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January 9, 2015  
Via email only

Alvaro A. Linero, P.E.  
[Alvaro.Linero@dep.state.fl.us](mailto:Alvaro.Linero@dep.state.fl.us)  
Florida Department of Environmental Protection  
Division of Air Resource Management  
Office of Permitting and Compliance  
2600 Blair Stone Road, MS 5500  
Tallahassee, Florida 32399-2400

Subject: Air Construction Permit – SO<sub>2</sub> Averaging Period, Facility AIRS ID 1210465  
Suwannee American Cement Branford Plant

Dear Al,

This cover letter is provided for the enclosed application that relates to a change in the averaging period that is used for compliance of the SO<sub>2</sub> emissions from EU004 at the Suwannee American Cement – Branford Plant. In addition to the Department's associated construction permit application, an appendix that is also enclosed accompanies this submission. If you have questions or comments please contact me at your earliest convenience. I look forward to working with you and your staff on this project.

Best regards,

Sincerely,



Max Lee, Ph.D., P.E.  
Koogler and Associates, Inc.

Cc: Tom Messer, SAC ([tomm@vcsmc.com](mailto:tomm@vcsmc.com))  
Krishna Cole, SAC ([krishnac@suwanneecement.com](mailto:krishnac@suwanneecement.com))  
John Phillips, FDEP ([John.D.Phillips@dep.state.fl.us](mailto:John.D.Phillips@dep.state.fl.us))  
Leslie Maybin, FDEP ([Leslie.Maybin@dep.state.fl.us](mailto:Leslie.Maybin@dep.state.fl.us))  
Richard Rachal, FDEP ([Richard.Rachal@dep.state.fl.us](mailto:Richard.Rachal@dep.state.fl.us))  
Karl Seltzer, Koogler ([kseltzer@kooglerassociates.com](mailto:kseltzer@kooglerassociates.com))

Enc: Application



# Department of Environmental Protection

## Division of Air Resource Management

### APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

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

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

**Air Operation Permit** – Use this form to apply for:

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

**To ensure accuracy, please see form instructions.**

#### Identification of Facility

1. Facility Owner/Company Name: <b>Suwannee American Cement, LLC</b>	
2. Site Name: <b>Branford Cement Plant</b>	
3. Facility Identification Number: <b>1210465</b>	
4. Facility Location... Street Address or Other Locator: <b>5117 US Highway 27</b> City: <b>Branford</b> County: <b>Suwannee</b> Zip Code: <b>32008-2463</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>Max Lee, Ph.D, 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>Florida</b> Zip Code: <b>32609</b>	
3. Application Contact Telephone Numbers... Telephone: ( <b>352</b> ) <b>377 - 5822</b> ext. <b>13</b> Fax: ( <b>352</b> ) <b>377 - 7158</b>	
4. Application Contact E-mail Address: <b>mlee@kooglerassociates.com</b>	

#### Application Processing Information (DEP Use)

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

**Purpose of Application**

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

**Air Construction Permit**

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

**Air Operation Permit**

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

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

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

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

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

**Application Comment**

**This application is to adjust the averaging period of the allowable SO2 emissions from EU004. The applicant requests that the original PSD permit establish the SO2 3-hr limit to be revised and congruent to this revision.**



## FACILITY INFORMATION

### Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name : <b>Mr. Tom Messer, Plant Manager</b>
2. Owner/Authorized Representative Mailing Address... Organization/Firm: <b>Suwannee American Cement, LLC</b> Street Address: <b>5117 US Hwy 27</b> City: <b>Branford</b> State: <b>Florida</b> Zip Code: <b>32008</b>
3. Owner/Authorized Representative Telephone Numbers... Telephone: <b>(386) 935 -5000</b> Fax: <b>(386) 935 -5080</b>
4. Owner/Authorized Representative E-mail Address: <b>tomm@suwanneecement.com</b>
5. Owner/Authorized Representative Statement:  <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i>  <hr/> Signature <span style="float: right;"><hr/>Date</span>

## FACILITY INFORMATION

### Application Responsible Official Certification

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

1. Application Responsible Official Name:
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input 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, CAIR source, or Hg Budget source.
3. Application Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
4. Application Responsible Official Telephone Numbers... Telephone: ext. Fax:
5. Application Responsible Official E-mail Address:
6. Application Responsible Official Certification: <i>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

## FACILITY INFORMATION

### Professional Engineer Certification

1. Professional Engineer Name: <b>Max Lee, Ph.D. P.E.</b> Registration Number: <b>58091</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>Florida</b> Zip Code: <b>32609</b>
3. Professional Engineer Telephone Numbers... Telephone: <b>(352) 377-5822</b> ext. <b>13</b> Fax: <b>(352) 377-7158</b>
4. Professional Engineer E-mail Address: <a href="mailto:mlee@kooglerassociates.com">mlee@kooglerassociates.com</a>
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 checked="" 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 type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</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 checked="" 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 (seal)  _____ Date

**FACILITY INFORMATION**

**II. FACILITY INFORMATION**

**A. GENERAL FACILITY INFORMATION**

**Facility Location and Type**

1. Facility UTM Coordinates... Zone <b>17</b> <b>321.4</b> East (km) <b>3315.9</b> North (km)		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) <b>29°57'45"</b> Longitude (DD/MM/SS) <b>82°51'03"</b>	
3. Governmental Facility Code: <b>0</b>	4. Facility Status Code: <b>A</b>	5. Facility Major Group SIC Code: <b>32</b>	6. Facility SIC(s): <b>3241</b>
7. Facility Comment : <b>None</b>			

**Facility Contact**

1. Facility Contact Name: <b>Krishna C. Cole - Environmental Engineer</b>
2. Facility Contact Mailing Address... Organization/Firm: <b>Suwannee American Cement, LLC</b> Street Address: <b>5117 US HWY 27</b> City: <b>Branford</b> State: <b>Florida</b> Zip Code: <b>32008</b>
3. Facility Contact Telephone Numbers: Telephone: <b>386-935-5023</b> Fax: <b>386-935-5080</b>
4. Facility Contact E-mail Address: <a href="mailto:krishnac@suwanneecement.com">krishnac@suwanneecement.com</a>

**Facility Primary Responsible Official**

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

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



## FACILITY INFORMATION

### Facility Regulatory Classifications

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

1. <input type="checkbox"/> Small Business Stationary Source	<input 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))	
<p>12. Facility Regulatory Classifications Comment:</p> <p><b>Facility is subject to applicable portions of:</b>  <b>40 CFR 51, 52, 70, 71 – GHG Tailoring Rule</b>  <b>40 CFR 63 Subpart LLL</b>  <b>40 CFR 60 Subpart F (superseded by NESHAP Subpart LLL)</b>  <b>40 CFR 60 Subpart Y</b>  <b>40 CFR 60 Subpart OOO</b>  <b>40 CFR 241</b>  <b>40 CFR 63 Subpart ZZZZ and 40 CFR 60 Subpart IIII as applicable.</b>  <b>Rules 62-4 through 62-297, F.A.C. ; specifically 62-297.407, F.A.C. for cement plants</b></p>	

## FACILITY INFORMATION

### List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
<b>PM</b>	<b>A</b>	<b>N</b>
<b>PM<sub>10</sub></b>	<b>A</b>	<b>N</b>
<b>SO<sub>2</sub></b>	<b>A</b>	<b>N</b>
<b>NO<sub>x</sub></b>	<b>A</b>	<b>N</b>
<b>CO</b>	<b>A</b>	<b>N</b>
<b>HAPS</b>	<b>A</b>	<b>N</b>
<b>VOC</b>	<b>B</b>	<b>N</b>
<b>DIOX</b>	<b>B</b>	<b>N</b>
<b>H114</b>	<b>B</b>	<b>N</b>



## 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: _____
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: _____
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: _____

#### 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, Modification, or Plantwide Applicability Limit (PAL): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
3. Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
4. List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), 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(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) 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**

**C. FACILITY ADDITIONAL INFORMATION (CONTINUED)**

**Additional Requirements for FESOP Applications**

1. List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
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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
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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: _____ 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.
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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 Onsite but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable
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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
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6. Requested Changes to Current Title V Air Operation Permit: <input checked="" type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
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## EMISSIONS UNIT INFORMATION

Section [1] of [1]

In-Line Kiln/Raw Mill

### III. EMISSIONS UNIT INFORMATION

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

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

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

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

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

**A. GENERAL EMISSIONS UNIT INFORMATION**

**Title V Air Operation Permit Emissions Unit Classification**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

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

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

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

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

2. Description of Emissions Unit Addressed in this Section: **In-Line Kiln/Raw Mill**

3. Emissions Unit Identification Number: **004**

4. Emissions Unit Status Code: <b>A</b>	5. Commence Construction Date: <b>6/1/00</b>	6. Initial Startup Date: <b>2/17/03</b>	7. Emissions Unit Major Group SIC Code: <b>32</b>
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

9. Package Unit:  
Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment: **This application is to adjust the averaging period of the allowable SO2 emissions from a 3-hr averaging period to a 24-hr averaging period.**



**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

**Emissions Unit Control Equipment/Method: Control 1 of 4**

1. Control Equipment/Method Description:  
**Baghouse – High Temperature**

2. Control Device or Method Code: **016**

**Emissions Unit Control Equipment/Method: Control 2 of 4**

1. Control Equipment/Method Description:  
**SNCR**

2. Control Device or Method Code: **107**

**Emissions Unit Control Equipment/Method: Control 3 of 4**

1. Control Equipment/Method Description:  
**Hydrated Lime Injection (injected at kiln feed with Poldos)**

2. Control Device or Method Code: **041**

**Emissions Unit Control Equipment/Method: Control 4 of 4**

1. Control Equipment/Method Description:  
**Multistaged Combustion**

2. Control Device or Method Code: **025**

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

**B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate: <b>210 TPH; 1,684,578 TPY dry preheater feed and fly ash (consecutive 12-month period, fed directly to the calciner)</b>		
<b>97 lb/consecutive 12 month period of Mercury (by mass, as Hg) introduced into pyroprocessing system</b>		
2. Maximum Production Rate: <b>120 TPH; 965,425 TPY clinker (consecutive 12-month period)</b>		
3. Maximum Heat Input Rate: <b>458 million Btu/hr (kiln and calciner)</b> <b>32 million Btu/hr (air heater)</b>		
4. Maximum Incineration Rate: pounds/hr tons/day		
5. Requested Maximum Operating Schedule:		
<b>24 hours/day</b>		<b>7 days/week</b>
<b>52 weeks/year</b>		<b>8,760 hours/year</b>
6. Operating Capacity/Schedule Comment: <b>Based on Permit No. 1210465-019-AV.</b>		

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

**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>Kiln/Raw Mill</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>250</b> feet	7. Exit Diameter: <b>9.42</b> feet	
8. Exit Temperature: <b>205</b> °F	9. Actual Volumetric Flow Rate: <b>194,000</b> acfm	10. Water Vapor: <b>6.5</b> %	
11. Maximum Dry Standard Flow Rate: <b>144,000</b> dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:			

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

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

**Segment Description and Rate:** Segment 1 of 5

1. Segment Description (Process/Fuel Type): <b>Industrial Processes; In-Process Fuel Use; Natural Gas; Cement Kiln/Dryer</b>		
2. Source Classification Code (SCC): <b>3-90-006-02</b>		3. SCC Units: <b>Million Cubic Feet Burned</b>
4. Maximum Hourly Rate: <b>0.44</b>	5. Maximum Annual Rate: <b>3,854</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>1,050</b>
10. Segment Comment: <b>Based on 458 MMBtu/hr (Permit No. 1210465-006-AV):</b> <b>458 MMBtu/hr x MMcf/1,050 MMBtu = 0.44 MMcf/hr</b> <b>0.44 MMcf x 8,760 hr/yr = 3,854 MMcf/yr</b>		

**Segment Description and Rate:** Segment 2 of 5

1. Segment Description (Process/Fuel Type): <b>Industrial Processes; In-Process Fuel Use; Bituminous Coal; Cement Kiln/Dryer (Bituminous Coal)</b>		
2. Source Classification Code (SCC): <b>3-90-002-01</b>		3. SCC Units: <b>Tons Burned</b>
4. Maximum Hourly Rate: <b>18.3</b>	5. Maximum Annual Rate: <b>160,300</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>1.5</b>	8. Maximum % Ash: <b>10</b>	9. Million Btu per SCC Unit: <b>25</b>
10. Segment Comment: <b>Based on 458 MMBtu/hr (Permit No. 1210465-006-AV):</b> <b>458 MMBtu/hr x tons/25 MMBtu = 18.32 tons/hr</b> <b>18.3 tons/hr x 8,760 hr/yr = approximately 160,300 tons/yr</b>		

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

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

**Segment Description and Rate: Segment 3 of 5**

1. Segment Description (Process/Fuel Type): <b>Industrial Processes; In-Process Fuel Use; Coke; General: Coke</b>		
2. Source Classification Code (SCC): <b>3-90-008-99</b>	3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate: <b>16.4</b>	5. Maximum Annual Rate: <b>143,664</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>5</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>28</b>
10. Segment Comment: <b>Based on 458 MMBtu/hr (Permit No. 1210465-006-AV):</b> <b>458 MMBtu/hr x tons/28 MMBtu = 16.4 tons/hr</b> <b>16.4 tons/hr x 8,760 hr/yr = 143,664 tons/yr</b>		

**Segment Description and Rate: Segment 4 of 5**

1. Segment Description (Process/Fuel Type): <b>Industrial Processes; Mineral Products; Cement Manufacturing (Dry Process); Preheater/Precliner Kiln</b>		
2. Source Classification Code (SCC): <b>3-05-006-23</b>	3. SCC Units: <b>Tons Clinker Produced</b>	
4. Maximum Hourly Rate: <b>120</b>	5. Maximum Annual Rate: <b>965,425</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: <b>Based on Permit No. 1210465-006-AV. The Kiln is limited to 210 TPH and 1,684,578 tons/consecutive 12-mos. of dry flyash or dry preheater feed.</b>  <b>Clinker production is calculated by:</b> <b>Clinker production = [(Feed)(Kiln feed LOI factor) + (Fly Ash Injection) + (Fly Ash LOI Factor)]</b> <b>Where,</b> <b>-Kiln feed is determined by the Poldos control system</b> <b>-Flyash is determined from the rotary feed system or equivalent</b> <b>-LOI for the kiln feed and flyash is based on a 30 operating-day block average of daily measurements. (For purposes of this requirement, an operating day is any day that the kiln produces clinker or fires fuel.)</b>		

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

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

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

1. Segment Description (Process/Fuel Type): <b>Industrial Processes; In-Process Fuel Use; Natural Gas; General (Air Heater)</b>		
2. Source Classification Code (SCC): <b>3-90-006-89</b>		3. SCC Units: <b>Million Cubic Feet Burned</b>
4. Maximum Hourly Rate: <b>0.03</b>	5. Maximum Annual Rate: <b>262.8</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>1,050</b>
10. Segment Comment: <b>Segment represents natural gas usage for the raw mill air heater. Based on 32 MMBtu/hr (Permit No. 1210465-006-AV): 32 MMBtu/hr x MMcf/1,050 MMBtu = 0.03 MMcf/hr 0.03 MMcf x 8,760 hr/yr = 262.8 MMcf/yr</b>		

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

**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
<b>PM</b>	<b>016</b>		<b>EL</b>
<b>PM<sub>10</sub></b>	<b>016</b>		<b>EL</b>
<b>SO<sub>2</sub></b>	<b>041</b>		<b>EL</b>
<b>NO<sub>x</sub></b>	<b>107</b>		<b>EL</b>
<b>CO</b>			<b>EL</b>
<b>VOC</b>			<b>EL</b>
<b>D/F</b>			<b>EL</b>
<b>THC</b>			<b>EL</b>
<b>H114 (Hg)</b>			<b>EL</b>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

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

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

1. Pollutant Emitted: <b>PM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>23.1 lb/hour                      92.7 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: <b>0.11 lb/ton dry preheater feed (3-hr. avg.)</b> Reference: <b>Permit No. 1210465-019-AV</b>		7. Emissions Method Code: <b>0</b>	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <b>Annual: 0.11 lb/ton x 1,684,578 TPY dry preheater feed / 2,000 lb/ton = 92.7 TPY</b>			
11. Potential, Fugitive, and Actual Emissions Comment:			



**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>0.11 lb/ton dry preheater feed (3-hr. avg.)</b>	4. Equivalent Allowable Emissions: <b>23.1 lb/hour                      92.7 tons/year</b>
5. Method of Compliance: <b>Annual compliance testing using EPA Method 5.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV.</b>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

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

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>19.6 lb/hour                      78.3 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: <b>0.093 lb/ton dry preheater feed (3-hr. avg.)</b> Reference: <b>Permit No. 1210465-019-AV</b>		7. Emissions Method Code: <b>0</b>	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <b>Annual: 0.093 lb/ton x 1,684,578 tons/year dry preheater feed / 2,000 lb/ton = 78.3 TPY</b>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>0.093 lb/ton dry preheater feed (3-hr avg.)</b>	4. Equivalent Allowable Emissions: <b>19.6 lb/hour                      78.3 tons/year</b>
5. Method of Compliance: <b>Annual compliance testing using EPA Method 5 (assuming all PM measured is PM<sub>10</sub>).</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV.</b>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

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

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>	2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>22.0 lb/hour (24-hr avg) 88.3 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year		
6. Emission Factor: <b>0.183 lb/ton clinker (24-hour rolling average)</b> Reference: <b>See Attached Appendix</b>		7. Emissions Method Code: <b>0</b>
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
<p>10. Calculation of Emissions:  <b>3-hr average equivalent of 0.183 lb/ton-C 24-hr average is 0.20 lb/ton-C.</b></p> <p><b>Current hourly: 120 ton clinker/hr x 0.20 lb/ton clinker = 24 lb/hr</b>  <b>Current Annual: 0.20 lb/ton clinker (3-hr avg.) x 965,425 TPY clinker / 2,000 = 96.5 TPY</b></p> <p><b>Proposed Hourly: 120 ton clinker/hr x 0.183 (24-hr avg) lb/ton clinker = 22.0 lb/hr</b>  <b>Proposed Annual : 0.183 lb/ton clinker x 965,425 ton clinker/yr/ 2000 = 88.3 TPY</b></p> <p><b>A more detailed description of this new 24-hour rolling average is described in the attached appendix.</b></p>		
11. Potential, Fugitive, and Actual Emissions Comment:		

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>0.183 lb/ton clinker (24-hr rolling average)</b>	4. Equivalent Allowable Emissions: <b>22.0 lb/hour                      88.3 tons/year</b>
5. Method of Compliance: <b>Continuous emissions monitor and annual RATA.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>See attached appendix</b>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

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

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

1. Pollutant Emitted: <b>NO<sub>x</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>348 lb/hour                      1,159 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: <b>2.9 lb/ton clinker (24 hour average)</b> <b>2.4 lb/ton clinker (30-day average)</b> Reference: <b>Permit No. 1210465-019-AV</b>		7. Emissions Method Code: <b>0</b>	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <b>Hourly: 2.9 lb/ton clinker x 120 TPH clinker = 348 lb/hr</b> <b>Annual: 2.4 lb/ton clinker x 965,425 TPY clinker x 1 ton/2,000 lb = 1,158.51 TPY</b>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions Allowable Emissions 1 of 3**

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>2.9 lb/ton clinker (24-hour average)</b>	4. Equivalent Allowable Emissions: <b>304.5 lb/hour</b> tons/year
5. Method of Compliance: <b>Continuous emissions monitor and annual RATA.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV. Emissions are based on 24-hour average.</b>	

**Allowable Emissions Allowable Emissions 2 of 3**

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>2.4 lb/ton clinker (30-day average)</b>	4. Equivalent Allowable Emissions: <b>288 lb/hour</b> tons/year
5. Method of Compliance: <b>Continuous emissions monitor and annual RATA.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV. Emissions are based on 30-operating day block average.</b>	

**Allowable Emissions Allowable Emissions 3 of 3**

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>600 lb/hr</b>	4. Equivalent Allowable Emissions: <b>600 lb/hour</b> tons/year
5. Method of Compliance: <b>No compliance demonstration required.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV. Emission limit applies to start-up only (no material in the kiln) and for up to one hour duration per startup.</b>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

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

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

1. Pollutant Emitted: <b>CO</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>400.3 lb/hour                      1,612 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: <b>3.34 lb/ton clinker (3-hour average)</b> Reference: <b>Permit No. 1210465-019-AV</b>		7. Emissions Method Code: <b>0</b>	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <b>Annual: 3.34 lb/ton clinker x 965,425 TPY clinker x 1 ton/2,000 lb = 1,612.3 TPY</b>			
11. Potential, Fugitive, and Actual Emissions Comment:			



**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>3.34 lb/ton clinker (3-hour average)</b>	4. Equivalent Allowable Emissions: <b>400.3 lb/hour      1,612 tons/year</b>
5. Method of Compliance: <b>Annual compliance test using EPA Method 10.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV.</b>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

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

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

1. Pollutant Emitted: <b>VOC</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>14.4 lb/hour                      57.9 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: <b>0.12 lb/ton clinker (30-operating day block average)</b>  Reference: <b>Permit No. 1210465-019-AV</b>		7. Emissions Method Code: <b>0</b>	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <b>Annual: 0.12 lb/ton clinker x 965,425 TPY clinker x 1 ton/2,000 lb = 57.93 TPY</b>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>0.12 lb/ton clinker (30-operating day block average)</b>	4. Equivalent Allowable Emissions: <b>14.4 lb/hour</b> tons/year
5. Method of Compliance: <b>Continuous emissions monitor and annual RATA.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV.</b>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

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

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

1. Pollutant Emitted: <b>D/F</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: <b>0.20 ng/dscm @ 7% O<sub>2</sub></b> <b>0.40 ng/dscm @ 7% O<sub>2</sub> when PM control device inlet temperature is ≤ 204°C</b> Reference: <b>Permit No. 1210465-019-AV</b>			7. Emissions Method Code: <b>0</b>
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions:			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions Allowable Emissions 1 of 2**

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>0.20 ng/dscm @ 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: <b>Compliance test using EPA Method 23 every 30 months.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV and 40 CFR 63 Subpart LLL. Limit applies when the inlet temperature of the PM control device is &gt; 204°C.</b>	

**Allowable Emissions Allowable Emissions 2 of 2**

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>0.40 ng/dscm @ 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: <b>Compliance test using EPA Method 23 every 30 months.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV and 40 CFR 63 Subpart LLL. Limit applies when the inlet temperature of the PM control device is ≤ 204°C.</b>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

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

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

1. Pollutant Emitted: <b>THC</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>66.5 lb/hour                      291 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: <b>50 ppmvd as propane @ 7% O<sub>2</sub></b> Reference: <b>Permit No. 1210465-019-AV</b>		7. Emissions Method Code: <b>0</b>	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions:  <b>194,000 dscfm x 50/10<sup>6</sup> x 60 x lbmole/385 dscf x 44 lb/lbmol =66.5 lb/hr</b> <b>54.6 x 8760 /2000 = 291 tpy</b>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>50 ppmvd as propane @ 7% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>66.5 lb/hour                      291 tons/year</b>
5. Method of Compliance: <b>Continuous THC emissions monitor. For compliance purposes, monitor results (THC as propane) are considered to be VOC (VOC as propane).</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV and 40 CFR 63.1343(c)(4).</b>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

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

**Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.**

**Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions**

1. Pollutant Emitted: <b>H114 (Mercury)</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: <b>97 lb/consecutive 12-months in raw feed and fuels</b> Reference: <b>Permit No. 1210465-019-AV</b>		7. Emissions Method Code: <b>0</b>	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions:			
11. Potential, Fugitive, and Actual Emissions Comment:			



**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

**Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.**

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>97 lb/consecutive 12-months in raw feed and fuels</b>	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: <b>Material balance by sampling and analysis of raw materials and fuels.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 1210465-019-AV.</b>	

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

**G. VISIBLE EMISSIONS INFORMATION**

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

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

1. Visible Emissions Subtype: <b>VE10</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <b>10%</b> Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <b>Continuous Opacity Monitor; 6-minutes</b>	
5. Visible Emissions Comment: <b>Based on Permit No. 1210465-006-AV and 40 CFR 63.1350.</b>	

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

In-Line Kiln/Raw Mill

**H. CONTINUOUS MONITOR INFORMATION****Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 1 of 8

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NO<sub>x</sub></b>
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>Sick Maihak</b> Model Number: <b>GM31</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>Based on Permit No. 1210465-019-AV.</b>	

**Continuous Monitoring System:** Continuous Monitor 2 of 8

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO<sub>2</sub></b>
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>Sick Maihak</b> Model Number: <b>GM31</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>Based on Permit No. 1210465-019-AV.</b>	

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

In-Line Kiln/Raw Mill

**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor 3 of 8

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>THC</b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>EUROFID</b> Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>Based on Permit No. 1210465-019-AV, 40 CFR 63.1349, and 40 CFR 63.1350. Results (THC as propane) are considered to be VOC (VOC as propane). If methane is measured concurrently with THC, then “THC as propane, minus methane” can be considered VOC (VOC as propane) for compliance purposes.</b>	

**Continuous Monitoring System:** Continuous Monitor 4 of 8

1. Parameter Code: <b>TEMP</b>	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: _____ Model Number: _____ Serial Number: _____	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>Continuous temperature monitor at the inlet to the in-line kiln/raw mill baghouse. Based on Permit No. 1210465-019-AV and 40 CFR 63.1349 and 40 CFR 63.1350.</b>	

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

In-Line Kiln/Raw Mill

**H. CONTINUOUS MONITOR INFORMATION****Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 5 of 8

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>Sick Maihak</b> Model Number: <b>OMD41</b> Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>Continuous opacity monitor. Based on Permit No. 1210465-019-AV and Rule 40 CFR 63.1350.</b>	

**Continuous Monitoring System:** Continuous Monitor 6 of 8

1. Parameter Code: <b>CO</b>	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>Not for compliance. Process monitor. Based on Permit No. 1210465-019-AV.</b>	

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

In-Line Kiln/Raw Mill

**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor 7 of 8

1. Parameter Code: <b>Ammonia</b>	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>not for compliance. Continuously monitors ammonia injection rate to the SNCR system. Based on Permit No. 1210465-019-AV.</b>	

**Continuous Monitoring System:** Continuous Monitor 8 of 8

1. Parameter Code: <b>FLOW</b>	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date: <b>2003</b>	6. Performance Specification Test Date:
7. Continuous Monitor Comment: <b>Required by BACT, upcoming 40 CFR 63 emission limits and 40 CFR 98.</b>	
<b>NOTE - HCL PM and HG monitors have not been purchased yet.</b>	

**EMISSIONS UNIT INFORMATION**

Section [1] of [1]

**In-Line Kiln/Raw Mill**

**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 checked="" type="checkbox"/> Previously Submitted, Date: _____
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 type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>N/A</u>
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 _____
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 type="checkbox"/> Previously Submitted, Date _____ <input checked="" 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 type="checkbox"/> Previously Submitted, Date _____ <input checked="" 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: <u>7/26/13 &amp; 10/10/13</u> Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable





**AIR CONSTRUCTION PERMIT APPLICATION**

**SUWANNEE AMERICAN CEMENT, LLC**

**FACILITY ID: 1210465**



**PREPARED FOR:**

Suwannee American Cement, LLC  
Branford Cement Plant  
5117 US Highway 27  
Branford, FL 32008

**PREPARED BY:**

Koogler and Associates, Inc.  
4014 NW 13<sup>th</sup> St.  
Gainesville, FL 32609

Submission Date: January 8, 2015

624-14-08

# Appendix

Suwannee American Cement, LLC

Facility ID: 1210465

Air Construction Permit Application for adjustment of  
averaging period for SO2 emissions from EU004

## Table of Contents

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## **EXECUTIVE SUMMARY**

Suwannee American Cement, LLC (SAC) owns and operates a cement plant located in Branford, Florida, designated as the Branford Cement Plant. The cement plant consists of one dry-process kiln with preheater, precalciner, and clinker cooler permitted to produce 965,425 tons per year (TPY) of clinker. The cement produced by SAC is typically distributed to ready-mix facilities within 100 miles of the facility and is used in many different construction projects throughout North Florida. SAC's cement is locally produced and locally consumed. The Florida Department of Environmental Protection (DEP) issued the initial air construction permit for the SAC dry-process cement kiln in 2000 and the facility began operation in 2003. Its current Title V permit is 1210465-019-AV.

This construction permit application requests an adjustment to the averaging period that is used for compliance of SO<sub>2</sub> emissions from EU004, the In-Line Kiln/Raw Mill. The current Title-V permit, which is in the process of renewal, is 1210465-019-AV. Currently the facility is allowed to emit 0.20 lb/ton-clinker, based on a 3-hr average, from EU004. The adjustment to this averaging period and the updated proposed emission limit proposal will follow in the upcoming section.

## ADJUSTMENT OF THE SO<sub>2</sub> LB/TON-CLINKER AVERAGING TIME FOR EU004

The current Title-V permit, which is in the process of renewal, is 1210465-019-AV. Currently the facility is allowed to emit 0.20 lb/ton-clinker, based on a 3-hr average, from EU004. The adjustment to this averaging period and the updated proposed emission limit proposal roughly followed the same methodology given in the EPA Memorandum titled “Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions,” published on April 23, 2014 by Stephen D. Page, Director of the OAQPS.

To calculate an equivalent emission rate, a ratio was calculated using valid SO<sub>2</sub> measurements from SAC’s SO<sub>2</sub> CEMS, spanning November 1, 2009 – December 16, 2014. In total, there were 24,639 valid data points of 1-hr average values for SO<sub>2</sub> emissions over this time period. Since the NAAQS for SO<sub>2</sub> is based off of the 99<sup>th</sup> percentile of the maximum 1-hr daily concentrations, the values analyzed in this study utilize the 99<sup>th</sup> percentile values from the SO<sub>2</sub> CEMS.

As such, the 246<sup>th</sup> highest value from the past 5-years, using only valid data, was 8.65 lb/hr, based on a 1-hr average. In addition, the 246<sup>th</sup> highest value from the past 5-years, using only valid data, was 8.44 and 7.71 lb/hr, based on a 3-hr and a 24-hr averaging period, respectively.

The ratio used in the equivalent conversion of a 3-hr average to a 24-hr average was calculated by using the following method:

$$\text{Ratio} \left( \frac{24 - \text{hr}}{3 - \text{hr}} \right) = 7.713 \frac{\text{lb SO}_2}{\text{hr}} \div 8.442 \frac{\text{lb SO}_2}{\text{hr}} = 0.914$$

Since the current SO<sub>2</sub> limit for SAC is 0.20 lb/ton-clinker, based on a 3-hr average, the equivalent 24-hr average using the 99<sup>th</sup> percentile methodology outlined in the EPA memorandum would be:

$$24 - \text{hr Avg. Limit} \left( \frac{\text{lb SO}_2}{\text{ton} - \text{C}} \right) = 0.20 \frac{\text{lb SO}_2}{\text{ton} - \text{C}} \times 0.914 = 0.183 \frac{\text{lb SO}_2}{\text{ton} - \text{C}} \text{ (24 - hr avg.)}$$