

Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

May 25, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Celso Martini, Plant Manager
Suwannee American Cement
Post Office Box 410
Branford, Florida 32008

Re: DEP File No. 1210465 -008 and 009 (PSD-FL-259D)
Cement Plant – Branford, Suwannee County, Florida

Dear Mr. Martini:

The Department reviewed your request dated April 26, 2004 to: extend the expiration date of the construction permit until June 30, 2006; implement a flyash injection project; and modify the design of the tire derived fuel system.

Per Rule 62-4.080, F.A.C., an extension for a construction permit shall be granted if the applicant can demonstrate reasonable assurances that upon completion, the extended permit will comply with the standards and conditions required by applicable regulation. Similarly, per Rule 62-4.070, F.A.C., a permit (including modifications) shall be issued to the applicant upon such conditions as the Department may direct, only if the applicant affirmatively provides the Department with reasonable assurance based on plans, test results, installation of pollution control equipment, or other information, that the construction, expansion, modification, operation, or activity of the installation will not discharge, emit, or cause pollution in contravention of Department standards or rules.

We require submittal of the following additional information in order to process your application. Basis is **Rule 62-4.055(1), F.A.C.**

1. Identify each activity including estimated start and finish dates that will be conducted including additional construction, startup and shakedown, performance and emission compliance testing, submittal of Title V Operation Permit application, etc. Basis is **Rule 62-212.400(5)(h)2., F.A.C.** – Permit Application Information Required – “A detailed schedule for construction of the facility.”
2. Describe how the proposed tire derived fuel system will be operated to insure compliance with the NO_x, SO₂, CO, and VOC permit limitations. **Rules 62-4.070 and 62-212.400, F.A.C. and Permit 1210465-001-AC.**
3. Please advise whether introduction of tires near the kiln inlet will cause or exacerbate coating and plugging problems near the kiln inlet. **Rule 62-4.070, F.A.C.**

“More Protection, Less Process”

Printed on recycled paper.

4. Please provide an assessment from the tire derived fuel (TDF) system supplier (Cadence) or from the kiln manufacturer (Polysius) whether the existing calcination system can actually accommodate a project to use 40 percent TDF. Please provide examples where this has been accomplished for a preheater/calcliner kiln. **Rule 62-4.070, F.A.C.**
5. Describe how accounting or weighing of raw materials and fuel will be conducted for the TDF system and the flyash injection system to insure that they remain within the permitted limits. For example, how will you determine the amount of steel as raw material from tires? How will you determine the amount of fuel available from any high carbon flyash. **Rule 62-4.070, F.A.C. and Permit 1210465-001-AC.**
6. Describe possible changes in the power plant flyash received as a result of the ability to process higher carbon flyash by injection into the calciner. Please assess the likelihood of increased mercury emissions. **Rule 62-4.070, F.A.C.**
7. Permit Section III, Condition 13 requires that "the total mass of mercury compounds introduced into the pyroprocessing system, expressed as Hg, in raw mill feed and fuels shall not exceed 97 pounds per consecutive 12-month period." Describe changes to mercury sampling protocols and to the mentioned language to insure that all materials and fuels entering the pyroprocessing system continue to be counted towards compliance with the 97 pound per year limitation. **Rule 62-4.070, F.A.C. and Permit 1210465-001-AC.**
8. Please advise exactly the manner by which emissions are accurately calculated in terms of pounds per ton (lb/ton) of clinker and by which the clinker production limit is met in terms of tons per hour. The concentrations are measured directly together with flow rates. In order to most accurately calculate lb/ton clinker values, Permit Section III, Condition 24, requires that "the clinker production rate shall be directly measured independent of preheater feed. The owner or operator shall make and maintain records of the production of portland cement in units of tons per consecutive 12-month period." Clarification of the actual procedure used is required. **Rule 62-4.070, F.A.C. and Permit 1210465-001-AC.**

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please note that per Rule 62-4.055(1): *"The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department..... Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."*

If you have any questions regarding this matter, please call me at 850/921-9523.

Sincerely,



A. A. Linero, Program Administrator
South Permitting Section

Cc: John Koogler, P.E.
Joe Horton, SAC
Chris Kirts, DEP NED



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

September 24, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Celso A. Martini, Plant Manager
Suwannee American Cement, LLC
Post Office Box 410
Branford, Florida 32008

Re: DEP File No. 1210465-008-AC (PSD-FL-259D)
Suwannee American Cement Plant – Branford, Suwannee County

Enclosed is one copy of the Draft Air Construction Permit Modification for the Suwannee American Cement Plant on Highway U.S. 27, Branford, Suwannee County. The Department's Intent to Issue Air Construction Permit Modification, the Technical Evaluation and Preliminary Determination, and the "Public Notice of Intent to Issue Air Construction Permit" are also included.

The "Public Notice" must be published one time only as soon as possible in a newspaper of general circulation in the area affected, pursuant to the requirements of Chapter 50, Florida Statutes. Proof of publication, such as a newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in denial of the permit modification.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A.A. Linero, Program Administrator, at the letterhead address. If you have any questions regarding this matter, please contact Mr. Linero at (850)921-9523.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

TLV/aal

Enclosures

In the Matter of:

Suwannee American Cement, LLC
Post Office Box 410
Branford, Florida 32008

DEP File No. 1210465-008-AC (PSD-FL-259D)
Permit Extension, Hydrated Lime Injection
Suwannee American Cement Plant
Suwannee County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Permit Modification attached) for the proposed action, detailed in the Technical Evaluation and Preliminary Determination, for the reasons stated below.

The permittee, Suwannee American Cement LLC (SAC), applied on April 27, 2004 (date received by Department) to extend the expiration date of the existing air construction permit. SAC applied on August 6, 2004 (date received) to construct a permanent hydrated lime injection system.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from permitting procedures. The Department has determined that a modification and extension of the original air construction permit is necessary for the described project and for other minor permit changes and clarifications previously requested by SAC or deemed necessary by the Department.

The Department intends to issue this air construction permit modification based on the belief that the permittee has provided reasonable assurances to indicate that operation of these emission units as indicated herein will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1, F.A.C., you (the permittee) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit Modification. The notice shall be published as soon as possible one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the permittee cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The permittee shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit action for a period of 14 (fourteen) days from the date of publication of Public Notice. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

ATTORNEY DIRECTED WORK *** NOT A PUBLIC RECORD *** 119.07, F.S.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permittee or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the permittee at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Mediation is not available in this proceeding. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is

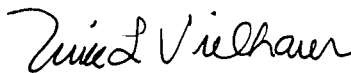
ATTORNEY DIRECTED WORK *** NOT A PUBLIC RECORD *** 119.07, F.S.

permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction permit Modification (including the Public Notice, Technical Evaluation and Preliminary Determination, and the Draft Permit Modification) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9/24/04 to the person(s) listed:

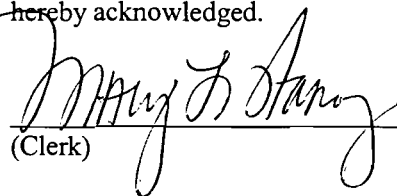
Celso Martini, SAC*
Claude Grinfeder, SAC*
Joe Horton, SAC
Larry Sellers, Esq.*
Frank Darabi, P.E.
Steve Cullen, P.E.
John Koogler, P.E.
Chris Kirts, DEP NED
Jim Little, EPA
John Bunyak, NPS

Jim Stevenson
Tom Workman, DEP
Mark Latch, DEP
December McSherry
Svenn Lindsfold
Tom Greenhalgh*
Dave Bruderly
Chris Bird, Alachua Co. DER
Chair, Alachua Co. BCC*
J. Calvin Gaddy

Patrice Boyes, Esq.*
Kathy Cantwell
Ralph Ashodian
Virginia Seacrist
Bob and Lynn Milner
Linda Pollini
Helen Beaty
Bessie Robinson
Craig Pittman, St. Pete Times
Chuck Yagel*

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk)

9/24/04
(Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

Florida Department of Environmental Protection

Suwannee American Cement LLC
Suwannee American Cement Plant - Branford
Suwannee County

DEP File No.: 1210465-008-AC (PSD-FL-259D)

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit Modification to Suwannee American Cement LLC to extend the expiration date of the existing air construction permit and to install a permanent hydrated lime injection system at the cement plant located on U.S. Highway 27, in Suwannee County. The previously issued Best Available Control Technology (BACT) determination applies to the facility. The permittee's name and address are: Suwannee American Cement LLC (SAC), Post Office Box 410, Branford, Florida 32206.

The plant started up in February 2003, is presently operating at or near full capacity and has demonstrated compliance with the current BACT limitations. Sulfur dioxide (SO₂) emissions are extremely low due to very thorough scrubbing of combustion gases in the calciner. A temporary hydrated lime injection system provides for additional scrubbing of sulfur dioxide (SO₂) emissions when the raw mill is not in operation and raw materials containing a relatively high fraction of sulfur are encountered. The permanent system proposed by this permitting action will be more robust and automated than the present one.

The compliance averaging time for the BACT volatile organic compounds (VOC) limit will be expressed in terms of 30 operating days instead of 30 calendar days. This will provide a consistent averaging basis with the separate EPA Maximum Achievable Control Technology (MACT) standard for total hydrocarbons (THC) that also applies to this facility. The VOC and the THC are measured by the same continuous emission monitoring system.

The proposed permit modification also includes a clarification of two inconsistent permit conditions. This permitting action clarifies that mercury in the raw materials will be determined prior to introduction into the raw mill instead of the preheater. The permit will be extended to July 31, 2005 to provide time to construct the permanent hydrated lime injection and complete their application for the Title V Operation Permit.

The Department will issue the Final Permit Modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The Department will accept written comments concerning the proposed permit action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the Permit Modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000.

Petitions must be filed within fourteen (14) days of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Under Section 120.60(3), F.S., however, petitions submitted by person(s) who asked the Department for notice of agency action must be filed within fourteen (14) days of receipt of that notice or the date of publication of the public notice whichever occurs first. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida, 32301
Telephone: (850) 921-9523
Fax: (850) 922-6979

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
Telephone: (904) 807-3233
Fax: (904) 448-4363

The complete project file includes the Draft Air Construction Permit Modification, Technical Evaluation and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Program Administrator for the South Permitting Section, Bureau of Air Regulation, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-9523 for additional information. The draft permit modification as well as original permit and BACT determination and any other permitting actions to-date can be viewed at www.dep.state.fl.us/air/permitting/construction/suwannee.htm

**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

**SUWANNEE AMERICAN CEMENT, LLC
BRANFORD, SUWANNEE COUNTY**

**Portland Cement Manufacturing Facility
Permit Extension, Hydrated Lime Injection and Miscellaneous Permit Changes**

DEP File Nos. 1210465-008-AC
PSD-FL-259D

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

September 24, 2004

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

I. APPLICANT NAME AND ADDRESS

Suwannee American Cement LLC

Post Office Box 410

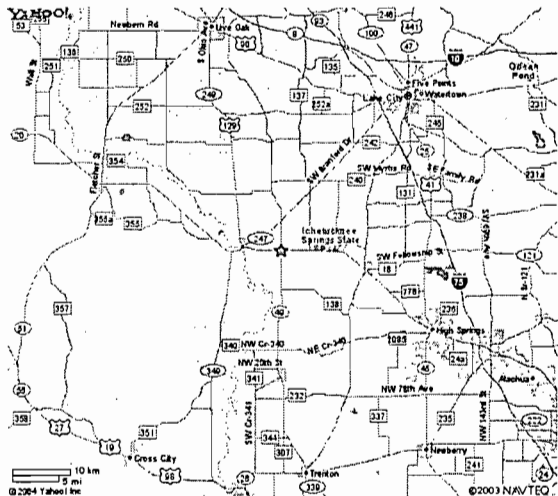
Branford, Florida 32008

Authorized Representative: Mr. Celso Martini, Plant Manager

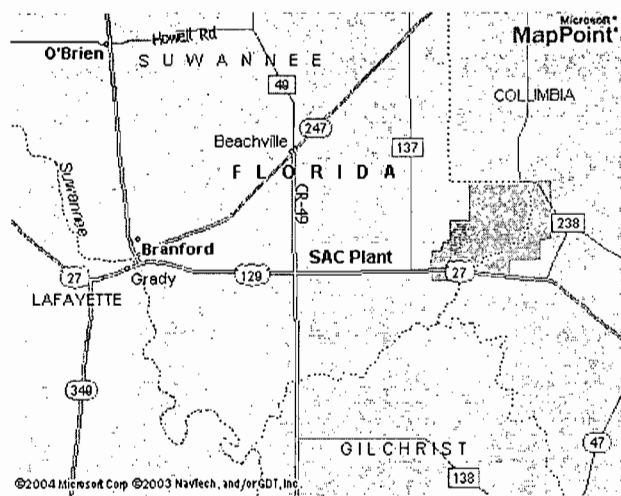
II. FACILITY INFORMATION

A. FACILITY LOCATION

Suwannee American Cement, LLC (SAC), owns and operates the cement plant located at U.S. Highway 27 and County Road 49 in Branford, Suwannee County. The UTM coordinates of the facility are Zone 17; 321.4 km East and 3315.9 km North.



Regional Map Showing Branford Area



Suwannee American Cement Plant Location

B. FACILITY CLASSIFICATION CODE (SIC)

Major Group No. 32, Clay, Glass, and Concrete Products

Industry Group No. 324 Cement, Hydraulic

Industry No. 3241 Cement, Hydraulic

C. FACILITY CATEGORY

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

This industry is listed in Table 212.400-1, "Major Facilities Categories", Section 62-212.400, F.A.C. Therefore, stack and fugitive emissions of over 100 TPY of carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide (SO₂), nitrogen oxides (NO_x), or particulate matter (PM/PM₁₀) characterize the existing installation as a Major Facility per the definitions in Rule 62-210.200, F.A.C. and subject it to applicability review for the requirements of Prevention of Significant Deterioration (PSD) per Rule 62-212.400, F.A.C. Accordingly, the original SAC project was subject to New Source Review (NSR) including the PSD provisions and requirement to conduct a determination of Best Available Control Technology (BACT).

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Per Table 212.400-2, "Regulated Air Pollutants – Significant Emission Rates", any further modifications at the facility resulting in emissions increases greater than 40 TPY of NO_x or SO_2 , 7 TPY of sulfuric acid mist (SAM), 25/15 TPY of PM/PM_{10} , 3 TPY of fluorides, 1200 pounds per year (lb/yr) of lead or 200 lb/yr of mercury require review per the PSD rules and a determination for Best Available Control Technology (BACT) per Rule 62-212.400, F.A.C.

The facility is also subject to a number of industry-specific regulations and permit specific conditions. Among these is designation as a major source of hazardous air pollutants (HAPs) and applicability of the major source provisions of 40 CFR 63, Subpart LLL – National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry.

III. ORIGINAL PROJECT

The Florida Department of Environmental Protection ("Department") issued a permit to SAC in June 2000 to construct the existing facility. The plant employs the modern dry process technology including a preheater and calciner (PH/C kiln) along with indirect firing.

The major equipment at the plant includes the PH/C kiln, a clinker cooler, raw mill, finish mill, silos, conveyers, and particulate control/dust collection and recycling equipment. The cement product is stored in silos and is shipped by truck.

The following diagram is of a preheater/calculator dry process cement kiln that is reasonably representative of the one installed at SAC.

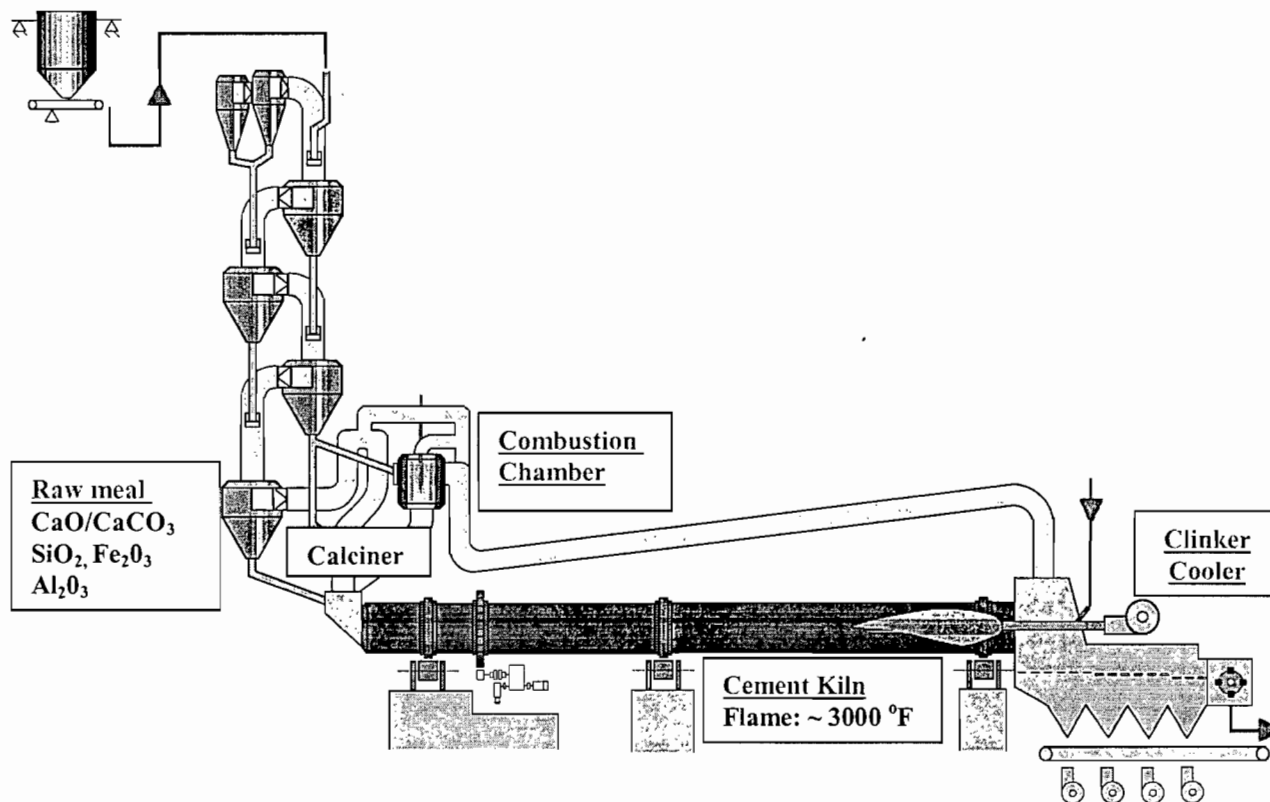


Diagram of Dry Process Cement Kiln with Preheater and Calciner Kiln

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Raw meal is finely divided dried material that includes at least limestone, silica, iron and aluminum. It is continuously weighed on feed scales and introduced at the top of the preheater tower. As it falls through the preheater it is contacted and progressively heated by exhaust gases from the calciner and kiln.

The calciner has a burner in a separate combustion chamber that provides the necessary heat to drive off carbon dioxide from the limestone converting it to free lime ($\text{CaCO}_3 = \text{CaO} + \text{CO}_2$). The calciner operates at a temperature of approximately 2000 degrees F and burns coal.

The calcined materials enter the kiln where they are further heated and transformed into nodules of clinker. These exit the kiln near the main kiln coal burner that operates at approximately 3000 °F. The clinker falls into the cooler where it is cooled by ambient air.

The heated air from the clinker cooler is used as secondary air to support combustion at the kiln burner and is also conveyed along a tertiary air duct to support combustion in and near the calciner combustion chamber.

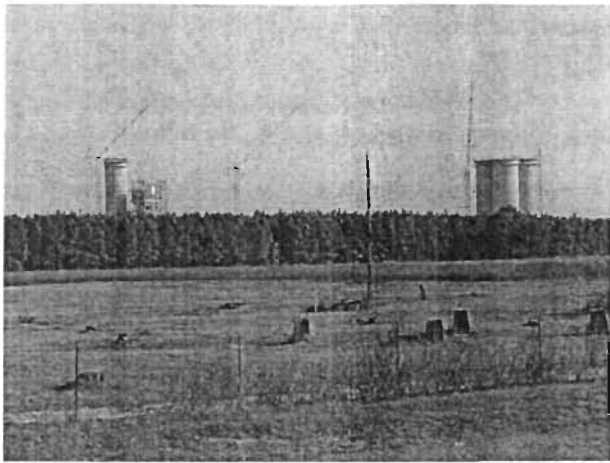
Cooled exhaust gases leaving the preheater go through the raw mill (not shown) where the remaining heat is used to dry incoming coarse raw materials. As the raw materials are ground they are lifted by the exhaust gas flow and conveyed to the main baghouse (not shown) that also serves the purpose of a particulate control device. The finely divided dry material in the baghouse is conveyed to storage silos and then weighed and introduced into the process at the top of the preheater as discussed above.

The main pollution control measures consist of:

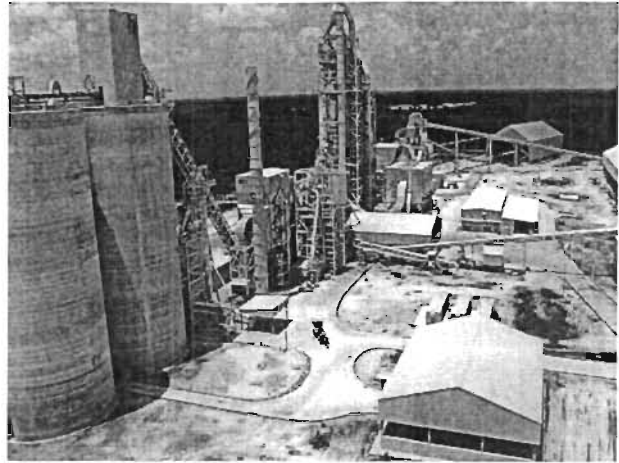
- Use of a multi-channel main kiln burner with indirect firing to minimize production of thermal NO_x .
- Burning much of the fuel at the lower temperatures in the calciner to form less thermal NO_x .
- Operation of a reducing atmosphere in the calciner section to destroy some of the thermal NO_x and minimizing formation of additional NO_x .
- Use of tertiary air to complete the burnout of carbon monoxide (CO) and volatile organic compounds (VOC) produced in the reducing atmosphere of the calciner.
- Intimate contact of the exhaust gases with finely divided lime in the calciner to capture sulfur dioxide (SO_2) from fuel combustion.
- A large baghouse to capture the ground raw material (feed) and serve as a particulate control device.

The facility has been constructed and began operation in February 2003. Several photographs of the plant are shown on the following page. SAC has conducted compliance tests and applied for a Title V Operation Permit. At this time, it is operating at or near its full capacity.

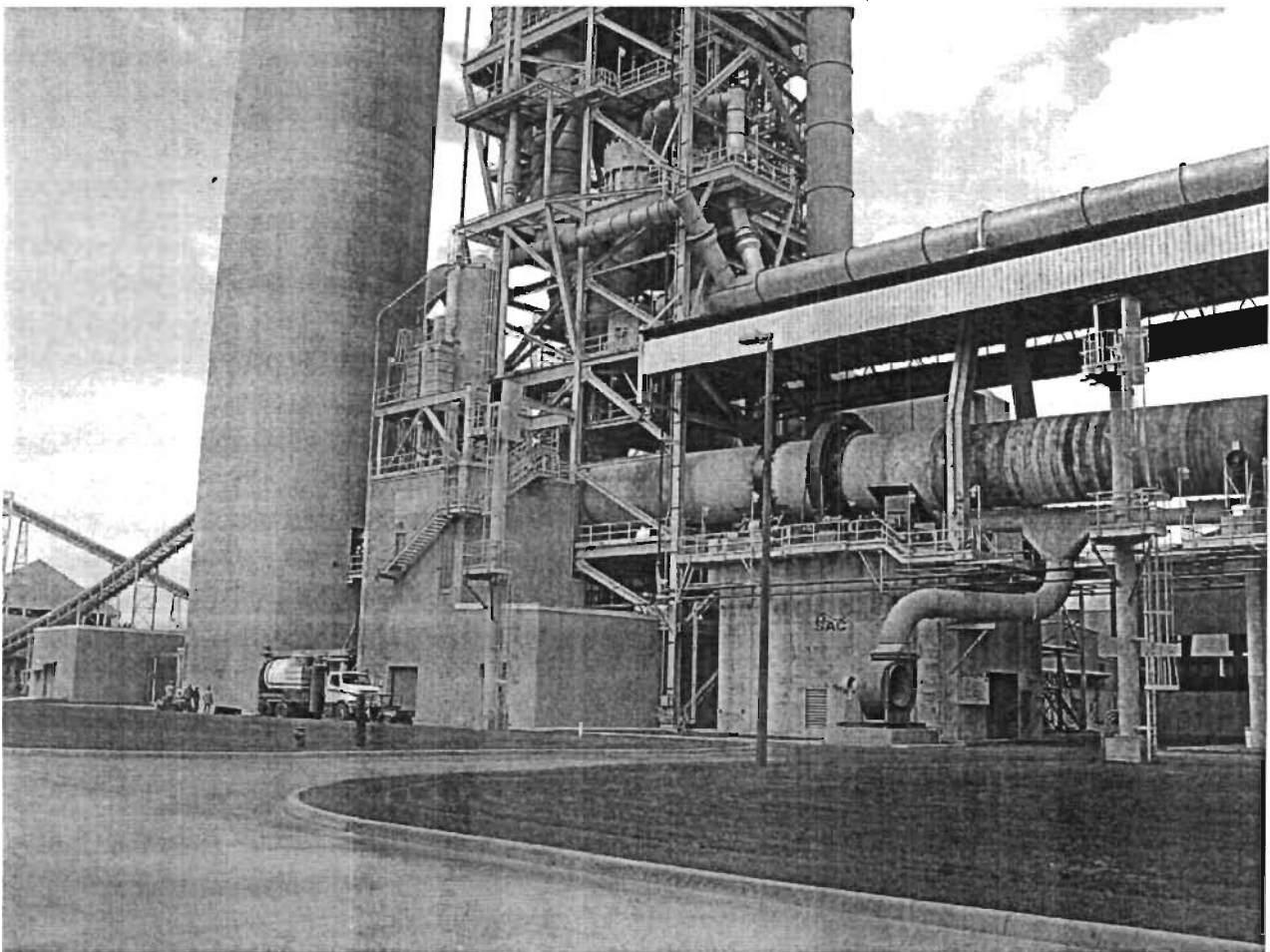
TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION



Cement Plant Under Construction (Photo DEP)



Completed Cement Plant (Photo SAC Website)



Kiln Inlet, Main Stack, Lower Preheater, Calcliner, and Tertiary Air Ducts (Photo A. Linero)

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

IV. HYDRATED LIME PROJECT

SAC has requested an air construction permit to install a hydrated lime system to provide additional SO₂ control. The role of the project is better understood by reviewing the existing, inherent SO₂ control system.

Limestone in the feed is converted into finely divided dry lime in the calciner by the reaction: $\text{CaCO}_3 = \text{CaO} + \text{CO}_2$. Lime in the calciner serves as an excellent scrubbing reagent and binds sulfur dioxide formed by combustion of coal in the kiln and calciner as calcium sulfites and sulfates that are ultimately incorporated into the clinker thus avoiding emissions into the atmosphere. The process is so efficient that typical emissions of SO₂ are less than 2 pounds per hour from the SAC plant.

There is also the possibility of SO₂ emissions resulting from “roasting” of feed as it travels down the preheater. This occurs when occasional pockets of sulfur-containing raw materials are encountered. Even these potential emissions are generally abated when the exhaust gases are used to dry incoming raw materials in the raw mill. Some of the SO₂ roasted off in the preheater can be absorbed by the finely ground limestone in the moist conditions that occur in the raw mill environment.

Raw mills do not operate continuously. Therefore SAC proposes an intermittent system for SO₂ removal that will function when high sulfur raw materials are encountered and the raw mill is off.

SAC proposes to introduce purchased hydrated lime with the feed at the top of the preheater as needed to scrub out SO₂ evolved in the preheater section. The hydrated lime will be provided by an off-site supplier who manufactures the product by calcining limestone and then slaking the product lime by the reaction: $\text{CaO} + 2\text{H}_2\text{O} = \text{Ca}(\text{OH})_2$.

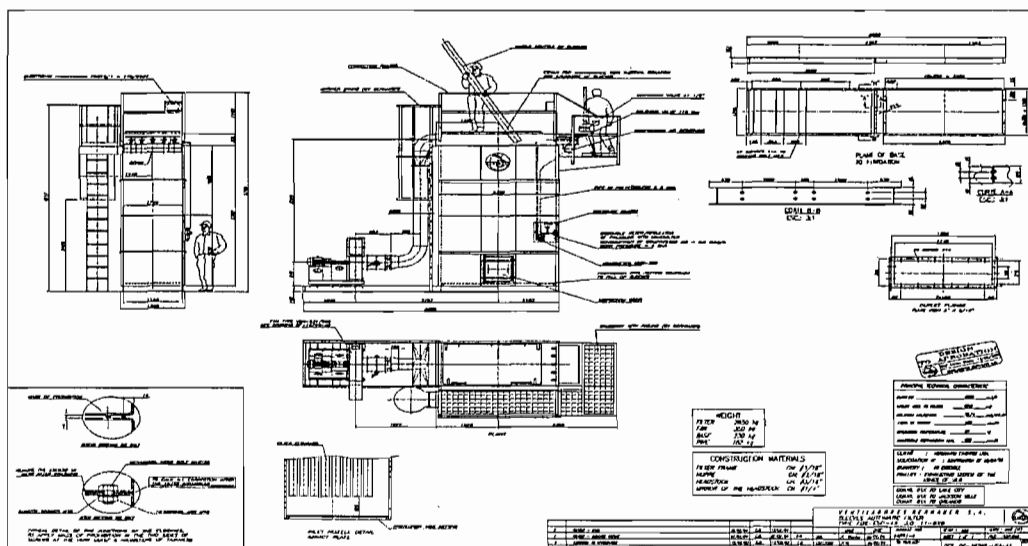
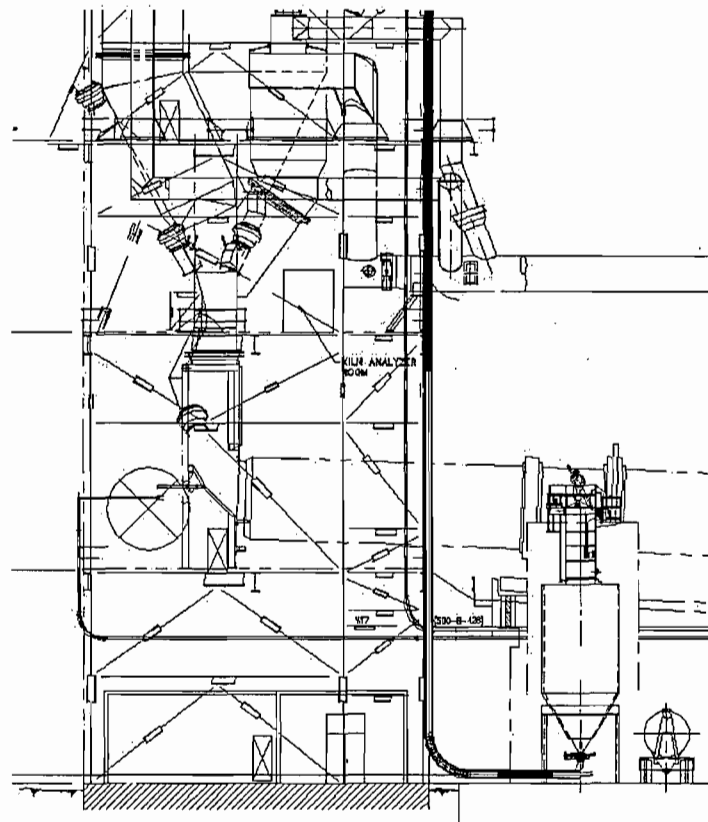
SAC already practices hydrated lime injection as needed through a temporary system using existing equipment. SAC proposes a more robust and permanent system with automated controls actuated by the SO₂ continuous emission monitoring system (CEMS) and the plant expert control system. The system will automatically feed hydrated lime as SO₂ is detected in the stack and will control the dosage based on the concentration of SO₂ at the stack. This automation of the system will allow for the most efficient control and reduction of SO₂ emissions.

Particulate matter emissions from the storage bin will be controlled by a fabric filter (baghouse) dust collector. No emissions will be associated with the pneumatic delivery system or the introduction of the lime into the kiln system.

Such hydrated lime systems are often used at cement plants for the continuous removal of SO₂ when raw material sulfur is inherently high and overwhelms the modest scrubbing capability of the raw mill.

The configuration of the silo associated with the hydrated lime injection system is shown in the following figure:

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION



Hydrated Lime Silo with Delivery Duct and Detail of Dust Collector

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

V. OTHER REQUESTED OR NECESSARY PERMIT CHANGES

A number of other changes and clarifications of permit conditions are necessary. These include:

- Reconciliation of inconsistent conditions with respect to monitoring of mercury into the process.
- Greater consistency in monitoring and reporting of VOC pursuant to the best available control technology (BACT) determination and similar requirements for total hydrocarbons (THC) pursuant to the maximum achievable control technology (MACT) requirements for hazardous air pollutants (HAPs).

A. MERCURY MONITORING RECONCILIATION

This action clarifies two conditions in Section III.B of the permit. The first (Specific Condition 13) includes the following relevant language:

*"The total mass of mercury compounds introduced into the pyroprocessing system, expressed as Hg, in **raw mill feed** and fuels shall not exceed 97 pounds per consecutive 12-month period."*

The second (Specific Condition 27) includes the following language:

*"The owner or operator shall, for each month of sampling required by this condition, perform daily sampling of the **preheater feed** material from the blend silo, coal, petroleum coke, tires and tire derived fuel....."*

Sampling of mercury in the raw mill feed most accurately reflects the total mercury entering the system with the incoming raw materials. Mercury in the preheater feed includes a recycled component that reflects the internal circulation within the system.

The Department will reconcile the conflicting conditions by clarifying that raw materials instead of preheater feed shall be sampled for mercury. This is the correct monitoring point as stated in Final Order OGC Case No. 99-116, DOAH Case No. 99-3096 and will make Condition 27 consistent with Condition 13.

B. TOTAL HYDROCARBON (THC) AND VOLATILE ORGANIC COMPOUNDS (VOC)

The Department's case-by-case Best Available Control Technology (BACT) limit regulates volatile organic compounds (VOC) whereas EPA's Maximum Achievable Control Technology (MACT) standard regulates total hydrocarbons (THC).

The BACT standard allows the installation of a THC monitor and one of the following requirements: (1) all measured THC is reported as VOC; or (2) emissions of methane are monitored and deducted from the THC measurement. As built, the plant installed a THC monitor and currently (and conservatively) reports all THC as VOC.

The BACT averaging period is presently based on a "30 calendar-day block", but the NESHAP averaging period is based on a "30 day block" which EPA has advised is a "30 operating day block." The current BACT calculation approach could over-emphasize a few hours of operational data if the kiln is down for long periods of the 30 calendar-day block.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The BACT standard is in terms of mass emissions (0.12 lb VOC/ton clinker and 12.6 lb VOC/hour) whereas the MACT is 50 parts per million by volume, dry corrected to 7% oxygen (ppmvd @7% O₂). For reference, the BACT standard is believed to be equal to 12 to 15 ppmvd @7% O₂ and is substantially more stringent than the MACT limit.

The Department proposes to adopt the same compliance averaging time for the two pollutants. No change is proposed to the actual BACT standard. The only change is that compliance will be determined over a period of 30 operating days instead of 30 calendar days. Over a period of time, the Department will review the results of VOC and THC testing and consider making additional simplifications such as reporting both parameters in terms of ppmvd @7% O₂. Analysis of the data is needed to insure that there will be no loss in stringency when changing reporting units.

VI. CONCLUSION

The Department will extend the original permit until April 30, 2005 with modifications to reflect the hydrated lime project and the other changes cited above. The proposed changes are highlighted in the draft permit modification distributed concurrently with this evaluation.

The original permitted BACT limits still apply. The Department may revise the final emission limits for the plant during the time provided by this extension in accordance with Subsection B, Specific Condition 12 of the permit.

No emission increases will occur as a result of these changes. SO₂ emissions are already very low. The permanent hydrated lime injection project will make it easier to maintain the very low SO₂ emission characteristics throughout the full range of raw materials and operating conditions.

Month day, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Celso A. Martini, Plant Manager
Suwannee American Cement
Post Office Box 410
Branford, Florida 32008

Re: DEP File No. 1210465-008-AC (PSD-FL-259D)
Cement Plant – Branford, Suwannee County, Florida

Dear Mr. Martini:

The Florida Department of Environmental Protection ("the Department") reviewed your application dated April 26, 2004 requesting a further extension of the original air construction permit from June 30, 2004 through June 30, 2006. Consistent with our conversations and your written correspondence, tires and fly ash will be combined with other applications under review by the Department.

At this time the plant has already been constructed and Suwannee American Cement (SAC) has shown that it can operate at the authorized production rate and emission limits. The request to extend the construction permit through 2006 was based upon timing for the fly ash and tire project which have been deferred and consolidated with other requests. We believe that an extension through July 31, 2005 is sufficient to construct the hydrated lime system and complete the Title V Operation Permit application.

The Department also eliminated prior inconsistencies within the permit for mercury (Hg) sampling to clarify that Hg in the raw materials will be determined prior to introduction into the raw mill instead of the preheater. Lastly, the Department considered use of the same reporting bases for the volatile organic compounds (VOC) BACT limit as EPA's total hydrocarbons (THC) MACT limit.

This facility was originally authorized and constructed pursuant to Permit No. PSD-FL-259 issued on June 1, 2000. This permit action supplements Permit No. PSD-FL-259 and the changes dated November 8, 2002, January 18, 2003, and May 15, 2003 to that permit. Unless otherwise specified, this permit action does not alter any requirements of that permit. Permit No. PSD-FL-259 is hereby supplemented and modified as follows.

PLACARD PAGE 1

The expiration date on this page is changed from June 30, 2004 to July 31, 2005.

FACILITY-WIDE SPECIFIC CONDITIONS

ADMINISTRATIVE

6. Expiration: This air construction permit shall expire on ~~June 30, 2004~~ July 31, 2005. The permittee, for good cause, may request that this construction and PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit.

[Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C.]

PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

[40 CFR 52.21(r)(2)]

BACT Determination: In conjunction with extension of the 18 month periods to commence or continue construction, or extension of the permit expiration date, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source. [40 CFR 52.21(j)(4)] ~~The Department will not require demonstration of adequacy unless an extension is requested beyond June 30, 2004.~~

{Permitting Note: The basic cement manufacturing plant has been constructed and the plant has met its permitted BACT limits. The purpose of the extension is to allow sufficient time to complete the application for a Title V air operation permit and install permanent equipment for hydrated lime injection. The Department retains the authority to set final SO₂ and NO_x limits pursuant to the Section III, Subsection B. Condition 12 reproduced below.}

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION B.

STATE REQUIREMENTS

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

12. Emissions Limited and Subject to Revision for SO₂ and NO_x: Emissions from the facility shall not exceed the limitations specified in this permit. Based on results of compliance tests and continuous monitoring data, the Department may revise the emission limits for sulfur dioxide and nitrogen oxides downward to make these limits more stringent provided that overall control attained for all air pollutants including SO₂, NO_x, VOC and CO is optimized. Such revision shall be based on data that represents a full range of operating conditions and a representative period of time. Such revision, if required by the Department, shall be in the form of a federally enforceable permit and shall be publicly noticed by the permittee. [Rules 62-4.070(3) and 62-212.400(7)(a), F.A.C.]

{No change in this condition. Reproduced as cross reference to Facility-Wide Specific Condition 6.}

14. Emissions Unit 002: Emissions unit 002 shall have the following emission points:

EMISSION POINT	DESCRIPTION
E-28	Dust collector – Aeropul at the homogenizing silo
E-34	Dust collector for off-spec feed handling
G-07	Dust collector for homogenizing silo inlet
H-08	Dust collector for homogenizing silo outlet
<u>X-X</u>	<u>Dust collector for hydrated lime silo</u>

This permit authorizes permanent installation of the following equipment for the injection of hydrated lime: lime silo, baghouse, control system and associated ductwork. Hydrated lime may be injected near the top of the preheater as an option to control SO₂ emissions.

The remainder of Condition 14 is unchanged.

15. Emissions Unit 004:

This condition is unchanged with the exception of Note 6 to the associated Table. Note 6 is modified as follows:

⁶ The averaging time for VOC shall be a 30 calendar operating-day block average computed in accordance with specific condition 18 of this subsection.

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

18. Continuous Emission Monitoring Systems: The owner or operator shall install, calibrate, maintain, and operate a continuous emission monitoring (CEM) system in the in-line kiln/raw mill stack to measure and record the emissions of NO_x, SO₂, and VOC from the in-line kiln/raw mill, in a manner sufficient to demonstrate compliance with the emission limits of this permit. The CEM system shall express the results in units of pounds per ton of clinker produced, and pounds per hour.

- a. Compliance Demonstration: Compliance with the emission limit for NO_x shall be based on a 24-hour rolling average that shall be recomputed after every valid hour as the arithmetic average of that hourly average and the preceding 23 valid hourly averages. Compliance with the emission limit for SO₂ shall be based on a rolling three-hour average that shall be recomputed after every valid hour as the arithmetic average of that hourly average and the preceding two valid hourly averages. Compliance with the emission limit for VOC shall be based on a 30 calendar operating-day block average that shall be computed as the arithmetic average of all valid hourly averages occurring within each 30 calendar operating-day block.

b., c., and d. are unchanged.

- e. THC Monitor: At the option of the permittee, a total hydrocarbon (THC) monitor can be installed in place of the required VOC monitor provided that the monitor results ("THC as propane") are considered to be VOC ("VOC as propane") for purposes of compliance. If methane is measured concurrently with THC, then "THC as propane, minus methane" can be considered to be VOC ("VOC as propane") for purposes of compliance. The VOC (or THC) CEM system shall be installed, operated and maintained in accordance with Performance Specification 8A of Appendix B in 40 CFR 60. The system shall comply with all of the requirements for continuous monitoring systems found in the general provisions of Subpart A in 40 CFR 63. It is not a requirement to calculate hourly rolling averages in accordance with

Section 4.9 of Performance Specification 8A. Compliance with the emission limit for VOC (or THC) shall be computed as the arithmetic average of all valid emissions data collected for a block of 30 operating days. For purposes of the VOC (or THC) limit, an operating day is any day that the kiln produces clinker and/or fires fuel. Emissions data are only used for the determination of a single 30 operating-day block average. Emissions shall be reported in units of the standards (lb/hour, lb/ton clinker, and ppmvd as propane corrected to 7% oxygen). These requirements shall be interpreted to be consistent with the monitoring requirements specified in 40 CFR 63.1350. [Permit Nos. PSD-FL-259 C and D]

The remainder of Condition 18 is unchanged.

27. Material Balance Records of Mercury: The owner or operator shall demonstrate compliance with the mercury throughput limitation by material balance and making and maintaining records of monthly and rolling 12-month mercury throughput. The owner or operator shall, for each month of sampling required by this condition, perform daily sampling of the raw mill feed ~~preheater feed material from the blend silo~~, coal, petroleum coke, tires and tire derived fuel, and shall composite the daily samples each month, and shall analyze the monthly composite sample to determine mercury content of these materials for the month. The owner or operator shall determine the mass of mercury introduced into the pyroprocessing system (in units of pounds per month) from the total of the product of the mercury content from the monthly composite analysis and the mass of each material or fuel used during the month. The consecutive 12-month record shall be determined from the individual monthly records for the current month and the preceding eleven months and shall be expressed in units of pounds of mercury per consecutive 12-month period. Such records shall be completed no later than 25 days following the month of the records. To determine the mercury content of the feed material and fuels to be used in the monthly calculation, sampling and analysis shall be performed in accordance with the following schedule:

- i. For the first quarter of the operation of the plant, sample for each month of the quarter and analyze each month's composite sample.
- ii. For the next three quarters, sample for one month of each quarter and analyze that month's composite sample.
- iii. For each year thereafter, sample for one month of each year and analyze that month's composite sample, except as follows.
 - a. If there is a change in feed material or fuels utilized from those previously sampled and analyzed, the frequency shall revert to ii, above, for the next three quarters.
 - b. If the monthly composite analysis shows a total monthly mercury throughput of greater than 6.2 pounds per month of mercury introduced into the pyroprocessing system, the frequency shall revert to ii, above, for the next three quarters or until the monthly throughput is less than or equal to 6.2 pounds per month, whichever is longer.

[Rule 62-4.070(3), F.A.C.; Permit No. PSD-FL-259D]

{Permitting Note: Permit No. PSD-FL-259D changed a mercury sampling location identified as the "preheater feed material from the blend silo" to the "raw mill feed". This is the correct monitoring point as stated in Final Order OGC Case No. 99-116, DOAH Case No. 99-3096 and the sampling locations are now consistent with those identified in Condition 13.}

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

Michael G. Cooke, Director
Division of Air Resource
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on _____ to the person(s) listed:

Celso Martini, SAC*
Claude Grinfeder, SAC*
Joe Horton, SAC
Larry Sellers, Esq.*
Frank Darabi, P.E.
Steve Cullen, P.E.
John Koogler, P.E.
Chris Kirtz, DEP NED
Jim Little, EPA
John Bunyak, NPS

Jim Stevenson, DEP
Tom Workman, DEP
Mark Latch, DEP
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Ralph Ashodian
Virginia Seacrist
Bob and Lynn Milner
Linda Pollini
Helen Beaty
Bessie Robinson
Craig Pittman, St. Pete Times
Chuck Yagel*

Clerk Stamp

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk)

(Date)