

**FLORIDA ROCK INDUSTRIES INC**

CEMENT GROUP / 4000 N.W. CR 235 / P.O. Box 459 / Newberry, FL 32669 / (352) 472-4722



May 6, 2005

**RECEIVED**

MAY 09 2005

BUREAU OF AIR REGULATION

Mr. Robert Bull  
Division of Air Resources  
Department of Environmental Protection  
2600 Blair Stone Road, MS #5505  
Tallahassee, FL 32399-2400

RE: Application for construction-modification permit (with operating permit revision) to allow use of petroleum coke and flyash as fuels to the kiln and calciner  
Facility 0010187, Permit no. 0010087-009-AV  
Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant

Dear Mr. Bull:

Florida Rock Industries, Inc., is submitting an application for permit to allow use of petroleum coke and flyash as fuels in the kiln and calciner. Trials and emission tests while using both fuels were completed last month as allowed by Permit No. 0010087-012-AC. We expect to submit the reports of the trial and emission tests to you this month.

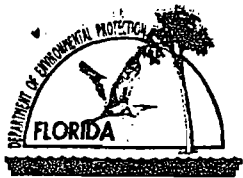
Thank you for your consideration of this application. If you have any questions, please call me at (352) 472-4722, ext. 130, or Henry Gotsch, at ext. 121.

Sincerely,  
FLORIDA ROCK INDUSTRIES, INC.

A handwritten signature in black ink, appearing to read 'Chris Horner', written over a faint, larger version of the signature.

Chris Horner  
Plant Manager

*cc. E. Kinta, NED*



# Department of Environmental Protection

RECEIVED

Division of Air Resource Management 09 2005

## APPLICATION FOR AIR PERMIT - LONG FORM

BUREAU OF AIR REGULATION

### 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: <b>Florida Rock Industries, Inc.</b>	
2. Site Name: <b>Thompson S. Baker Cement Plant - Newberry</b>	
3. Facility Identification Number: <b>0010087</b>	
4. Facility Location... Street Address or Other Locator: <b>4000 NW County Road 235</b> City: <b>Newberry</b> County: <b>Alachua</b> Zip Code: <b>32699</b>	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

#### Application Contact

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

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<b>5-9-05</b>
2. Project Number(s):	<b>0010087-015-AC 0010087-016-AV</b>
3. PSD Number (if applicable):	

**APPLICATION INFORMATION**

4. Siting Number (if applicable):	
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## 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

The purpose of this Air Construction permit is to expand the selection of fuels to include petroleum coke, and flyash.

**APPLICATION INFORMATION**

**Scope of Application**

<b>Emissions Unit ID Number</b>	<b>Description of Emissions Unit</b>	<b>Air Permit Type</b>	<b>Air Permit Proc. Fee</b>
003	Kiln System	NA	NA
007	Coal Handling and Grinding Operations	NA	NA
	No processing fee required. Reference Rule 62-4.050(4)2, F.A.C.		

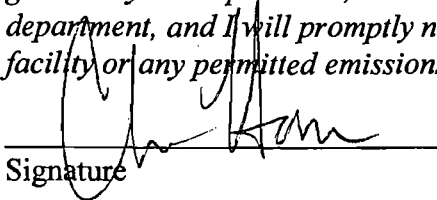
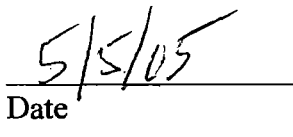
**Application Processing Fee**

Check one:  Attached - Amount: \$ \_\_\_\_\_  Not Applicable

**APPLICATION INFORMATION**

**Owner/Authorized Representative Statement**

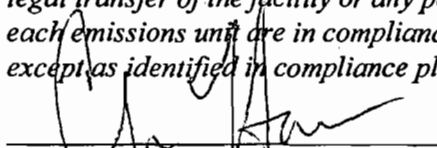
**Complete if applying for an air construction permit or an initial FESOP.**

1. Owner/Authorized Representative Name : <b>Chris Horner, Plant Manager</b>
2. Owner/Authorized Representative Mailing Address... Organization/Firm: <b>Florida Rock Industries, Inc. - Thompson S. Baker Cement Plant</b> Street Address: <b>4000 NW CR 235</b> City: <b>Newberry</b> State: <b>FL</b> Zip Code: <b>32669</b>
3. Owner/Authorized Representative Telephone Numbers... Telephone: <b>(352) 427 - 4277</b> ext. Fax: <b>(352) 427 - 2449</b>
4. Owner/Authorized Representative Email Address: <b>chris@flarock.com</b>
5. Owner/Authorized Representative Statement:  <i>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.</i>   Signature _____   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: <b>Chris Horner, Plant Manager</b>
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: <b>Florida Rock Industries, Inc. - Thompson S. Baker Cement Plant</b> Street Address: <b>4000 NW CR 235</b> City: <b>Newberry</b> State: <b>FL</b> Zip Code: <b>32669</b>
4. Application Responsible Official Telephone Numbers... Telephone: <b>(352) 427 - 4277</b> ext. Fax: <b>(352) 427 - 2449</b>
5. Application Responsible Official Email Address: <b>chris@flarock.com</b>
6. Application Responsible Official Certification: <i>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.</i>  Signature _____ Date <u>5/5/05</u>

# APPLICATION INFORMATION

## Professional Engineer Certification

1. Professional Engineer Name: <b>William A. Proses, P.E.</b> Registration Number: <b>52080</b>
2. Professional Engineer Mailing Address... Organization/Firm: <b>Koogler and Associates, Inc.</b> Street Address: <b>4014 NW 13<sup>th</sup> Street</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32609</b>
3. Professional Engineer Telephone Numbers... Telephone: <b>(352) 317 - 1030</b> ext. Fax: <b>(813) 920 - 9539</b>
4. Professional Engineer Email Address: <b>wproses@kooglerassociates.com</b>
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(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</i> <i>(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.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, 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.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, 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 <input checked="" type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been <del>designed or examined by me or individuals under my direct supervision</del> and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(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 <input type="checkbox"/>, 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.</i>  Signature <u>William A. Proses</u> Date <u>5/2/05</u>  (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: <b>O. Henry Gotsch, P.E.</b>
2. Facility Contact Mailing Address... Organization/Firm: <b>Florida Rock Industries, Inc.</b> Street Address: <b>4000 NW CR 235</b> City: <b>Newberry</b> State: <b>FL</b> Zip Code: <b>32669</b>
3. Facility Contact Telephone Numbers: Telephone: <b>(352) 472 - 4722</b> ext.      Fax: <b>(352) 472 - 2449</b>
4. Facility Contact Email Address: <b>hgotsch@flarock.com</b>

#### Facility Primary Responsible Official NA

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

**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 <sub>2</sub>	B	N
NO <sub>x</sub>	A	N
CO	A	N
VOC	B	N
SAM	B	N
DIOX	B	N
H114	B	N

**FACILITY INFORMATION**

**B. EMISSIONS CAPS NA**

**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
<p><b>7. Facility-Wide or Multi-Unit Emissions Cap Comment:</b>  <b>NONE</b></p>					

# FACILITY INFORMATION

## 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) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>(1)</u> _____
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) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>(1)</u> _____
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) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>(1)</u> _____

### Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction or Modification: <input checked="" type="checkbox"/> Attached, Document ID: <u>1</u> _____
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: <u>2</u> _____
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): <input type="checkbox"/> Attached, Document ID: <u>3</u> _____ <input checked="" type="checkbox"/> Not Applicable
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> 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.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
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**Additional Requirements for Title V Air Operation Permit Applications**

1. List of Insignificant Activities (Required for initial/renewal applications only): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> 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): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan (Required for all initial/revision/renewal applications): <input type="checkbox"/> Attached, Document ID: <u>NA</u> 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): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable
5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) : <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
6. Requested Changes to Current Title V Air Operation Permit: <input checked="" type="checkbox"/> Attached, Document ID: <u>4</u> _____ <input type="checkbox"/> Not Applicable

**Additional Requirements Comment**

<b>(1) Submitted with previous applications</b>
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**EMISSIONS UNIT INFORMATION (EU 003)**

**Section [1] of [2]**

**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 (EU 003)**

Section [1] of [2]

**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: **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  
 No

9. Package Unit:

Manufacturer: **N/A**

Model Number:

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment: **Petroleum coke, and flyash will be added to the fuels to be burned in the kiln.**

**Attachment 4 shows Title V permit conditions requested for change. The "FROM" language is from Permit No. 0010087-009-AV and the "TO" the requested change.**



**EMISSIONS UNIT INFORMATION (EU 003)**

Section [1] of [2]

**Emissions Unit Control Equipment**

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

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

**EMISSIONS UNIT INFORMATION (EU 003)**

**Section [1] of [2]**

**B. EMISSIONS UNIT CAPACITY INFORMATION**

**(Optional for unregulated emissions units.)**

**Emissions Unit Operating Capacity and Schedule**

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

**EMISSIONS UNIT INFORMATION (EU 003)**

Section [1] of [2]

**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: <b>E-21</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <b>E-21: Main Stack</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>EU 002: Raw Mill and Heater discharge through E-21</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>250 feet</b>	7. Exit Diameter: <b>9.42 feet</b>	
8. Exit Temperature: <b>215 °F</b>	9. Actual Volumetric Flow Rate: <b>225,000 acfm</b>	10. Water Vapor: <b>15 %</b>	
11. Maximum Dry Standard Flow Rate: <b>150,000 dscfm</b>		12. Nonstack Emission Point Height: <b>N/A feet</b>	
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: <b>Fields 8-12 are with kiln and raw mill operating ; normal conditions.</b>			

**EMISSIONS UNIT INFORMATION (EU 003)**

**Section [1] of [2]**

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

**Segment Description and Rate: Segment 1 of 7**

1. Segment Description (Process/Fuel Type): <b>Mineral Products : Cement Manufacturing - Dry Process : Preheater/Precalciner Kiln</b>		
2. Source Classification Code (SCC): <b>3-05-006-23</b>		3. SCC Units: <b>Tons Processes</b>
4. Maximum Hourly Rate: <b>191.4</b>	5. Maximum Annual Rate: <b>1,331,000</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>N/A</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>N/A</b>
10. Segment Comment: <b>Preheater feed rate: Peak hourly rate and annual rate</b>		

**Segment Description and Rate: Segment 2 of 7**

1. Segment Description (Process/Fuel Type): <b>Mineral Products : Cement Manufacturing - Dry Process : Preheater/Precalciner Kiln</b>		
2. Source Classification Code (SCC): <b>3-05-006-23</b>		3. SCC Units: <b>Tons Clinker</b>
4. Maximum Hourly Rate: <b>115.0</b>	5. Maximum Annual Rate: <b>800,000</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>N/A</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>N/A</b>
10. Segment Comment: <b>Clinker production rate: Peak hourly rate and annual rate</b>		

**EMISSIONS UNIT INFORMATION (EU 003)**

Section [1] of [2]

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

**Segment Description and Rate: Segment 3 of 7**

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

**Segment Description and Rate: Segment 4 of 7**

1. Segment Description (Process/Fuel Type): <b>In-process Fuel Use : Bituminous Coal : Cement Kiln</b>		
2. Source Classification Code (SCC): <b>3-90-002-01</b>		3. SCC Units: <b>Tons Burned</b>
4. Maximum Hourly Rate: <b>14.0</b>	5. Maximum Annual Rate: <b>122,640</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>1.25</b>	8. Maximum % Ash: <b>10</b>	9. Million Btu per SCC Unit: <b>26</b>
10. Segment Comment: <b>No change requested in this application.</b>		

**EMISSIONS UNIT INFORMATION (EU 003)**

Section [1] of [2]

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

**Segment Description and Rate: Segment 5 of 7**

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

**Segment Description and Rate: Segment 6 of 7**

1. Segment Description (Process/Fuel Type): <b>In-process Fuel Use : Petroleum Coke : Cement Kiln</b>		
2. Source Classification Code (SCC): <b>3-90-008-89</b>		3. SCC Units: <b>Tons Burned</b>
4. Maximum Hourly Rate: <b>13.6</b>	5. Maximum Annual Rate: <b>119,136</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>8.0</b>	8. Maximum % Ash: <b>2.8</b>	9. Million Btu per SCC Unit: <b>26.8</b>
10. Segment Comment: <b>100% of total, kiln heat input</b>		

**EMISSIONS UNIT INFORMATION (EU 003)**

Section [1] of [2]

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

**Segment Description and Rate:** Segment 7 of 7

1. Segment Description (Process/Fuel Type): <b>In-process Fuel Use : Flyash: Cement Kiln</b>		
2. Source Classification Code (SCC): <b>3-90-999-99</b>		3. SCC Units: <b>Tons Burned</b>
4. Maximum Hourly Rate: <b>3.6</b>	5. Maximum Annual Rate: <b>31,536</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>2.0</b>	8. Maximum % Ash: <b>80</b>	9. Million Btu per SCC Unit: <b>5</b>
10. Segment Comment: <b>Additional fuel option, 5% of total, kiln heat input (or 18.2 MMBtu/hr).</b>		

**EMISSIONS UNIT INFORMATION (EU 003)**

Section [1] of [2]

**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 <sub>2</sub>	None	None	EL
NO <sub>x</sub>	None	None	EL
CO	None	None	EL
VOC	None	None	EL
SAM	None	None	EL
DIOX	None	None	EL
H114	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: <b>PM</b>	2. Total Percent Efficiency of Control: <b>99%</b>
3. Potential Emissions: <b>25.9 lb/hour                      94 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): <b>N/A</b> to tons/year	
6. Emission Factor: <b>0.14 lb/ton dry feed</b>  Reference: Permit No. <b>0010087-006-AC</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions: <b>0.14 lb/ton x 183.4 tons/hr = 25.9 lb/hr</b> <b>0.14 lb/ton x 1,331,000 tons/yr x 1.0 ton/2000 lb = 94 tons/year</b>	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>None</b>	

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Allowable Emissions and Units: <b>0.14 lb/ton dry feed</b>	4. Equivalent Allowable Emissions: <b>25.9 lb/hour      94 tons/year</b>
5. Method of Compliance: <b>Method 5</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>None</b>	

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

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Allowable Emissions and Units: <b>0.20 lb/ton clinker</b>	4. Equivalent Allowable Emissions: <b>22.1 lb/hour      80 tons/year</b>
5. Method of Compliance: <b>Method 5 for total PM</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>None</b>	

**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: <b>SO<sub>2</sub></b>	2. Total Percent Efficiency of Control: <b>N/A</b>
3. Potential Emissions: <b>17.7 lb/hour                      64 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): <b>N/A</b> to tons/year	
6. Emission Factor: <b>0.16 lb/ton clinker</b>  Reference: <b>Permit No. 0010087-006-AC</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions: <b>0.16 lb/ton x 110.2 tons/hr = 17.7 lb/hr</b> <b>0.16 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 64 tons/year</b>	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>None</b>	

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Allowable Emissions and Units: <b>0.16 lb/ton clinker</b>	4. Equivalent Allowable Emissions: <b>17.7 lb/hour      64 tons/year</b>
5. Method of Compliance: <b>CEM</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Hourly emission limit is 24-hour rolling average.</b>	

**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: <b>NO<sub>x</sub></b>	2. Total Percent Efficiency of Control: <b>N/A</b>
3. Potential Emissions: <b>271 lb/hour                      980 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): <b>N/A</b> to tons/year	
6. Emission Factor: <b>2.45 lb/ton clinker</b>  Reference: <b>Permit No. 0010087-006-AC</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions: <b>2.45 lb/ton x 110.2 tons/hr = 271 lb/hr</b> <b>2.45 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 980 tons/year</b>	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>None</b>	

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Allowable Emissions and Units: <b>2.45 lb/ton clinker</b>	4. Equivalent Allowable Emissions: <b>271 lb/hour            980 tons/year</b>
5. Method of Compliance: <b>CEM</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Hourly emission limit is 24-hour rolling average.</b>	



**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: <b>CO</b>	2. Total Percent Efficiency of Control: <b>N/A</b>
3. Potential Emissions: <b>276 lb/hour                      1,000 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): <b>N/A</b> to tons/year	
6. Emission Factor: <b>2.50 lb/ton clinker</b>  Reference: <b>Permit No. 0010087-006-AC</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions: <b>2.50 lb/ton x 110.2 tons/hr = 276 lb/hr</b> <b>2.50 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 1,000 tons/year</b>	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>None</b>	

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Allowable Emissions and Units: <b>2.50 lb/ton clinker</b>	4. Equivalent Allowable Emissions: <b>276 lb/hour      1,000 tons/year</b>
5. Method of Compliance: <b>Method 10</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>None</b>	

**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: <b>VOC</b>		2. Total Percent Efficiency of Control: <b>N/A</b>	
3. Potential Emissions: <b>11.8 lb/hour                      43 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <b>N/A</b> to tons/year			
6. Emission Factor: <b>0.11 lb/ton Clinker</b>  Reference: <b>Permit No. 0010087-006-AC</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions: <b>0.11 lb/ton x 110.2 tons/hr = 11.8 lb/hr</b> <b>0.11 lb/ton x 800,00 tons/yr x 1.0 ton/2000 lb = 43 tons/year</b>			
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>None</b>			

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Allowable Emissions and Units: <b>0.11 lb/ton clinker</b>	4. Equivalent Allowable Emissions: <b>11.8 lb/hour      43 tons/year</b>
5, Method of Compliance: <b>Method 25/25A</b> <b>(CEM for reasonable assurance only)</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>None</b>	

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

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Allowable Emissions and Units: <b>0.0025 lb/ton Clinker</b>	4. Equivalent Allowable Emissions: <b>0.25 lb/hour      1 tons/year</b>
5, Method of Compliance: <b>Method 8</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>None</b>	

**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: <b>DIOX</b>	2. Total Percent Efficiency of Control: <b>N/A</b>
3. Potential Emissions: <b>0.00000014 lb/hour 0.0000006 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): <b>N/A</b> to tons/year	
6. Emission Factor: <b><math>1.7 \times 10^{-10}</math> gr/dscf TEQ at 7% O<sub>2</sub></b> Reference: <b>40CFR 63.1343(b)(3)</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions: <b><math>1.7 \times 10^{-10}</math> 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</b>  <b>@8760 hours/yr = 0.0000006 tons/year</b>	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>None</b>	

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Allowable Emissions and Units: <b>1.7 x 10<sup>-10</sup> gr/dscf TEQ at 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>0.00000014 lb/hour 0.0000006 tons/year</b>
5, Method of Compliance: <b>Method 23</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>NESHAP Subpart LLL</b>	



**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: <b>H114</b>	2. Total Percent Efficiency of Control: <b>N/A</b>
3. Potential Emissions: lb/hour <b>0.1 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): <b>N/A</b> to tons/year	
6. Emission Factor:  Reference:	7. Emissions Method Code:
8. Calculation of Emissions: <b>Mercury Compounds (as Hg)</b> . Monthly sampling and analysis shall be conducted of the raw mill feed, coal, tires, petroleum coke, and flyash to demonstrate compliance with specific condition C.5. SW-846 Method 7471 or an approved EPA, DEP or ASTM test methods shall be used and records shall be maintained for inspection. [AC01-267311/PSD-FL-228]	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>None</b>	

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour <b>0.1 tons/year</b>
5, Method of Compliance: <b><u>Mercury Compounds (as Hg)</u></b> . Monthly sampling and analysis shall be conducted of the raw mill feed, coal, tires, petroleum coke, and flyash to demonstrate compliance with specific condition C.5. SW-846 Method 7471 or an approved EPA, DEP or ASTM test methods shall be used and records shall be maintained for inspection.	
6. Allowable Emissions Comment (Description of Operating Method):	



**EMISSIONS UNIT INFORMATION (EU 003)**

Section [1] of [2]

**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: <b>VE</b>	2. Pollutant(s): <b>Opacity</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: <b>Sick AG Environmental Monitoring</b> Model Number: <b>OMD41</b> Serial Number: <b>00035 8008</b>	
5. Installation Date: <b>12/2000</b>	6. Performance Specification Test Date: <b>1/17/2001</b>
6. Continuous Monitor Comment:  <b>COMS was recertified in <u>July 2001</u></b>  <b>NESHAP Subpart LLL</b>	

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

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO<sub>2</sub>, NO<sub>x</sub></b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: <b>Sick AG Environmental Monitoring</b> Model Number: <b>GM31-3</b> Serial Number: <b>8040 8002</b>	
5. Installation Date: <b>12/2000</b>	6. Performance Specification Test Date: <b>1/17/2001</b>
7. Continuous Monitor Comment: <b>62-212.400, FAC</b>  <b>CEMS was recertified in <u>July 2001</u></b>	

**EMISSIONS UNIT INFORMATION**

Section [12] of [2]

**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: <b>EM</b>	2. Pollutant(s): <b>THC</b>
3. CMS Requirement: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other	
4. Monitor Information... Manufacturer: <b>Bernath Atomic GmbH &amp; Co.</b> Model Number: <b>EuroFID Model 3010</b> Serial Number: <b>4387</b>	
5. Installation Date:	6. Performance Specification Test Date: <u>7/30/2001</u>
7. Continuous Monitor Comment: <b>Reasonable Assurance only.</b>	

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

1. Parameter Code: <b>TEMP</b>	2. Pollutant(s): <b>N/A</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: : <b>Sick AG Environmental Monitoring</b> Model Number: <b>GM31-3</b> Serial Number: <b>8040 8002</b>	
5. Installation Date: <b>12/2000</b>	6. Performance Specification Test Date: <u>1/2001</u>
7. Continuous Monitor Comment: <b>NESHAP Subpart LLL</b>	

### 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: <b>Flow</b>	2. Pollutant(s): <b>N/A</b>
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>Sick AG Environmental Monitoring</b> Model Number: <b>FLSE160-350</b> Serial Number: <b>7042096</b>	
5. Installation Date:	6. Performance Specification Test Date: <u>7/20/2000</u>
7. Continuous Monitor Comment: <b>None</b>	

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date <b>(1)</b> _____
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) <input checked="" type="checkbox"/> Attached, Document ID: <b>5</b> _____ <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>(1)</b> _____
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) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>(1)</b> _____ <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>(1)</b> _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: <b>7/20/04: PM/PM10, SO<sub>2</sub>/NO<sub>x</sub>/VOC/CO, Opacity, and SAM</b> <input checked="" type="checkbox"/> To be Submitted, Date (if known): <b>Upon completion of tests requested in AC application submitted October 21, 2004.</b> Test Date(s)/Pollutant(s) Tested: <b>NO<sub>x</sub>, SO<sub>2</sub>, opacity, and THC</b> _____ <input type="checkbox"/> Not Applicable <p>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.</p>
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

7. Other Information Required by Rule or Statute

Attached, Document ID: \_\_\_\_\_  Not Applicable

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

**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

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**

**(1) Submitted with previous applications**

**EMISSIONS UNIT INFORMATION (EU 007)**

**Section [2] of [2]**

**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 (EU 007)**

Section [2] of [2]

**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: **Coal, Petroleum Coke, and Flyash Handling and Grinding**

3. Emissions Unit Identification Number: **007**

4. Emissions Unit Status Code: <b>A</b>	5. Commence Construction Date: <b>N/A</b>	6. Initial Startup Date: <b>12/18/99</b>	7. Emissions Unit Major Group SIC Code: <b>32</b>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit:  
Manufacturer: **N/A** Model Number:

10. Generator Nameplate Rating: **MW**

**EMISSIONS UNIT INFORMATION (1)**

**Section [2] of [2]**

**Emissions Unit Control Equipment**

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

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

**EMISSIONS UNIT INFORMATION (EU 007)**

Section [2] of [2]

**B. EMISSIONS UNIT CAPACITY INFORMATION**

**(Optional for unregulated emissions units.)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate: <b>14 TPH</b>
2. Maximum Production Rate: <b>N/A</b>
3. Maximum Heat Input Rate: <b>million Btu/hr N/A</b>
4. Maximum Incineration Rate: <b>pounds/hr N/A</b> <b>tons/day</b>
5. Requested Maximum Operating Schedule: <b>hours/day 24</b> <b>days/week 7</b> <b>weeks/year 52</b> <b>hours/year 8760</b>
7. Operating Capacity/Schedule Comment: <b>None</b>

**EMISSIONS UNIT INFORMATION (EU 007)**

Section [2] of [2]

**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: <b>S-17, S-21</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <b>S-17: Coal Mill</b> <b>S-21: Coal Bin</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>164 feet</b>	7. Exit Diameter: <b>2.4 feet</b>	
8. Exit Temperature: <b>150 °F</b>	9. Actual Volumetric Flow Rate: <b>18,000 acfm</b>	10. Water Vapor: <b>6.5 %</b>	
11. Maximum Dry Standard Flow Rate: <b>14,600 dscfm</b>		12. Nonstack Emission Point Height: <b>N/A feet</b>	
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: <b>S-17 is representative emission point with greatest emission rate.</b>			

**EMISSIONS UNIT INFORMATION (EU 007)**

**Section [2] of [2]**

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

**Segment Description and Rate: Segment 1 of 1**

1. Segment Description (Process/Fuel Type): <b>Mineral Products : Coal and Petroleum Coke Crushing</b>		
2. Source Classification Code (SCC): <b>3-05-010-10</b>		3. SCC Units: <b>Tons Processes</b>
4. Maximum Hourly Rate: <b>14</b>	5. Maximum Annual Rate: <b>122,640</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>N/A</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>N/A</b>
10. Segment Comment: <b>None</b>		

**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:		

**EMISSIONS UNIT INFORMATION**

**Section [2] of [2]**

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

<b>1. Pollutant Emitted</b>	<b>2. Primary Control Device Code</b>	<b>3. Secondary Control Device Code</b>	<b>4. Pollutant Regulatory Code</b>
<b>PM</b>	<b>018</b>	<b>None</b>	<b>EL</b>
<b>PM10</b>	<b>018</b>	<b>None</b>	<b>NS</b>



**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: <b>PM</b>	2. Total Percent Efficiency of Control: <b>99%</b>
3. Potential Emissions: <b>1.47 lb/hour                      6.4 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): <b>N/A</b> to tons/year	
6. Emission Factor: <b>0.1 gr/dscf</b>  Reference: Permit No. <b>BACT</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions: <b>0.01 gr/dscf x 17113 dscfm x 60 min/hr x 1 lb/7,000 gr = 1.47 lb/hr</b> <b>@ 8,760 hours/year = 6.4 tons/year</b>	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>None</b>	

**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: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: <b>0.1 gr/dscf</b>	4. Equivalent Allowable Emissions: <b>1.47 lb/hour      6.4 tons/year</b>
5. Method of Compliance: <b>Method 5</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>62-212.400, FAC</b>	

**EMISSIONS UNIT INFORMATION (EU 007)**

Section [2] of [2]

**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 2

1. Visible Emissions Subtype: <b>VE05</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <b>5 %</b> Exceptional Conditions: <b>10 %</b> Maximum Period of Excess Opacity Allowed: <b>min/hour</b>	
4. Method of Compliance: <b>Method 9</b>	
5. Visible Emissions Comment: <b>62-212.400, FAC Baghouses</b>	

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

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <b>20 %</b> Exceptional Conditions: <b>20 %</b> Maximum Period of Excess Opacity Allowed: <b>min/hour</b>	
4. Method of Compliance: <b>Method 9</b>	
5. Visible Emissions Comment: <b>40 CFR 60.252(a)(2) Coal and Petroleum Coke handling</b>	

**EMISSIONS UNIT INFORMATION (EU 007)**

Section [2] of [2]

**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: N/A	2. Pollutant(s): <b>Opacity</b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: N/A Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
8. Continuous Monitor Comment:	

**EMISSIONS UNIT INFORMATION (EU 007)**

**Section [2] of [2]**

**I. EMISSIONS UNIT ADDITIONAL INFORMATION**

**Additional Requirements for All Applications, Except as Otherwise Stated**

<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date <u>(1)</u> _____</p>
<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>5</u> _____ <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>(1)</u> _____</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>(1)</u> _____</p> <p><input type="checkbox"/> Not Applicable (construction application)</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date <u>(1)</u> _____</p> <p><input type="checkbox"/> Not Applicable</p>
<p>6. Compliance Demonstration Reports/Records</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p>Test Date(s)/Pollutant(s) Tested: _____</p> <p><input checked="" type="checkbox"/> Previously Submitted, Date: _____</p> <p>Test Date(s)/Pollutant(s) Tested: <u>8/17/04 / Opacity</u> _____</p> <p><input type="checkbox"/> To be Submitted, Date (if known): _____</p> <p>Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> Not Applicable</p> <p>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.</p>
<p>7. Other Information Required by Rule or Statute</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

# EMISSIONS UNIT INFORMATION

Section [2] of [2]

## 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)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> 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.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

## Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: 2 _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable

**Additional Requirements Comment**

**(1) Submitted with previous applications**

**ATTACHMENT 1**



**FLYASH AND PETROLEUM-COKE FUEL-ADDITION PROJECT****PROJECT OVERVIEW**

Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant proposes to conduct trials involving the addition of flyash and petroleum coke to the coal currently prepared in the coal mill and fired in the kiln and calciner vessel. The trials were requested in an AC permit application submitted 10/21/04. A 60-day period is requested in which to conduct the project tests. Additional information is provided below.

**AIM OF TRIALS**

This project's aim is to (1) demonstrate the technical feasibility of introducing flyash and petroleum coke with the coal into the kiln and calciner, (2) establish stable and predictable operating parameters, (3) assess the impact on clinker and cement quality, and (4) measure the benefits of introducing flyash and petroleum coke with coal into the kiln and calciner at the Thompson S. Baker Cement Plant.

**DESCRIPTION OF PROCESSING SYSTEM**

The dry, blended, mixture of raw materials fed to the kiln is approximately 10% flyash, 3% sand, 2% iron, and 85% limestone. The kiln-feed system boosts this mixture to the top of the preheater tower, then gravity carries it down to the kiln through the four stages of the preheater tower countercurrent to exiting kiln gases which dry, preheat, and partially calcine the material. Calcining and sintering are completed in the kiln.

Nearly all the heat necessary to produce cement clinker from the raw material is provided by coal. The coal is moved from railcar or storage bunker to a coal mill which grinds and dries the coal to a powder. The powdered coal is injected and burned in the kiln and calciner. The unburnable mineral—or ash—portion of the coal mixes with the incoming feed materials and is incorporated into the cement clinker. Whole tires introduced into the calciner provide a fraction of the heat input.

**DESCRIPTION OF MATERIALS INVOLVED**

Flyash, a residual ash from electric-power plant coal burning, does not require calcination and may be added just prior to the sintering zone for its mineral composition to be incorporated into cement clinker. Petroleum coke, a high-carbon byproduct of the oil-refining industry, is a fuel of high heat content and very low ash relative to coal.

**DESCRIPTION OF PROJECT**

Under the proposed trial, flyash and, later, petroleum coke would be added to raw coal for processing in the coal mill and combustion in the kiln burner and calciner. Flyash and

petroleum coke would be stored in the existing coal bunker and fed into the coal-feed hopper; coal would be transported on the coal conveyor from railcar. The blended and crushed materials will be burned in the kiln and calciner. No additional equipment will be required.

The trial will consist of several phases for each proposed material. Flyash Phase One will be based on 5% flyash (95% coal) for a test run of 72 hours. At the end of the first phase, the flyash addition to coal would be discontinued. After an evaluation of the results of process, quality, and emission data, Flyash Phase Two would be started. The flyash proportion would be stepped up incrementally to 11% (89% coal) over several hours. The test run would last 72 hours.

Petroleum Coke Phase One will be based on 5% petroleum coke (95% coal). Petroleum Coke Phases Two and Three will be based on 10% petroleum coke (90% coal) and 30% petroleum coke (70% coal), respectively. Periods for step-up, testing, and evaluation, as described for the flyash phases, will be used.

Depending upon the results of testing with flyash with coal and petroleum coke with coal, several phases with blends of flyash, coke, and coal may be done.

#### **ANTICIPATED EFFECTS UPON LIMITS OF THE TITLE V AIR PERMIT**

This project would operate within the requirements of the Title V air permit. Only the kiln system would be affected, and no permitted limits on production, total heat input, or pollutant emissions will be exceeded. Under the proposed trial, the sum of heat-input rate from the coal, tires, flyash, and petroleum coke would not be greater than the allowable, total heat-input rate. Clinker-production rates would remain within limits; preheater-feed rates would be slightly reduced as the flyash fraction fed with the fuel is increased. Emission limits will not be exceeded.

#### **POTENTIAL BENEFITS**

It is expected that addition of flyash to coal would cause:

- Reduction in emissions of total hydrocarbons and carbon monoxide, since reducing the fraction of flyash in the raw feed would mean less carbonaceous material subject to oxidation in the preheater tower.
- Improved ability to control NO<sub>x</sub> emissions since carbonaceous feed materials are delivered directly to the burning zone and reducing conditions at the calciner can be better controlled.
- Increased flexibility to use varying qualities of electric-power plant flyash.
- More efficient heating of incoming feed as the raw-material feed rate is slightly reduced.

Addition of petroleum coke would make use of a high-Btu fuel that is a byproduct of the Gulf of Mexico region's oil-refining industry. Reduction in the use of coal would reduce the environmental costs associated with coal mining and delivery from more distant coal fields.

### **PERMIT MODIFICATION**

Based upon results of this project, some modifications of the Title V permit would be necessary. In particular:

- The allowable fuels would be expanded to include coal blended with up to 11% flyash and/or 30% or more petroleum coke.
- Fueling limit would be based upon total heat input, not a maximum coal feed rate.
- The ratio of dry preheater feedrate to clinker production rate might increase slightly as the flyash fraction of the dry preheater feedrate is reduced.

### **CONCLUSION**

Optimization of the rates of addition of flyash and petroleum coke to the coal fired in the kiln and calciner is expected to expand the selection of fuel while improving emissions of THC and CO associated with carbonaceous materials in the feed and allow better NOx control by improving reducing-condition controls.

**ATTACHMENT 2**

**Attachment 2            Rule Applicability Analysis / Identification of Applicable Requirements**

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<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), or particulate matter (PM/PM<sub>10</sub>) 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  |

**ATTACHMENT 3**

### **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
- Petroleum Coke
- Flyash

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**



**Attachment 4**

**Requested Changes to Title V Air Operation Permit**

**FROM: C.3. Methods of Operation - (i.e. Fuels).** Fuels fired in the pyroprocessing system (kiln and precalciner) shall not exceed a total maximum heat input of 364 MMBtu/hr and shall consist of only coal, (usage rate shall not exceed 14.0 TPH), whole tires, propane and “unused No. 2” fuel oil which may also be fired in the Raw Mill Air Heater. Propane usage is limited to startup and in lieu of tires in the first stage of the MSC. The burning of RCRA hazardous waste or used oil is prohibited. All fuel usage shall be in compliance with the following limits and conditions: [Rule 62-210.200(203), F.A.C.]

Coal	<ul style="list-style-type: none"> <li>The sulfur content shall not exceed 1.25% by weight. The maximum usage rate shall not exceed 14.0 tons per hour. The sulfur content shall be determined by ASTM Method D-2234, D-3173, D-3176, D-3177 or D-4239.</li> </ul>
Whole Tires	<ul style="list-style-type: none"> <li>The maximum feed rate shall not exceed 109.2 MMBtu/hour (30% of the total kiln fuel input) or 4.2 tons per hour (approximately 400 tires per hour) and 36,792 tons per year.</li> <li>The tires shall be fed into the kiln system at the transition section between the base of the precalciner and the point where gases exit the kiln. The tire feeder mechanism shall consist of a rotary feeder, which seals the tire entry point from the atmosphere.</li> <li>Prior to initiating tire firing, the gases exiting the kiln ahead of the calciner burner shall be maintained at a minimum of 1,400 °F for at least one hour. The facility shall maintain records of the exit temperature and duration time of the exit gases to verify compliance with this requirement.</li> </ul>
No. 2 Fuel Oil (unused)	<ul style="list-style-type: none"> <li>Shall be fired and the sulfur content shall not exceed 0.05% by weight. The maximum usage rate shall not exceed 125,000 gallons per year for kiln startup.</li> </ul>
Propane	<ul style="list-style-type: none"> <li>Limited to startup and in lieu of tires in the first stage of the MSC.</li> </ul>

[Rule 62-213.410, F.A.C., AC01-267311/PSD-FL-228; 0010087-003-AC/PSD-FL-228A]

**TO: C.3. Methods of Operation - (i.e. Fuels).** Fuels fired in the pyroprocessing system (kiln and precalciner) shall not exceed a total maximum heat input of 364 MMBtu/hr and shall consist of only coal, (usage rate shall not exceed 14.0 TPH), whole tires, propane, **petroleum coke, flyash,** and “unused No. 2” fuel oil which may also be fired in the Raw Mill Air Heater. Propane usage is limited to startup and in lieu of tires in the first stage of the MSC. The burning of RCRA hazardous waste or used oil is prohibited. All fuel usage shall be in compliance with the following limits and conditions: [Rule 62-210.200(203), F.A.C.]

Coal	<ul style="list-style-type: none"> <li>The sulfur content shall not exceed 1.25% by weight. The maximum usage rate shall not exceed 14.0 tons per hour. The sulfur content shall be determined by ASTM Method D-2234, D-3173, D-3176, D-3177 or D-4239.</li> </ul>
Whole Tires	<ul style="list-style-type: none"> <li>The maximum feed rate shall not exceed 109.2 MMBtu/hour (30% of the total kiln fuel input) or 4.2 tons per hour (approximately 400 tires per hour) and 36,792 tons per year.</li> <li>The tires shall be fed into the kiln system at the transition section between the base of the precalciner and the point where gases exit the kiln. The tire feeder mechanism shall consist of a rotary feeder, which</li> </ul>

	<ul style="list-style-type: none"> <li>seals the tire entry point from the atmosphere.</li> <li>Prior to initiating tire firing, the gases exiting the kiln ahead of the calciner burner shall be maintained at a minimum of 1,400 °F for at least one hour. The facility shall maintain records of the exit temperature and duration time of the exit gases to verify compliance with this requirement.</li> </ul>
No. 2 Fuel Oil (unused)	<ul style="list-style-type: none"> <li>Shall be fired and the sulfur content shall not exceed 0.05% by weight. The maximum usage rate shall not exceed 125,000 gallons per year for kiln startup.</li> </ul>
Propane	<ul style="list-style-type: none"> <li>Limited to startup and in lieu of tires in the first stage of the MSC.</li> </ul>
Petroleum Coke	<ul style="list-style-type: none"> <li>The usage rate shall not exceed 100% of the total, kiln heat input of 364 MMBtu/hr (approximately 13.6 tph).</li> </ul>
Flyash	<ul style="list-style-type: none"> <li>The usage rate shall not exceed 5% of the total, kiln heat input nor a maximum of 18.2 MMBtu/hr (approximately 3.6 tph).</li> </ul>

[Rule 62-213.410, F.A.C., AC01-267311/PSD-FL-228; 0010087-003-AC/PSD-FL-228A]

**FROM: C.18.** The permittee shall test the emissions from the Kiln System for the following pollutants annually:

Description	Pollutant	Fuel(s) [1]	EPA Reference Method	Testing Time Frequency [2]	Min. Compliance Test duration
Kiln/ Raw Mill	VE	Coal/Oil Propane/WTD F	9/COM	Annual/COM [3]	60 minutes
Kiln/ Raw Mill	PM/PM <sub>10</sub>	Coal/Oil Propane/WTD F	5	Annual	3 one hour runs
Kiln/ Raw Mill	SO <sub>2</sub> [5]	Coal/Oil Propane/WTD F	CEMS	Daily average	Continuous
Kiln/ Raw Mill	NO <sub>x</sub> [6]	Coal/Oil Propane/WTD F	CEMS	Daily average	Continuous
Kiln/ Raw Mill	CO	Coal/Oil Propane/WTD F	10	Annual [4]	3 one hour runs
Kiln/ Raw Mill	VOC	Coal/Oil Propane/WTD F	25/25A/ CEM [7]	Annual	3 one hour runs

Kiln/ Raw Mill	SAM	Coal/Oil Propane/WTD F	8	Annual	3 one hour runs
Kiln/ Raw Mill	D/F	Coal/Oil Propane/WTD F	23	Every 30 months	3 one hour runs

**Specific Condition No. C.18 continued:**

[1] {Rule 62-297.310(7)(a)4., F.A.C., establishes the test frequency. Annual testing of emissions shall be conducted according to common condition I.9. Fuels to be burned are specified in Specific Condition C.3.

[2] {Rule 62-297.310(7)(a)4, F.A.C. allows the permittee to conduct a formal compliance test anytime during the federal fiscal year (October 1- September 30).}

[3] Pursuant to 40 CFR 63.1350(c)(1), Subpart LLL, installed, maintained, and continuously operate a COM located at the outlet of the PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by subpart A, general provisions of this part, and according to PS-1 of appendix B to subpart 60 of this chapter.

[4] Continuous process monitors for CO and/or O<sub>2</sub> to optimize combustion conditions for pollution control shall be part of the process.

[5] SO<sub>2</sub> - The continuous emission monitor (CEM) data shall be used for the Kiln compliance requirement. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.

[6] NO<sub>x</sub> - The continuous emission monitor (CEM) data shall be used to demonstrate compliance with the kiln emissions limits. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B.

[7] THC CEMs.

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

**TO: C.18.** The permittee shall test the emissions from the Kiln System for the following pollutants annually:

Description	Pollutant	Fuel(s) [1]	EPA Reference Method	Testing Time Frequency [2]	Min. Compliance Test duration
Kiln/ Raw Mill	VE	Coal/Oil/ Propane/WTD F/ <b>Petroleum Coke/ Flyash</b>	9/COM	Annual/COM [3]	60 minutes
Kiln/ Raw Mill	PM/PM <sub>10</sub>	Coal/Oil/ Propane/WTD F/ <b>Petroleum Coke/ Flyash</b>	5	Annual	3 one hour runs

Kiln/ Raw Mill	SO <sub>2</sub> [5]	Coal/Oil/ Propane/WTD F/ <b>Petroleum Coke/ Flyash</b>	CEMS	Daily average	Continuous
Kiln/ Raw Mill	NO <sub>x</sub> [6]	Coal/Oil/ Propane/WTD F/ <b>Petroleum Coke/ Flyash</b>	CEMS	Daily average	Continuous
Kiln/ Raw Mill	CO	Coal/Oil/ Propane/WTD F/ <b>Petroleum Coke /Flyash</b>	10	Annual [4]	3 one hour runs
Kiln/ Raw Mill	VOC	Coal/Oil/ Propane/WTD F/ <b>Petroleum Coke/ Flyash</b>	25/25A/ CEM [7]	Annual	3 one hour runs
Kiln/ Raw Mill	SAM	Coal/Oil/ Propane/WTD F/ <b>Petroleum Coke/ Flyash</b>	8	Annual	3 one hour runs
Kiln/ Raw Mill	D/F	Coal/Oil/ Propane/WTD F/ <b>Petroleum Coke/ Flyash</b>	23	Every 30 months	3 one hour runs

**Specific Condition No. C.18 continued:**

[1] {Rule 62-297.310(7)(a)4., F.A.C., establishes the test frequency. Annual testing of emissions shall be conducted according to common condition I.9. Fuels to be burned are specified in Specific Condition C.3.

[2] {Rule 62-297.310(7)(a)4, F.A.C. allows the permittee to conduct a formal compliance test anytime during the federal fiscal year (October 1- September 30).}

[3] Pursuant to 40 CFR 63.1350(c)(1), Subpart LLL, installed, maintained, and continuously operate a COM located at the outlet of the PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by subpart A, general provisions of this part, and according to PS-1 of appendix B to subpart 60 of this chapter.

[4] Continuous process monitors for CO and/or O<sub>2</sub> to optimize combustion conditions for pollution control shall be part of the process.

[5] SO<sub>2</sub> - The continuous emission monitor (CEM) data shall be used for the Kiln compliance requirement. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.

[6] NO<sub>x</sub> - The continuous emission monitor (CEM) data shall be used to demonstrate compliance with the kiln emissions limits. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B.

[7] THC CEMs.

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

**FROM: C.19. Stack Test Conditions.** The manual stack test shall be conducted while firing both primary fuels at permitted capacity (70 to 100% coal and 0 to 30% tires) and while all continuous monitoring systems are functioning properly, and with all process units operating at their permitted capacity. Permitted capacity is defined as 90-100 % of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the units may be tested at less than 90% of the maximum operating rate allowed by the permit. In this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the units are so limited, then operation at higher capacities (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.310(2)(b), F.A.C.]

If the kiln is tested while firing less than 30% tires, subsequent operation is limited to 110% the percentage of tires burned during the test, not to exceed 30% of the total heat input. Once the kiln is so limited, then operation at greater tire burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

[AC01-267311/PSD-FL-228; Rule 62-297.310(2)(b), F.A.C.; and, 0010087-003-AC/PSD-FL-228A]

**TO: C.19. Stack Test Conditions.** The manual stack test shall be conducted while firing fuels at permitted capacity (and heat input of 0 to 100% coal, 0 to 100% petroleum coke, 0 to 30% tires, and 0 to 5% flyash) and while all continuous monitoring systems are functioning properly, and with all process units operating at their permitted capacity. Permitted capacity is defined as 90-100 % of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the units may be tested at less than 90% of the maximum operating rate allowed by the permit. In this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the units are so limited, then operation at higher capacities (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.310(2)(b), F.A.C.]

If the kiln is tested while firing less than 30% tires, subsequent operation is limited to 110% the percentage of tires burned during the test, not to exceed 30%, of the total heat input. Once the kiln is so limited, then operation at greater tire burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

[AC01-267311/PSD-FL-228; Rule 62-297.310(2)(b), F.A.C.; and, 0010087-003-AC/PSD-FL-228A]

**If the kiln is tested while firing less than 100% petroleum coke, subsequent operation is limited to 110% the percentage of petroleum coke burned during the test, not to exceed 100%, of the total heat input. Once the kiln is so limited, then operation at greater petroleum coke burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.**

**If the kiln is tested while firing less than 5% flyash, subsequent operation is limited to 110% the percentage of flyash burned during the test, not to exceed 5%, of the total heat input. Once the kiln is so limited, then operation at greater flyash burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.**

**FROM: C.39. Coal, Tires, Raw Materials and Fuel Oil.** An operating log shall be established and maintained for the weight of tires fired. The log shall include the daily tire usage, a monthly running total of the tire usage, and a cumulative annual running total to ensure that the annual limit is not exceeded. The log shall be maintained on file for at least five (5) years and shall be made available to the Department upon request. Records of the quantity and analysis of coal and fuel oil consumed and invoices for all fuel purchases along with logs for all raw materials and products shall be kept for a minimum of 5 years. Periods of startup, shutdown, and process malfunctions shall be noted on the same logs used for tires.  
[AC01-267311/PSD-FL-228]

**TO: C.39. Coal, Tires, Raw Materials and Fuel Oil.** An operating log shall be established and maintained for the weight of tires fired. The log shall include the daily tire usage, a monthly running total of the tire usage, and a cumulative annual running total to ensure that the annual limit is not exceeded. The log shall be maintained on file for at least five (5) years and shall be made available to the Department upon request. Records of the quantity and analysis of coal, **petroleum coke, flyash,** and fuel oil consumed and invoices for all fuel purchases along with logs for all raw materials and products shall be kept for a minimum of 5 years. Periods of startup, shutdown, and process malfunctions shall be noted on the same logs used for tires.  
[AC01-267311/PSD-FL-228]

**FROM: Mercury Compounds (as Hg).** Monthly sampling and analysis shall be conducted of the raw mill feed, coal and tires to demonstrate compliance with specific condition C.5. SW-846 Method 7471 or an approved EPA, DEP or ASTM test methods shall be used and records shall be maintained for inspection.  
[AC01-267311/PSD-FL-228]

**TO: Mercury Compounds (as Hg).** Monthly sampling and analysis shall be conducted of the raw mill feed, coal, tires, **petroleum coke, and flyash** to demonstrate compliance with specific condition C.5. SW-846 Method 7471 or an approved EPA, DEP or ASTM test methods shall be used and records shall be maintained for inspection.  
[AC01-267311/PSD-FL-228]

**FROM:**

**E.U. ID**

<b><u>No.</u></b>	<b><u>Brief Description</u></b>
-007	Coal Handling and Grinding

Emissions Unit 007 identifies the Coal Handling and Grinding Operation. Emission points are Controlled by Fabric Filters and are defined as follows: (EP01)-Coal Mill- S-17, (EP02)-Pulverized coal storage bin- S-21 and fugitive emissions from the coal handling and storage operations.

{Permitting note(s): This emissions unit is regulated under NSPS- 40 CFR 60 Subpart A – General Provisions, Appendix A and Appendix B, and NSPS - 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants adopted and incorporated by reference in Chapter 62-204, F.A.C.}

**TO:**

**E.U. ID**

<b><u>No.</u></b>	<b><u>Brief Description</u></b>
-007	Coal, Petroleum Coke, and Flyash Handling and Grinding

Emissions Unit 007 identifies the Coal, **Petroleum Coke, and Flyash** Handling and Grinding Operation. Emission points are Controlled by Fabric Filters and are defined as follows: (EP01)-Coal, **Petroleum Coke, and Flyash** Mill- S-17, (EP02)-Pulverized coal, **petroleum coke, and flyash** storage bin- S-21, fugitive emissions from the coal, **petroleum coke, and flyash** handling and storage operations.

{Permitting note(s): This emissions unit is regulated under NSPS- 40 CFR 60 Subpart A – General Provisions, Appendix A and Appendix B, NSPS - 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants adopted and incorporated by reference in Chapter 62-204, F.A.C.

**FROM: G.1. Capacity.** The maximum throughput rate for this emissions unit shall not exceed 14 tons per hour of pulverized coal.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C]

**TO: G.1. Capacity.** The maximum throughput rate for this emissions unit shall not exceed 14 tons per hour of pulverized coal, **petroleum coke, and flyash.**  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C]

**FROM: G.6.** The permittee shall test the emissions from the Coal Handling and Grinding for the following pollutants annually:

- a. Visible Emissions (V.E.) EP01 and EP02  
(See Condition G.3.)

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

**TO: G.6.** The permittee shall test the emissions from the Coal, **Petroleum Coke, and Flyash** Handling and Grinding for the following pollutants annually:

- a. Visible Emissions (V.E.) EP01, EP02.  
(See Condition G.3.)

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

**ATTACHMENT 5**



11. Rossi, R. A. "Refinery byproduct emerges as a viable power plant fuel." *Power*, August 1993.
12. Genereux, R. P. and Doucette, B., "Pet-coke-firing experience evolves over three decades." *Power*, July/August 1996.
13. Showyra, R. "Power Generation Requirements." Eleventh Annual Fluidized Bed Conference, Allentown, Pennsylvania, November 1995.
14. Jones, C. "O&M experience underscores maturity of CFB technology." *Power*, May 1995.
15. Jeffs, E. "Karita: A quantum leap for PFBC." *Turbomachinery International*, March/April 1997.
16. Hennagir, T. "PFBC Progresses." *Independent Energy*, September 1996.
17. Jahanke, F. C., Falsetti, J. S., and Wilson, R. F., "Coke Gasification, Costs, Economics & Commercial Applications." 1996 NPRA Annual Meeting, San Antonio, Texas, March 1996.
18. Tavoulareas, E.S., and Charpentier, J. P., "Clean Coal Technologies for Developing Countries." World Bank Technical Paper Number 286.

**Table 1: Typical properties of delayed petroleum coke  
(Ultimate Analysis as Received, Weight %)**

Constituent	Average	Range
Carbon	79.74	75.0 - 86.0
Hydrogen	3.31	3.0 - 3.6
Nitrogen	1.61	1.3 - 1.9
Sulfur	4.47	3.4 - 5.3
Ash	0.27	0.0 - 0.6
Oxygen	0.00	0.0 - 0.1
Moisture	10.60	5.5 - 15.0
HHV, MJ/kg	31.3	29.3 - 33.7
Ash Properties, ppm	Average	Range
Vanadium	<2,000	500 - 2,000
Nickel	336	250 - 450
Iron	84	50 - 250
Volatile Matter, %	10	8 - 16

Heat-value unit equivalent:

Average - 26.8 MMBtu/ton

Range - 25.2 to 29 MMBtu/ton

*Oxley 5/6/05*

## **Flyash**

All the values represent typical properties and will vary based on the specific fuel sources used at the power station and our process conditions.

Carbon content 40 – 60 % Corresponding ash content inversely proportional to carbon content.

High Heating Value (dry basis) 5000 – 8000 btu / lb proportional to carbon content

Bulk density 42 – 48 lb / cu. Ft.

Sulfur content 1 – 2 % as S, 2.5 – 5% as SO<sub>3</sub>

Nitrogen Content 0.3 – 0.7%

For facilities using eastern bituminous coal, the mercury content is typically 0.05 to 0.2 mg / kg (parts per million).

Separation Technologies, LLC