



**KOOGLER & ASSOCIATES**  
ENVIRONMENTAL SERVICES

4014 NW THIRTEENTH STREET  
GAINESVILLE, FLORIDA 32609  
352/377-5822 ■ FAX/377-7158

KA 624-09-07  
October 18, 2009

RECEIVED

OCT 22 2009

BUREAU OF AIR REGULATION

Mrs. Trina Vielhauer, Bureau Chief  
Bureau of Air Regulation  
Florida Dept. of Environmental Regulation  
2600 Blair Stone Road, MS 5500  
Tallahassee, Florida 32399-2400

**RE: AC Permit Application to Remove Initial PSD Permit (PSD-FL-259) Conditions  
Suwannee American Cement; Branford Cement Plant, Facility ID: 1210465**

Dear Mrs. Vielhauer:

Enclosed please find four (4) copies of an air construction (AC) permit application for Suwannee American Cement, Branford Cement Plant. This AC permit application is to request removal of two specific conditions of the initial PSD permit as a first step to revising the Title V permit for removal of the same two conditions.

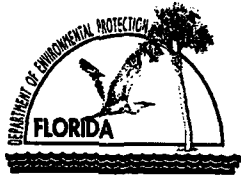
Please feel free to contact me at (352) 377-5822 or [mlee@koooglerassociates.com](mailto:mlee@koooglerassociates.com) or Krishna Cole, Suwannee American Cement at (386) 935-5023 or [krishnaC@suwanneecement.com](mailto:krishnaC@suwanneecement.com), if you have any questions regarding this submittal.

Regards,

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

Enclosure: Application Form

cc: Krishna Cole, Suwannee American Cement



# Department of Environmental Protection

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OCT 22 2009

BUREAU OF AIR REGULATION

## 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>01210465</b>	
4. Facility Location... Street Address or Other Locator: <b>5117 US Hwy 27, near intersection of CR 49</b> City: <b>Branford</b> County: <b>Suwannee</b> Zip Code: <b>32008</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, PhD, PE</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) 377-5822</b> ext.13 Fax: <b>(352) 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: <b>10/22/09</b>	3. PSD Number (if applicable): <b>259H</b>
2. Project Number(s): <b>1210465-018-12</b>	4. Siting Number (if applicable):

## APPLICATION INFORMATION

### Purpose of Application

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

#### **Air Construction Permit**

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

#### **Air Operation Permit**

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

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

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

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

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

### Application Comment

**Application is to request to remove specific conditions 28 and 31 of the PSD permit (PSD-FL-259) that requires ambient monitoring of PM10 and third party auditing such that specific conditions 14 and 17 of the Title V permit (1210465-006-AV) can be removed. These conditions are facility wide and do not impart modification, construction, or reconstruction on any individual emissions units at the facility. Thus, no specific emissions unit sections are included in this application. Attachment A includes a detailed description and justification of the requests.**

**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 Processing Fee</b>
NA	NA	N/A	N/A

**Application Processing Fee**

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

**APPLICATION INFORMATION**

**Owner/Authorized Representative Statement**

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

1. Owner/Authorized Representative Name : <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> ext. 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>	
 Signature	<u>10.21.09</u> Date

## APPLICATION 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

# APPLICATION INFORMATION

## Professional Engineer Certification

1. Professional Engineer Name: <b>Max Lee, PhD PE</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.13 Fax: <b>(352) 377-7158</b>
4. Professional Engineer E-mail Address: <b>mlee@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 checked="" 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 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 _____ Date <u>10/16/09</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) <b>321.40</b> North (km) <b>3315.9</b>		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 :			

#### Facility Contact

1. Facility Contact Name: <b>Krishna Cole, Environmental Engineer</b>
2. Facility Contact Mailing Address Organization/Firm: <b>Suwannee American Cement, LLC</b> Street Address: <b>P.O. Box 410</b> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>City: <b>Branford</b></span> <span>State: <b>FL</b></span> <span>Zip Code: <b>32008</b></span> </div>
3. Facility Contact Telephone Numbers: Telephone: <b>(386) 935-5023</b> ext.      Fax: <b>(386) 935-5080</b>
4. Facility Contact E-mail Address: <b>krishnac@suwaneecement.com</b>

#### 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: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>City:</span> <span>State:</span> <span>Zip Code:</span> </div>
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))	
12. Facility Regulatory Classifications Comment:  <b>The SAC Branford Cement Plant, is subject to 40 CFR 60, Subpart F: Standards of Performance for Portland Cement Plants (superceded by 40 CFR 63, Subpart LLL); 40 CFR 60, Subpart Y: Standards of Performance for Coal Preparation Plants; 40 CFR 60, Subpart OOO: Standards of Performance for Nonmetallic Mineral Processing Plants; 40 CFR 63, Subpart LLL: National Emission Standards for Hazardous Air Pollutants from Portland Cement Industry.</b>	

**FACILITY INFORMATION**

**List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
Particulate Matter – PM	A	N
Particulate Matter – PM <sub>10</sub>	A	N
SO <sub>2</sub>	A	N
NO <sub>x</sub>	A	N
CO	A	N
VOC	B	N
SAM	B	N
H114 (Mercury)	C	N
PB	C	N
DIOX (Dioxins/Furans)	C	N
HAPs – Total	A	N
H106 (hydrochloric acid)	A	N

**FACILITY INFORMATION**

**B. EMISSIONS CAPS**

**Facility-Wide or Multi-Unit Emissions Caps N/A**

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

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

## 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: 2005 <u>-006-AV</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: 2005 <u>-006-AV</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: 2005 <u>-006-AV</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, Modification, or Plantwide Applicability Limit (PAL): <input checked="" type="checkbox"/> Attached, Document ID: <u>A</u>
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: <u>A</u>
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 N/A

- |   |
|---|
| 1. List of Exempt Emissions Units:<br><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility) |
|---|

#### Additional Requirements for Title V Air Operation Permit Applications N/A

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

**FACILITY INFORMATION**

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

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

1. Acid Rain Program Forms: Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable (not an Acid Rain source) Phase II NO <sub>x</sub> Averaging Plan (DEP Form No. 62-210.900(1)(a)1.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
2. CAIR Part (DEP Form No. 62-210.900(1)(b)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable (not a CAIR source)
3. Hg Budget Part (DEP Form No. 62-210.900(1)(c)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable (not a Hg Budget unit)

**Additional Requirements Comment**

The attached documentation provides the description of this request.

**ATTACHMENT A**  
**DESCRIPTION OF PROPOSED PROJECT**

**ATTACHMENT A**

**SUWANNEE AMERICAN CEMENT – BRANFORD FACILITY**

**DESCRIPTION OF PROPOSED PERMITTING PROJECT**

**October 17, 2009**

This permit application requests to remove two specific conditions of permit PSD-FL-259 that are similarly listed in the current title V permit 1210465-006-AV. A condition requiring third party auditing is listed in the Title V permit as Conditions 17 and condition 31 in the PSD permit. The second condition to be addressed requires operation of two PM10 monitors listed in the Title V permit as condition 14 and condition 28 in the PSD permit. This application is to remove the conditions from the PSD construction permit. Upon approval by the Department, SAC will request the Title V permit be revised to remove the conditions.

**Third Party Auditing**

The initial PSD permit, specific condition 31, requires the following:

*The owner or operator shall contract with an independent party, acceptable to the Department, knowledgeable in the processes and control equipment used at this plant, to perform an audit of the maintenance records and physical condition of the plant process equipment and emission control equipment. This audit will be conducted once each year for a minimum of five years from the start of operation of the plant. The auditor shall make a report to the owner or operator on the condition of the process and emission control equipment, and the adequacy of the owner or operator's maintenance program and activities. One copy of the annual report shall be forwarded to the Department's Northeast District office for review, within 45 days of completion of each audit. After five years of reports that show the process and emission control equipment is being properly maintained, the Department shall evaluate the need to continue this requirement.*

*[Rule 62-4.070(3), F.A.C.]*



**Request:** The audit reports for the last five years, as required by the above condition, have been submitted to the Department and clearly show that the maintenance records and physical condition of the plant process equipment and emissions control equipment is properly maintained. Copies of these third party audit summaries for the last five years are appended (Appendix 1) and indicate no significant issues.

In addition, to the third party auditing of the above condition, Suwannee American Cement (SAC) performs third party audits in order to maintain ISO 14001 Certification of its Environmental Management System (EMS) and performs routine internal audits, required by its EMS, that ensure compliance with its EMS. SAC also complies to proper recordkeeping and maintenance through the facility Title V permit Operation and Maintenance Plan, Continuous Assurance Monitoring Plan, and via continuous monitoring systems (emissions monitoring and parametric) recordkeeping and continual reporting. In addition, SAC's continuous emissions monitoring data are available, per Title V permit requirement, online to the Department and the public 24 hours a day 7 days a week. This level of scrutiny is not required of any other cement plant in the Department's jurisdiction. SAC believes that the reasonable assurance of compliance required by 62-4.070(3), F.A.C. can be demonstrated without the additional requirement of Specific Condition 28 of the PSD permit. Thus, SAC requests that the condition be removed from the PSD permit.

**PM10 monitoring**

The PSD permit, specific condition 28, specifies the condition to perform ambient PM10 monitoring. The condition lays out the monitoring requirements and an allowance for review of the condition as follows:

*.... The monitoring equipment shall be operated as long as required by the Department, however the owner or operator may petition the Department to review the monitoring requirements after five years of monitoring site operation subsequent to initial startup, and every five years thereafter. Requests for review shall be directed to the AMS....*

In accordance with the above allowance, Suwannee American Cement (SAC) provides the following analysis of the source impact per 62-210.400, F.A.C.

SAC has operated two ambient monitoring sites for suspended particulate matter less than 10  $\mu\text{m}$  (PM10) at two locations near the Branford Plant. The locations are shown in Figure 1.

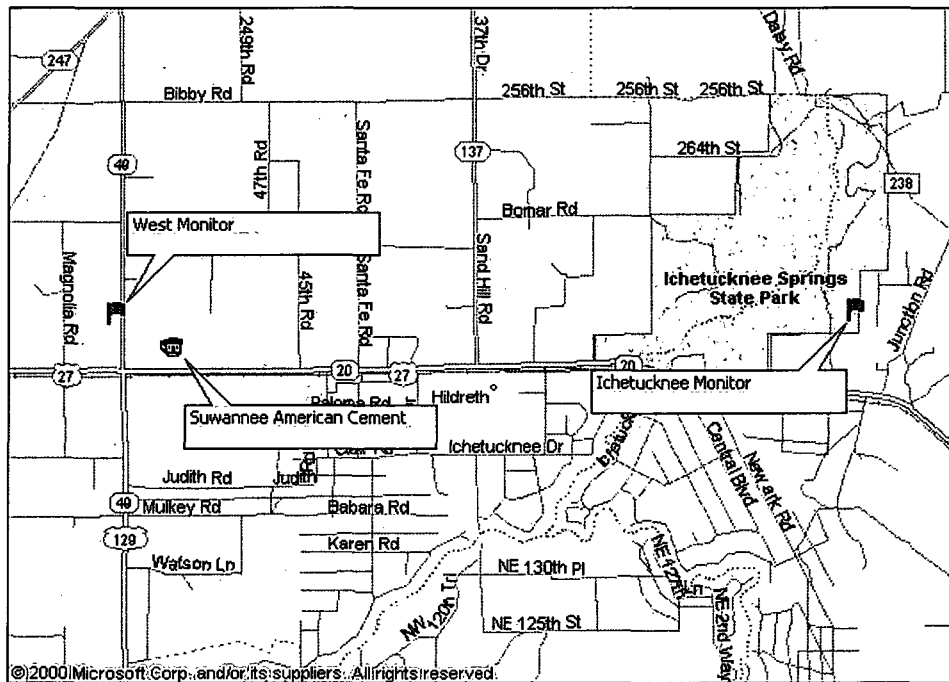


Figure 1. Location of SAC and PM10 monitors.

These units operate continuously with access to the units provided to the Ambient Monitoring Section (AMS) of the Department's Bureau of Ambient Monitoring and Mobile Sources (BAMMS). The two site locations, (Ichetucknee (AIRS ID 0230003) and West (AIRS ID 1210001), were approved by the Department. To date, the collected data and the sites have been audited by the Department on an annual or more frequent basis for over seven years (since 2002)

and the data verified and submitted to the Department is stored in the FDEP Florida Air Monitoring and Assessment System (FAMAS) database. With guidance and assistance from Department personnel, the units have operated with minimal data loss and have provided data in accordance with the quality assurance and operation procedures that required in the permit condition.

PM10 Ambient Monitoring Data

Tables 1 and 2 are copies of data analysis produced from the FDEP FAMAS database that summarize the quarterly 24-hour data (units of ug/m3) submitted to FAMAS of the two sites, (Ichetucknee (AIRS ID 0230003) and West (AIRS ID 1210001) from 2002 through 2009, respectively. As shown in Tables 1 and 2, the ambient PM10 monitoring data indicate no violations of the national ambient air quality standards (NAAQS) PM10 24-hour standard (150 ug/m3) or annual standard (50 ug/m3). The most noticeable excursions in the data over the last seven years are due to forest fires (wild and controlled burns). It should be noted that wild fires in 2007 were the cause of high readings at both sites in May 2007 (specifically May 11 and 12, 2007). The tables show that the weighted annual average concentrations over the past seven years range from 22 to 26 ug/m3 at the Ichetucknee site and 18 to 25 ug/m3 at the West site.

Figures 1 and 2 show the 24-hr block average and annual block average data, respectively, from 2002 through 2009 for both sites. The wild fires in May 2007 can be observed to impact the 24-hr average data. It is visually apparent in these figures that the ambient concentrations at both sites are not noticeably different and follow similar trends.

Table 1. Ichetucknee site. PM10 Data summary.

**PM10 (81102) Units:  $\mu\text{g}/\text{m}^3$**

**Site:Z0230003 - ICHETUKN County:Columbia AQS Monitor ID:12-023-0003-81102-1**

Year	Quarterly Averages (%Valid Observations)				Ranked 24hr Averages			Weighted Annual Average	Estimated # of Exceedances	Expected # of Exceedances
	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>			
2002	0.0* (0%)	27.4 (77%)	21.9 (85%)	19.4 (100%)	88 (05/07)	54 (05/10)	47 (05/08)	22.8*	0.0*	
2003	21.1 (96%)	27.0 (99%)	21.8 (100%)	18.9 (95%)	56 (03/26)	50 (01/30)	50 (07/01)	22.2	0.0	
2004	22.9 (100%)	30.0 (100%)	22.9 (95%)	18.2 (77%)	67 (06/24)	60 (04/07)	55 (07/23)	23.5	0.0	0.0*
2005	19.5 (100%)	22.1 (84%)	27.6 (97%)	20.3 (96%)	60 (09/16)	58 (09/17)	58 (09/14)	22.3	0.0	0.0
2006	23.8 (99%)	26.1 (93%)	23.3 (99%)	21.3 (100%)	77 (03/10)	60 (03/11)	60 (04/05)	23.6	0.0	0.0
2007	21.5 (100%)	37.9 (99%)	24.1 (97%)	22.3 (100%)	260 (05/11)	166 (05/12)	84 (05/07)	26.4	2.0	0.7
2008	20.0 (99%)	25.7 (82%)	24.1 (88%)	19.7 (100%)	52 (10/03)	50 (06/29)	48 (03/28)	22.3	0.0	0.7
2009	21.8 (92%)	27.1 (92%)	0.0* (0%)	0.0* (0%)	67 (05/01)	65 (04/29)	48 (03/14)	24.4*	0.0*	0.6*

\* There was insufficient data to produce a valid average.

The national ambient air quality standard for PM 10 is: 150 micrograms per cubic meter for a 24-hour average concentration. The 24-hour standard is attained when the expected number of exceedances is less than or equal to 1. The expected exceedances are the averages of the estimated exceedances from the most-recent 3 years.

Table 2. West site. PM10 Data summary.

**PM10 (81102) Units:  $\mu\text{g}/\text{m}^3$**

**Site:Z1210001 - Branford County:Suwannee AQS Monitor ID:12-121-0001-81102-1**

Year	Quarterly Averages (%Valid Observations)				Ranked 24hr Averages			Weighted Annual Average	Estimated # of Exceedances	Expected # of Exceedances
	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>			
2002	0.0* (0%)	20.6* (57%)	18.4 (95%)	16.7 (100%)	86 (04/27)	42 (04/06)	36 (04/26)	18.5*	0.0*	
2003	16.7 (100%)	20.4 (90%)	19.1 (90%)	17.9 (100%)	48 (09/19)	40 (04/24)	38 (05/06)	18.5	0.0	
2004	19.0 (100%)	24.1 (98%)	19.8 (95%)	16.3 (92%)	59 (06/24)	53 (07/23)	47 (04/28)	19.8	0.0	0.0*
2005	16.8 (100%)	19.8 (100%)	24.9 (98%)	17.2 (99%)	61 (09/15)	57 (09/14)	57 (09/16)	19.6	0.0	0.0
2006	19.7 (99%)	21.7 (78%)	23.0 (99%)	20.9 (100%)	55 (08/03)	50 (04/29)	49 (08/04)	21.3	0.0	0.0
2007	20.5 (100%)	36.1 (93%)	21.0 (93%)	21.5 (93%)	212 (05/11)	124 (05/12)	70 (05/03)	24.7	1.0	0.4
2008	20.5* (55%)	23.0 (98%)	19.6 (93%)	21.5 (100%)	62 (12/28)	62 (10/14)	60 (12/30)	21.1*	0.0*	0.3*
2009	17.5 (100%)	20.4 (93%)	0.0* (0%)	0.0* (0%)	71 (06/20)	50 (06/22)	41 (03/07)	18.9*	0.0*	0.3*

\* There was insufficient data to produce a valid average.

The national ambient air quality standard for PM 10 is: 150 micrograms per cubic meter for a 24-hour average concentration. The 24-hour standard is attained when the expected number of exceedances is less than or equal to 1. The expected exceedances are the averages of the estimated exceedances from the most-recent 3 years.

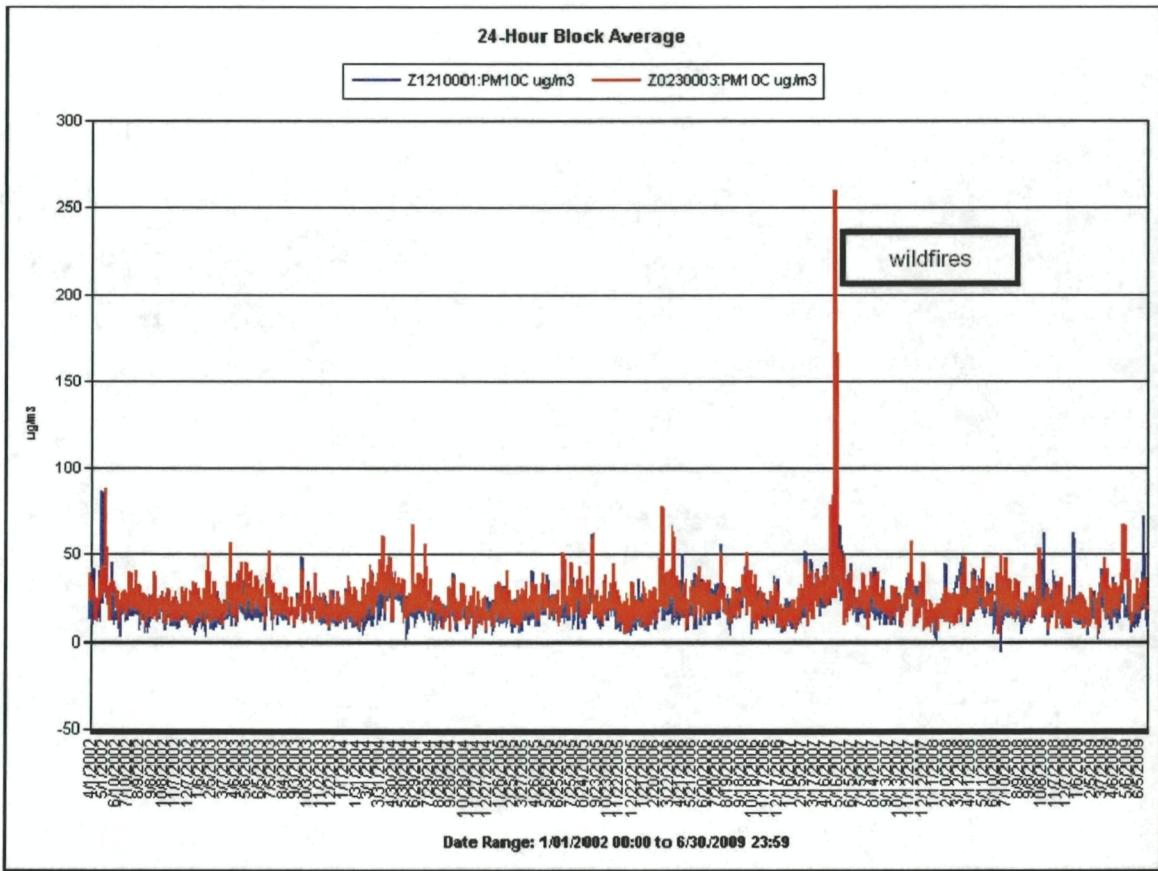


Figure 1. 24-hr block average PM10 data, 4/2002 through 6/2009. (NAAQS std. = 150 ug/m3)

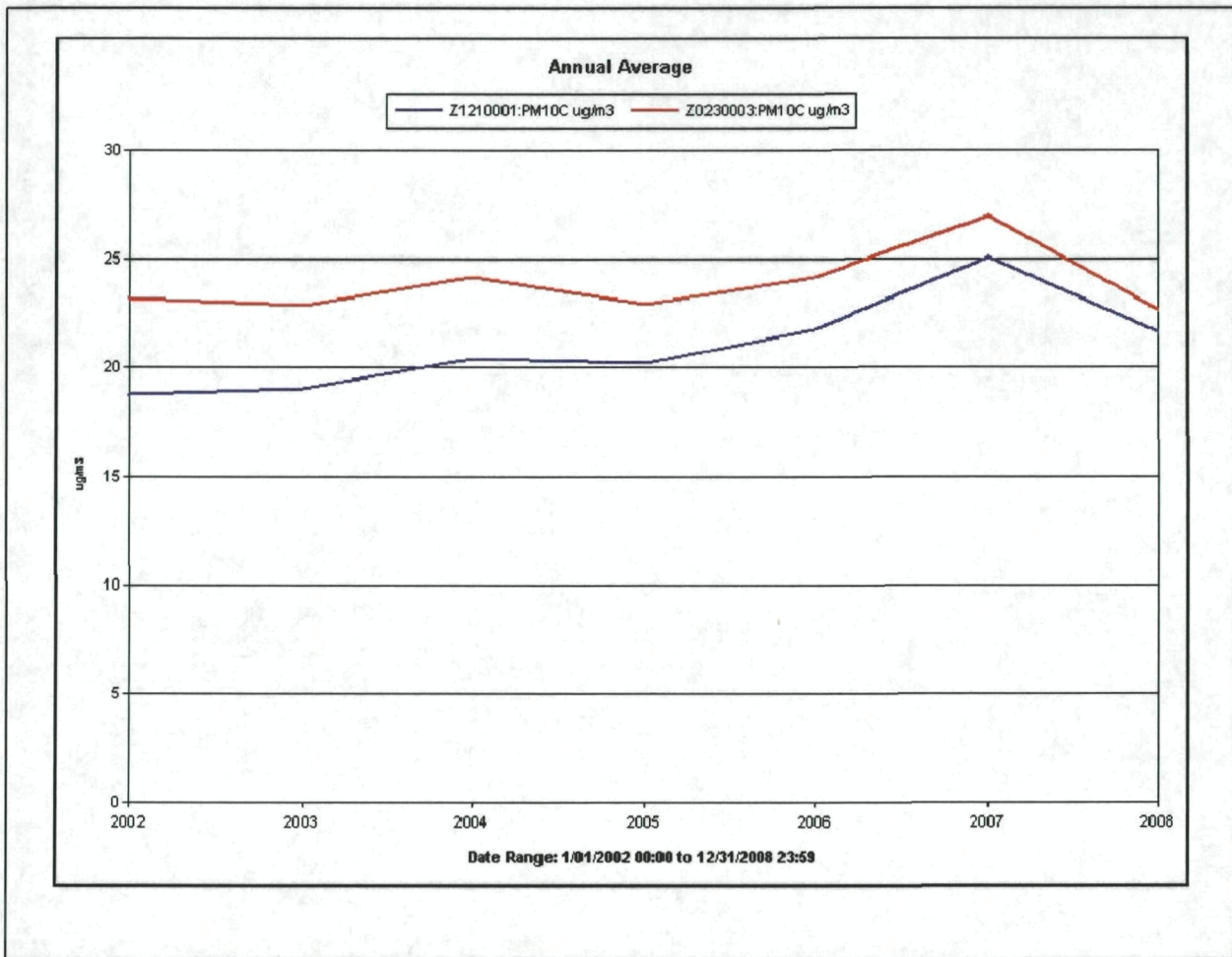


Figure 2. Annual average PM10 data. (NAAQS std. = 50 ug/m3)

Voluntary Meteorological Monitoring Data

In June of 2007, SAC voluntarily installed a meteorological station located at the entrance to the SAC facility. The Department approved of the location and designated the site AIRS ID: 1210002. The site monitors wind speed, wind direction, solar radiation, rain fall, and temperature. The site data is audited and submitted along with PM10 data to the FAMAS database quarterly.

### Facility Impact on PM10 Ambient Concentrations

The impact of facility emissions can be evaluated using the collected PM10 ambient monitoring data, the ambient wind speed and direction monitoring data, and facility operation data.

To evaluate the impact of the facility PM10 emissions on the monitoring sites, a statistical comparison has been performed of the ambient PM10 monitoring data (June 2007 through June 2009 – following start of wind monitoring). The comparison is made of hourly PM10 data of when the kiln is operating and wind is in the direction from the facility towards the monitors versus when the wind is in another direction. While other facility operations generate particulate matter, kiln operation is a good measure of times when facility operations more likely result in PM10 emissions.

An electronic copy of an Excel spreadsheet is appended (Appendix 2) that can be reviewed of the data sets. The wind direction towards the West monitor was selected at 270 to 340 degree from the facility. The wind direction towards the Ichetucknee monitor was selected at 75 to 105 degree from the facility. These values can be changed on the spreadsheet. The PM10 data was not included if the wind was less than 0.1 mph. The Ichetucknee monitor is approximately 3 miles from the facility. To account for the impact of the facility emissions on the Ichetucknee site at a 3 mile distance, a 3-hour average of PM10 data was used when the plant was operating, instead of a one-hour average.

Results of the comparison from each monitor are summarized below in Table 3. The results for each monitor show that the difference of the distributions of data points under the two scenarios are statistically insignificant.



Table 3. Statistical Comparison of PM10 data sets.

SAC - PM10 monitoring per Title V permit. Comparison of PM10 data based on wind direction and kiln operation.		WEST	FDEP FAMAS PM10 data	FDEP FAMAS PM10 data	ICHETUCKNEE	FDEP FAMAS PM10 data	FDEP FAMAS PM10 data																								
			Wind direction NOT toward site	Kiln On & Wind direction towards Site		Wind direction NOT toward site	Kiln On & Wind direction towards Site																								
			1-hr avg	1-hr avg (wind 270 to 340 deg)		3-hr avg	3-hr avg (wind 45 to 135 deg)																								
		Note: West data compared on hourly basis.				Note: Ichetucknee data compared on 3-hr basis																									
STATISTICAL COMPARISON OF DATA SETS																															
reference: Probability and statistics for Engineers and Scientists Wapole and Myers, 1989, page 250.																															
Hypothesis: Test the the difference of means of two data sets for statistical difference.																															
		<table border="1"> <thead> <tr> <th>average (X1)</th> <th>average (X2)</th> </tr> </thead> <tbody> <tr> <td>21.06</td> <td>21.94</td> </tr> <tr> <td>Sp1</td> <td>Sp2</td> </tr> <tr> <td>24.41</td> <td>20.99</td> </tr> <tr> <td>count</td> <td>count</td> </tr> <tr> <td>12939</td> <td>3545</td> </tr> </tbody> </table>		average (X1)	average (X2)	21.06	21.94	Sp1	Sp2	24.41	20.99	count	count	12939	3545	<table border="1"> <thead> <tr> <th>average (X1)</th> <th>average (X2)</th> </tr> </thead> <tbody> <tr> <td>23.58</td> <td>24.19</td> </tr> <tr> <td>Sp1</td> <td>Sp2</td> </tr> <tr> <td>15.04</td> <td>11.42</td> </tr> <tr> <td>count</td> <td>count</td> </tr> <tr> <td>16866</td> <td>256</td> </tr> </tbody> </table>		average (X1)	average (X2)	23.58	24.19	Sp1	Sp2	15.04	11.42	count	count	16866	256		
average (X1)	average (X2)																														
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		<table> <tbody> <tr> <td>X1-X2</td> <td>-0.88</td> </tr> <tr> <td>Sp<sup>2</sup></td> <td>562.5</td> </tr> <tr> <td>Sp</td> <td>23.7</td> </tr> <tr> <td>80% conf. Int. (deg. Of freedom = n1+n2-2)</td> <td>16482</td> </tr> <tr> <td>confidence (99% α)</td> <td>2.576</td> </tr> <tr> <td>confidence (76% α)</td> <td>1</td> </tr> </tbody> </table>		X1-X2	-0.88	Sp <sup>2</sup>	562.5	Sp	23.7	80% conf. Int. (deg. Of freedom = n1+n2-2)	16482	confidence (99% α)	2.576	confidence (76% α)	1	<table> <tbody> <tr> <td>X1-X2</td> <td>-0.6</td> </tr> <tr> <td>Sp<sup>2</sup></td> <td>224.9</td> </tr> <tr> <td>Sp</td> <td>15.0</td> </tr> <tr> <td>80% conf. Int. (deg. Of freedom = n1+n2-2)</td> <td>17120</td> </tr> <tr> <td>confidence (99% α)</td> <td>2.576</td> </tr> <tr> <td>confidence (76% α)</td> <td>1</td> </tr> </tbody> </table>		X1-X2	-0.6	Sp <sup>2</sup>	224.9	Sp	15.0	80% conf. Int. (deg. Of freedom = n1+n2-2)	17120	confidence (99% α)	2.576	confidence (76% α)	1		
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		<table> <tbody> <tr> <td>upper range: 99% conf. (X1-X2)</td> <td>0.28</td> </tr> <tr> <td>upper range: 76% conf. (X1-X2) (one std. dev.)</td> <td>-0.43</td> </tr> <tr> <td>(X1-X2) =</td> <td>-0.88</td> </tr> <tr> <td>lower range: 76% conf. (X1-X2) (one std. dev.)</td> <td>-1.33</td> </tr> <tr> <td>lower range: 99% conf. (X1-X2)</td> <td>-2.04</td> </tr> </tbody> </table>		upper range: 99% conf. (X1-X2)	0.28	upper range: 76% conf. (X1-X2) (one std. dev.)	-0.43	(X1-X2) =	-0.88	lower range: 76% conf. (X1-X2) (one std. dev.)	-1.33	lower range: 99% conf. (X1-X2)	-2.04	<table> <tbody> <tr> <td>upper range: 99% conf. (X1-X2)</td> <td>1.83</td> </tr> <tr> <td>upper range: 76% conf. (X1-X2) (one std. dev.)</td> <td>0.34</td> </tr> <tr> <td>(X1-X2) =</td> <td>-0.61</td> </tr> <tr> <td>lower range: 76% conf. (X1-X2) (one std. dev.)</td> <td>-1.55</td> </tr> <tr> <td>lower range: 99% conf. (X1-X2)</td> <td>-3.04</td> </tr> </tbody> </table>		upper range: 99% conf. (X1-X2)	1.83	upper range: 76% conf. (X1-X2) (one std. dev.)	0.34	(X1-X2) =	-0.61	lower range: 76% conf. (X1-X2) (one std. dev.)	-1.55	lower range: 99% conf. (X1-X2)	-3.04						
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**Confidence Interval for  $\mu_1 - \mu_2$ ;  $\sigma_1^2 = \sigma_2^2$  but Unknown** If  $\bar{x}_1$  and  $\bar{x}_2$  are the means of independent random samples of size  $n_1$  and  $n_2$ , respectively, from approximate normal populations with unknown but equal variances, a  $(1 - \alpha)100\%$  confidence interval for  $\mu_1 - \mu_2$  is given by

$$(\bar{x}_1 - \bar{x}_2) - t_{\alpha/2} s_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}} < \mu_1 - \mu_2 < (\bar{x}_1 - \bar{x}_2) + t_{\alpha/2} s_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}},$$

where  $s_p$  is the pooled estimate of the population standard deviation and  $t_{\alpha/2}$  is the t-value with  $v = n_1 + n_2 - 2$  degrees of freedom, leaving an area of  $\alpha/2$  to the right.



**Request:** In summary, the collected PM10 data results indicate the following highlights:

1. No violations of ambient PM10 NAAQS standards have occurred.
2. PM10 weighted annual averages of both sites are less than 50 percent the annual standard NAAQS (national ambient air quality standards) of 50 ug/m3. See Table 1 and 2.
3. The quarterly PM10 24-hr data from both sites continue to be in the range of 20 to 30 ug/m3.
4. Comparison of PM10 data during times when the cement kiln operates and the wind blows in the direction of each monitor and all other times shows the PM10 data to be statistically similar.

The data evaluation indicate the source to have negligible impact on the ambient PM10 concentration. SAC has operated & maintained the two sites well beyond the five years required per permit condition 14 of the Title V permit and specific condition 31 of the PSD permit. Furthermore, SAC voluntarily operates a meteorological station which has been used to evaluate the possible impact of the cement kiln operations on the monitors.

Based on the data collected and reported, and the evaluation of the data as described above, SAC requests that the PM10 monitoring requirement be removed.

Appendix 1.

SAC Third Party Audits per PSD permit PSD-FL-259, Sp. Cond. 31 and Title V permit, specific condition, 17.

**RESULTS OF THE ANNUAL  
THIRD PARTY AUDIT  
OF THE SUWANNEE AMERICAN  
CEMENT COMPANY  
BRANFORD PLANT**

*Prepared by:*  
**Spectrum Environmental Sciences, Inc.  
97 Thomas Johnson Drive  
Suite 200  
Frederick, MD 21702**

*Prepared for:*  
**Florida Department of Environmental Protection  
Northeast District Air Program  
7825 Baymeadows Way, Suite 200-B  
Jacksonville, Florida 32256-7590**

**February 2009**

## **4.0 CONCLUSIONS**

As shown by Tables 3 and 4, the Plant was found to be compliant with the requirements stipulated in Item 17, Additional Operational Requirements, of Florida DEP Final Permit Number 1210465-006-AV. The Plant also successfully fulfills the audit guidelines of the Florida DEP. However, the environmental performance of the Plant can still be improved by implementing the recommended corrective action outlined in Past Good Housekeeping Issues section of this audit report.

**RESULTS OF THE ANNUAL  
THIRD PARTY AUDIT  
OF THE SUWANNEE AMERICAN  
CEMENT COMPANY  
BRANFORD PLANT**

*Prepared by:*  
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97 Thomas Johnson Drive  
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*Prepared for:*  
**Florida Department of Environmental Protection  
Northeast District Air Program  
7825 Baymeadows Way, Suite 200-B  
Jacksonville, Florida 32256-7590**

**February 2008**

## **4.0 CONCLUSIONS**

As shown by Tables 3 and 4, the Plant was found to be compliant with the requirements stipulated in Item 17, Additional Operational Requirements, of Florida DEP Final Permit Number 1210465-006-AV. The Plant also successfully fulfills the audit guidelines of the Florida DEP. However, the environmental performance of the Plant can still be improved by implementing the recommended corrective action outlined in Past Good Housekeeping Issues section of this audit report.

## 4.0 CONCLUSIONS

As shown by Tables 3 and 4, the Plant was found to be compliant with the requirements stipulated in Item 17, Additional Operational Requirements, of Florida DEP Final Permit Number 1210465-006-AV. The Plant also successfully fulfills the audit guidelines of the Florida DEP. However, the environmental performance of the Plant can still be improved by implementing the recommended corrective action outlined in Current Good Housekeeping Issues section of this audit report.

## 4.0 CONCLUSIONS

As shown by Tables 3 and 4, the Plant was found to be compliant with the requirements stipulated in Item 17, Additional Operational Requirements, of Florida DEP Final Permit Number 1210465-006-AV and also successfully fulfills the audit guidelines of the Florida DEP. However, the environmental performance of the Plant can still be improved by implementing the recommended corrective action outlined in Past Other Issues section of this audit report.



## **4.0 CONCLUSIONS**

**As shown by Tables 3 and 4, the Plant is found to be compliant with the requirements stipulated in Item 31, Additional Requirements, of Florida DEP Final Permit Number 1210465-001-AC and also successfully fulfills the audit guidelines of the Florida DEP. However, the SAC Plant can improve upon environmental performance by implementing corrective actions outlined in applicable sections of good housekeeping and other issues.**

**RESULTS OF THE ANNUAL THIRD PARTY  
AUDIT OF THE SUWANNEE AMERICAN  
CEMENT COMPANY BRANFORD PLANT**

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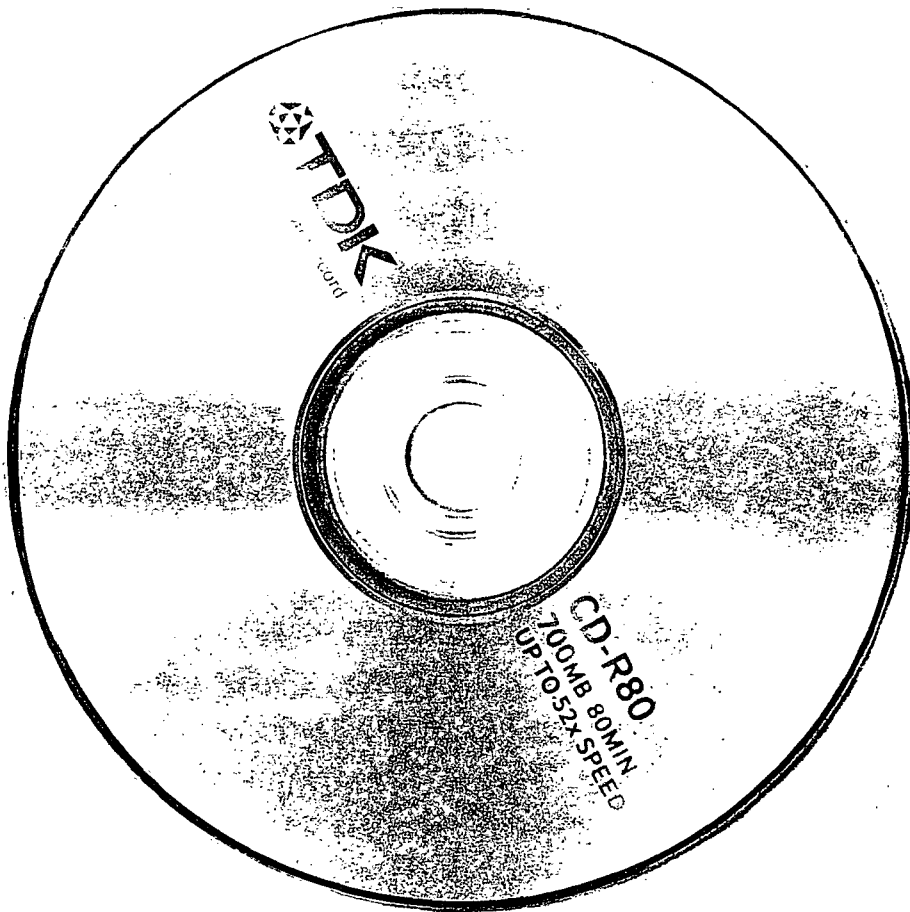
*Prepared for:*  
**Florida Department of Environmental Protection  
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7825 Baymeadows Way, Suite 200-B  
Jacksonville, Florida 32256-7590**

**February 2004**

#### 4.0 CONCLUSIONS

As shown by Tables 3 and 4, the Plant is found to be compliant with the requirements stipulated in Item 31, Additional Requirements, of Florida DEP Final Permit Number 1210465-001-AC and also successfully fulfills the audit guidelines of the Florida DEP. However, the SAC Plant can improve upon environmental performance by implementing corrective actions outlined in applicable sections of good housekeeping and other issues.

Appendix 2.  
Excel Spreadsheet of PM10 data comparison.



TDK  
MADE IN JAPAN

CD-R80  
700MB 80MIN  
UPTO 52X SPEED