 100mmBTU/hr), an emission factor 20 lb per 1,000 gallons of fuel oil.

20 lb NOx / 1000gal fuel oil x 280 gal/hr = 5.60 lb NOx/hour
5.60 lb NOx/hour x 8760 hours/year x ton/2000lb = 24.5 tons NOx/year

Using AP-42 Table 1.4-1 (Small Boilers < 100 mmBTU/hr Uncontrolled), an emission factor of 100 lb/10^6 scf and a emission factor rating of B (1.2) resulting in 120 lb/10^6 scf.

120 lb NOx/10^6 scf x 0.039 10^6 scf/hr = 4.68 NOx lb/hr
4.68 NOx lb/hr x 8760 hours/year x 1.0 ton/2000lb = 20.5 tons NOx/year

Four tons per year less NOx. The permit does not state a NOx limit.

The Kiln System (EU 003) is addressed in the present Title V permit 0010087-009-AV and provides emission limits for Hg, VE, PM/PM_{10}, SO_2, NOx, CO, VOC, SAM, and D/F. The NOx limitation of 2.45 pounds per ton of clinker, 271 lb/hr (30 day rolling average) and 980 tons per year references Permit No. 0010087-006-AC (PSD-FL-228C). Unitherm's proposal, Attachment 5, includes a guarantee that the NOx emissions by the MAS burner will not exceed the present measured NOx emission level.

In addition the finish mill throughput will be increased to 150 tph from current limit of 136 tph.

The finish mill throughput can be increased because the type of Portland cement produced by FRI has changed and is therefore easier to grind, which allows throughput to increase by 10%. No production equipment or control devices are changed or affected. Emissions from the finish mill will not increase nor exceed BACT limit.

Attachment 2

Rule Applicability Analysis

FRI's Cement Plant directly emits more than 100 tons per year (TPY) of several regulated air pollutants and is, therefore, classified as a "Major Source of Air Pollution or Title V Source," per the definitions in Rule 62-212.200, Florida Administrative Code (F.A.C.).

This industry is listed in Table 212.400-1, "Major Facilities Categories", Section 62-212.400, F.A.C. Therefore, stack and fugitive emissions of over 100 TPY of carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide (SO_2), nitrogen oxides (NOx), or particulate matter (PM/PM10) characterize the existing installation as a Major Facility per the definitions in Rule 62-210.200, F.A.C.

The facility is also subject to a number of industry regulations and permit specific conditions enumerated in the Title V Operation Permit number 001087-002-AV. Among these is designation as a major source of hazardous air pollutants (HAPs) and applicability of the major source provisions of:

NESHAP Subpart LLL:	National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry
NSPS Subpart F:	Standard of Performance for Portland Cement Plants
NSPS Subpart Y:	Standard of Performance for Coal Preparation Plants
NSPS Subpart OOO:	Standard of Performance for Non-Mineral Processing Plants

The applied for use of natural gas is exempt from PSD by Rule 62-212.400(2)(c)5.
(c) Alternative Fuel or Raw Material Exemption.
A modification that is to occur for any of the following reasons shall not be subject to the preconstruction review requirements of this rule:
5. Use of an alternate 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.

Permit number 0010087-013-AC was issued under 62-212.400 with approval for firing natural gas.

Attachment 3

Fugitive Emission Identification

Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-4, TITLE V CONDITIONS Permit No. 0010087-009-AV):

The material handling activities at the plant covered by this protocol include loading and unloading, storage and conveying of:

- *Limestone and overburden*
- *Iron oxide source (coal ash, iron ore, or other)*
- *Gypsum*
- *Coal*

Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- All materials at the plant will be stored under roof on compacted clay or concrete.
- The plant area will be paved to limit the generation of UPM from truck and equipment traffic.
- A sweeper truck will be maintained and operated at the plant to limit dust buildup on paved surfaces.
- All materials are to be received and used with excess surface moisture.
- Water supply lines, hoses and sprinklers will be located near all material stockpiles.
- All plant equipment operators will be trained in basic environmental compliance, and will perform visual inspections of materials before handling. If the visual inspections indicate a lack of excess surface moisture, the materials will be wetted with the sprinklers. Such wetting will continue until the materials can be handled without generating UPM.
- The permittee shall "immediately collect" any spilled CKD to prevent fugitive emissions.

[Rule 62-296.320(4)(c)2., F.A.C.; and, Proposed by applicant in the initial Title V permit application received [10/01/99]

Attachment 4

Fuel Analysis or Specification