

# FINAL DETERMINATION

## Suwannee American Cement Plant

### Extension of Permit and Hydrated Lime Injection

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

On September 24, 2004 the Florida Department of Environmental Protection (Department) distributed an "Intent to Issue Air Construction Permit Modification" to construct a hydrated lime injection system and to extend the expiration date of the permit to construct the Suwannee American Cement Plant located on U.S. Highway 27, in Suwannee County. The Draft Permit Modification also proposed a compliance averaging time for volatile organic compounds of 30 operating (instead of calendar) days and clarified two inconsistent conditions related to mercury sampling.

The package included the Department's Draft Air Construction Permit Modification, the "Intent to Issue Air Construction Permit Modification," the "Technical Evaluation and Preliminary Determination," and the "Public Notice of Intent to Issue Air Construction Permit Modification." The Department sent copies of the package to various persons, agencies, and municipalities including those who had asked that they be informed of any Department permitting activities related to the subject facility. Suwannee American Cement, LLC published the Public Notice in The Suwannee Democrat on October 1, 2004 and provided to the Department the required proof of publication.

The Department received no comments on the Draft Air Construction Permit. At the request of the Department, Suwannee American Cement supplied an emission point number (unspecified in the draft) for the required baghouse that will control dust from the hydrated lime injection system. The emission Point is designated as H-08A-01, "Dust Collector for hydrated lime silo E-30-01". Section III, Subsection B, Condition 14 will read as follows:

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

EMISSION POINT	DESCRIPTION
E-28	Dust collector – Aeropol 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>H-08A-01</u>	<u>Dust collector for hydrated lime silo E-30-01</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 SO<sub>2</sub> emissions.

The remainder of Condition 14 is unchanged.

The final action is to issue the Air Construction Permit Modification as drafted but with the specified emission point number.



Jeb Bush  
Governor

# Department of Environmental Protection

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

Colleen M. Castille  
Secretary

October 18, 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.

*“More Protection, Less Process”*

*Printed on recycled paper.*

## 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 SO<sub>2</sub> and NO<sub>x</sub> 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 SO<sub>2</sub> and NO<sub>x</sub>: 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 SO<sub>2</sub>, NO<sub>x</sub>, 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>H-08A-01</u>	<u>Dust collector for hydrated lime silo E-30-01</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 SO<sub>2</sub> 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:

<sup>6</sup> 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<sub>x</sub>, SO<sub>2</sub>, 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<sub>x</sub> 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 SO<sub>2</sub> 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 10/20/04 to the person(s) listed:

Celso Martini, SAC*	Jim Stevenson, DEP	Patrice Boyes, Esq.*
Claude Grinfeder, SAC*	Tom Workman, DEP	Kathy Cantwell
Joe Horton, SAC	Mark Latch, DEP	Ralph Ashodian
Larry Sellers, Esq.*	December McSherry	Virginia Seacrist
Frank Darabi, P.E.	Svenn Lindskold	Bob and Lynn Milner
Steve Cullen, P.E.	Tom Greenhalgh*	Linda Pollini
John Koogler, P.E.	Dave Bruderly	Helen Beaty
Chris Kirts, DEP NED	Chris Bird, Alachua Co. DER	Bessie Robinson
Jim Little, EPA	Chair, Alachua Co. BCC*	Craig Pittman, St. Pete Times
John Bunyak, NPS	J. Calvin Gaddy	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)

10/20/04  
(Date)

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF FINAL PERMIT

In the Matter of an Application for Permit:

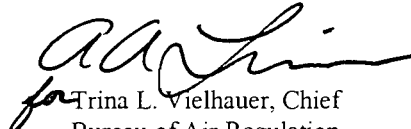
Suwannee American Cement, LLC  
Post Office Box 410  
Branford, Florida 32008

DEP File No. 1210465-012-AC  
Production Capacity and Fly Ash Injection Test  
Suwannee American Cement Plant  
Suwannee County

Enclosed is the Permit Number 1210465-012-AC to evaluate the feasibility of a clinker production rate increase by conducting a production capacity and fly ash test during 120 operating days over a six-month period of time at the Suwannee American Cement Plant in Suwannee County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; 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 of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

  
Trina L. Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 10/20/04 to the person(s) listed:

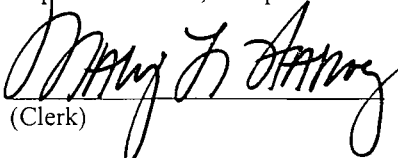
Celso Martini, SAC\*  
Claude Grinfeder, SAC\*  
Joe Horton, SAC  
Larry Sellers, Esq.\*  
Frank Darabi, P.E.  
Steve Cullen, P.E.  
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John Bunyak, NPS

Jim Stevenson  
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Tom Greenhalgh\*  
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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) 10/20/04  
(Date)

## FINAL DETERMINATION

### Suwannee American Cement Plant

### Production Capacity and Fly Ash Test Program

DEP File No. 1210465-012-AC

On September 24, 2004 the Florida Department of Environmental Protection (Department) distributed an "Intent to Issue Air Construction Permit" to conduct a production capacity and fly ash test program at the Suwannee American Cement Plant located on U.S. Highway 27, in Suwannee County.

The package included the Department's Draft Air Construction Permit, the "Intent to Issue Air Construction Permit," the "Technical Evaluation and Preliminary Determination," and the "Public Notice of Intent to Issue Air Construction Permit." The Department sent copies of the package to various persons, agencies, and municipalities including those who had asked that they be informed of any Department permitting activities related to the subject facility. Suwannee American Cement, LLC published the Public Notice in The Suwannee Democrat on October 1, 2004 and provided to the Department the required proof of publication.

The Department received comments only from the applicant. By the letter dated September 29, 2004 Suwannee American Cement, LLC submitted the following comment:

*"SAC assumes the intent of the construction permit allows for a construction and use of silos and feed equipment to inject fly ash into the calciner for purposes of the test. This equipment would only be used for purposes of the test and during the approved test period. SAC would seek permanent approval for use of equipment beyond the approved test period from the Department".*

The Department agrees that the permit allows for construction and use of silos and feed equipment to inject fly ash into the calciner as well as a baghouse. An Emission Unit designated as "xxx – Temporary Fly Ash Injection" was included in the draft permit. The Department has determined that instead of a separate emission unit, it would be more appropriate to add a temporary emission point under existing "Emission Unit 002 – Raw Material Processing Operations Controlled by Baghouses." This temporary permit will show Emission Unit 002 with the Emission Point U-02-01 designated as "Dust Collector for Fly Ash Silos U-01-01." The layout of the silos is shown in the drawing at the end of this determination.

Following are the exact changes made in the final permit compared with the draft permit:

#### PLACARD PAGE – STATEMENT OF BASIS

This air construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to install and temporarily use fly ash silos with a baghouse and feed equipment. The permittee is authorized to conduct tests for the production rate and fly ash injection capacities in accordance with the conditions of this permit and as described in the application. Apart from the temporary increase in feed rate, clinker production, fuel use rate, and injection of fly ash into the calciner, the permittee shall operate the facility in accordance with the previously approved permits, drawings, plans, and other documents on file with the Florida Department of Environmental Protection ("DEP" or "the Department"). This temporary permit supplements the original air construction permit and its subsequent modifications. It does not modify any other requirements from such previously issued air permits except a provision for certain emissions data exclusion (lb NO<sub>x</sub>/ton of clinker) for periods of off-capacity clinker production during the capacity evaluation program.



This permit addresses the following emission units.

EU No.	Emission Unit Description
002	Raw Material Processing Operations Controlled by Baghouses <sup>1</sup>
004	In line kiln/raw mill controlled by baghouse – main stack
005	Clinker cooler controlled by ESP
<del>xxx</del>	<del>Temporary fly ash injection into the calciner</del>

1. Emission Unit 002 includes numerous Emission Points including new Emission Point U-02-01 - Dust Collector for Fly Ash Silos U-01-01.

SECTION 3, CAPACITY EVALUATION PROGRAM, CONDITION 2

2. **Temporary Operating Rates:** Subject to the conditions of this permit, the permittee is authorized to install and temporarily use fly ash silos with a baghouse and feed equipment and is temporarily authorized to conduct a capacity evaluation program to: evaluate the technical feasibility of increasing production in the existing in line kiln/raw mill/clinker cooler system as constructed; evaluate the technical feasibility of increasing production in the in line kiln/raw mill/clinker cooler system by directly injecting fly ash (a raw material) into the calciner; and to determine the emissions at the higher operating rates. Within the electrical, structural, process, and mechanical capabilities of the kiln, the permittee is authorized to temporarily operate at the following maximum process and production rates at any time during the capacity evaluation program.

Emissions Unit Rates	Temporary Maximum Operating Rate Range
004 - Kiln Process	178 to 205 tons per hour (including dry preheater feed plus direct fly ash feed to the calciner) <u>Up to 27 tons per direct fly ash feed to the calciner</u>
	364 to 420 million BTU heat input per hour
005 - Clinker Production	105 to 115.5 tons per hour
<del>xxx - Fly Ash Injection</del>	<del>Up to 27 tons per hour direct feed to the calciner (Included in 205 TPH kiln process rate)</del>

For purposes of the capacity evaluation program only, the clinker production rate identified in the above table shall be determined by the following equation:

$$\text{Clinker Production} = [(\text{Feed}) (\text{Kiln Feed LOI Factor}) + (\text{Fly Ash Injection}) (\text{Fly Ash LOI Factor})]$$

Where:

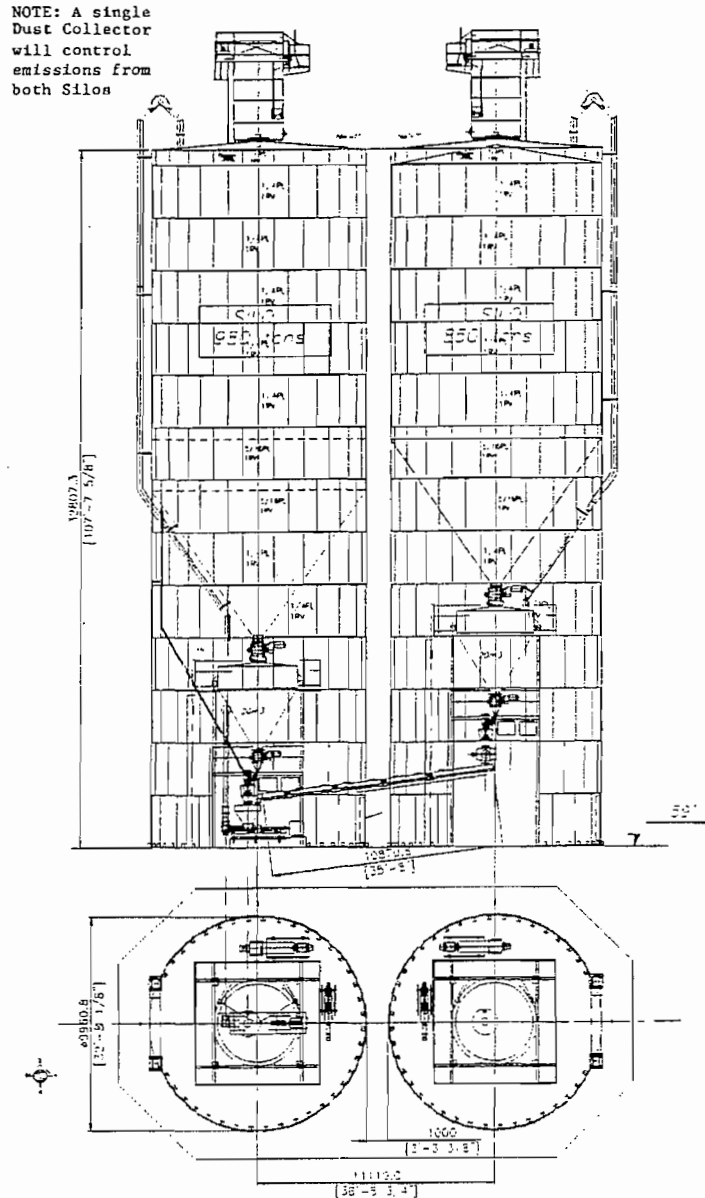
- Kiln feed is determined by the Poldos control system.
- Fly ash is determined from the rotary feed system or equivalent.
- LOI for the kiln feed and fly ash is based on a monthly average determined from daily measurements.

At all times, the emission units shall remain subject to the conditions of all existing permits related to air pollution and control equipment during the temporary capacity evaluation program. All required CEMS and COMS shall be properly functioning when operating within the temporary maximum rate range. [Rule 62-4.070(3), F.A.C.]

4. **Duration:** The temporary capacity evaluation program is limited to no more than 120 operating days and shall end no later than April 30, 2005. Upon completion of the capacity evaluation program or the expiration of this permit (whichever occurs first), the permittee shall cease to operate at production and process rates in excess of the original Air Construction Permit No. 1210465-001-AC (PSD-FL-259) and shall cease to use the temporary fly ash silos, baghouse and injection system. For this permit, "operational day" means any day that includes operation within the temporary maximum rate range specified above. [Applicable Permit, Applicant Request]

Note: End of changes.

Following is the approximate layout of the fly ash silos.



Side and Overhead Views of Fly Ash Storage Silos

The Department's Final Action is to issue the Air Construction Permit as drafted but with the changes noted above.



Jeb Bush  
Governor

# Department of Environmental Protection

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

Colleen M. Castille  
Secretary

## PERMITTEE

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

*Authorized Representative:*  
Celso Martini, Plant Manager

Permit No. 1210465-012-AC  
Cement Plant (SIC No. 3241)  
Capacity Evaluation Program  
Expires: April 30, 2005

## PROJECT AND LOCATION

This permit authorizes Suwannee American Cement, LLC to conduct a production capacity evaluation program at the existing Branford Cement Plant located at US Highway 27 and County Road 49 in Suwannee County, Florida. The UTM coordinates are: Zone 17; 321.4 km E and 3315.9 km N.

## STATEMENT OF BASIS:

This air construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to install and temporarily use fly ash silos with a baghouse and feed equipment. Permittee is authorized to conduct tests for the production rate and fly ash injection capacities in accordance with the conditions of this permit and as described in the application. Apart from the temporary increase in feed rate, clinker production, fuel use rate, and injection of fly ash into the calciner, the permittee shall operate the facility in accordance with the previously approved permits, drawings, plans, and other documents on file with the Florida Department of Environmental Protection ("DEP" or "the Department"). This temporary permit supplements the original air construction permit and its subsequent modifications. It does not modify any other requirements from such previously issued air permits except a provision for certain emissions data exclusion (lb NO<sub>x</sub>/ton of clinker) for periods of off-capacity clinker production during the capacity evaluation program.

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- Section 2. Administrative Requirements
- Section 3. Emissions Unit Specific Conditions
- Section 4. Appendices

*Michael G. Cooke*

Michael G. Cooke, Director  
Division of Air Resource Management

*10/19/04*

(Date)

## SECTION 1. GENERAL INFORMATION

### FACILITY AND PROJECT DESCRIPTION

The existing Suwannee American Cement (SAC) facility consists of a portland cement plant, the associated quarry, and raw material and cement handling operations. The plant processes raw materials in a preheater/precalciner kiln with in-line raw mill to produce clinker. The clinker is milled and combined with gypsum to produce portland cement.

Authorized fuels for the pyroprocessing system include natural gas, coal, petroleum coke, whole tires and tire derived fuel (TDF). An authorized tire gasification system has not yet been constructed. The plant has a coal processing operation that will crush coal and petroleum coke. Petroleum coke has not yet been used.

The plant was constructed in accordance with Air Permit No. PSD-FL-259, as modified. That permit established short term production limits (24-hour average) of 178 tons per hour (TPH) of material fed to the preheater (dry basis), 105 TPH of clinker, 364 MMBtu per hour of heat input (MMBtu/hr) and 150 TPH of portland cement production. It also specifies annual production limits (based on a rolling 12-month basis) of 1,427,880 tons per year (TPY) of material fed to the preheater (dry basis), 839,500 TPY of clinker production, and 1,191,360 TPY of portland cement production. The plant is currently operating under the air construction permit while awaiting action on the application for a Title V air operation permit.

This current permit project (No. 1210465-012-AC) authorizes SAC to conduct a "capacity evaluation program" to assess the plant's production rate capacity as constructed as well as with a new fly ash injection method. The temporary program is limited to 120 operating days and is scheduled for completion by April 30, 2005. Operational and emissions information gathered during the capacity evaluation program will be used to evaluate the feasibility of a pending request for a permanent increase in the clinker production rate.

This permit authorizes SAC to evaluate the pyroprocessing system at preheater feed rates greater than 178 tons per hour and to determine the efficacy of directly injecting fly ash into the calciner in addition to the preheater. During the capacity evaluation program, the sum of dry material feed to the preheater and fly ash injected into the calciner shall be no greater than 205 TPH, the clinker production rate shall be no greater than 115.5 TPH, and the fuel use limit shall be no greater than 420 MMBtu/hr, all on a 24-hour basis.

Existing permitted emission limits remain unchanged and in effect during the capacity evaluation program except for a provision for the production-based NO<sub>x</sub> emissions data exclusion (lb NO<sub>x</sub>/ton of clinker) for periods of off-capacity clinker production as specified in this permit.

### EMISSION UNITS

This permit addresses the following emission units.

EU No.	Emission Unit Description
002	Raw Material Processing Operations Controlled by Baghouses
004	In line kiln/raw mill controlled by baghouse – main stack
005	Clinker cooler controlled by ESP

### REGULATORY CLASSIFICATION

Title III: The Suwannee American Cement Facility is classified as a "Major Source" per 40 CFR 63.2, Definitions (adopted and incorporated by reference by the Department at Paragraph 62-204.800(11)(d)) because it consists of a group of stationary sources located within a contiguous area and under common control that emit or have the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The facility is subject to the Major (Greenfield) Source requirements of National Emission

## SECTION 1. GENERAL INFORMATION

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Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry, Code of Federal Regulations (CFR) Title 40, Part 63, Subpart LLL.

Title V: Because potential emissions of at least one regulated pollutant exceed 100 tons per year, the existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOC).

Prevention of Significant Deterioration (PSD): This facility is located in an area (Suwannee County) designated as "attainment" for all criteria pollutants. The facility is considered a "Portland Cement Plant," which is one of the 28 PSD source categories with the lower PSD applicability threshold of 100 tons per year (see Table 212.400-1, Rule 62-212.400, F.A.C.). Potential emissions of at least one regulated pollutant exceed 100 tons per year. Therefore, the facility is classified as a Major Facility with respect to Rule 62-212.400, F.A.C.

New Source Performance Standards (NSPS): The facility is subject to: 40 CFR 60 Subpart F, Standards of Performance for Portland Cement Plants; 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants; and 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.

State Rule: Some emissions units are subject to Rule 62-296.701, F.A.C., Portland Cement Plants.

### RELEVANT DOCUMENTS

The documents listed below are the basis of this permit. The permit application and additional information referenced are not a part of this permit, but the information is specifically related to this permitting action and the following documents are on file with the Department.

- Air Permit No. PSD-FL-259 issued on June 1, 2000, which was the original air construction permit for the new facility.
- Air Permit No. PSD-FL-259A issued on November 8, 2002, which modified the permit as follows: added requirement for notification of the anticipated date that equipment would be commissioned; and removed the startup notification specified by 40 CFR 60.7(a)(2) because it was repealed by EPA in 1999.
- Air Permit No. PSD-FL-259B issued on January 18, 2003, which modified the permit as follows: extended expiration date to June 30, 2004; added requirements for plant managers; added construction schedule; added requirements for permit transfer; revised data retrieval requirements; and revised CEMS requirements for kiln.
- Air Permit No. PSD-FL-259C issued on May 15, 2003, which modified the following items: clarified emissions point descriptions for several baghouses; and clarified CEMS requirements for kiln.
- Permit No. 121065-008 (PSD-FL-259D) issued October 18, 2004, 2004, which modifies the permit as follows: extend expiration date to March 31, 2005; install a permanent hydrated lime injection system; base the compliance averaging time for VOC on a 30 operating-day basis instead of a 30 calendar-day basis; and clarify the correct sampling point for determining mercury in raw materials.
- Application No. 121065-012-AC received on August 26, 2004 requesting a 120 operating-day testing program to evaluate production rate and fly ash injection capacity.
- Draft Permit No. 121065-012-AC for this permitting action distributed September 24, 2004.
- Comments received on October 1, 2004 from Suwannee American Cement LLC.
- Final Determination and Final Notice issued October 18, 2004.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS

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1. Permitting Authority: All applications for permits to construct or modify an emission unit subject to the Prevention of Significant Deterioration or Nonattainment review requirements should be submitted to the Bureau of Air Regulation, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 (phone number: 850/488-0114). All documents related to applications for permits to operate and minor modifications shall be submitted to the Air Resource Section of the Department's Northeast District Office at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590 (phone number: 904/807-3300).
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resource Section of the Department's Northeast District Office at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590 (phone number: 904/807-3300).
3. Appendices: The following Appendices are attached as part of this permit: Appendix CF (Citation Formats), Appendix GC (General Conditions), and Appendix GT (General Testing Requirements).
4. Applicable Regulations, Forms, and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the applicable permits and applications. The facility is subject to all applicable provisions of Chapter 403, F.S., Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.; 40 CFR 60 (Subparts A, F, Y, and OOO); and 40 CFR 63 (Subparts A and LLL). The terms used in this permit have specific meanings as defined in the applicable chapters of the F.A.C. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C., and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300, and 62-210.900, F.A.C.]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Additional Permits: The scope of this temporary project is to develop information in support of a separate air construction permit for a permanent production increase. Any final action authorizing a permanent production increase requires a revision to the Title V air operation permit. [Rule 62-213.400, F.A.C.]

**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS**

This permit addresses the following emission units.

EU No.	Emission Unit Description
002	Raw Material Processing Operations Controlled by Baghouses <sup>1</sup>
004	In line kiln/raw mill controlled by baghouse – main stack
005	Clinker cooler controlled by ESP

1. Emission Unit 002 includes numerous Emission Points including new Emission Point U-02-01 - Dust Collector for Fly Ash Silos U-01-01.

**CAPACITY EVALUATION PROGRAM**

1. Relation to Other Permits: The conditions of this permit are in addition to those of any other air construction or operation permits. [Rules 62-4.210, 62-4.030, and 62-210.300(1)(b), F.A.C.]
2. Temporary Operating Rates: Subject to the conditions of this permit, the permittee is authorized to install and temporarily use fly ash silos with a baghouse and feed equipment and is temporarily authorized to conduct a capacity evaluation program to: evaluate the technical feasibility of increasing production in the existing in line kiln/raw mill/clinker cooler system as constructed; evaluate the technical feasibility of increasing production in the in line kiln/raw mill/clinker cooler system by directly injecting fly ash (a raw material) into the calciner; and to determine the emissions at the higher operating rates. Within the electrical, structural, process, and mechanical capabilities of the kiln, the permittee is authorized to temporarily operate at the following maximum process and production rates at any time during the capacity evaluation program.

Emissions Unit Rates	Temporary Maximum Operating Rate Range
004 - Kiln Process	178 to 205 tons per hour (including dry preheater feed plus direct fly ash feed to the calciner) 27 tons per direct fly ash feed to the calciner
	364 to 420 million BTU heat input per hour
	105 to 115.5 tons per hour
005 - Clinker Production	105 to 115.5 tons per hour

For purposes of the capacity evaluation program only, the clinker production rate identified in the above table shall be determined by the following equation:

$$\text{Clinker Production} = [(\text{Feed}) (\text{Kiln Feed LOI Factor}) + (\text{Fly Ash Injection}) (\text{Fly Ash LOI Factor})]$$

Where:

- Kiln feed is determined by the Poldos control system.
- Fly ash is determined from the rotary feed system or equivalent.
- LOI for the kiln feed and fly ash is based on a monthly average determined from daily measurements.

At all times, the emission units shall remain subject to the conditions of all existing permits related to air pollution and control equipment during the temporary capacity evaluation program. All required CEMS and COMS shall be properly functioning when operating within the temporary maximum rate range. [Rule 62-4.070(3), F.A.C.]

3. Schedule: At least 14 days before beginning the capacity evaluation program, the permittee shall submit to the Permitting and Compliance Authorities a preliminary schedule detailing the program phases, operating scenarios, operational data collection, emissions data collection, and emissions testing protocol. The permittee shall update the schedule as necessary. [Rule 62-4.070(3), F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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4. Duration: The temporary capacity evaluation program is limited to no more than 120 operating days and shall end no later than April 30, 2005. Upon completion of the capacity evaluation program or the expiration of this permit (whichever occurs first), the permittee shall cease to operate at production and process rates in excess of the original Air Construction Permit No. 1210465-001-AC (PSD-FL-259) and shall cease to use the temporary fly ash silos, baghouse and injection system. For this permit, "operational day" means any day that includes operation within the temporary maximum rate range specified above. [Applicable Permit, Applicant Request]
5. Operating Scenarios: The permittee shall evaluate the following operating scenarios.
  - a. *Case 1*: Operate the in-line kiln system within the temporary maximum rate range without direct fly ash injection to the calciner to evaluate the existing capacity as constructed. At least 8 hours of data shall be gathered to identify the existing capacity as constructed.
  - b. *Case 2*: Operate the in-line kiln system at a clinker production of approximately 105 tons per hour while injecting fly ash directly into the calciner at intervals of 3 tons per hour until the maximum fly ash injection capacity for the temporary fly ash injection system is determined. At least 3 hours of data shall be gathered at each fly ash injection rate.
  - c. *Case 3*: Operate the in-line kiln system within the temporary maximum rate range while injecting fly ash directly into the calciner at intervals of 3 tons per hour until the maximum fly ash injection capacity for the temporary fly ash injection system is determined. At least 3 hours of data shall be gathered at each fly ash injection rate.

The permittee may evaluate other operating scenarios within the temporary maximum rate range as necessary. All operation shall be within the electrical, structural, process, and mechanical capabilities of the kiln. If the above specified operating rates or fly ash injection rates are not possible, the permittee shall document this with the suspected reason. Whenever operating within the temporary maximum rate range or directly injecting fly ash into the calciner, the permittee shall continuously monitor and record the following information: dry feed material to the preheater (TPH); fly ash feed directly to the calciner (TPH); clinker production (TPH) by indirect calculation method as defined in Condition 2; clinker production (TPH) by direct measurement using the installed weigh scale; heat input rates (MMBtu/hour) to the kiln from each fuel in use; all required CEMS data; and all required COMS data. [Rule 62-4.070(3), F.A.C.]

#### EMISSIONS

6. Emissions Standards: Except as described in Condition 7, this permit does not change any emission standards or establish any new emissions standards for the in line kiln system. During the temporary capacity evaluation program, the in line kiln system shall comply with the requirements of all existing, valid Department permits. [Rules 62-4.030, 62-4.070(3), and 62-210.300(1)(b), F.A.C.]
7. NO<sub>x</sub> Data Exclusion: The following provisions apply only during the capacity evaluation program and only for 24-hour periods during which fly ash is directly injected into the calciner.
  - a. "Off-capacity clinker production" is defined as clinker production below 85 tons per hour.
  - b. If the 24-hour period includes off-capacity clinker production, up to two 1-hour production-based NO<sub>x</sub> emission averages (lb/ton clinker) collected during such periods may be excluded from the 24-hour compliance average.
  - c. No such data exclusion is permitted for clinker production below 85 tons per hour unless fly ash is being injected directly into the calciner. Operators shall minimize such incidents of off-capacity clinker production to the extent possible. The owner or operator shall monitor and record the number of 1-hour NO<sub>x</sub> emission rates excluded from the determination of compliance with the production-based NO<sub>x</sub> emission limit. [Applicant Request].



### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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8. Unconfined Particulate Emissions: During the capacity evaluation program, unconfined particulate matter emissions shall be minimized by taking the reasonable precautions specified in the current air construction permit, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

#### EMISSIONS TESTING AND MONITORING REQUIREMENTS

9. Test Notification: The permittee shall provide at least a 15-day advance notice of any scheduled stack tests to afford the Compliance Authority the opportunity to witness the tests. If unavoidable circumstances occur that would delay the stack tests, the permittee shall keep the Compliance Authority informed of the delays and the new schedule. At its discretion, the Compliance Authority may allow a shorter advance notice. [Rule 62-297.310(7)(a)9, F.A.C.]
10. Stack Tests – In Line Kiln (EU-004): Within the electrical, structural, process, and mechanical capabilities of the in-line kiln system, the permittee shall conduct the stack tests in accordance with the following provisions.
- At the operating rates specified below, the permittee shall conduct stack tests (one for each pollutant) to determine compliance with the existing emissions standards for carbon monoxide and particulate matter.
  - The permittee shall conduct dioxin/furan tests if there is a significant change in the feed that was used in the previous performance test. A Loss on Ignition (LOI) value of 30 percent or more shall be considered a significant change in the feed.
  - For mercury, the permittee shall calculate and report mercury emissions in accordance with the procedure specified in the current air construction permit.
  - Stack testing shall be performed at the in-line kiln main stack while the preheater, kiln, precalciner, cooler, and raw mill are operating simultaneously (compound operation). For each required stack test, the permittee shall operate the in-line kiln system to produce at least 110 tons per hour of clinker while injecting fly ash directly into the calciner within at least 90% of the highest sustained fly ash injection rate as determined by the results of operating scenario Case 3 in Condition 5.
  - The permittee shall conduct each required stack test using the methods approved in the current air construction permit. Each required stack test shall consist of at least three test runs.
  - For each required stack test, the permittee shall report the following continuous monitoring data: nitrogen oxides, sulfur dioxide, volatile organic compounds (total hydrocarbons), and opacity. In addition, the permittee shall report the continuous opacity monitoring data from the clinker cooler (EU-005) for each required test.
  - For each required stack test, the permittee shall report the following information: dry feed material to the preheater (TPH); fly ash feed directly to the calciner (TPH); clinker production (TPH) by indirect calculation method as defined in Condition 2; clinker production (TPH) by direct measurement using the installed weigh scale; and heat input rates (MMBtu/hour) to the kiln from each fuel in use.
  - During each day that stack tests are conducted on the in-line kiln system (EU-004), a representative sample of each fuel used shall be taken and analyzed for the following fuel properties: heating value (Btu/lb), moisture (% by weight), nitrogen (% by weight), sulfur (% by weight), chlorides (% by weight), ash (% by weight), and mercury (ppm by weight).
  - During each day that stack tests are conducted on the in-line kiln system (EU-004), a representative sample of the fly ash injected into the calciner shall be taken and analyzed for the same constituents as preheater feed. In addition, the fly ash shall be tested for ammonia, chloride, carbon, loss on ignition (LOI), and mercury.

[Rules 62-4.070(3) and 62-297.310, F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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11. Test Procedures: General stack test procedures are summarized in Appendix GT of this permit. [Rule 62-297.310, F.A.C.]
12. Monitoring: During the capacity evaluation program, the permittee shall continuously monitor and record all information specified by the existing air construction permit including operational parameters, CEMS data, and COMS data. [Rule 62-4.070(3), F.A.C.]

#### RECORDS AND REPORTS

13. Stack Test Reports: The permittee shall prepare and submit reports for all required stack tests in accordance with the requirements in Rule 62-297.310(8), F.A.C. The permittee shall submit a written report that summarizes the results within 45 days of completing each required stack test. All stack test data collected during the temporary testing program shall be submitted for review. For each test run, the report shall also indicate the following information: dry material feed to the preheater (TPH); fly ash injection directly to the calciner (TPH); clinker production (TPH); heat input rates (MMBtu/hour) from each fuel in use; CEMS and COMS data; and ambient conditions.
14. Fuel and Fly Ash Analyses: Within 45 days of taking a fuel or fly ash sample required by this permit, the permittee shall submit a report detailing the results of the analyses. [Rule 62-4.070(3), F.A.C.]
15. CEMS Data: The permittee shall provide the Department with data disks containing all CEMS data and production data for the duration of the capacity test. The permittee shall provide a description to decipher and review the data. The data should indicate when the raw mill is on (compound operation) and when it is off. [Rule 62-4.070(3), F.A.C.]
16. Final Report on the Capacity Evaluation Program: Within 90 days of completing the capacity evaluation program and no later than July 30, 2005, the permittee shall submit a technical report detailing the capacity evaluation program and its findings. The report shall be comprehensive and include, but not be limited to, the following:
  - For each day the plant operated within the temporary maximum rate range or directly injected fly ash into the calciner, an hour-by-hour summary of the following information: dry material feed to the preheater (TPH); fly ash injection directly to the calciner (TPH); clinker production (TPH); portland cement production (TPH); heat input rates (MMBtu/hour) from each fuel in use; CEMS data; and COMS data.
  - For each emissions stack test conducted, a summary of the information required in Condition 13.
  - An assessment of the precision and accuracy of the methods used to determine feed material rates and indirectly calculate clinker production.
  - An assessment of the precision and accuracy of direct measurement of clinker production using the installed scales.
  - A discussion of any operational problems encountered at the higher authorized rates.
  - Details of any mechanical, electrical, structural, and process limitations that were identified during the course of the capacity evaluation program.[Rule 62-4.070(3), F.A.C.]
17. Engineering Report on Kiln: Any future or pending applications for a permanent production increase shall include an engineering report describing the full capability of the kiln to sustain the requested production rates while meeting proposed emission rates. The report shall be sealed by professional engineers or other experts as appropriate in structural, mechanical, electrical, process, and environmental disciplines. A single report from the kiln manufacturer would suffice to fulfill this requirement. [Rule 62-4.070(3), F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

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19. Emissions Limited and Subject to Revision for SO<sub>2</sub> and NO<sub>x</sub>: 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 SO<sub>2</sub>, NO<sub>x</sub>, 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., Permit 1210465-001 (PSD-FL-259)]

**APPENDIX GC**  
**General Conditions**

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The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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**APPENDIX GC**  
**General Conditions**

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10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (N/A);
  - b. Determination of Prevention of Significant Deterioration (N/A); and
  - c. Compliance with New Source Performance Standards (N/A).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

# FINAL DETERMINATION

## Suwannee American Cement Plant

### Extension of Permit and Hydrated Lime Injection

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

On September 24, 2004 the Florida Department of Environmental Protection (Department) distributed an "Intent to Issue Air Construction Permit Modification" to construct a hydrated lime injection system and to extend the expiration date of the permit to construct the Suwannee American Cement Plant located on U.S. Highway 27, in Suwannee County. The Draft Permit Modification also proposed a compliance averaging time for volatile organic compounds of 30 operating (instead of calendar) days and clarified two inconsistent conditions related to mercury sampling.

The package included the Department's Draft Air Construction Permit Modification, the "Intent to Issue Air Construction Permit Modification," the "Technical Evaluation and Preliminary Determination," and the "Public Notice of Intent to Issue Air Construction Permit Modification." The Department sent copies of the package to various persons, agencies, and municipalities including those who had asked that they be informed of any Department permitting activities related to the subject facility. Suwannee American Cement, LLC published the Public Notice in The Suwannee Democrat on October 1, 2004 and provided to the Department the required proof of publication.

The Department received no comments on the Draft Air Construction Permit. At the request of the Department, Suwannee American Cement supplied an emission point number (unspecified in the draft) for the required baghouse that will control dust from the hydrated lime injection system. The emission Point is designated as H-08A-01, "Dust Collector for hydrated lime silo E-30-01". Section III, Subsection B, Condition 14 will read as follows:

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>H-08A-01</u>	<u>Dust collector for hydrated lime silo E-30-01</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 SO<sub>2</sub> emissions.

The remainder of Condition 14 is unchanged.

The final action is to issue the Air Construction Permit Modification as drafted but with the specified emission point number.



# Department of Environmental Protection

Jeb Bush  
Governor

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

Colleen M. Castille  
Secretary

October 18, 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.

*“More Protection, Less Process”*

*Printed on recycled paper.*

## 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 SO<sub>2</sub> and NO<sub>x</sub> 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 SO<sub>2</sub> and NO<sub>x</sub>: 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 SO<sub>2</sub>, NO<sub>x</sub>, 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 – Aeropol 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>H-08A-01</u>	<u>Dust collector for hydrated lime silo E-30-01</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 SO<sub>2</sub> 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:

<sup>6</sup> 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<sub>x</sub>, SO<sub>2</sub>, 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<sub>x</sub> 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 SO<sub>2</sub> 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 10/20/04 to the person(s) listed:

Celso Martini, SAC*	Jim Stevenson, DEP	Patrice Boyes, Esq.*
Claude Grinfeder, SAC*	Tom Workman, DEP	Kathy Cantwell
Joe Horton, SAC	Mark Latch, DEP	Ralph Ashodian
Larry Sellers, Esq.*	December McSherry	Virginia Seacrist
Frank Darabi, P.E.	Svenn Lindskold	Bob and Lynn Milner
Steve Cullen, P.E.	Tom Greenhalgh*	Linda Pollini
John Koogler, P.E.	Dave Bruderly	Helen Beaty
Chris Kirts, DEP NED	Chris Bird, Alachua Co. DER	Bessie Robinson
Jim Little, EPA	Chair, Alachua Co. BCC*	Craig Pittman, St. Pete Times
John Bunyak, NPS	J. Calvin Gaddy	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)

10/20/04  
(Date)

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Larry Sellers  
 Holland & Knight, LLP  
 Post Office Drawer 810  
 Tallahassee, Florida 32301

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature   Agent  
 Addressee

B. Received by (Printed Name) E. KENT C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below.  No



3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2.  
P:

102595-02-M-1540

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT  
 (Domestic Mail Only, No Insurance Coverage Provided)**

7000 1670 0013 3109 9236

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark  
Here

Send To  
Mr. Larry Sellers  
Holland & Knight, LLP  
Post Office Box 810  
Tallahassee, Florida 32301

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
**Mr. Celso A. Martini, Plant Manager**  
**Suwannee American Cement**  
**Post Office Box 410**  
**Branford, Florida 32008**

2. Article Number  
 (Transfer from service label) **7000 1670 0013 3109 8741**

PS Form 3811, August 2001

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  
 *Susan Vaughan*  Agent  Addressee

B. Received by (Printed Name) **Susan Vaughan** C. Date of Delivery **10-22-04**

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

102595-02-M-1540

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
**Mr. Claude Grinfelder**  
**Suwannee American Cement**  
**Post Office Box 410**  
**Branford, Florida 32008**

2. Article Number  
 (Transfer from service label) **7000 1670 0013 3109 8765**

PS Form 3811, August 2001

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  
 *Susan Vaughan*  Agent  Addressee

B. Received by (Printed Name) **Susan Vaughan** C. Date of Delivery **10-22-04**

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

102595-02-M-1540

7000 1670 0013 3109 8741

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To **Mr. Claude Grinfelder**  
**Suwannee American Cement**  
 Street, Apt. No. or PO Box No. **Post Office Box 410**  
 City, State, ZIP+4 **Branford, Florida 32208**

PS Form 3800, May 2000 See Reverse for Instructions

7000 1670 0013 3109 8741

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To **Mr. Celso A. Martini, Plant Manager**  
**Suwannee American Cement**  
 Street, Apt. No. or PO Box No. **Post Office Box 410**  
 City, State, ZIP+4 **Branford, Florida 32008**

PS Form 3800, May 2000 See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Ms. Patrice Boyes, Esq.  
 Boyes & Associates, PA  
 Post Office Box 358684  
 Gainesville, Florida 32635-8584

2. Article Number (Transfer from service label) 7000 1670 0013 3109 8468

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  
*[Signature]*

B. Received by (Printed Name) C. Date of Delivery  
 NADIA LEA

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

ORLEANS, MISSISSIPPI  
 OCT 25 2004  
 USPS

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Tom Greenhalgh  
 1211 Paul Russell Road  
 Tallahassee, Florida 32301-7102

2. Article Number (Transfer from service label) 7000 1670 0013 3109 8734

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  
*[Signature]*

B. Received by (Printed Name) C. Date of Delivery  
 T. GREENHALGH 11-3-04

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

TALLAHASSEE, FLORIDA  
 NOV 3 2004  
 USPS

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT  
 (Domestic Mail Only; No Insurance Coverage Provided)**

9498 607E E100 021T 0007

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To  
 Ms. Patrice Boyes, Esq.  
 Boyes & Associates, PA  
 Post Office Box 358684  
 Gainesville, Florida 32635-8584

PS Form 3800, May 2000 See Reverse for Instructions

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT  
 (Domestic Mail Only; No Insurance Coverage Provided)**

4879 607E E100 021T 0007

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To  
 Mr. Tom Greenhalgh  
 1211 Paul Russell Road  
 Tallahassee, Florida 32301-7102

PS Form 3800, May 2000 See Reverse for Instructions

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

7000 1670 0013 3109 9229

7000 1670 0013 3109 9229

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

*Sent To*  
 Mr. Chuck Yagel  
 Swannee Industrial Solution, LLC  
 26841 CR 49  
*City, State, ZIP+4*  
 Branford, Florida 32008

PS Form 3800, May 2000 See Reverse for Instructions

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

7000 1670 0013 3109 9762

7000 1670 0013 3109 9762

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

*Sent To*  
 Ms. Patrice Boyes  
 Boyes & Associates  
 P.O. Box 1424  
*City, State, ZIP+4*  
 Gainesville, FL 32602

PS Form 3800, May 2000 See Reverse for Instructions

# The Suwannee Democrat

Published Weekly

Post Office Box 370- Phone 362-1734  
Live Oak, Suwannee County, Florida 32064

STATE OF FLORIDA  
COUNTY OF SUWANNEE:

Before the undersigned authority personally appeared

Katherine Sasser

who on oath says that she is  
Legal Secretary

of The Suwannee Democrat, a weekly newspaper published at Live Oak in Suwannee County, Florida; that the attached copy of advertisement, being a

modification  
An Construction Permit  
in the matter of

was published in said newspaper in the issues of

October 1, 2004

Affiant further says that the said, The Suwannee Democrat is a newspaper published at Live Oak in said Suwannee County, Florida, and that the said newspaper has heretofore been continuously published in said Suwannee County, Florida, each week and has been entered as second class mail matter at the post office in Live Oak, in said Suwannee County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

Katherine Sasser

Sworn to and subscribed before me this 5th, day of October, 2004.

Christine M. White

(SEAL) Notary Public

Personally known ✓ or produced identification \_\_\_\_\_

Type of identification produced \_\_\_\_\_

CHRISTINE M. WHITE  
Notary Public, State of Florida  
My comm. exp. Sept. 4, 2008  
Comm. No. DD 350033

RECEIVED

OCT 14 2004

BUREAU OF AIR REGULATION



**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 32008.

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 (SO<sub>2</sub>) 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 (SO<sub>2</sub>) 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 930 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 (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 Regulations 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.

Petition 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 to require reversal or modification on 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 in 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.

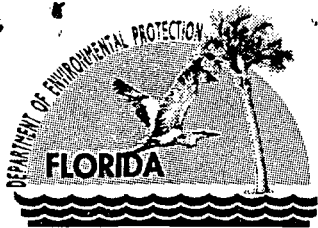
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become 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 850/921-8523 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](http://www.dep.state.fl.us/air/permitting/construction/suwannee.htm) 10/01



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.

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

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 Lindskold  
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 (SO<sub>2</sub>) 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 (SO<sub>2</sub>) 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](http://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

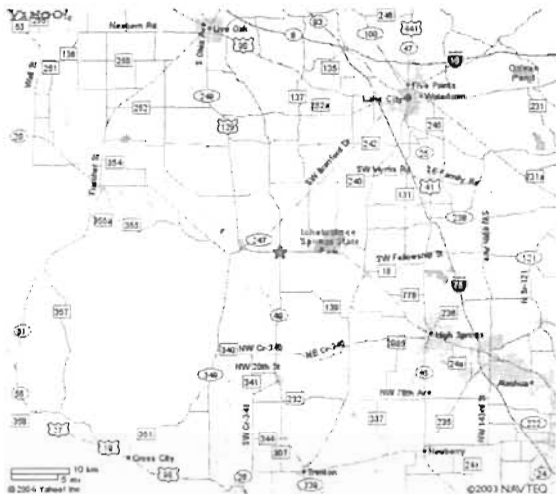
## I. APPLICANT NAME AND ADDRESS

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

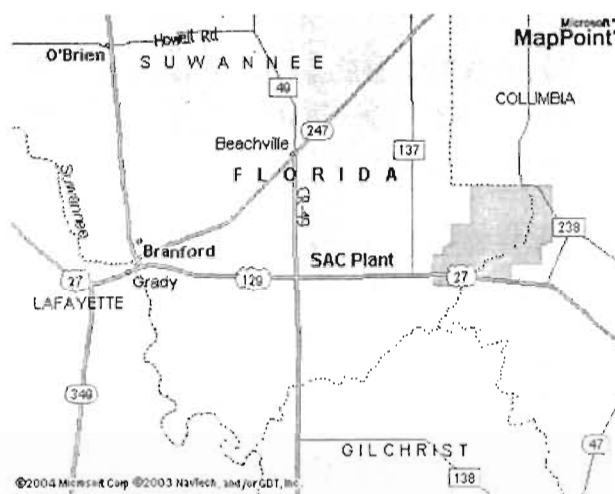
## II. FACILITY INFORMATION

### 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 (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), or particulate matter (PM/PM<sub>10</sub>) characterize the existing installation as a Major Facility per the definitions in Rule 62-210.200, F.A.C. 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  $\text{NO}_x$  or  $\text{SO}_2$ , 7 TPY of sulfuric acid mist (SAM), 25/15 TPY of  $\text{PM}/\text{PM}_{10}$ , 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.

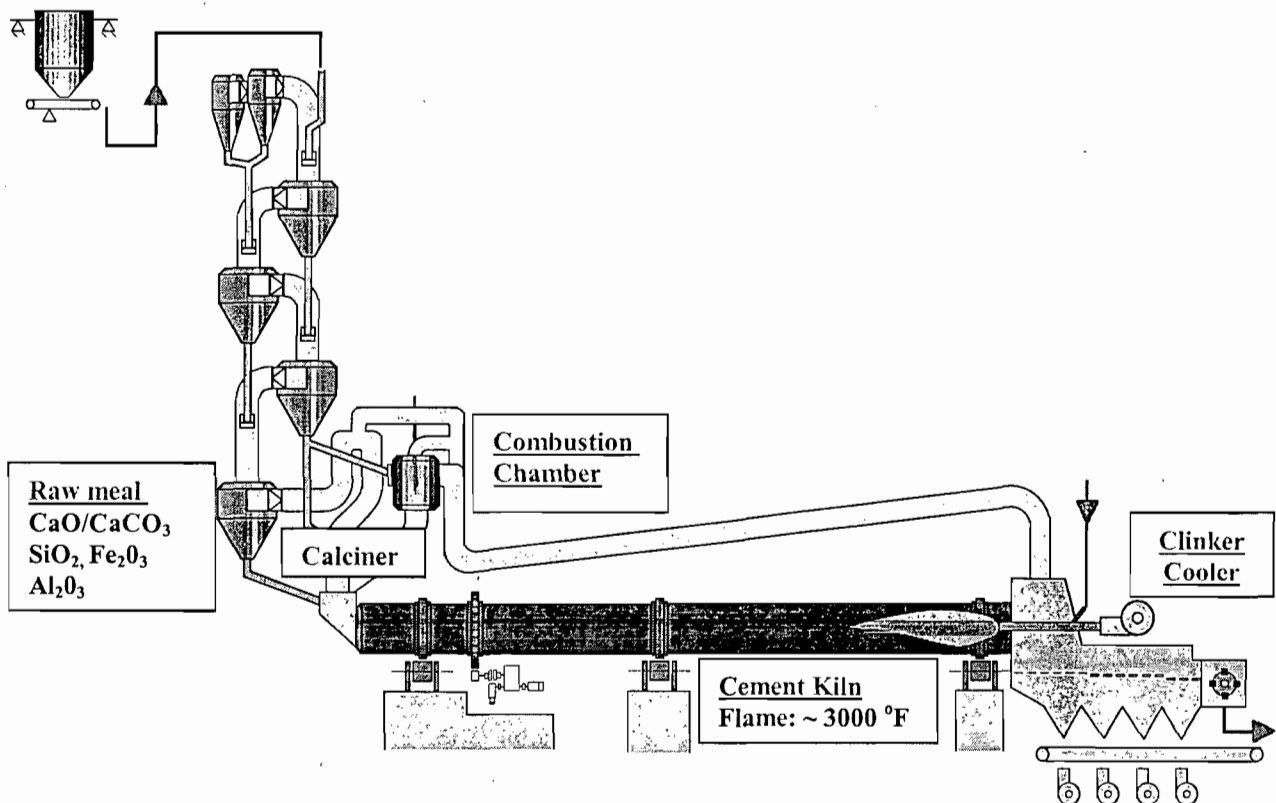
The facility is also subject to a number of industry-specific regulations and permit specific conditions. Among these is designation as a major source of hazardous air pollutants (HAPs) and applicability of the major source provisions of 40 CFR 63, Subpart LLL – National Emission Standards for Hazardous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

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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.

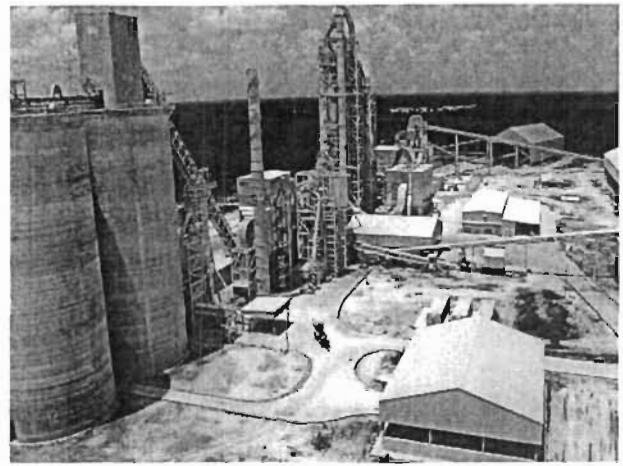
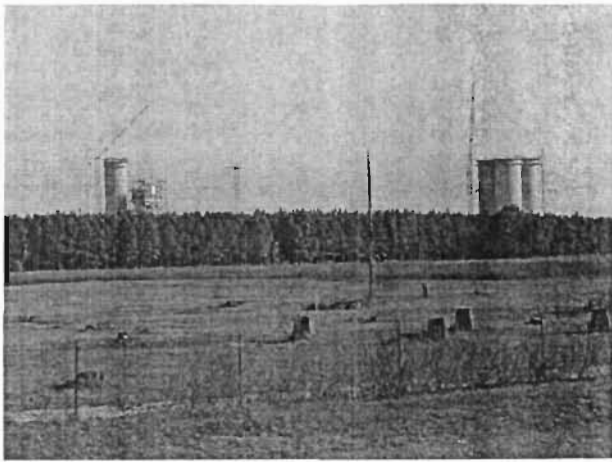
Cooled exhaust gases leaving the preheater go through the raw mill (not shown) where the remaining heat is used to dry incoming coarse raw materials. As the raw materials are ground they are lifted by the exhaust gas flow and conveyed to the main baghouse (not shown) that also serves the purpose of a 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:

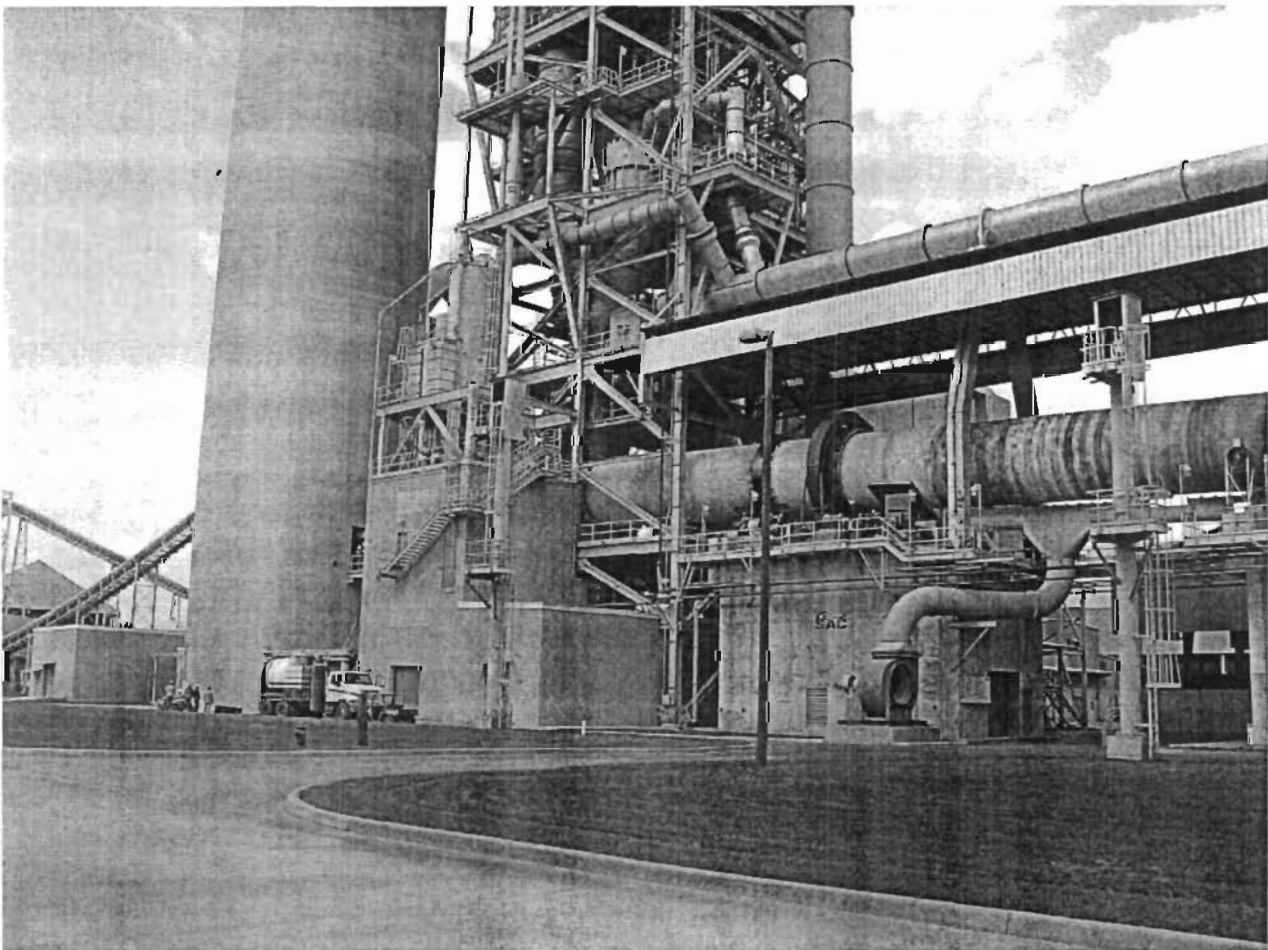
- Use of a multi-channel main kiln burner with indirect firing to minimize production of thermal  $\text{NO}_x$ .
- Burning much of the fuel at the lower temperatures in the calciner to form less thermal  $\text{NO}_x$ .
- Operation of a reducing atmosphere in the calciner section to destroy some of the thermal  $\text{NO}_x$  and minimizing formation of additional  $\text{NO}_x$ .
- 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 ( $\text{SO}_2$ ) 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, Calciner, and Tertiary Air Ducts (Photo A. Linero)**

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## IV. HYDRATED LIME PROJECT

SAC has requested an air construction permit to install a hydrated lime system to provide additional SO<sub>2</sub> control. The role of the project is better understood by reviewing the existing, inherent SO<sub>2</sub> 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 SO<sub>2</sub> are less than 2 pounds per hour from the SAC plant.

There is also the possibility of SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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:  $\text{CaO} + 2\text{H}_2\text{O} = \text{Ca}(\text{OH})_2$ .

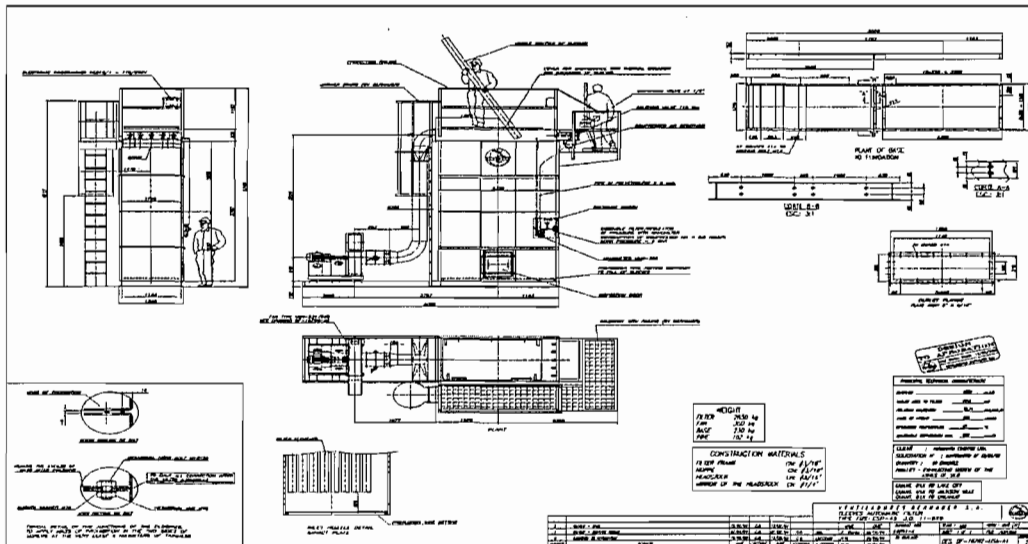
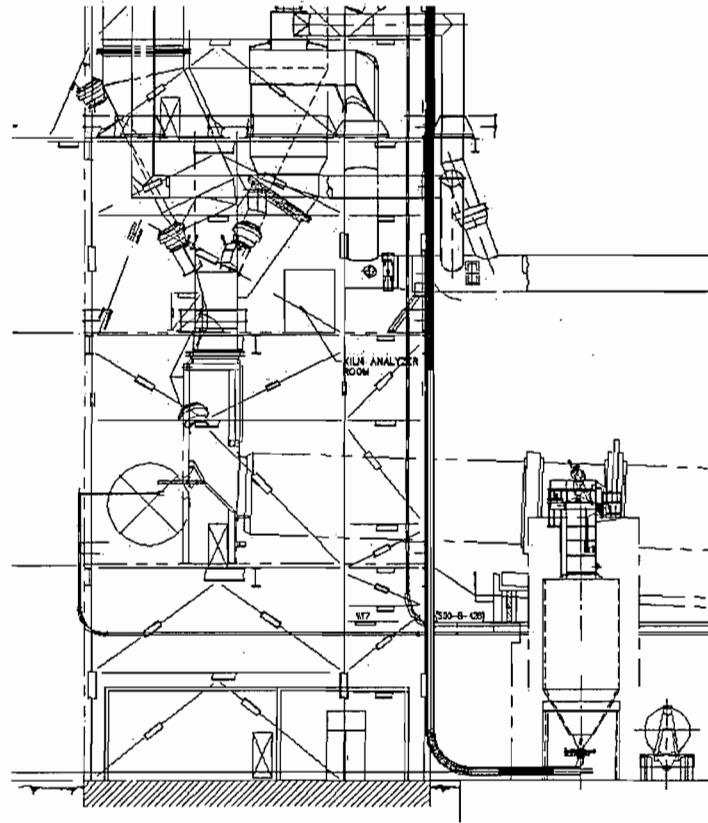
SAC already practices hydrated lime injection as needed through a temporary system using existing equipment. SAC proposes a more robust and permanent system with automated controls actuated by the SO<sub>2</sub> continuous emission monitoring system (CEMS) and the plant expert control system. The system will automatically feed hydrated lime as SO<sub>2</sub> is detected in the stack and will control the dosage based on the concentration of SO<sub>2</sub> at the stack. This automation of the system will allow for the most efficient control and reduction of SO<sub>2</sub> 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 SO<sub>2</sub> 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

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## 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% O<sub>2</sub>). For reference, the BACT standard is believed to be equal to 12 to 15 ppmvd @7% O<sub>2</sub> 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% O<sub>2</sub>. 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. SO<sub>2</sub> emissions are already very low. The permanent hydrated lime injection project will make it easier to maintain the very low SO<sub>2</sub> 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 SO<sub>2</sub> and NO<sub>x</sub> 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 SO<sub>2</sub> and NO<sub>x</sub>: 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 SO<sub>2</sub>, NO<sub>x</sub>, 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 – Aeropol 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
X-X	<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 SO<sub>2</sub> 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:

<sup>6</sup> 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<sub>x</sub>, SO<sub>2</sub>, 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<sub>x</sub> 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 SO<sub>2</sub> 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*    | Jim Stevenson, DEP          | Patrice Boyes, Esq.*          |
| Claude Grinfeder, SAC* | Tom Workman, DEP            | Kathy Cantwell                |
| Joe Horton, SAC        | Mark Latch, DEP             | Ralph Ashodian                |
| Larry Sellers, Esq.*   | December McSherry           | Virginia Seacrist             |
| Frank Darabi, P.E.     | Svenn Lindsfold             | Bob and Lynn Milner           |
| Steve Cullen, P.E.     | Tom Greenhalgh              | Linda Pollini                 |
| John Koogler, P.E.     | Dave Bruderly               | Helen Beaty                   |
| Chris Kirts, DEP NED   | Chris Bird, Alachua Co. DER | Bessie Robinson               |
| Jim Little, EPA        | Chair, Alachua Co. BCC*     | Craig Pittman, St. Pete Times |
| John Bunyak, NPS       | J. Calvin Gaddy             | Chuck Yagel*                  |

Clerk Stamp

**FILED 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)



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. 1210465-012-AC  
Suwannee American Cement Plant – Branford, Suwannee County

Dear Mr. Martini:

Enclosed is one copy of the Draft Air Construction Permit to conduct production capacity and fly ash injection testing for 120 operating days at the Suwannee American Cement Plant. The Department's Intent to Issue Air Construction Permit 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 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. The Department reserves the right to publish the Public Notice at anytime. If the Department publishes the Public Notice, the applicant is relieved of this responsibility.

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 please call Mr. Linero at 850/921-9523.

Sincerely,

Trina L. Vielhauer, Chief  
Bureau of Air Regulation

TLV/aal

Enclosures

*"More Protection, Less Process"*

*Printed on recycled paper.*

In the Matter of:

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

DEP File No. 1210465-012-AC  
Production Capacity and Fly Ash Injection Test  
Suwannee American Cement Plant  
Suwannee County

**INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit attached) for the proposed action, detailed in the application specified above, for the reasons stated below.

The applicant, Suwannee American Cement, LLC (SAC), applied on August 26, 2004 (date received) to the Department to evaluate the feasibility of a clinker production rate increase by conducting a production capacity and fly ash test during 120 operating days over a six-month period of time at the SAC Plant in Suwannee County.

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 above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required.

The Department intends to issue this air construction permit based on the belief that the applicant 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 applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. 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 applicant 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 applicant 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 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 issuance action for a period of 14 (fourteen) days from the date of publication of Public Notice of Intent to Issue Air Permit. 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 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.

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 of the Florida Statutes. 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 permit applicant 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) of the Florida Statutes 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), 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 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 of the Florida Administrative Code.

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.

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 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 L. 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*    | Jim Stevenson               | Patrice Boyes, Esq.*          |
| Claude Grinfeder, SAC* | Tom Workman, DEP            | Kathy Cantwell                |
| Joe Horton, SAC        | Mark Latch, DEP             | Ralph Ashodian                |
| Larry Sellers, Esq.*   | December McSherry           | Virginia Seacrist             |
| Frank Darabi, P.E.     | Svenn Lindskold             | Bob and Lynn Milner           |
| Steve Cullen, P.E.     | Tom Greenhalgh*             | Linda Pollini                 |
| John Koogler, P.E.     | Dave Bruderly               | Helen Beaty                   |
| Chris Kirts, DEP NED   | Chris Bird, Alachua Co. DER | Bessie Robinson               |
| Jim Little, EPA        | Chair, Alachua Co. BCC*     | Craig Pittman, St. Pete Times |
| John Bunyak, NPS       | J. Calvin Gaddy             | 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**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No.: 1210465-012-AC

Suwannee American Cement Plant  
Production Capacity and Fly Ash Injection Test

Suwannee County

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit to Suwannee American Cement LLC to conduct a production capacity and fly ash injection test program 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. At the present time, the plant production capacity is limited to 105 tons per hour (TPH) of clinker which is accomplished by feeding a maximum of 178 TPH of raw materials to the preheater.

Raw materials include sources of calcium, silica, aluminum, and iron such as limestone, sand, bauxite, clay, fly ash, iron ore, and mill scale. Allowable fuels are natural gas for startup, coal, tires, and petroleum coke. Tires and petroleum coke have not yet been burned at the facility.

SAC proposes to evaluate the feasibility of increasing clinker production by injecting some fly ash directly into the calciner instead of introducing all of it with other raw materials at the preheater. This will make it possible to increase the amount of total raw materials entering the process, thus producing more clinker. The testing will occur during 120 operating days over a six-month period.

During the test period, SAC will try to achieve as much as 115.5 TPH of clinker production by increasing total feed to as much as 205 TPH. The fuel use limit will be increased during the testing from 364 to 420 million Btu per hour.

SAC will abide by all of the existing BACT limits in terms of pounds per hour (lb/hr). Because of the nature of the tests, there will be periods of high and low production in terms of TPH. During the periods of low production, the lb/hr emission rates will be substantially less than allowed and substantially less than emissions during high production. During the low production periods, BACT emissions expressed as pounds per ton of clinker (lb/ton) could temporarily exceed the limits because of the small denominator (tons) and the short averaging times. Such events will be minimized.

SAC has continuous emission monitoring systems (CEMS) for nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), visible emissions (opacity), control equipment temperature, and total hydrocarbons (conservative measure for VOC) with real-time transmission to the Department. Key data are available at: [www.suwanneecement.com](http://www.suwanneecement.com)

SAC has submitted an application to permanently increase production. However the Department will not act on that application until it can be deemed complete following the test program authorized by this permitting action. SAC will be required to submit the production and emission results of the test program and a sealed engineering report describing any physical changes associated with a permanent increase and the technical rationale for uprating the kiln capacity. The Department will at that time make a determination regarding the applicability of New Source Review and will require another public notice prior to permanent authorization of a production increase.

The Department will issue the FINAL permit 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 Public Notice of Intent to Issue Air Construction Permit. 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 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 of the Florida Statutes. 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 permit applicant 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) of the Florida Statutes 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), 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 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 of the Florida Administrative Code.

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, as well as the rules and statutes which entitle the petitioner to relief; (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.

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 application, Draft Permit, Technical Evaluation, previous permits, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-9523, for additional information. Key documents can be viewed at [www.dep.state.fl.us/air/permitting/construction/suwannee.htm](http://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**  
**Production Capacity and Fly Ash Injection Testing**

DEP File Nos. 1210465-012-AC

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

September 24, 2004

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

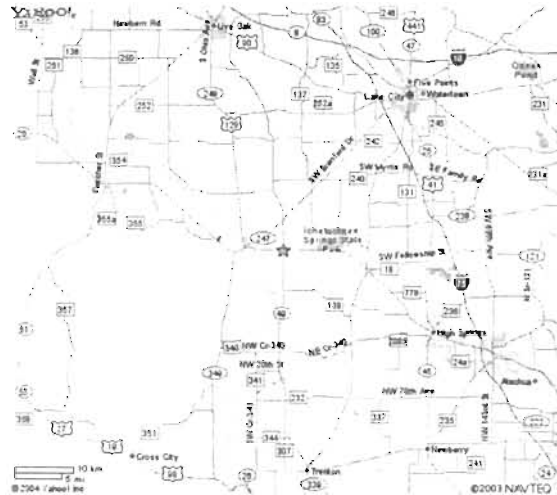
## I. APPLICANT NAME AND ADDRESS

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

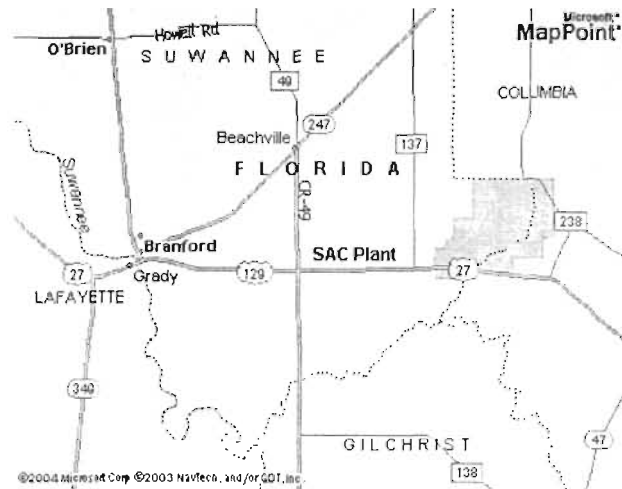
## II. FACILITY INFORMATION

### 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 (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), or particulate matter (PM/PM<sub>10</sub>) characterize the existing installation as a Major Facility per the definitions in Rule 62-210.200, F.A.C. 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<sub>x</sub> or SO<sub>2</sub>, 7 TPY of sulfuric acid mist (SAM), 25/15 TPY of PM/PM<sub>10</sub>, 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 PH/C kiln that approximates the one installed at SAC.

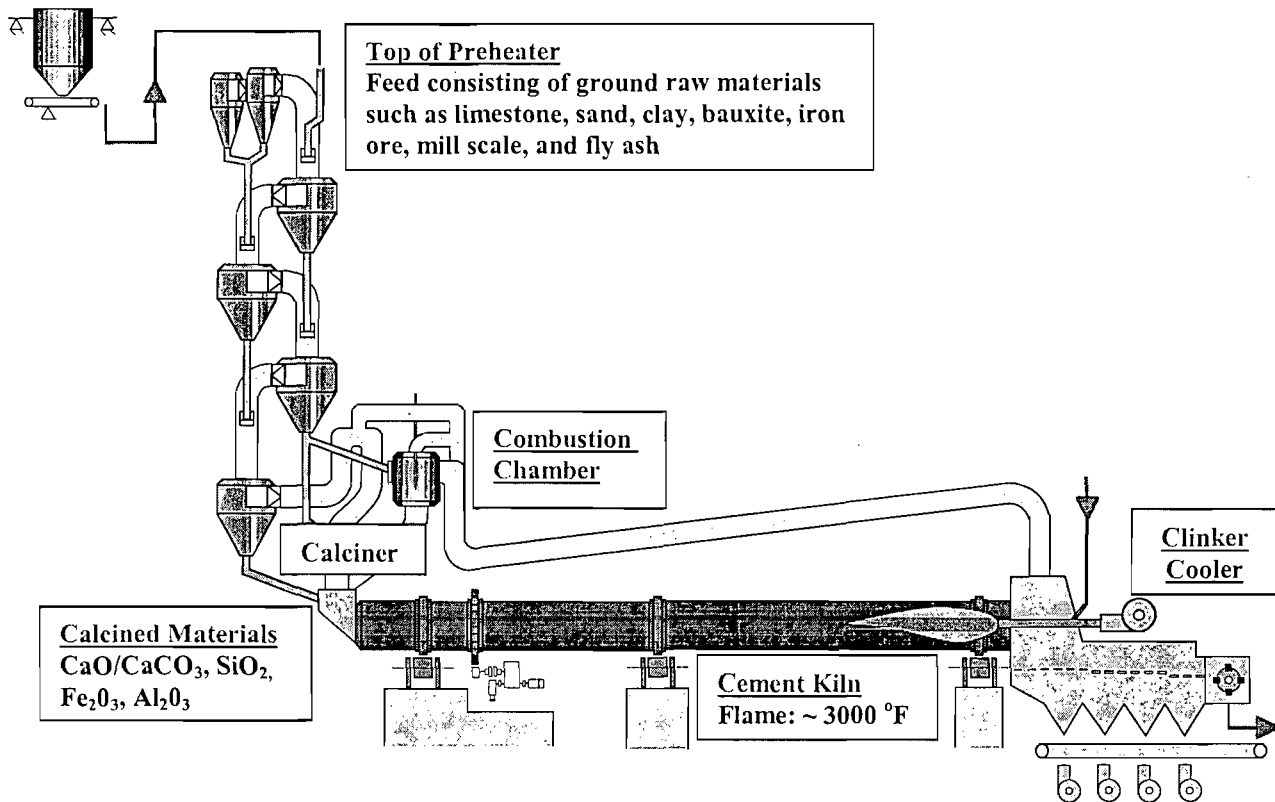


Diagram of Dry Process Cement Kiln with Preheater and Calciner Kiln

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Raw meal is finely divided dried material that includes sources of calcium, silica, iron and aluminum. These sources can include limestone, sand, clay, bauxite, iron ore, mill scale, and fly ash. It is continuously weighed on feed scales and introduced at the top of the preheater tower as shown in the diagram. As it falls through the preheater it is contacted and progressively heated by exhaust gases from the calciner and kiln.

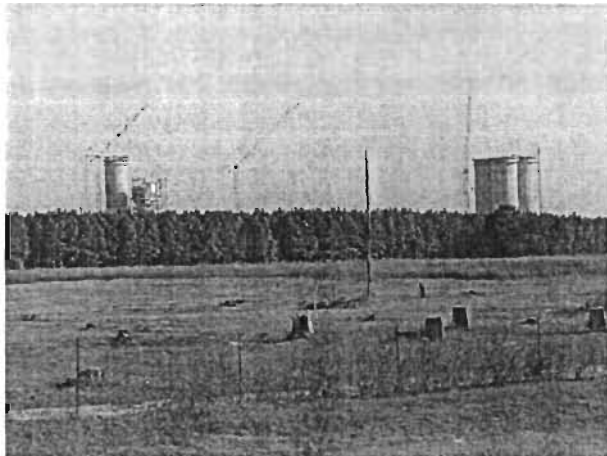
The calciner has a burner in a separate combustion chamber that provides the necessary heat to drive off carbon dioxide from the limestone converting it to free lime ( $\text{CaCO}_3 = \text{CaO} + \text{CO}_2$ ). The calciner operates at a temperature of approximately 2000 degrees F and burns coal.

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.

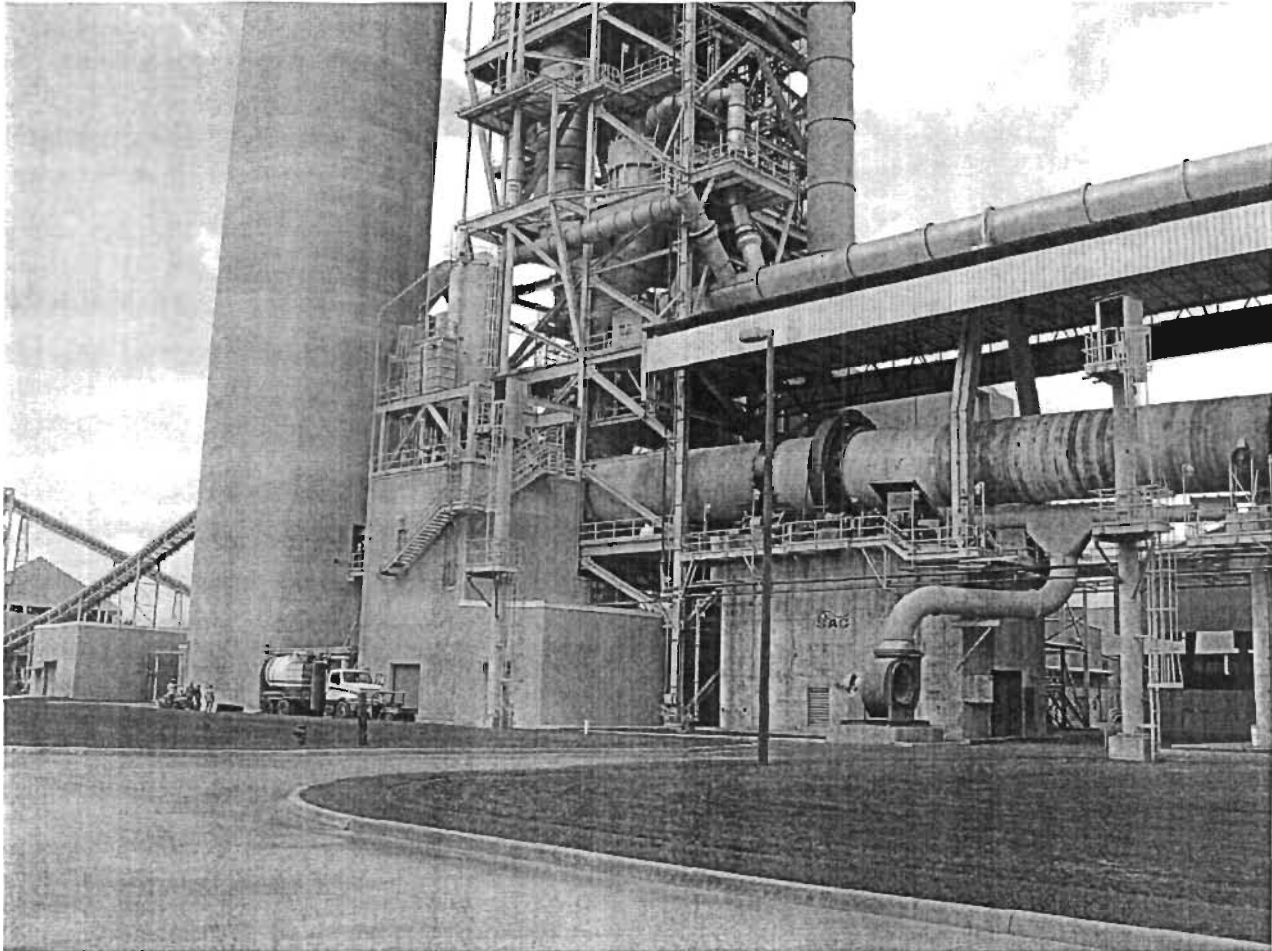
The facility has been constructed and began operation in February 2003. Several photographs of the plant are shown below. SAC has conducted compliance tests and applied for a Title V Operation Permit. At this time, it is operating at or near its full capacity.



**Cement Plant Under Construction (Photo DEP)**



**Completed Cement Plant (Photo SAC Website)**



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

**IV. ADDITIONAL PROJECTS**

SAC has requested an air construction permit to:

- Add capability to introduce fly ash directly to the calciner in addition to the top of the preheater; and
- Increase clinker production.

The Department advised SAC that it will be necessary to conduct tests to demonstrate the efficacy of fly ash introduction to the calciner and higher production while meeting the Department's emission limitations. SAC applied on August 26 to conduct production testing during 120 operating days over a six month period.

**FLY ASH INJECTION**

Fly ash is the finely divided residue from the combustion of ground or powdered coal and is usually obtained from electric power plants. Typical fly ash contains silica, aluminum, and iron compounds and even some calcium. High quality fly ash (for example low in ammonia and carbon) can be substituted for cement in certain types of concrete. Fly ash can also be used as a raw material in lieu of other potential sources such as clay, sand, bauxite, iron ore, etc.



## **TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

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Fly ash is currently mixed with the other raw materials prior to being dried and ground to form the feed. The fly ash constitutes approximately 8-10 percent of the material mix and helps to provide the chemical composition of kiln feed required to produce clinker.

SAC presently introduces fly ash with the rest of the feed at the top of the preheater tower where the temperature is in the range of 750-800°F. From that point, the feed travels downward through the preheater tower, increasing in temperature until it reaches the calciner where the temperature is approximately 1500 °F. During the progression of the feed down through the preheater, carbonaceous material in the fly ash can volatilize and cause the release of organic compounds (THC/VOC) and carbon monoxide (CO) to the atmosphere.

SAC proposes to inject fly ash directly into the calciner where the carbonaceous material can be completely combusted along with the fuel fired to the calciner. SAC believes that more complete combustion of the carbonaceous material will occur. Therefore less THC, VOC, and CO will be produced, and the emission of these gases to the atmosphere will be minimized.

By injecting fly ash directly into the calciner instead of introducing it into the raw mill and ultimately at the top of the preheater, it is possible to increase the amount of limestone and other raw materials entering the process. This makes it possible to increase clinker production given that other equipment (such as burners, fans, the kiln, cooler, etc.,) is inherently overdesigned or can be upgraded.

### **PRODUCTION CAPACITY TESTING**

Diversion of fly ash to the calciner creates the possibility of increased clinker production given sufficient capacity of burners, fans, the cooler, etc. The existing permit limits the introduction of feed at the preheater to 178 tons per hour (TPH), clinker production to 105 TPH, and 364 million Btu heat input per hour (mmBtu/hr). Ultimately SAC requests to increase the feed rate to 205 TPH (including fly ash feed to the calciner), increase clinker production to 115.5 TPH of clinker and fuel use to 420 mmBtu/hr.

The tests will determine the extent to which existing vessels, pumps, fans, burners, etc. are overdesigned or can be uprated as well as any additional projects needed to accomplish the requested permanent increase. Injection of fly ash into the calciner will make it possible to increase total feed without challenging the materials handling capability of the preheater feed system and the preheater cyclones. The details of the testing and requirements are given in the accompanying draft permit. The highlights are given below.

The testing will be conducted during 120 operating days over a period of six months. Except for one exception during low load discussed below, the kiln shall continue to comply with all existing emission standards in terms of pounds per hour (lb/hr) and pounds per ton of clinker (lb/ton). The values recorded by the continuous emission monitoring systems (CEMS) will continue to be transmitted in real time to the Department's district office in Jacksonville. These values include sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), total hydrocarbons (THC) and visible emission (opacity).

Mercury emissions will continue to be estimated by analyzing raw materials and fuel. Historically, clinker cooler and kiln particulate emissions have been much lower than allowed by the permit. The Department believes that particulate emissions will continue to be very low.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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Past tests indicate that dioxin and furan emissions are also much less than allowed by the present permit and the National Emission Standards for Hazardous Air Pollutants at 40 CFR Part 63, Subpart LLL for portland cement plants. The permittee shall conduct dioxin/furan tests if there is a significant change in the feed that was used in the previous performance test. A Loss on Ignition (LOI) value for the fly ash of 30 percent or more shall be considered a significant change in the feed. However injection of the higher LOI fly ash directly into the calciner would counteract the tendency to form dioxin and furan formation potential.

Testing requirements are detailed in the draft permit distributed with this evaluation.

SAC has requested relief during testing from NO<sub>x</sub> emission limits expressed in terms of lb/ton of clinker (but not lb/hr). They believe some measure of relief is needed during the learning associated with optimizing injection points and flows within the complex atmosphere of the calciner.

Typically, process rate is maximized not only for the sake of production, but also because the cyclones in the preheater require certain minimum rates to effectively separate raw materials from one cyclone to the next. Hours characterized by low production usually mean that the process is down for part of the time rather than actual low load operation. During portions of those hours the denominator in the lb/ton term is low and a high lb/ton value can occur.

The Department will allow exclusion of two hours per day during which fly ash injection to the calciner is practiced and low production occurs.

SAC shall submit test results and a technical report summarizing the following: a description of the production capacity tests; pollutant emissions when operating at higher rates; ambient conditions during each test; feed rates; and heat input rates. The final report shall also detail any operational problems as well as mechanical, electrical, structural, and process limitations identified during the course of the test.

For purposes of the capacity evaluation program only, the clinker production rate shall be determined by the following equation:

$$\text{Clinker Production} = [(\text{Feed}) (\text{Kiln Feed LOI Factor}) + (\text{Fly Ash Injection}) (\text{Fly Ash LOI Factor})]$$

Where:

- Kiln feed is determined by the Poldos control system.
- Fly ash is determined from the rotary feed system or equivalent.
- LOI for the kiln feed and fly ash is based on a monthly average determined from daily measurements.

The technical report shall include an engineering assessment describing the full capability of the process to sustain the requested production rates while meeting the permitted emission rates. The report shall be sealed by professional engineers or other experts as appropriate in structural, mechanical, electrical, process, and environmental disciplines. It shall include a description of any additional projects required to attain or maintain the requested production rates. A single report from the kiln manufacturer or acknowledged pyroprocessing expert would suffice to fulfill this requirement.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## VI. CONCLUSION

The Department will authorize 120 operating days of production and fly ash injection testing over a six month period ending April 30, 2005.

Some mass emission increases will occur as a result of the testing because of increased fuel and material use and clinker production. These will be within the emission limits authorized by the original air construction permit and the Department has determined that a PSD/BACT review is not required for the testing program.

The original permitted BACT limits still apply during the test period except for the exclusion mentioned above. Ultimately the Department may revise the NO<sub>x</sub> and SO<sub>2</sub> limits downward for normal operation (i.e. non-test conditions) per Subsection B, Specific Condition 12 of the original permit.

# DRAFT PERMIT

## PERMITTEE

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

*Authorized Representative:*

Celso Martini, Plant Manager

Permit No. 1210465-012-AC  
Cement Plant (SIC No. 3241)  
Capacity Evaluation Program  
Expires: April 30, 2005

## PROJECT AND LOCATION

This permit authorizes Suwannee American Cement, LLC to conduct a production capacity evaluation program at the existing Branford Cement Plant located at US Highway 27 and County Road 49 in Suwannee County, Florida. The UTM coordinates are: Zone 17; 321.4 km E and 3315.9 km N.

## STATEMENT OF BASIS:

This air construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct tests for the production rate and fly ash injection capacities in accordance with the conditions of this permit and as described in the application. Apart from the temporary increase in feed rate, clinker production, fuel use rate, and injection of fly ash into the calciner, the permittee shall operate the facility in accordance with the previously approved permits, drawings, plans, and other documents on file with the Florida Department of Environmental Protection ("DEP" or "the Department"). This temporary permit supplements the original air construction permit and its subsequent modifications. It does not modify any other requirements from such previously issued air permits except a provision for certain emissions data exclusion (lb NO<sub>x</sub>/ton of clinker) for periods of off-capacity clinker production during the capacity evaluation program.

## CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Unit Specific Conditions
- Section 4. Appendices

**DRAFT**

\_\_\_\_\_  
Michael G. Cooke, Director  
Division of Air Resource Management

\_\_\_\_\_  
(Date)

## SECTION 1. GENERAL INFORMATION

### FACILITY AND PROJECT DESCRIPTION

The existing Suwannee American Cement (SAC) facility consists of a portland cement plant, the associated quarry, and raw material and cement handling operations. The plant processes raw materials in a preheater/precalciner kiln with in-line raw mill to produce clinker. The clinker is milled and combined with gypsum to produce portland cement.

Authorized fuels for the pyroprocessing system include natural gas, coal, petroleum coke, whole tires and tire derived fuel (TDF). An authorized tire gasification system has not yet been constructed. The plant has a coal processing operation that will crush coal and petroleum coke. Petroleum coke has not yet been used.

The plant was constructed in accordance with Air Permit No. PSD-FL-259, as modified. That permit established short term production limits (24-hour average) of 178 tons per hour (TPH) of material fed to the preheater (dry basis), 105 TPH of clinker, 364 MMBtu per hour of heat input (MMBtu/hr) and 150 TPH of portland cement production. It also specifies annual production limits (based on a rolling 12-month basis) of 1,427,880 tons per year (TPY) of material fed to the preheater (dry basis), 839,500 TPY of clinker production, and 1,191,360 TPY of portland cement production. The plant is currently operating under the air construction permit while awaiting action on the application for a Title V air operation permit.

This current permit project (No. 1210465-012-AC) authorizes SAC to conduct a "capacity evaluation program" to assess the plant's production rate capacity as constructed as well as with a new fly ash injection method. The temporary program is limited to 120 operating days and is scheduled for completion by April 30, 2005. Operational and emissions information gathered during the capacity evaluation program will be used to evaluate the feasibility of a pending request for a permanent increase in the clinker production rate.

This permit authorizes SAC to evaluate the pyroprocessing system at preheater feed rates greater than 178 tons per hour and to determine the efficacy of directly injecting fly ash into the calciner in addition to the preheater. During the capacity evaluation program, the sum of dry material feed to the preheater and fly ash injected into the calciner shall be no greater than 205 TPH, the clinker production rate shall be no greater than 115.5 TPH, and the fuel use limit shall be no greater than 420 MMBtu/hr, all on a 24-hour basis.

Existing permitted emission limits remain unchanged and in effect during the capacity evaluation program except for a provision for the production-based NO<sub>x</sub> emissions data exclusion (lb NO<sub>x</sub>/ton of clinker) for periods of off-capacity clinker production as specified in this permit.

### EMISSION UNITS

This permit addresses the following emission units.

EU No.	Emission Unit Description
004	In line kiln/raw mill controlled by baghouse – main stack
005	Clinker cooler controlled by ESP
xxx	Temporary fly ash injection into the calciner

### REGULATORY CLASSIFICATION

Title III: The Suwannee American Cement Facility is classified as a "Major Source" per 40 CFR 63.2, Definitions (adopted and incorporated by reference by the Department at Paragraph 62-204.800(11)(d)) because it consists of a group of stationary sources located within a contiguous area and under common control that emit or have the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The facility is subject to the Major (Greenfield) Source requirements of National Emission

## SECTION 1. GENERAL INFORMATION

Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry, Code of Federal Regulations (CFR) Title 40, Part 63, Subpart LLL.

**Title V:** Because potential emissions of at least one regulated pollutant exceed 100 tons per year, the existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOC).

**Prevention of Significant Deterioration (PSD):** This facility is located in an area (Suwannee County) designated as "attainment" for all criteria pollutants. The facility is considered a "Portland Cement Plant," which is one of the 28 PSD source categories with the lower PSD applicability threshold of 100 tons per year (see Table 212.400-1, Rule 62-212.400, F.A.C.). Potential emissions of at least one regulated pollutant exceed 100 tons per year. Therefore, the facility is classified as a Major Facility with respect to Rule 62-212.400, F.A.C.

**New Source Performance Standards (NSPS):** The facility is subject to: 40 CFR 60, Subpart F, Standards of Performance for Portland Cement Plants; 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants; and 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.

**State Rule:** Some emissions units are subject to Rule 62-296.701, F.A.C., Portland Cement Plants.

### RELEVANT DOCUMENTS

The documents listed below are the basis of this permit. The permit application and additional information referenced are not a part of this permit, but the information is specifically related to this permitting action and the following documents are on file with the Department.

- Air Permit No. PSD-FL-259 issued on June 1, 2000, which was the original air construction permit for the new facility.
- Air Permit No. PSD-FL-259A issued on November 8, 2002, which modified the permit as follows: added requirement for notification of the anticipated date that equipment would be commissioned; and removed the startup notification specified by 40 CFR 60.7(a)(2) because it was repealed by EPA in 1999.
- Air Permit No. PSD-FL-259B issued on January 18, 2003, which modified the permit as follows: extended expiration date to June 30, 2004; added requirements for plant managers; added construction schedule; added requirements for permit transfer; revised data retrieval requirements; and revised CEMS requirements for kiln.
- Air Permit No. PSD-FL-259C was issued on May 15, 2003, which modified the following items: clarified emissions point descriptions for several baghouses; and clarified CEMS requirements for kiln.
- Draft Permit No. 121065-008 (PSD-FL-259D) distributed September 24, 2004, which proposes to modify the permit as follows: extend expiration date to March 31, 2005; install a permanent hydrated lime injection system; base the compliance averaging time for VOC on a 30 operating-day basis instead of a 30 calendar-day basis; and clarify the correct sampling point for determining mercury in raw materials.
- Application No. 121065-012-AC received on August 26, 2004 requesting a 120 operating-day testing program to evaluate production rate and fly ash injection capacity.
- Draft Permit No. 121065-012-AC for this permitting action distributed September 24, 2004.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All applications for permits to construct or modify an emission unit subject to the Prevention of Significant Deterioration or Nonattainment review requirements should be submitted to the Bureau of Air Regulation, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 (phone number: 850/488-0114). All documents related to applications for permits to operate and minor modifications shall be submitted to the Air Resource Section of the Department's Northeast District Office at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590 (phone number: 904/807-3300).
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resource Section of the Department's Northeast District Office at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590 (phone number: 904/807-3300).
3. Appendices: The following Appendices are attached as part of this permit: Appendix CF (Citation Formats), Appendix GC (General Conditions), and Appendix GT (General Testing Requirements).
4. Applicable Regulations, Forms, and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the applicable permits and applications. The facility is subject to all applicable provisions of Chapter 403, F.S., Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.; 40 CFR 60 (Subparts A, F, Y, and 000), and 40 CFR 63 (Subparts A and LLL). The terms used in this permit have specific meanings as defined in the applicable chapters of the F.A.C. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C., and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300, and 62-210.900, F.A.C.]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Additional Permits: The scope of this temporary project is to develop information in support of a separate air construction permit for a permanent production increase. Any final action authorizing a permanent production increase requires a revision to the Title V air operation permit. [Rule 62-213.400, F.A.C.]

**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS**

This section of the permit addresses the following existing emissions units.

<b>EU No.</b>	<b>Emission Unit Description</b>
004	In line kiln/raw mill controlled by baghouse – main stack
005	Clinker cooler controlled by ESP
xxx	Temporary fly ash injection into the calciner

**CAPACITY EVALUATION PROGRAM**

- Relation to Other Permits:** The conditions of this permit are in addition to those of any other air construction or operation permits. [Rules 62-4.210, 62-4.030, and 62-210.300(1)(b), F.A.C.]
- Temporary Operating Rates:** Subject to the conditions of this permit, the permittee is temporarily authorized to conduct a capacity evaluation program to: evaluate the technical feasibility of increasing production in the existing in line kiln/raw mill/clinker cooler system as constructed; evaluate the technical feasibility of increasing production in the in line kiln/raw mill/clinker cooler system by directly injecting fly ash (a raw material) into the calciner; and to determine the emissions at the higher operating rates. Within the electrical, structural, process, and mechanical capabilities of the kiln, the permittee is authorized to temporarily operate at the following maximum process and production rates at any time during the capacity evaluation program.

<b>Emissions Unit Rates</b>	<b>Temporary Maximum Operating Rate Range</b>
004 - Kiln Process	178 to 205 tons per hour (including dry preheater feed plus direct fly ash feed to the calciner)
	364 to 420 million BTU heat input per hour
005 - Clinker Production	105 to 115.5 tons per hour
XXX - Fly Ash Injection	Up to 27 tons per hour direct feed to the calciner (included in 205 TPH kiln process rate)

For purposes of the capacity evaluation program only, the clinker production rate identified in the above table shall be determined by the following equation:

$$\text{Clinker Production} = [(\text{Feed}) (\text{Kiln Feed LOI Factor}) + (\text{Fly Ash Injection}) (\text{Fly Ash LOI Factor})]$$

Where:

- Kiln feed is determined by the Poldos control system.
- Fly ash is determined from the rotary feed system or equivalent.
- LOI for the kiln feed and fly ash is based on a monthly average determined from daily measurements.

At all times, the emission units shall remain subject to the conditions of all existing permits related to air pollution and control equipment during the temporary capacity evaluation program. All required CEMS and COMS shall be properly functioning when operating within the temporary maximum rate range. [Rule 62-4.070(3), F.A.C.]

- Schedule:** At least 14 days before beginning the capacity evaluation program, the permittee shall submit to the Permitting and Compliance Authorities a preliminary schedule detailing the program phases, operating scenarios, operational data collection, emissions data collection, and emissions testing protocol. The permittee shall update the schedule as necessary. [Rule 62-4.070(3), F.A.C.]



### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

4. Duration: The temporary capacity evaluation program is limited to no more than 120 operating days and shall end no later than April 30, 2005. Upon completion of the capacity evaluation program or the expiration of this permit (whichever occurs first), the permittee shall cease to operate at production and process rates in excess of the original Air Construction Permit No. 1210465-001-AC (PSD-FL-259). For this permit, "operational day" means any day that includes operation within the temporary maximum rate range specified above. [Applicable Permit, Applicant Request]
5. Operating Scenarios: The permittee shall evaluate the following operating scenarios.
  - a. *Case 1*: Operate the in-line kiln system within the temporary maximum rate range without direct fly ash injection to the calciner to evaluate the existing capacity as constructed. At least 8 hours of data shall be gathered to identify the existing capacity as constructed.
  - b. *Case 2*: Operate the in-line kiln system at a clinker production of approximately 105 tons per hour while injecting fly ash directly into the calciner at intervals of 3 tons per hour until the maximum fly ash injection capacity for the temporary fly ash injection system is determined. At least 3 hours of data shall be gathered at each fly ash injection rate.
  - c. *Case 3*: Operate the in-line kiln system within the temporary maximum rate range while injecting fly ash directly into the calciner at intervals of 3 tons per hour until the maximum fly ash injection capacity for the temporary fly ash injection system is determined. At least 3 hours of data shall be gathered at each fly ash injection rate.

The permittee may evaluate other operating scenarios within the temporary maximum rate range as necessary. All operation shall be within the electrical, structural, process, and mechanical capabilities of the kiln. If the above specified operating rates or fly ash injection rates are not possible, the permittee shall document this with the suspected reason. Whenever operating within the temporary maximum rate range or directly injecting fly ash into the calciner, the permittee shall continuously monitor and record the following information: dry feed material to the preheater (TPH); fly ash feed directly to the calciner (TPH); clinker production (TPH) by indirect calculation method as defined in Condition 2; clinker production (TPH) by direct measurement using the installed weigh scale; heat input rates (MMBtu/hour) to the kiln from each fuel in use; all required CEMS data; and all required COMS data. [Rule 62-4.070(3), F.A.C.]

#### EMISSIONS

6. Emissions Standards: Except as described in Condition 7, this permit does not change any emission standards or establish any new emissions standards for the in line kiln system. During the temporary capacity evaluation program, the in line kiln system shall comply with the requirements of all existing, valid Department permits. [Rules 62-4.030, 62-4.070(3), and 62-210.300(1)(b), F.A.C.]
7. NO<sub>x</sub> Data Exclusion: The following provisions apply only during the capacity evaluation program and only for 24-hour periods during which fly ash is directly injected into the calciner.
  - a. "Off-capacity clinker production" is defined as clinker production below 85 tons per hour.
  - b. If the 24-hour period includes off-capacity clinker production, up to two 1-hour production-based NO<sub>x</sub> emission averages (lb/ton clinker) collected during such periods may be excluded from the 24-hour compliance average.
  - c. No such data exclusion is permitted for clinker production below 85 tons per hour unless fly ash is being injected directly into the calciner. Operators shall minimize such incidents of off-capacity clinker production to the extent possible. The owner or operator shall monitor and record the number of 1-hour NO<sub>x</sub> emission rates excluded from the determination of compliance with the production-based NO<sub>x</sub> emission limit. [Applicant Request].

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

8. Unconfined Particulate Emissions: During the capacity evaluation program, unconfined particulate matter emissions shall be minimized by taking the reasonable precautions specified in the current air construction permit, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

#### EMISSIONS TESTING AND MONITORING REQUIREMENTS

9. Test Notification: The permittee shall provide at least a 15-day advance notice of any scheduled stack tests to afford the Compliance Authority the opportunity to witness the tests. If unavoidable circumstances occur that would delay the stack tests, the permittee shall keep the Compliance Authority informed of the delays and the new schedule. At its discretion, the Compliance Authority may allow a shorter advance notice. [Rule 62-297.310(7)(a)9, F.A.C.]
10. Stack Tests – In Line Kiln (EU-004): Within the electrical, structural, process, and mechanical capabilities of the in-line kiln system, the permittee shall conduct the stack tests in accordance with the following provisions.
- At the operating rates specified below, the permittee shall conduct stack tests (one for each pollutant) to determine compliance with the existing emissions standards for carbon monoxide and particulate matter.
  - The permittee shall conduct dioxin/furan tests if there is a significant change in the feed that was used in the previous performance test. A Loss on Ignition (LOI) value of 30 percent or more shall be considered a significant change in the feed.
  - For mercury, the permittee shall calculate and report mercury emissions in accordance with the procedure specified in the current air construction permit.
  - Stack testing shall be performed at the in-line kiln main stack while the preheater, kiln, precalciner, cooler, and raw mill are operating simultaneously (compound operation). For each required stack test, the permittee shall operate the in-line kiln system to produce at least 110 tons per hour of clinker while injecting fly ash directly into the calciner within at least 90% of the highest sustained fly ash injection rate as determined by the results of operating scenario Case 3 in Condition 5.
  - The permittee shall conduct each required stack test using the methods approved in the current air construction permit. Each required stack test shall consist of at least three test runs.
  - For each required stack test, the permittee shall report the following continuous monitoring data: nitrogen oxides, sulfur dioxide, volatile organic compounds (total hydrocarbons), and opacity. In addition, the permittee shall report the continuous opacity monitoring data from the clinker cooler (EU-005) for each required test.
  - For each required stack test, the permittee shall report the following information: dry feed material to the preheater (TPH); fly ash feed directly to the calciner (TPH); clinker production (TPH) by indirect calculation method as defined in Condition 2; clinker production (TPH) by direct measurement using the installed weigh scale; and heat input rates (MMBtu/hour) to the kiln from each fuel in use.
  - During each day that stack tests are conducted on the in-line kiln system (EU-004), a representative sample of each fuel used shall be taken and analyzed for the following fuel properties: heating value (Btu/lb), moisture (% by weight), nitrogen (% by weight), sulfur (% by weight), chlorides (% by weight), ash (% by weight), and mercury (ppm by weight).
  - During each day that stack tests are conducted on the in-line kiln system (EU-004), a representative sample of the fly ash injected into the calciner shall be taken and analyzed for the same constituents as preheater feed. In addition, the fly ash shall be tested for ammonia, chloride, carbon, loss on ignition (LOI), and mercury.

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

[Rules 62-4.070(3) and 62-297.310, F.A.C.]

11. Test Procedures: General stack test procedures are summarized in Appendix GT of this permit. [Rule 62-297.310, F.A.C.]
12. Monitoring: During the capacity evaluation program, the permittee shall continuously monitor and record all information specified by the existing air construction permit including operational parameters, CEMS data, and COMS data. [Rule 62-4.070(3), F.A.C.]

#### RECORDS AND REPORTS

13. Stack Test Reports: The permittee shall prepare and submit reports for all required stack tests in accordance with the requirements in Rule 62-297.310(8), F.A.C. The permittee shall submit a written report that summarizes the results within 45 days of completing each required stack test. All stack test data collected during the temporary testing program shall be submitted for review. For each test run, the report shall also indicate the following information: dry material feed to the preheater (TPH); fly ash injection directly to the calciner (TPH); clinker production (TPH); heat input rates (MMBtu/hour) from each fuel in use; CEMS and COMS data; and ambient conditions.
14. Fuel and Fly Ash Analyses: Within 45 days of taking a fuel or fly ash sample required by this permit, the permittee shall submit a report detailing the results of the analyses. [Rule 62-4.070(3), F.A.C.]
15. CEMS Data: The permittee shall provide the Department with data disks, containing all CEMS data and production data for the duration of the capacity test. The permittee shall provide a description to decipher and review the data. The data should indicate when the raw mill is on (compound operation) and when it is off. [Rule 62-4.070(3), F.A.C.]
16. Final Report on the Capacity Evaluation Program: Within 90 days of completing the capacity evaluation program and no later than July 30, 2005, the permittee shall submit a technical report detailing the capacity evaluation program and its findings. The report shall be comprehensive and include, but not be limited to, the following:
  - For each day the plant operated within the temporary maximum rate range or directly injected fly ash into the calciner, an hour-by-hour summary of the following information: dry material feed to the preheater (TPH); fly ash injection directly to the calciner (TPH); clinker production (TPH); portland cement production (TPH); heat input rates (MMBtu/hour) from each fuel in use; CEMS data; and COMS data.
  - For each emissions stack test conducted, a summary of the information required in Condition 13.
  - An assessment of the precision and accuracy of the methods used to determine feed material rates and indirectly calculate clinker production.
  - An assessment of the precision and accuracy of direct measurement of clinker production using the installed scales.
  - A discussion of any operational problems encountered at the higher authorized rates.
  - Details of any mechanical, electrical, structural, and process limitations that were identified during the course of the capacity evaluation program.

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

17. Engineering Report on Kiln: Any future or pending applications for a permanent production increase shall include an engineering report describing the full capability of the kiln to sustain the requested production rates while meeting proposed emission rates. The report shall be sealed by professional engineers or other experts as appropriate in structural, mechanical, electrical, process, and

**APPENDIX GC**  
**General Conditions**

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The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

**APPENDIX GC**  
**General Conditions**

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10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (N/A);
  - b. Determination of Prevention of Significant Deterioration (N/A); and
  - c. Compliance with New Source Performance Standards (N/A).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS**

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environmental disciplines. A single report from the kiln manufacturer would suffice to fulfill this requirement. [Rule 62-4.070(3), F.A.C.]

19. Emissions Limited and Subject to Revision for SO<sub>2</sub> and NO<sub>x</sub>: 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 SO<sub>2</sub>, NO<sub>x</sub>, 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., Permit 1210465-001 (PSD-FL-259)]

DRAFT PERMIT

**SENDER: COMPLETE THIS SECTION**

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1. Article Addressed to:  
 Mr. Lawrence Sellers, Jr. Esq.  
 Holland & Knight, LLP  
 Post Office Drawer 810  
 Tallahassee, Florida 32301

2. Article Number (Transfer from service label) 7000 1670 0013 3110 3148

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

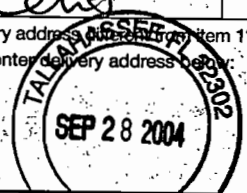
A. Signature  Agent  Addressee  
 X *[Signature]*

B. Received by (Printed Name) *E. Kent* C. Date of Delivery

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type **USPS**  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes



**SENDER: COMPLETE THIS SECTION**

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1. Article Addressed to:  
 Mr. Celso A. Martini, Plant  
 Manager  
 Suwannee American Cement, LLC  
 Post Office Box 410  
 Branford, Florida 32008

2. Article Number (Transfer from service label) 7001 0320 0001 3692 6662

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  
 X *Susan Vaughan*

B. Received by (Printed Name) *Susan Vaughan* C. Date of Delivery *10/4/04*

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**U.S. Postal Service CERTIFIED MAIL RECEIPT**  
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Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To  
 Mr. Lawrence Seller, Jr., Esq.  
 Holland & Knight, LLP  
 Post Office Box 810  
 Tallahassee, Florida 32301

**U.S. Postal Service CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

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

7000 1670 0013 3110 3148

7001 0320 0001 3692 6662

**SENDER: COMPLETE THIS SECTION**

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1. Article Addressed to:  
 Mr. Charles Yagel, President  
 Suwannee Industrial Solution, LLC  
 26841 CR 49  
 Branford, Florida 32008

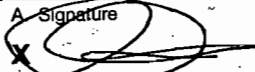
2. Article Number 7000 1670 0013 3110 3162  
 (Transfer from service label)

PS Form 3811, August 2001

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature   Agent  Addressee

B. Received by (Printed Name) CHARLES W. YAGEL C. Date of Delivery 10-12-04

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

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1. Article Addressed to:  
 Mr. Tom Greenhalgh  
 1211 Paul Russell Road  
 Tallahassee, Florida 32301-7102

2. Article Number 7000 1670 0013 3110 3186  
 (Transfer from service label)

PS Form 3811, August 2001

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature   Agent  Addressee

B. Received by (Printed Name) GREENHALGH C. Date of Delivery 10-7-04

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT  
 (Domestic Mail Only; No Insurance Coverage Provided)**

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

Send To  
 Mr. Charles Yagel, President  
 Suwannee Industrial Solution, LLC  
 Street, Apt. No., or PO Box No.  
 26841 CR 49  
 City, State, ZIP+4  
 Branford, Florida 32008

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT  
 (Domestic Mail Only; No Insurance Coverage Provided)**

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

Send To  
 Mr. Tom Greenhalgh  
 1211 Paul Russell Road  
 Tallahassee, Florida 32301-7102  
 City, State, ZIP+4

7000 1670 0013 3110 3162

9876 5432 1000 0123 4567



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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
**Mr. Claude Grinfeder**  
**Suwannee American Cement, LLC**  
**Post Office Box 410**  
**Branford, Florida 32008**

2. Article Number **7000 1670 0013 3110 3155**  
 (Transfer from service label)

PS Form 3800, May 2000

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 *Susan Vaicich*  Addressee

B. Received by (Printed Name) **Susan Vaicich** C. Date of Delivery **10/14/04**

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**SENDER: COMPLETE THIS SECTION**

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
**Mr. Mike Byerly, Chair**  
**Alachua County Board of County**  
**Commission**  
**Post Office Box 2877**  
**Gainesville, Florida 32602-2877**

2. Article Number **7000 1670 0013 3110 3179**  
 (Transfer from service label)

PS Form 3811, August 2001

Domestic Return Receipt

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 *J. Crow*  Addressee

B. Received by (Printed Name) **J. Crow** C. Date of Delivery **9-29-04**

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

Sent To: **Mr. Claude Grinfeder**  
**Suwannee American Cement, LLC**  
 Street, Apt. No. or PO Box No. **Post Office Box 401**  
**Branford, Florida 32008**

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

Sent To: **Mr. Mike Byerly, Chair**  
**Alachua County Board of County Comm.**  
 Street, Apt. No. or PO Box No. **P.O. Box 2877**  
 City, State, ZIP+4 **Gainesville, Florida 32602-2877**

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 029T  
 0002

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 0002



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November 16, 2004

BUREAU OF AIR REGULATION

Mr. Al Linero  
Division of Air Resources  
Department of Environmental Protection  
2600 Blair Stone Road, MS # 5500  
Tallahassee, Florida 32399-2400

**SUBJECT: Response to Request for Additional Information (RAI), September 3, 2004**  
Suwannee American Cement – Branford Plant  
Facility ID No. 1210465  
PSD-FL-259D

Dear Mr. Linero:

In response to the request for additional information dated September 3, 2004 Suwannee American Cement (SAC) wishes to offer the following information. SAC will respond in general to the sections outlined in the Department's RAI with text from the Department's letter *italicized*.

*Fly ash injection and permanent production increase:*

SAC has since requested a temporary test for the injection of fly ash as well as testing for increased capacity. DEP issued a Final Test Permit (DEP File No. 1210465-012-AC Production Capacity and Fly Ash Injection Test) on October 20, 2004. SAC began testing upon receiving the Final Test Permit. The intent of the testing was to gather information and data to further address questions by the Department. At the completion of testing SAC will submit to the Department a report detailing the results of the testing. SAC requests additional time to respond to the questions around the Permanent Fly Ash Injection and Production Permit Application until completion of testing. Upon completion of testing the report submitted to the Department will address specific question outlined in the September 3, 2004 letter.

*Hydrated Lime:*

SAC provided additional information to the Department and SAC received Final Permit (DEP File No. 1210465-008-AC Extension of Permit and Hydrated Lime Injection) on October 20, 2004.

*Clinker Scales:*

SAC provided additional information with regards to all requests for information on clinker scales to the Department on September 20<sup>th</sup>. In addition several personnel from the Department have conducted inspections of the clinker scale.

Wheel Wash:

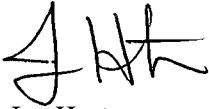
SAC provided additional information with regards to all requests for information on clinker scales to the Department on September 20<sup>th</sup>. In addition several personnel from the Department have conducted inspections of the proposed wheel wash.

Tire Derived Fuel:

SAC has received an extension of the Original PSD Permit which allowed for construction and operation use of whole tires or a tire gasification system for fuel in the calciner. SAC is still considering other possible tire systems such as Suspension Tire Burning. SAC would request additional time for consideration of any other operations before addressing questions posed by the Department. This may include requests by SAC for testing of a system to gather more information for the questions asked by the Department.

If you have any questions or require any additional information, please feel free to contact me at (386) 935-5039 or by e-mail at [jbhorton@suwanneecement.com](mailto:jbhorton@suwanneecement.com).

Sincerely,



Joe Horton  
Suwannee American Cement

CC: Celso Martini – SAC  
Trina Vielhauer – DEP  
Chris Kirts – DEP, NED  
Dr. John Koogler - Koogler and Associates

**Cooke, Michael**

---

**From:** Wells, Deena  
**Sent:** Tuesday, October 19, 2004 10:03 AM  
**To:** Cooke, Michael  
**Subject:** FW: SAC

Michael,

Could you please include me.

Many thanks.  
Deena

-----Original Message-----

**From:** Mosteller, Cragin  
**Sent:** Tuesday, October 19, 2004 8:57 AM  
**To:** Wells, Deena  
**Subject:** FW: SAC

FYI

-----Original Message-----

**From:** Cooke, Michael  
**Sent:** Monday, October 18, 2004 10:22 AM  
**To:** Morgan, Larry; Taylor, Mario; Bedwell, Allan; Cooper, Cameron; Joyner, Mike  
**Cc:** Vielhauer, Trina; Kirts, Christopher; Schweiss, Russell; Mosteller, Cragin  
**Subject:** SAC

We are ready to issue to SAC the permits for: an extension of time (to July 31, 2005) to make the hydrated lime injection system permanent; the change in the Hg sampling language in the permit to conform the language to the hearing officer's original order and to make the permit internally consistent; clarification of the language regarding how to measure THC/VOC for compliance purposes; and authorization to install for testing only a fly ash injection mechanism. These have been public noticed and we have received no comments other than from SAC. SAC's comments (which sought to clarify that they could build silos, etc., only for purposes of conducting the fly ash tests) have been addressed by including such clarification. I plan to sign these today. Please let me know if anyone has any questions or concerns. Thanks. Mike

---

Michael G. Cooke  
Director, Division of Air Resource Management  
Florida Department of Environmental Protection  
MS 5500 2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Phone: 850/488-0114  
Suncom: 278-0114  
Fax: 850/922-6979  
E-Mail: [Michael.Cooke@dep.state.fl.us](mailto:Michael.Cooke@dep.state.fl.us)

10/19/2004

*Please note: Florida has a very broad public records law. Most written communications to or from state officials regarding state business are public records available to the public and media upon request. Your e-mail communication may therefore be subject to public disclosure.*



P.O. Box 410  
Branford, FL 32008

RECEIVED

JAN 07 2005

BUREAU OF AIR REGULATION

January 5, 2005

Ms. Trina Vielhauer  
Department of Environmental Protection  
2600 Blair Stone Road, MS # 5500  
Tallahassee, Florida 32399-2400

Mr. Christopher L. Kirts, P.E.  
Florida Department of Environmental Protection  
Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, FL 32256-7590

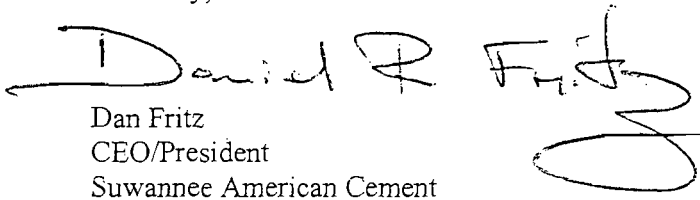
**SUBJECT:** Responsible Official Notification  
Suwannee American Cement – Branford Plant  
Facility ID No. 1210465  
PSD-FL-259D

Dear Ms. Vielhauer & Mr. Kirts:

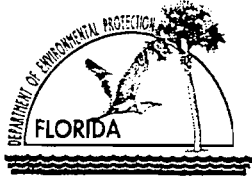
The enclosed DEP Form No. 62-213.900(8) is submitted to notify you of a change in the responsible official at Suwannee American Cement. Mr. Tom Messer is added as responsible official for Suwannee American Cement, Branford Facility. Mr. Celso Martini will also remain as a responsible official as previously submitted in January 6<sup>th</sup> of 2003.

Should you have any question and/or comments concerning this notification or you require additional information, please contact Tom Messer at (386) 935-5017 or Joe Horton at (386) 935-5039.

Sincerely,

  
Dan Fritz  
CEO/President  
Suwannee American Cement

CC: Al Linero – DEP  
Celso Martini – SAC  
Tom Messer – SAC  
Joe Horton – SAC



# Department of Environmental Protection

## Division of Air Resource Management

### RESPONSIBLE OFFICIAL NOTIFICATION FORM

**Note:** A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

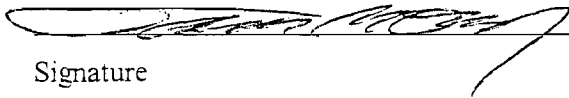
#### Identification of Facility

1. Facility Owner/Company Name: <b>Suwannee American Cement</b>	
2. Site Name: <b>Branford Plant</b>	3. County: <b>Suwannee</b>
4. Title V Air Operation Permit/Project No. <i>(leave blank for initial Title V applications)</i> : <b>1210465-001-AC &amp; PSD-FL-259</b>	

#### Notification Type *(Check one or more)*

<input type="checkbox"/>	<b>INITIAL:</b> Notification of responsible officials for an initial Title V application.
<input type="checkbox"/>	<b>RENEWAL:</b> Notification of responsible officials for a renewal Title V application.
<input checked="" type="checkbox"/>	<b>CHANGE:</b> Notification of change in responsible official(s). Effective date of change in responsible official(s) <b>January 15, 2005</b>

#### Primary Responsible Official

1. Name and Position Title of Responsible Official: <b>Tom Messer, Plant Manager</b>	
2. Responsible Official Mailing Address: Organization/Firm: <b>Suwannee American Cement</b> Street Address: <b>5117 US Hwy 27</b> City: <b>Branford</b> State: <b>FL</b> Zip Code: <b>32008</b>	
3. Responsible Official Telephone Numbers: Telephone: <b>( 386 ) 935 - 5000</b> Fax: <b>( 386 ) 935 - 5080</b>	
4. Responsible Official Qualification <i>(Check one or more of the following options, as applicable)</i> : <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.	
5. Responsible Official Statement:  <i>I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.</i>	
 Signature	<u>January 3, 2005</u> Date



# Department of Environmental Protection

Jeb Bush  
Governor

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

Colleen M. Castille  
Secretary

September 3, 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, 009, 010 and 011  
Cement Plant – Branford, Suwannee County, Florida

Dear Mr. Martini:

As you are aware, the Department is reviewing several Suwannee American Cement permitting applications at this time. The status of these various applications is as follows.

The Department reviewed the status of the application 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 the DEP letter dated July 27, 2004 the application is still incomplete. The submittal dated July 28, 2004 (received August 6) did not address the details of the tire system that we had requested.

The July 28, 2004 submittal also contained a new Long Form permit application to:

- Modify the fly ash injection project to include a permanent production increase;
- Add a 30-day NO<sub>x</sub> limit of 2.6 lb/ton of clinker after one year of operation at the higher rate;
- Construct a permanent hydrated lime system;
- Revise permit language with respect to direct measurement of clinker production; and
- Remove the truck wheel washing requirement.

This application is also incomplete as discussed at a meeting in Tallahassee on August 16, 2004. The Department requests the following additional information regarding the July 28, 2004 application:

### **Fly ash injection and permanent production increase:**

Why will it require 15% more raw materials to make only 10% more clinker?

Provide sample calculations for weighing and converting raw materials introduced via preheater feed, flyash (calciner) feed, steel belts, coal ash, etc. to clinker production.

Provide a review of rated capacity of key components including fans, raw mill, coal mill, crushers, and burners compared with the permitted and requested production limits.

*"More Protection, Less Process"*

*Printed on recycled paper.*



Mr. Celso Martini, Plant Manager  
Suwannee American Cement  
September 3, 2004  
Page 2 of 3

How will increased production affect the ability to control NOx? For example, how will increased gas flow affect residence time in the calciner and the ability to complete the NOx destruction reactions?

Provide an expert report regarding the mechanical, structural, electrical and process capability of the kiln, calciner, preheater, and control equipment to support such an increase. A report from the manufacturer would suffice for this requirement.

How will increased production affect the tendency to form blockages and situations that could cause additional startups, shutdowns and malfunctions?

Please develop a clear explanation regarding the phenomena that have made it difficult to use the kiln inlet burner. By not using the kiln inlet burner, the opportunity to take advantage of fast high temperature NOx reduction in a reducing atmosphere is lost. Advise what measure will be taken to address the coating problems.

Provide an assessment of chemical balances and imbalances that contribute to the coatings such as sources of chlorides (raw materials, coal, alkali-to-sulfur ratio, etc.).

Explain why the MSC system installed at SAC cannot meet a 30-day NOx limit at least as stringent as 2.45 lb NOx/ton clinker or lower after the production increase and process modifications.

Based upon the August 16, 2004 meeting, SAC anticipated incompleteness items on the fly ash injection project and the permanent production increase and delivered a subsequent application on August 26, 2004. This August 26 application is a proposal to conduct production capacity and fly ash injection testing during 120 operating days in a six month period. The August 26, 2004 application is still under review. We will advise you by September 29, 2004 whether or not the application is complete and provide you with our request for additional information if warranted.

**Hydrated Lime:**

On page 15 of the application for Emissions Unit 002 (Raw Material Processing), the application states the following, "Hydrated lime will be introduced with preheater feed at the top of the preheater, as necessary to control SO2 (See Attachment 001). The lime will be fed pneumatically from a 40 ton capacity silo to the preheater at a rate of up to approximately one percent of the preheater feed rate; or about 20-25 tons per hour. For design purposes, the silo discharge rate is 30 tph. The silo filling rate will be approximately 50 tph." The maximum preheater feed rate is 178 tons per hour. One percent of this feed rate is approximately 2 tons per hour and not 20-25 tons per hour. Please correct the maximum lime feed rate or otherwise clarify the application.

**Clinker Scales:**

The Department requires submittal of the following: copies of the clinker scale manuals; documentation of calibrations; comparisons of the precision and accuracy between the direct clinker measurement method and the method that will be used considering the addition of the new streams.

**Wheel Wash:**

As discussed at the August 16, 2004 meeting, the Department requires submittal of at least the following information: the design drawings for the wheel wash system; drawings of the portion of the project constructed; a list of remaining tasks to activate the system; copy of any applications submitted to the Department's Northeast District in pursuit of the authorization need to activate the system; documentation that visible emissions and particulate matter concentrations near the property

Mr. Celso Martini, Plant Manager  
Suwannee American Cement  
September 3, 2004  
Page 3 of 3


boundary have remained within the limits allowed by the permit and rules; pictures or video clips documenting the adequacy of present procedures to minimize dust.

In addition to the information itemized above, we will conduct on-site inspections to observe the procedures in place and the level of dust generated by trucks leaving the facility.

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

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
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1. Article Addressed to:  
 Mr. Celso Martini, Plant Manager  
 Suwannee American Cement  
 Post Office Box 410  
 Branford, Florida 32008

2. Article Number **7000 1670 0013 3110 3117**  
 (Transfer from service label)

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 Addressee  
*Susan Vaughan*

B. Received by (Printed Name)  Agent  
 Addressee  
*Susan Vaughan*

C. Date of Delivery  
*9/20/01*

D. Is delivery address different from item 1?  Yes  
 if YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

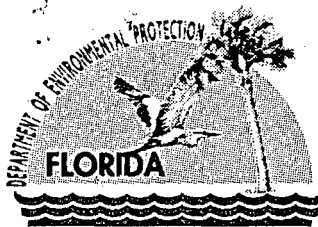
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Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	\$	

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

PS Form 3800, May 2000 See Reverse for Instructions



Jeb Bush  
Governor

# Department of Environmental Protection

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

Colleen M. Castille  
Secretary

July 27, 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 received your response to our request for additional information on June 24 2004 related to your projects to install a fly ash injection system and a different tire burning system than already permitted. We also received a letter on July 9 requesting changes to the clinker production measurement requirement as well as installation of a permanent hydrated lime injection system. We advised your Environmental Manager that the latter request requires a professional engineer seal prior to review.

The applications for the flyash and tire introduction system are still incomplete.

It is our understanding that compliance with the 24-hour nitrogen oxides (NO<sub>x</sub>) emission limit is already difficult and results in greater emissions of carbon monoxide (CO) and volatile organic compounds (VOC) to avoid NO<sub>x</sub> exceedances. A more thorough discussion of the likely effects of tire introduction through the calciner is needed prior to changing the conditions related to tire use. On the one hand, the tires might produce more of the hydrocarbon radicals that destroy NO<sub>x</sub>. On the other hand, the bulky nature of the fuel can lead to greater VOC and CO emissions, especially at the relatively high usage rate proposed.

According to the information obtained by the Department from LaFarge/Melon Cement in Chile, they will burn 20 percent tires following installation of a tire introduction system identical to the one SAC will install. They expect a decrease in NO<sub>x</sub> emissions and an increase in CO emissions.

It should be possible for SAC to obtain better information from the manufacturer, Cadence, and provide a more detailed assessment of likely effects than heretofore provided. Enclosed is an abstract of the "Environmental Impact Evaluation" (EIE) prepared for Melon. We do not have the entire EIE. Also enclosed is the Valparaiso Regional Environmental Commission's Resolution including conditions applicable to the project. Undoubtedly Melon submitted various technical documents (besides the entire EIE) of the kind we would like to receive in support of the present application.

*"More Protection, Less Process"*

*Printed on recycled paper.*

Mr. Celso Martini, Plant Manager  
Suwannee American Cement  
July 27, 2004  
Page 2 of 2

Similarly, we need additional documentation regarding the flyash project besides the very basic descriptions provided. Until these are provided for the tire and flyash projects, it will be possible to consider only test protocols for trials to conduct the "initial testing for optimization" described in the schedules attached to the submitted response.

To accelerate action on such testing, please submit protocols such as were developed for the kiln inlet tests. We will be happy to discuss with SAC the minimum requirements for such a test protocol.

We requested to know how the clinker production is measured and used in the denominator of the pound per ton emission limits. SAC described the methodology in a manner that is totally dependent on preheater feed and proposed the removal of the requirement that clinker production shall be directly measured independently of preheater feed. The subsequent July 9<sup>th</sup> letter application made this a formal request.

As mentioned above, that request needs to be sealed prior to review by the Department. We note that additional justification will be required as it has not been demonstrated to the Department that direct measurement is not required. At the very least, we will need to consult with the supplier to get a better idea of the accuracy and precision of such direct measurement compared with the accuracy and precision of the method used by SAC.

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. Although we noted this requirement in our request for additional information, the response did not include the required certification. SAC will need to abide by that requirement on future submittals.

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, P.E.  
Program Administrator  
South Permitting Section

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

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Celso Martini, Plant Manager  
 Suwannee American Cement  
 Post Office Box 410  
 Branford, Florida 32008

2. Article Number  
 (Transfer from service label) 7000 2870 0000 7027 9638

PS Form 3811, August 2001

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature *C. P. Foster*  Agent  Addressee

B. Received by (Printed Name) *P. Foster* C. Date of Delivery *8-2-04*

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

7000 2870 0000 7027 9638

<b>U.S. Postal Service</b>	
<b>CERTIFIED MAIL RECEIPT</b>	
<i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
Mr. Celso Martini, Plant Manager	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>
Postmark Here	
<b>Sent To</b>	
Mr. Celso Martini, Plant Manager	
<i>Street, Apt. No.; or PO Box No.</i>	
Post Office Box 410	
<i>City, State, ZIP+4</i>	
Branford, Florida 32008	
<b>PS Form 3800, May 2000</b>	
<b>See Reverse for Instructions</b>	



P.O. Box 410  
Branford, FL 32008

RECEIVED

JUL 09 2004

BUREAU OF AIR REGULATION

July 5, 2004

Al Linero  
Division of Air Resources  
Department of Environmental Protection  
2600 Blair Stone Road, MS # 5505  
Tallahassee, Florida 32399-2400

**SUBJECT:** Construction Permit Application dated 4/26/04  
Suwannee American Cement – Branford Plant  
Facility ID No. 1210465  
PSD-FL-259D

Dear Mr. Linero:

In accordance with our discussions on June 29, we hereby formally confirm our request that the construction permit application submitted on April 26, 2004, also address the following:

1. Hydrated Lime System (this is the same description we previously provided).
2. Calculated Clinker Production (amending Conditions III. B. 4 and 24)

Pertinent information is attached.

If you have any questions, please feel free to contact me at (386) 935-5039.

Sincerely,

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

Joe Horton  
Suwannee American Cement

CC: Chris Kirts – Northeast District, DEP  
Celso Martini – SAC  
Dr. John Koogler – Koogler & Associates

Attachment 1  
Hydrated Lime Information



# HYDRATED LIME SYSTEM

---

## **OVERVIEW**

Suwannee American Cement (SAC) is requesting the installation of a hydrated lime system for the control of SO<sub>2</sub> emissions. Under most circumstances SAC has virtually no SO<sub>2</sub> emissions and this project would serve as an assurance that should SO<sub>2</sub> emissions occur they could be controlled to meet the emission limits.

The system would consist of a storage bin for hydrated lime and a pneumatic delivery system to transport the lime to the top of the preheater of tower to be introduced with the kiln feed. Particulate matter emissions from the storage bin would be controlled by a fabric filter (baghouse) dust collector. No emissions would be associated with the pneumatic delivery system or the introduction of the lime into the kiln system.

## **PURPOSE**

Hydrated lime is similar to the raw materials currently fed to the kiln system. When the SO<sub>2</sub> emissions are detected, the hydrated lime would be feed into the kiln system with the kiln feed. The hydrated lime will act as a scrubbing/absorbing agent similar to the raw materials in the raw mill/roller mill, effectively scrubbing virtually all of the SO<sub>2</sub> in the kiln exhaust gas and thereby resulting in reduced SO<sub>2</sub> emissions. Since hydrated lime is similar to the limestone in the raw materials the hydrated lime is incorporated into the clinker. It is estimated that the hydrated lime will make up only a small portion (less than one percent) of the total kiln feed.

## **BENEFITS**

SAC believes that this system will almost completely eliminate SO<sub>2</sub> emissions. Presently, SO<sub>2</sub> emissions are close to zero for the vast majority of the time, so this system will only be used for short periods when there are SO<sub>2</sub> emissions for whatever reasons. The system will be controlled automatically with the CEMs in the stack. The system will feed lime as SO<sub>2</sub> is detected in the stack and will control the dosage based on the concentration of SO<sub>2</sub> at the stack. This automation of the system will allow for the most efficient control and reduction of SO<sub>2</sub> emissions.

Included in Figure 1 and 2 are drawings of the Hydrated Lime System.

**Figure 1: Hydrated\_Lime  
Drawing**

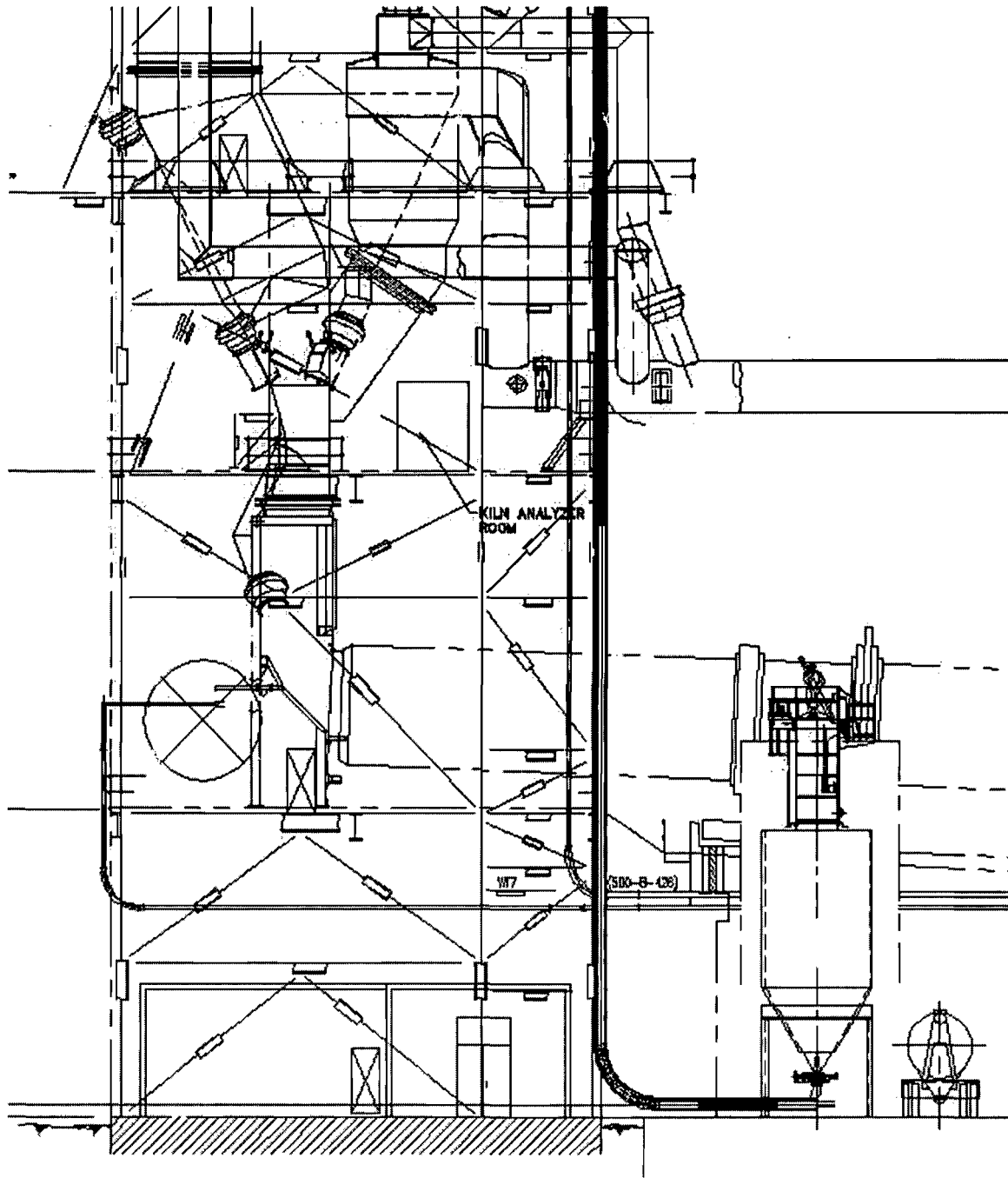
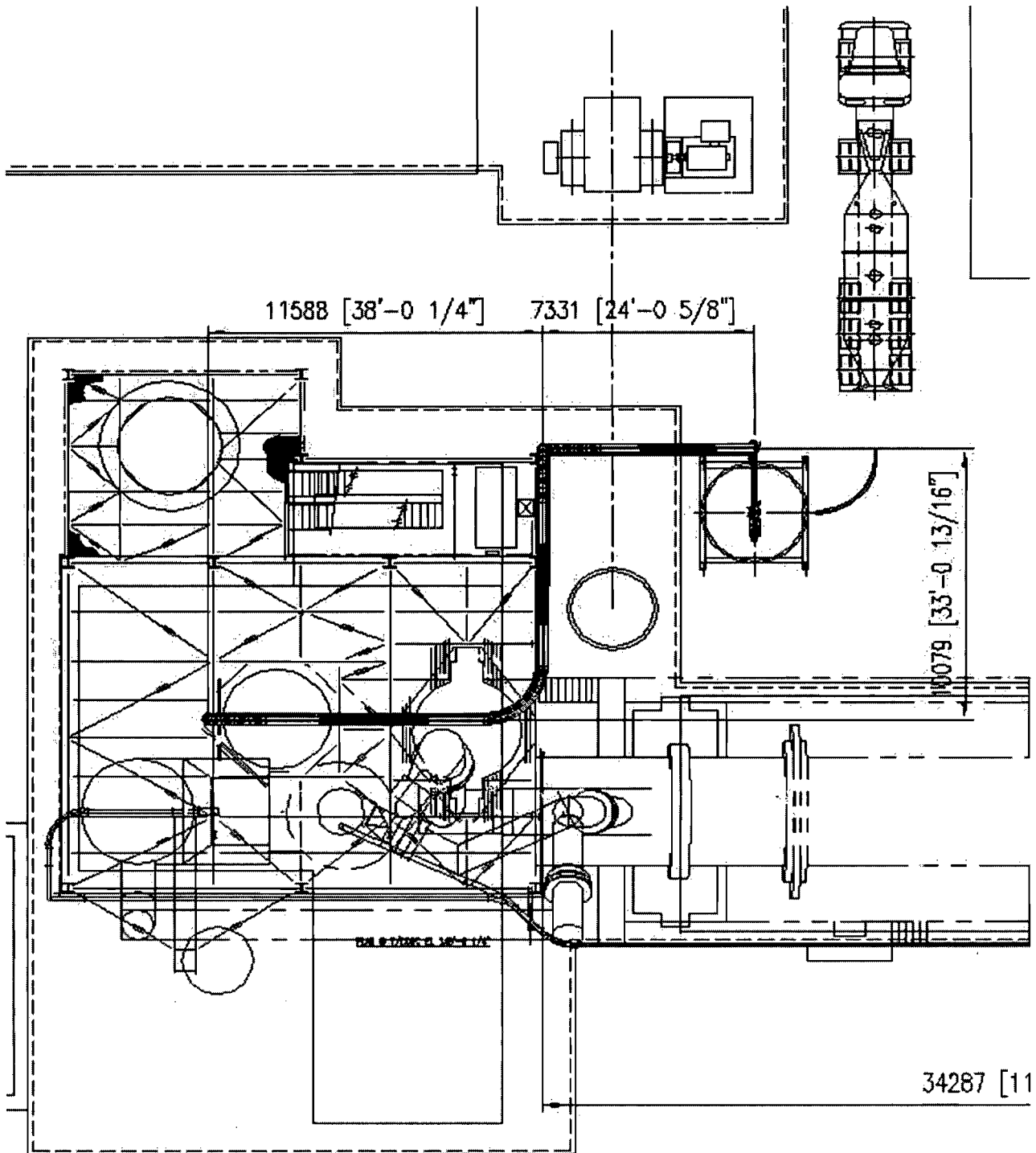
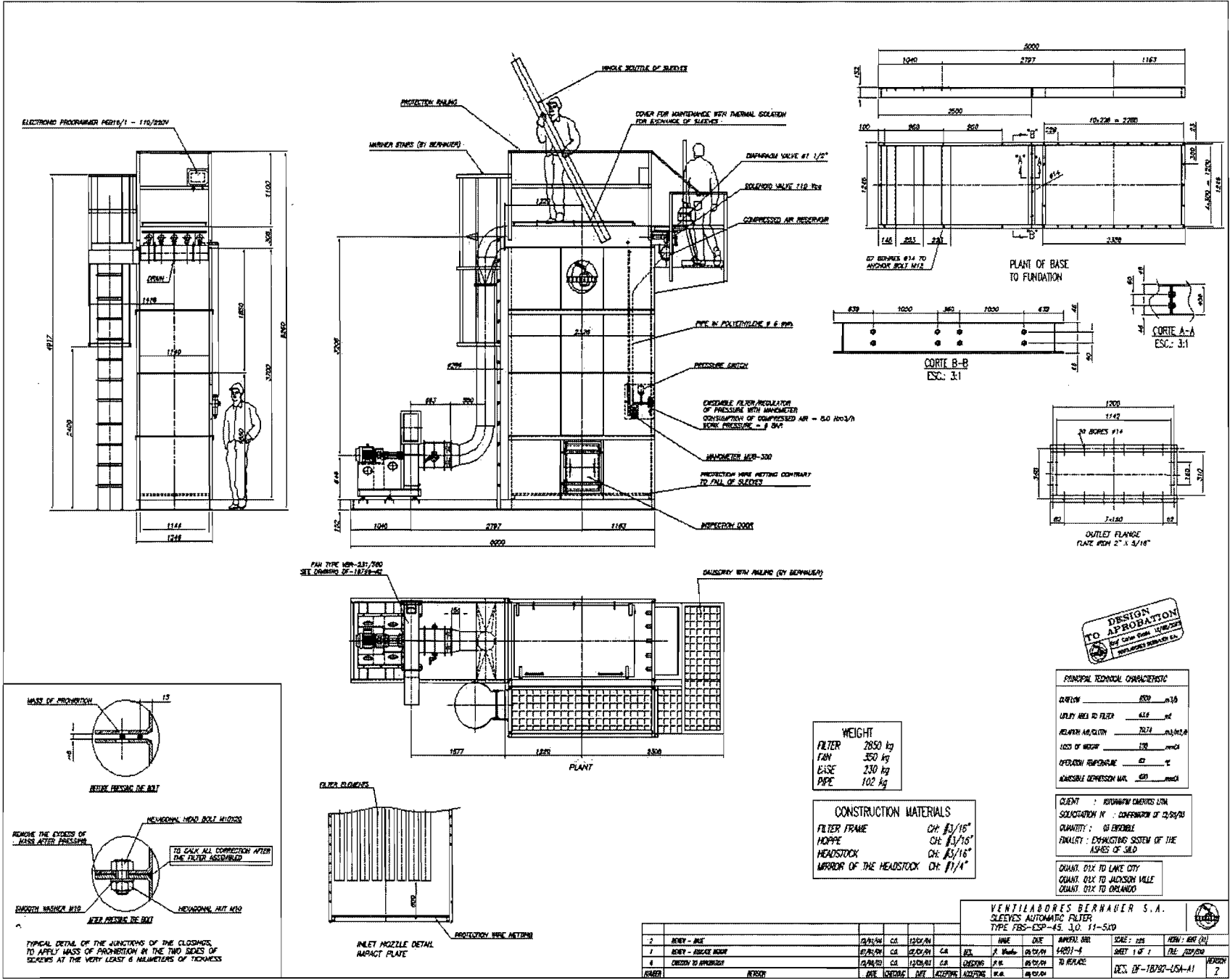


Figure 2: Hydrated Lime Drawing 2



# Figure 3: Dust Collector Information

Airflow - 2700 acfm  
 Air to Cloth Ratio 685 ft<sup>2</sup>



**Attachment 2**  
**Calculated Clinker Production**  
**Information**

## SECTION III.B - SPECIFIC CONDITIONS 4 and 24

**4. Process Rate Limitations:** The kiln shall not process more than 178 tons of dry preheater feed per hour and shall not produce more than 105 tons of clinker per hour as calculated based on preheater feed. Clinker production shall be calculated from dry preheater feed using the Loss of Ignition (LOI) factor. The LOI factor shall be determined using ASTM Test Methods or other similar Industry Test Methods with consideration for baghouse dust returns. The LOI factor shall be evaluated on a quarterly basis by the permittee to insure accuracy with inventory and cement production records, and the factor shall be adjusted if necessary within 7 days of the beginning of the quarter. The facility shall not produce more than 150 tons of cement per hour. Process and production rates shall be further limited to 1,427,880 tons of dry preheater feed in any consecutive 12-month period, 839,500 tons of clinker in any consecutive 12-month period, and 1,191,360 tons of portland cement in any consecutive 12-month period. [Rule 62-210.200, F.A.C., Definitions – potential to emit (PTE)]

**24. Process Rate Limitations:** The owner or operator shall make and maintain records of the process rate of dry preheater feed in units of tons per hour and tons per consecutive 12-month period, and the production rate of clinker and cement in units of tons per hour and tons per consecutive 12-month period. ~~The clinker rate shall be directly measured independently of preheater feed.~~

[SAC additions to permit underscored; SAC deletions are ~~stricken~~]

Explanation/Rationale: SAC uses a very accurate system for processing and measuring the preheater feed. This system is supplied by Polysius and is called the Poldos. The Poldos accurately measures and transfers preheater feed into the kiln system. SAC uses this preheater feed measurement and a set Loss of Ignition (LOI) Factor to determine the clinker produced. SAC determined the LOI factor using the ASTM test method 2863 on its preheater feed with consideration for dust return from the main baghouse. This method accurately determines the clinker produced and corresponds with physical inventory numbers and cement production. This method is an industry standard for determining clinker production, and it is the method by which SAC determines its own production for accounting and inventory purposes. Accordingly, SAC requests that paragraph 4 be revised to expressly provide that only clinker measurements based off of preheater feed shall be used for compliance determinations.

SAC uses a load cell for measurement of clinker as it exits the clinker cooler. This number is recorded in the NEXUS software, but should not be used for determining compliance with production limits or in emission limit calculations due to various factors that may cause this information to be inaccurate. Load cells operate accurately only when a known area of the belt comes in consistent and uniform contact with the load cell to measure throughput. Clinker must be transported from the clinker cooler using a bucket or pan conveyor because of the high heat of the clinker. Bucket and pan conveyors do not uniformly contact the load cell in the same manner as a flexible belt due to the stiffness of the metal buckets and the chain pulling the buckets. In addition, clinker leaving the kiln system is not in a steady state because various amounts of accumulation can occur in the clinker cooler dependent on the amount of cooling needed. For these reasons, a load cell may not always provide an accurate determination of clinker production. Accordingly SAC requests that paragraph 24 be revised by deleting the unnecessary requirement to measure clinker production independently of preheater feed.



June 24, 2004

RECEIVED  
JUN 28 2004  
BUREAU OF AIR REGULATION

Al Linero  
Division of Air Resources  
Department of Environmental Protection  
2600 Blair Stone Road, MS # 5505  
Tallahassee, Florida 32399-2400

**SUBJECT:** Response to Warning Request for Additional Information (RAI)  
Suwannee American Cement – Branford Plant  
Facility ID No. 1210465  
PSD-FL-259D

Dear Mr. Linero:

The purpose of this correspondence is to respond to the Department's Request for Additional information dated May 25, 2004.

The questions from the Department's Letter are italicized, and Suwannee American Cement's responses follow.

If you have any questions please call me at (386) 935-5039.

Sincerely,

Joe Horton  
Suwannee American Cement

CC: Chris Kirts – Northeast District, DEP  
Celso Martini – SAC  
Dr. John Koogler – Koogler & Associates

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.”*

Schedule for construction is included in Attachment 1

Additionally Suwannee American Cement (SAC) will conduct initial testing for the Fly Ash Project and Tire Project to optimize the systems. In the estimated schedule provided by SAC Compliance Testing was scheduled for each project in consecutive months to try and combine the testing into one time period. The Title V Application would be submitted after completion of Compliance Testing for each project.

During Startup and Commissioning of the two projects SAC would request the Department re-establish the initial startup emission limits from the original construction permit.

2. *Describe how the proposed tire derived fuel system will be operated to insure compliance with the NO<sub>x</sub>, SO<sub>2</sub>, CO, and VOC permit limitations. Rules 62-4.070 and 62-212.400, F.A.C. and Permit 1210465-001-AC.*

SAC is investigating several systems by which to transport tires into the Kiln System; a gasification system, a whole tire injection system and a system which is a variation of the previous two systems (Cadence System). The gasification and whole tire systems have been previously permitted and the third combination is similar in concept. Neither the previously permitted nor the new system under investigation is expected to increase emissions of NO<sub>x</sub>, SO<sub>2</sub>, CO or VOC.

NO<sub>x</sub>

Use of tires as a fuel source in kiln systems typical results in a net decrease in NO<sub>x</sub> emissions. Depending on the introduction method, the location and the oxygen levels at the kiln inlet, there may be a reducing atmosphere created near the kiln inlet from the use of tires that will further reduce NO<sub>x</sub> from the main kiln burner. However it is not certain at this time that a reducing atmosphere will be created at this point due to the reducing conditions already being created.

SO<sub>2</sub>

Any SO<sub>2</sub> from the tires will be incorporated into the clinker due to the location of the introduction of the tires. Calcium oxide CaO will be abundantly present to absorb the sulfur in the same manner as the SO<sub>2</sub> from the Coal is incorporated into the clinker.

CO, VOC

The introduction of all three tire systems takes place below the upper tertiary air ducting which will allow control of oxygen to help reduce the CO and VOC. The system is designed with retention time and mixing above this point to effectively eliminate CO and VOC generated from fuel sources in the same manner as CO and THC from coal is currently being destroyed.

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.*

SAC is currently permitted for introduction of whole tires in the kiln inlet. Tires behave differently in combustion characteristics than finely ground coal. The coal with higher volatility introduced in the kiln inlet will create very strong reducing conditions in the kiln inlet as the coal ignites quickly. Tires burn over a longer period, entering the kiln before final combustion which eliminates localized reducing conditions in the kiln inlet. SAC believes this will not



effect the coating/buildup in the kiln inlet but is one reason SAC is currently investigation several other methods including the gasification system and the Cadence system.

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/calciner kiln. Rule 62-4.070, F.A.C.*

SAC is currently authorized for 10% heat substitution from use of whole tires and 40% heat substitution for tire gasification system. The third system under investigation (Cadence System) is a hybrid system involving principals of combustion of both systems. This system is claiming up to a 40% substitution rate. If a 40 percent TDF feed rate cannot be achieved with the third system (Cadence System), should it be selected, SAC will agree to reduce the permitted TDF use rate to the rate determined by field trial, plus 20 percent of the amount determined by the field trial to allow for optimization after the time-of the field trial.

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.*

SAC considers the Fly Ash used in the injection process to be a raw material and thus will be tracked and recorded with the kiln feed. The Fly Ash injection system will have a means to measure throughput in a similar manner as currently monitored and in accordance with Section III, Subsection B, Paragraph 4 of the Construction Permit. The combination of the fly ash injection and kiln feed will not exceed 178 tons per hour on a dry basis.

Tires being feed to the kiln system will be tracked and recorded in a similar manner as all fuels to the kiln system and in accordance with Section III, Subsection B, Paragraph 2. Samples will be sent to determine heat values of the tires in accordance with Section III, Subsection B, Paragraph 2.

Any byproducts of tires such as steel will be incorporated into the clinker in a similar manner as the ash of coal. This will be considered a negligible amount and not tracked in accordance with kiln feed numbers or limits.

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.*

SAC currently anticipates using similar sources of fly ash for injection into the calciner but will receive the fly ash on a dry basis allowing for a more efficient use of the fly ash.

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.*

All fuel sources and raw materials will be monitored in accordance with Section III, Subsection B, Paragraph 13. This includes Fly Ash regardless of introduction into the pyroprocessing system and fuels including tires.

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.***

SAC uses a very accurate system for processing and measuring the preheater feed. This system is supplied by Polysius and is called the Poldos. The Poldos accurately measures and transfers preheater feed into the kiln system. SAC uses this preheater feed measurement and a set Loss of Ignition (LOI) Factor to determine the clinker produced. SAC determined the LOI factor using the ASTM test method 2863 on its preheater feed with consideration for dust return from the main baghouse. This method accurately determines the clinker produced and corresponds with physical inventory numbers and cement production. This method is an industry standard for determining clinker production, and it is the method for which SAC determines its own production for accounting and inventory purposes. The LOI factor was included in SAC's Construction Permit Application and determined to be 0.5899 from the test. The LOI factor correlates exactly with preheater feed limit and the clinker production limit [ $178 \times 0.5899 = 105$ ]. SAC uses this accurate clinker production number from the preheater feed to demonstrate compliance with production limits and as the basis for emission limits with pound per ton units.

SAC also uses a load cell for measurement of clinker as it exits the clinker cooler. SAC continues to monitor the clinker in this method solely because it is required by permit condition Section III, Subsection B, Paragraph 24. SAC requests to the Department to revise the permit accordingly: (1) to expressly provide that SAC will use only clinker measurements based off of preheater feed for production limits and for calculation of lb/ton emission values, and (2) to delete the unnecessary requirement for clinker production to be measured independently of preheater feed.

# Attachment 1







## Track & Confirm

### Current Status

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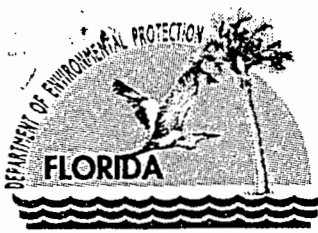
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# Department of Environmental Protection

Jeb Bush  
Governor

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<sub>x</sub>, SO<sub>2</sub>, 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



**Adams, Patty**

---

**From:** Linero, Alvaro  
**Sent:** Thursday, April 29, 2004 9:29 AM  
**To:** 'Chuck Yagel'  
**Subject:** RE: Probable Excursion

Thanks Chuck.

I don't know if there is a CEMS monitor on the finish mill stacks. I referred the matter to our district office who are responsible for compliance.

By the way, we received an application for some air construction permit changes. We sent a hardcopy of the application to you as you requested. We included your name on the list of recipients on Department actions for this request.

Thank you. Al Linero.

-----Original Message-----

**From:** Chuck Yagel [mailto:cyagel@bellsouth.net]  
**Sent:** Thursday, April 29, 2004 9:19 AM  
**To:** Linero, Alvaro  
**Subject:** Probable Excursion



Good Morning, Al:

Please check Suwannee American Cement's emissions for Emissions Unit 006 today 29 April, 2004 at 08:30

One of the Finish mill stacks was emitting a significant visible plume which was being carried downwind over and onto my property.

As you know, these stacks are monitored by CEMS opacity monitors. As such, it should be no difficulty to check the performance to show the probability of broken bag(s) in one of the baghouses.

As soon as I noticed this problem, I notified SAC control.

Thanks in advance

Chuck Yagel

SUWANNEE AMERICAN CEMENT MAILING LIST

Mr. Jim Stevenson  
DEP  
Ecosystem Management

Frank Darabi, P.E.  
President  
Darabi & Assoc., Inc.  
730 NE Waldo Rd., Bldg. A  
Gainesville, FL 32641

Mr. Tom Workman  
Florida Park Service  
District 2 Administration  
4801 SE 17 Street  
Gainesville, FL 32641-9213  
(352) 955-2135  
sc 625-2135  
fax (352) 955-2139

Mr. Mark Latch  
DEP  
Division of Recreation and Parks

Ms. December McSherry  
P O Box 679  
Archer, FL 32618

Mr. Svenn Lindskold  
Save our Suwannee  
Post Office Box 669  
Bell, Florida 32619

Mr. Tom Greenhalgh  
1211 Paul Russell Road,  
Tallahassee, 32301-7102

Mr. Dave Bruderly  
1826 NW 57th Terrace  
Gainesville, Florida 32605

Mr. Chris Bird  
Director of Alachua Co. Dept. of Environmental Regulation  
~~226 South Main Street~~  
Gainesville, Florida ~~32601~~

*201 SE 2nd Ave, Ste. 201  
32601*

Mr. John Mousa  
Alachua Co. Dept. of Environmental Regulation  
226 South Main Street  
Gainesville, Florida 32601

Ms. Penny Wheat, Chair  
Alachua Co. Board of Co. Commissioners  
P O Box 2877  
Gainesville, FL 32602

Mr. J. Calvin Gaddy  
P O Box 147  
St. James City, FL 33956

SAC

Ms. Patrice Boyes, Esq.  
Boyes & Associates, PA  
P O Box 1424  
Gainesville, FL 32602

Ms. Kathy Cantwell  
1701 SW 117 St.  
Gainesville, Fl., 32607  
(Conservation chair, Suwannee/St. John's Sierra club)

Mr. Ralph Ashodian  
Route 2, Box 5751  
Santa Fe Road  
Fort White, FL 32038

Mr. Craig Pittman  
St. Petersburg Times  
PO Box 1121  
St. Petersburg, FL 33731  
Fax 727-893-8675  
727-893-8530

Ms. Virginia A. Seacrist  
Sisotter@gator.net  
1029 NW 39th Drive  
Gainesville, FL 32605

Dr. R.A. (Bob) and Lynn Milner  
medjob@job4u.com  
716 Stewart St.  
Englewood FL 34223

Ms. Linda Pollini  
arttek@gate.net  
P.O. Box 423  
Archer, FL 32618

Helen Beaty  
4306 NW 20th Drive  
Gainesville, FL 32605

1301 Maymont Dr. or 1/29/03  
Mumfreesboro, TN 37130-2316

Bessie Robinson  
1995 Georgia Circle, South  
Clearwater, FL 33760

PO Box 10538  
St. Pete, FL  
33733-0538  
or 4/28/03

8499 269E 1000 02E0 1002

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- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
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1. Article Addressed to:  
 Mr. Celso Martini, Plant Manager  
 Suwannee American Cement  
 Post Office Box 410  
 Branford, Florida 32008

2. Article Number (Transfer from service label) 7001 0320 0001 3692 6648

PS Form 3811, August 2001

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 X *Melida Brown*  Addressee

B. Received by (Printed Name) C. Date of Delivery  
*Melida Brown* 6-1-04

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

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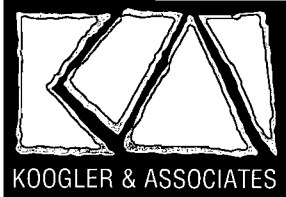
8499 269E 1000 02E0 1002

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

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

See reverse for instructions



**KOOGLER & ASSOCIATES**  
**ENVIRONMENTAL SERVICES**

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

624-03-11  
April 26, 2004

**RECEIVED**

APR 27 2004

Via USPS

**BUREAU OF AIR REGULATION**

Ms. Trina Vielhauer, Bureau Chief  
Florida Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**Subject: Suwannee American Cement Company**  
**FDEP File No. 1210465-004-AC (PSD-FL-259C)**  
**Air Construction Permitting Matters**

Dear Trina:

In accordance with recent discussions between your office and the Suwannee American Cement Company (SAC), we are submitting the attached air construction permit application to address three matters. These matters are:

1. A request to extend the expiration date of the present SAC Air Construction Permit (1210465-004-AC) from June 30, 2004 to June 30, 2006,
2. To request approval to proceed with the flyash injection project, and
3. To request a revision in the permit language authorizing the installation of a system to utilize tire-derived fuel.

These matters have been discussed with you and your staff, and the attached information is in accordance with these discussions. The attached application provides the information necessary to support the matters addressed herein.

Also enclosed is a check in the amount of \$300.00 payable to the Florida Department of Environmental Protection for processing the application.

If there are any questions regarding the attached information, please do not hesitate to contact me at 352-377-5822 or [jkoogler@kooglerassociates.com](mailto:jkoogler@kooglerassociates.com).

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D., P.E.

JBK/lt

cc: Celso Martini, SAC Plant Manager  
Joe Horton, SAC Environmental Manager

*Chris Risto*  
*Cherch Uppehl*



# Department of Environmental Protection

## Division of Air Resource Management

### APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

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

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

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

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

**Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option)** – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

#### Identification of Facility

1. Facility Owner/Company Name: Suwannee American Cement	
2. Site Name: Branford Cement Plant	
3. Facility Identification Number: 1210465	
4. Facility Location... Street Address or Other Locator: 5117 U.S. Hwy 27 City: Branford                                  County: Suwannee                                  Zip Code: 32008	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

#### Application Contact

1. Application Contact Name: John B. Koogler, Ph.D., P.E.	
2. Application Contact Mailing Address... Organization/Firm: Koogler and Associates, Inc. Street Address: 4014 NW 13 <sup>th</sup> Street City: Gainesville                                  State: FL                                  Zip Code: 32609	
3. Application Contact Telephone Numbers... Telephone: (352) 377 - 5822        ext.        Fax: (352) 377 - 7158	
4. Application Contact Email Address: jkoogler@kooglerassociates.com	

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	4-27-04
2. Project Number(s):	1210465-008-AC    1210465-009-AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	



## APPLICATION INFORMATION

### Purpose of Application

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

#### **Air Construction Permit**

Air construction permit.

#### **Air Operation Permit**

Initial Title V air operation permit.

Title V air operation permit revision.

Title V air operation permit renewal.

Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

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

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

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

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

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

### Application Comment

The purpose of this Air Construction Permit is threefold :

1. Extend the expiration date of Permit 1210465-004-AC (PSD-FL-259C) from June 30, 2004 to June 30, 2006. See letter (Attachment 001) from Suwannee American Cement (SAC) for the request and the rationale for the request ;
2. To change the point of introduction of fly-ash (a raw material) from the top of the preheater to a point in the precalciner. This project is described in Attachment 002. This project will require the installation of a small fly-ash dust collector (baghouse) with a Potential to Emit (PTE) of 0.9 tpy (tons per year) of PM. This application includes the information necessary to permit this new Emission Point ; and
3. To change the permit language to authorize the installation of a tire-derived fuel (TDF) feed system that is a hybrid of the direct TDF feed system and the TDF gassifier presently authorized by Permit 1210465-004-AC. Suggested permit language is included in Attachment 003.

# APPLICATION INFORMATION

## Scope of Application

<b>Emissions Unit ID Number</b>	<b>Description of Emissions Unit</b>	<b>Air Permit Type</b>	<b>Air Permit Proc. Fee</b>
002	Raw material processing operations controlled by Baghouse	AC1F	\$250
Permit	Extend expiration date of Permit	ACM1	\$ 50

## Application Processing Fee

Check one:  Attached - Amount: \$ 300.00       Not Applicable

**APPLICATION INFORMATION**

**Application Responsible Official Certification**

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

1. Application Responsible Official Name: <b>Celso A. Martini – Plant Manager</b>
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: <b>Suwannee American Cement</b> Street Address: <b>Post Office Box 410</b> City: <b>Branford</b> State: <b>Florida</b> Zip Code: <b>32008</b>
4. Application Responsible Official Telephone Numbers... Telephone: <b>(386) 935-5000</b> ext. <b>2516</b> Fax: <b>(386) 935-5080</b>
5. Application Responsible Official Email Address: <u><a href="mailto:celsom@suwanneecement.com">celsom@suwanneecement.com</a></u>
6. Application Responsible Official Certification: <i>I, the undersigned, am a responsible official of the <del>Title V</del> 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. <del>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.</del></i>  Signature _____ Date _____

## APPLICATION INFORMATION

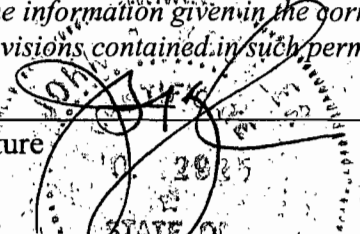
### Application Responsible Official Certification NA

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

1. Application Responsible Official Name:
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <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.
3. Application Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
4. Application Responsible Official Telephone Numbers... Telephone: ( ) - ext. Fax: ( ) -
5. Application Responsible Official Email Address:
6. Application Responsible Official Certification: <i>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: John B. Koogler, Ph.D., P.E. Registration Number: 12925
2. Professional Engineer Mailing Address... Organization/Firm: Koogler and Associates, Inc. Street Address: 4014 NW 13 <sup>th</sup> Street City: Gainesville State: FL Zip Code: 32609
3. Professional Engineer Telephone Numbers... Telephone: (352) 377 - 5822 ext. Fax: (352) 377 - 7158
4. Professional Engineer Email Address: jkoogler@kooglerassociates.com
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>4/26/04</u> (seal) 

\* Attach any exception to certification statement.

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### **Facility Location and Type**

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

#### **Facility Contact**

1. Facility Contact Name: Joe B. Horton, Environmental Manager
2. Facility Contact Mailing Address... Organization/Firm: Suwannee American Cement Street Address: 5117 US Hwy 27 City: Branford State: FL Zip Code: 32008
3. Facility Contact Telephone Numbers: Telephone: (386) 935 - 5039 ext. Fax:(386) 935 - 5080
4. Facility Contact Email Address: jbhorton@suwanneecement.com

#### **Facility Primary Responsible Official**

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

1. Facility Primary Responsible Official Name: Celso A. Martini – Plant Manager
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Suwannee American Cement Street Address: Post Office Box 410 City: Branford State: FL Zip Code: 32008
3. Facility Primary Responsible Official Telephone Numbers... Telephone: (386) 935 - 5000 ext. 2516 Fax:(386) 935 - 5080
4. Facility Primary Responsible Official Email Address: celsom@suwanneecement.com

## FACILITY INFORMATION

### Facility Regulatory Classifications

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

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

**FACILITY INFORMATION**

**List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	A	N
PM10	A	N
SO <sub>2</sub>	A	N
NO <sub>x</sub>	A	N
CO	A	N
VOC	B	N
DIOX	B	N
H114	B	N



**FACILITY INFORMATION**

**B. EMISSIONS CAPS N/A**

**Facility-Wide or Multi-Unit Emissions Caps**

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]?(all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment: NONE

## 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: (1) _____
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: 002 _____ <input checked="" type="checkbox"/> Previously Submitted, Date: (2) _____
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: (1) _____

#### Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted Facility)
2. Description of Proposed Construction or Modification: <input checked="" type="checkbox"/> Attached, Document ID: 002
3. Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: (1)
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): <input type="checkbox"/> Attached, Document ID: (1) <input type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): <input type="checkbox"/> Attached, Document ID: (1) _____ <input type="checkbox"/> Not Applicable
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

## FACILITY INFORMATION

### Additional Requirements for FESOP Applications

- |   |
|---|
| 1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):<br><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility) |
|---|

### Additional Requirements for Title V Air Operation Permit Applications

- |  |
|--|
| 1. List of Insignificant Activities (Required for initial/renewal applications only):<br><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (revision application)   |
| 2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):<br><input type="checkbox"/> Attached, Document ID: _____<br><input checked="" type="checkbox"/> Not Applicable (revision application with no change in applicable requirements)   |
| 3. Compliance Report and Plan (Required for all initial/revision/renewal applications):<br><input type="checkbox"/> Attached, Document ID: N/A _____<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 On site but Not Required to be Individually Listed<br><input checked="" 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 checked="" type="checkbox"/> Not Applicable  |
| 6. Requested Changes to Current Title V Air Operation Permit:<br><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable  |

### Additional Requirements Comment

- |  |
|--|
| (1) Submitted with original AC application<br>(2) Diagram of Flyash Injection project attached as 001. Diagram of plant previously submitted with original AC application. |
|--|

## EMISSIONS UNIT INFORMATION

Section [1] of [1]

### III. EMISSIONS UNIT INFORMATION

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

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

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

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

**EMISSIONS UNIT INFORMATION**

Section [1] of [1] [EU-002 : Raw Material Processing]

**A. GENERAL EMISSIONS UNIT INFORMATION**

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

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

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

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

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

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

2. Description of Emissions Unit Addressed in this Section: Raw Materials Processing Operations controlled by Baghouse.

3. Emissions Unit Identification Number: 002

4. Emissions Unit Status Code: A	5. Commence Construction Date: NA	6. Initial Startup Date: NA	7. Emissions Unit Major Group SIC Code: 32	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
-------------------------------------	--------------------------------------	--------------------------------	---	--

9. Package Unit:  
Manufacturer: NA Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment: None

**EMISSIONS UNIT INFORMATION**

**Section [1] of [1] [EU-002 : Raw Material Processing]**

**Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:  
Fabric Filter – Low Temperature on Flyash Silo.

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

**EMISSIONS UNIT INFORMATION**

Section [1] of [1] [EU-002 : Raw Material Processing]

**B. EMISSIONS UNIT CAPACITY INFORMATION****(Optional for unregulated emissions units.)****Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate: 20 tph (1)		
2. Maximum Production Rate: NA		
3. Maximum Heat Input Rate: million Btu/hr NA		
4. Maximum Incineration Rate: pounds/hr NA tons/day		
5. Requested Maximum Operating Schedule:		
hours/day	24	days/week 7
weeks/year	52	hours/year 8760
6. Operating Capacity/Schedule Comment: Flyash constitutes approximately 8-10 percent of the raw meal feed to the kiln; or 14-18 tons per hour. For design purposes the silo discharge rate is 20 tph. The silo filling rate will be approximately 25-35 tph.		
<u>NOTE:</u> As shown in Attachment 002, there are two flyash silos; a 980 ton and an 850 ton silo. The two silos will discharge at a common point and emissions from the two silos will be controlled by a single dust collector (baghouse).		

**EMISSIONS UNIT INFORMATION**

Section [1] of [1] [EU-002 : Raw Material Processing]

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: Attachment 002		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:  Dust collector (baghouse) for two flyash silos.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: H	6. Stack Height: 170 feet	7. Exit Diameter: 2.2 feet	
8. Exit Temperature: 90°F	9. Actual Volumetric Flow Rate: 2650 acfm	10. Water Vapor: 3 %	
11. Maximum Dry Standard Flow Rate: 2468 dscfm		12. Nonstack Emission Point Height: feet NA	
13. Emission Point UTM Coordinates...NA Zone: East (km): North (km):		14. Emission Point Latitude/Longitude...NA Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Dust Collector Specifications : Flow - 2650 acfm - 2468 dscfm Cloth Area - 685 sq. ft Air/Cloth Ratio - 3.87 Number of Bags - 45			



**EMISSIONS UNIT INFORMATION**

Section [1] of [1] [EU-002 : Raw Material Processing]

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type): Industrial Processes, Mineral Products, Cement Manufacturing (Dry Process), Raw Material Unloading		
2. Source Classification Code (SCC): 3-05-006-07	3. SCC Units: Tons unloaded	
4. Maximum Hourly Rate: 50	5. Maximum Annual Rate: 143,000	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment: Silo Filling		

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

1. Segment Description (Process/Fuel Type): Industrial Processes, Mineral Products, Cement Manufacturing (Dry Process), Raw Material Transfer		
2. Source Classification Code (SCC): 3-05-006-12	3. SCC Units: Tons handled	
4. Maximum Hourly Rate: 20	5. Maximum Annual Rate: 143,000	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment: Silo Discharge Rate		

**EMISSIONS UNIT INFORMATION**

Section [ ] of [ ]

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

**Segment Description and Rate:** Segment \_\_ of \_\_

1. Segment Description (Process/Fuel Type): NA		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

**Segment Description and Rate:** Segment \_\_ of \_\_

1. Segment Description (Process/Fuel Type): NA		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

**EMISSIONS UNIT INFORMATION**

Section [1] of [1] [EU-002 : Raw Material Processing]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

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

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

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

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>PM</b>	2. Total Percent Efficiency of Control: 99%
3. Potential Emissions: 0.21 lb/hour                      0.93 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 0.01 gr/dscf  Reference: BACT	7. Emissions Method Code: 0
8. Calculation of Emissions: <u>Hourly:</u> 2468 dscfm x 60 min/hr x 0.01 gr/dscf x 1/7000 lb/gr = 0.21 lb/hr  <u>Annual:</u> 0.21 lb/hr x 8760 hr/yr x 1/2000 ton/lb = 0.93 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: None	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

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

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>PM10</b>	2. Total Percent Efficiency of Control: 99%
3. Potential Emissions: 0.18 lb/hour                      0.78 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 0.0085 gr/dscf  Reference: BACT	7. Emissions Method Code: 0
8. Calculation of Emissions: <u>Hourly</u> : PM x 0.85 = 0.21 x 0.85= 0.18 lb/hr  <u>Annual</u> : PM x 0.85 = 0.93 x 0.85 = 0.78 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: None	

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

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

**Allowable Emissions** Allowable Emissions 1 of 2 (PM)

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.01 gr/dscf	4. Equivalent Allowable Emissions: 0.21 lb/hour      0.93 tons/year
5. Method of Compliance: EPA Method 9	
6. Allowable Emissions Comment (Description of Operating Method): BACT; Rule 62-212.400, F.A.C.	

**Allowable Emissions** Allowable Emissions 2 of 2 (PM10)

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.0085 gr/dscf	4. Equivalent Allowable Emissions: 0.18 lb/hour      0.78 tons/year
5. Method of Compliance: EPA Method 9	
6. Allowable Emissions Comment (Description of Operating Method): BACT; Rule 62-212.400, F.A.C.	

**EMISSIONS UNIT INFORMATION**

Section [1] of [1] [EU-002 : Raw Material Processing]

**G. VISIBLE EMISSIONS INFORMATION**

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

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

1. Visible Emissions Subtype: VE05	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity:5% Normal Conditions:                      0 %                      Exceptional Conditions:                      5 % Maximum Period of Excess Opacity Allowed:                      0 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: BACT; Rule 62-212.400, F.A.C.	

**EMISSIONS UNIT INFORMATION**

Section [1] of [1] [EU-002 : Raw Material Processing]

**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor \_\_\_ of \_\_\_

1. Parameter Code:NA	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	



**EMISSIONS UNIT INFORMATION**

Section [1] of [1] [EU-002 : Raw Material Processing]

**I. EMISSIONS UNIT ADDITIONAL INFORMATION**

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

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>001</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: <u>NA</u> <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>001</u> <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>Unknown</u> <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ _____ <input checked="" type="checkbox"/> Not Applicable  Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**EMISSIONS UNIT INFORMATION**

Section [1] of [1] [EU-002 : Raw Material Processing]

**Additional Requirements for Air Construction Permit Applications**

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications NA**

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

**Additional Requirements Comment**

None

Attachment 001

Request to Extend Expiration Date of Permit



**Suwannee American Cement, LLC**

5117 US Hwy. 27  
P.O. Box 410  
Branford, FL 32008-0410  
(386) 935-5000 • Fax (386) 935-5080

**April 21, 2004**

Ms. Trina Vielhauer  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road, MS 5500  
Tallahassee, Florida 32399-2400

**Subject: Suwannee American Cement Company  
Permit 1210465-004-AC (PSD-FL-259C)  
Air Construction Permit Extension**

Dear Ms. Vielhauer:

Suwannee American Cement Company (SAC) was issued Air Construction Permit 1210465-001-AC (PSD-FL-259) on June 1, 2000. The permit was modified by the Department on January 16, 2003, 1210465-003-AC (PSD-FL-259B). The expiration date for the latest construction permit is June 30, 2004.

Following previous discussions with the Department and in accordance with Condition 6, Section II, *Facility-Wide Specific Conditions*, SAC would like to request an extension of the construction permit through June 30, 2006. This would allow SAC time to further pursue a Tire Fuel Substitution System and avoid expiration of the construction permit. This extension would also allow for time to construct as well as commission such a project. Depending on the complexity of the system selected further information may need to be submitted regarding a testing or commissioning plan.

Please find included a check in the amount of \$300 payable to the Florida Department of Environmental Protection for the processing fee for extending the expiration date and the Fly Ash Injection construction permit.

If you should have any questions please feel free to contact me anytime at (386) 935-5039.

Sincerely,

A handwritten signature in black ink, appearing to read "J Horton". The signature is stylized with a large initial "J" and a cursive "Horton".

Joe Horton  
Suwannee American Cement

Enclosure: Check

cc: Al Linero - FDEP Tallahassee  
Chris Kirts - FDEP Jacksonville  
Dr. John Koogler - Koogler & Associates

Attachment 002

**Engineering Report for Flyash Injection Project**



**Suwannee American Cement, LLC**

5117 US Hwy. 27  
P.O. Box 410  
Branford, FL 32008-0410  
(386) 935-5000 • Fax (386) 935-5080

**April 21, 2004**

Ms. Trina Vielhauer  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road, MS 5500  
Tallahassee, Florida 32399-2400

**Subject: Suwannee American Cement Company  
Permit 1210465-004-AC (PSD-FL-259C)  
Fly Ash Injection Project**

Dear Ms. Vielhauer:

Please find enclosed additional information regarding the Fly Ash Inject Project.

If you should have any additional question please feel free to contact me at (386) 935-5039.

Sincerely,

Joe Horton  
Suwannee American Cement

cc: Al Linero - FDEP Tallahassee  
Chris Kirts - FDEP Jacksonville  
Dr. John Koogler - Koogler & Associates



# FLY ASH INJECTION PROJECT

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## **PROJECT OVERVIEW**

Suwannee American Cement (SAC) is considering the installation of a dry fly ash injection system to introduce fly ash directly into the calciner of the kiln system. SAC has observed a similar system at another cement plant in the U. S. and is of the opinion that this project offers an opportunity to further reduce total hydrocarbon (THC)/volatile organic compound (VOC), carbon monoxide (CO), and possibly nitrogen oxides (NO<sub>x</sub>) emissions from the plant. It should be noted that this project is not necessary to allow SAC to meet the emission limits for the aforementioned compounds; but is proposed as a pollution reduction project.

The project would consist of a storage bin for dry fly ash and a pneumatic delivery system to transport the fly ash to an injection point in the calciner at the base of the preheater tower. Particulate matter emissions from the storage bin would be controlled by a fabric filter (baghouse) dust collector. No emissions would be associated with the pneumatic delivery system or the injection of the fly ash into the calciner. The estimated cost of this project is around 1.2 million dollars.

## **PURPOSE**

Fly ash is used as a raw material in the clinker manufacturing process and is currently mixed with other raw materials such as limestone, sand, and a source of iron prior to being dried and ground to form kiln feed. The fly ash constitutes approximately 8-10 percent of the material mix and helps to provide the chemical composition of kiln feed required to produce clinker.

The fly ash is a byproduct of coal-fired electric power plants, which can be used in the cement manufacturing process as a source of aluminum. The utilization of fly ash by the cement industry benefits the cement industry as a readily available raw material and reduces the disposal burden on electric utility companies.

In addition to aluminum and other inorganic minerals, fly ash also contains minor amounts of carbonaceous material from the incomplete combustion of coal. As with any carbonaceous material, the material in fly ash will burn completely and efficiently if there is high temperature, turbulent mixing, and sufficient oxygen. These three conditions exist in the calciner where the fly ash will be injected as a result of this proposed project, but not at the top of the preheater tower where the kiln feed is introduced.

By introducing the fly ash into the calciner the chemical components of the fly ash are still introduced in the kiln system and incorporated into the clinker just as if the fly ash was introduced with the kiln feed at the top of the preheater tower. The main advantage of introducing the fly ash directly into the calciner is the avoidance of the volatilization of the carbonaceous material contained in the fly ash with the subsequent formation of THC, VOC, and CO. If formed as intermediate combustion products in the calciner, these

compounds would immediately be combusted and would not be released to the atmosphere. If these same compounds, however, are formed due to gradual heating of the kiln feed in the upper portions of the preheater tower, there are not conditions that will assure the combustion of these compounds and they will be released to the atmosphere.

To summarize the two fly ash feed options, the conventional procedure for handling fly ash is to blend it into the kiln feed and introduce all of the kiln feed at the top of the preheater tower. The second option is to pneumatically feed the fly ash into the calciner at the base of the preheater tower with the remaining ingredients of the kiln feed fed at the top of the preheater tower.

**CONVENTIONAL FLY ASH FEED:** When the fly ash is incorporated with the kiln feed, the kiln feed is introduced to the kiln system at the top of the preheater tower where the temperature is in the range of 750-800°F. From that point, the kiln feed travels downward through the preheater tower, increasing in temperature until it reaches the calciner where the temperature is approximately 1500 °F. During the progression of the kiln feed down through the preheater, the lower temperatures at the top of the preheater tower first volatilize the carbonaceous material in the fly ash to produce THC and VOC. Some of these products of incomplete combustion are then oxidized to CO. Once the THC, VOC, and CO is formed, it moves with the gas stream which is moving up the preheater tower counter to the kiln feed. These gases eventually pass through the particulate matter control system and are released to the atmosphere. This potential occurs because once the gases are formed, there is not sufficient temperature for the completion of combustion.

**FLY ASH INJECTION TO CALCINER:** When the fly ash is injected directly into the calciner, it mixes with the kiln feed, which has been introduced at the top of the preheater. The temperature in the calciner as a result of fuel fired to the calciner and the hot off-gases from the cement kiln is in the range of 1500°F. Additionally, there is turbulence and oxygen available, and under these conditions the carbonaceous material in the fly ash is completely combusted along with the fuel fired to the calciner. With the complete combustion of the carbonaceous material, THC, VOC, and CO are not produced, and the emission of these gases to the atmosphere is avoided.

### **BENEFITS**

This projects offers an opportunity to further reduce emissions of THC/VOC, CO and possibly NO<sub>x</sub>, although SAC can not presently estimate the precise amount of the reductions in these emissions.

SAC previously operate the kiln system for a limited time with bauxite as a raw material instead of fly ash. Bauxite contains aluminum, another inorganic mineral supplied by fly ash, but has less carbonaceous material. During this period of operation, SAC did observed noticeably lower CO emissions.

SAC has also observed CO being generated from kiln feed in the preheater tower. SAC has the ability to monitor CO for process purposes at several locations including the exit of the calciner and the exit of the preheater tower. It is not uncommon for CO concentrations to be higher at the exit of the preheater tower than at the exit of the calciner; demonstrating the formation of CO from components of kiln feed in the preheater rather than the formation of CO from inefficient fuel combustion in the kiln and calciner. The fraction of the CO (and THC and VOC) formed in preheater tower as a result of carbonaceous material in the fly ash can be eliminated by the proposed fly ash injection project.

While the fly ash injection project is not necessary to allow SAC to achieve the permitted THC, VOC, and CO emission limits, it will result in a reduction in the already low emission rates of these compounds.

Another potential advantage of the fly ash injection system is a reduction in NO<sub>x</sub> emissions. With less THC, VOC, and CO present in the exhaust gases from the kiln system, fewer process adjustments will be required to maintain a stable kiln operation. As a result of more stable kiln operating conditions, lower NO<sub>x</sub> emissions can be maintained more easily and with more consistency.

Included in Figure 1 is the estimated cost for the project. Please also find a Drawing for the Fly Ash Project and a drawing for the Fly Ash Dust Collector.

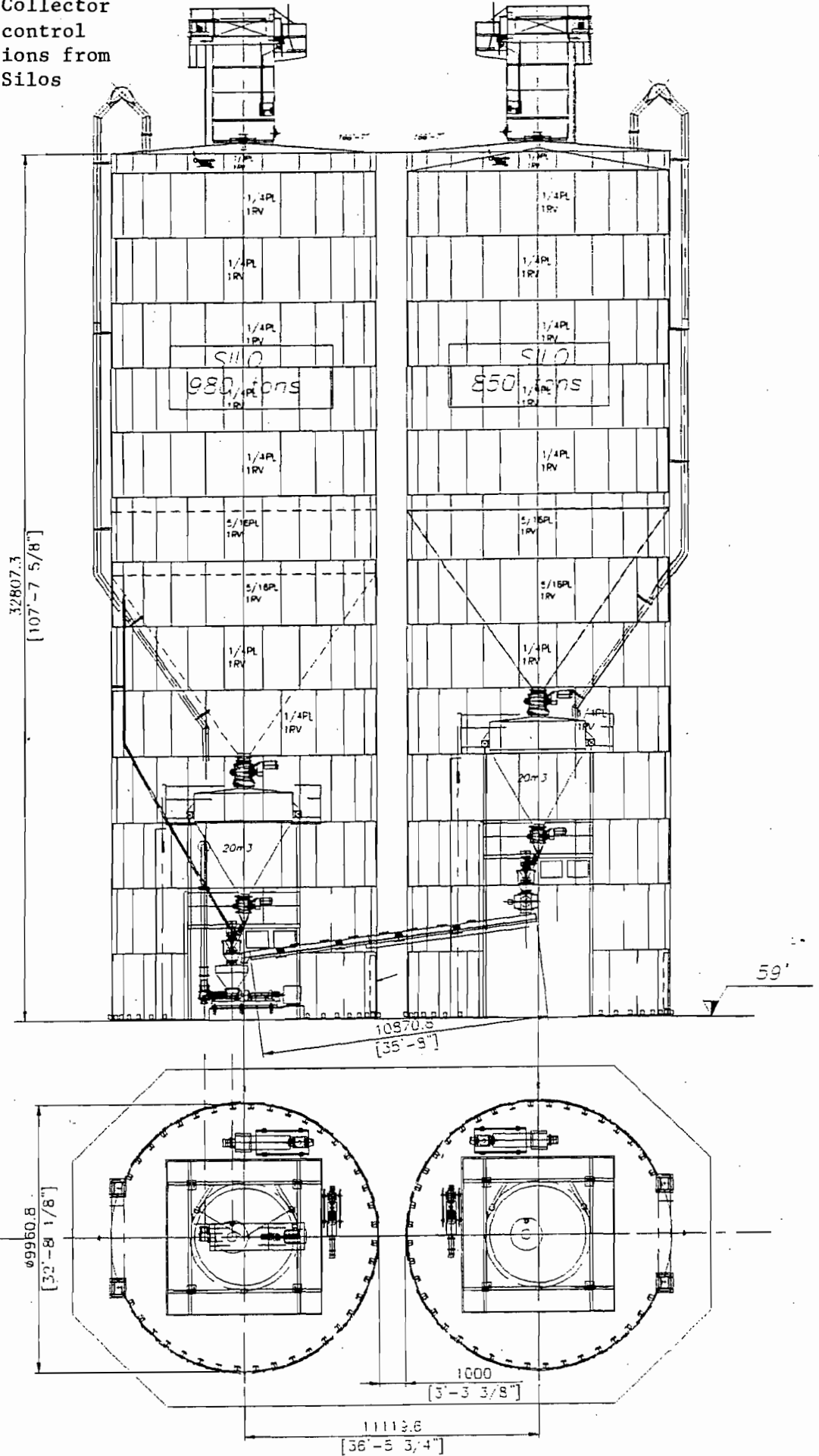
**Figure 1: Summary of Cost Estimation**  
**Project: Fly Ash Project - Suwannee**

**Date: 12/5/2003**

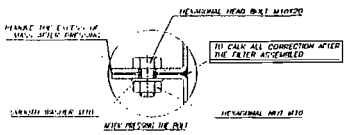
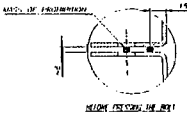
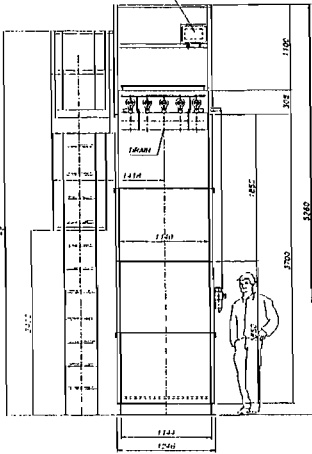
**PRELIMINARY ESTIMATION**

Plan	Description	Total Cost
		SAC
		ESS
M1	M1 - Truck Unloading System	\$25,479.00
M2	M2 - Metallic silos	\$326,846.81
M3	M3 - Silo Bottom Fluidization System	\$19,850.91
M4	M4 - Pneumatic Transport System	\$147,743.21
M5	M5 - Platforms and staircases	\$49,356.78
M6	M6 - Pulse Jet Filter	\$12,306.45
M7	0	\$0.00
M8	0	\$0.00
E1	E1	\$39,895.61
E2	0	\$0.00
E3	0	\$0.00
E4	0	\$0.00
E5	0	\$0.00
S1	S1 - Mechanical Services - Brazil	\$47,912.49
S3	S3 - Electrical Services- Brazil	\$8,196.83
S5	S5 - Civil Services - Brazil	\$10,688.67
S2	S2 - Mechanical Services USA	\$354,586.49
S4	S4 - Electrical Services - USA	\$70,560.00
S6	S6 - Civil Services - USA	\$95,828.06
<b>TOTAL</b>		<b>\$1,209,251.30</b>

NOTE: A single  
Dust Collector  
will control  
emissions from  
both Silos



ELECTRIC PROGRAMMER P8116/1 - 112/200



EXTERNAL HEAD WIRE MOUNTED  
INTERNAL HEAD WIRE

EXTERNAL HEAD WIRE MOUNTED  
INTERNAL HEAD WIRE

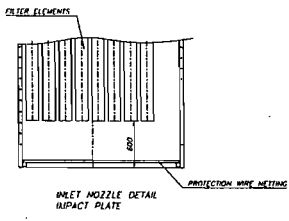
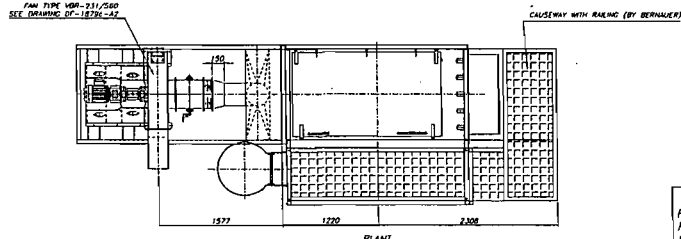
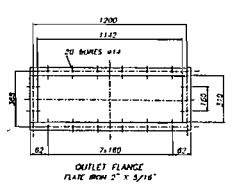
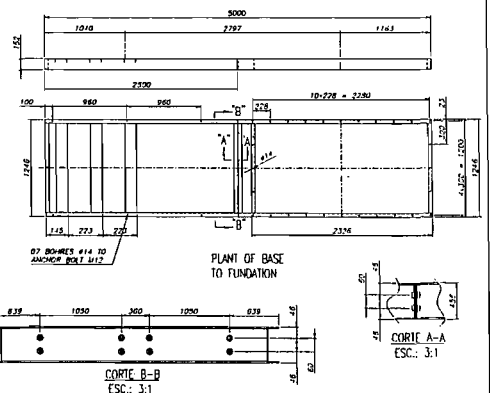
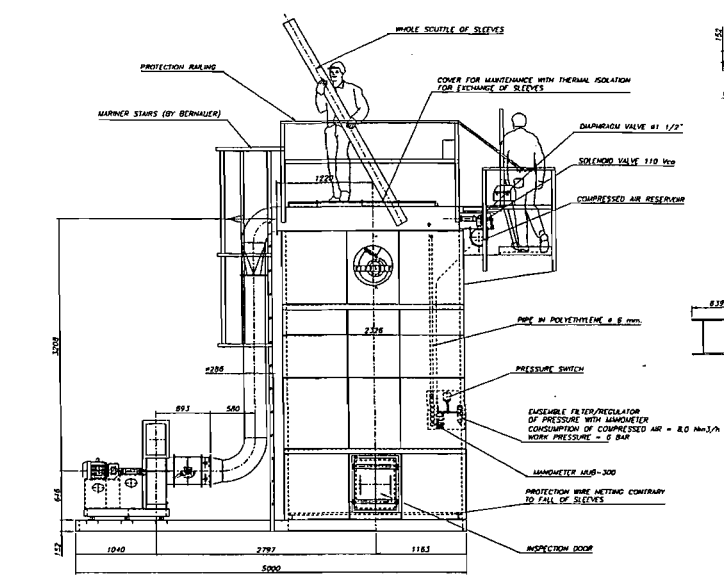
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INTERNAL HEAD WIRE

EXTERNAL HEAD WIRE MOUNTED  
INTERNAL HEAD WIRE

EXTERNAL HEAD WIRE MOUNTED  
INTERNAL HEAD WIRE

EXTERNAL HEAD WIRE MOUNTED  
INTERNAL HEAD WIRE

EXTERNAL HEAD WIRE MOUNTED  
INTERNAL HEAD WIRE



WEIGHT

FILTER	2850	kg
FAN	350	kg
BASE	230	kg
PIPE	102	kg

CONSTRUCTION MATERIALS

FILTER FRAME	CH: 1/2"
HOPPER	CH: 3/16"
HEADSTOCK	CH: 3/16"
MIRROR OF THE HEADSTOCK	CH: 1/4"

DESIGN TO APPROBATION

PRINCIPAL TECHNICAL CHARACTERISTICS

OUTPUT: 1500 m<sup>3</sup>/h  
 WEIGHT AIR TO FILTER: 800 kg  
 RELEASE AIRFLOW: 25.71 m<sup>3</sup>/min  
 LOSS OF VACUUM: 900 mmHg  
 OPERATION TEMPERATURE: 80 °C  
 ADJUSTABLE PRESSURE LIMIT: 900 mmHg

CLIENT: RESERVATION CANADIAN COIL  
 SUBSYSTEM N°: COMPLETION OF 10/10/92  
 QUANTITY: 01 UNIT  
 FINALITY: EXHAUSTING SYSTEM OF THE ASHES OF SOIL

QUANT. OX TO LAST CITY  
 QUANT. OX TO JACKSONVILLE  
 QUANT. OX TO OKLAHOMA

VENILAORES BERNAUER S.A.  
 SLEEVES AUTOMATIC FILTER  
 TYPE FBS-ESP-45, S.O. 11-5140

REV.	DATE	BY	CHK.	DATE	BY	CHK.
2	18/04/92	C.B.	J.F.M./M.A.	04	11/05/92	M.A./M.A.
1	11/04/92	C.B.	J.F.M./M.A.	02	11/04/92	M.A./M.A.
0	11/04/92	C.B.	J.F.M./M.A.	01	11/04/92	M.A./M.A.

STATE: 128  
 SHEET 1 OF 1  
 DES. EP-18782-USA-A1

2	REVEN - BSE													
1	REVEN - HOCHE NEON													
0	CONSTRUCTION IN PROGRESS													

DATE: 11/05/92  
 BY: M.A./M.A.

**Attachment 003**

**Suggested Change in Permit Language  
Authorizing the Installation of a TDF System**

## SUGGESTED REVISION TO PERMIT CONDITION

### Section III

#### Subsection B

##### Operational Requirements

2. **Fuels:** (no change)

- a. Strike the entire Existing Condition 2.a. and replace with:

Whole tires and/or shredded tires (collectively referred to as Tire Derived Fuel or TDF) may be fired directly into the pyroprocessing system at the transition section between the base of the precalciner and the point where gases exit the kiln. The tire feeder mechanism shall be designed with a double air lock. When TDF is fired entirely in this manner it shall be fired at a rate not to exceed a maximum heat input of ten percent of the total pyroprocessing system heat input, not to exceed 36.4 mmBTU per hour at any time. The remaining 90 percent of the total pyroprocessing heat input shall be derived from firing natural gas, coal, or petroleum coke.

- b. ~~Whole tires and tire derived fuel TDF may be fed...~~

- c. ~~Tires and tire derived fuel shall be fired in either manner a. or b. above not both at any given time.~~ TDF may be fed into a hybrid system consisting of a mechanism to fire TDF directly into the pyroprocessing system as described in Paragraph a. (above) and a companion mechanism that introduces TDF at a point between the kiln inlet and precalciner in a manner that allows the TDF to gasify and burn in suspension at or near the point of introduction. TDF fed into the hybrid system may be fed at a rate not to exceed a maximum heat input of 40 percent of the total pyroprocessing system heat input, not to exceed 145.6 mmBTU per hour at any time. The remaining 60 percent of the total pyroprocessing system heat input shall be derived from firing natural gas, coal, or petroleum coke. The tire feeder mechanisms associated with the hybrid system shall have air locks, and solid byproducts from the



hybrid system shall be introduced directly into the pyroprocessing system.

- d. TDF shall be fired in either manner a. or b. or c. above, but not by more than one of the above described methods at any given time.

Rational:

The TDF feed systems described in proposed Specific Condition 2.a. and 2.b. (above) are currently authorized by the SAC Air Construction Permit. As an alternative to these two systems, SAC recently received a proposal for a proprietary system that combines the introduction of TDF in the transition section between the base of the precalciner and the point where the gases exit the kiln (as described in Specific Condition 2.a.) and the introduction of TDF in the riser duct between the kiln inlet and the precalciner. The TDF fed into the riser duct is fed with a mechanism that suspends the TDF while it gasifies/burns in the riser duct. The fundamentals of this system are shown in Attachment A.

The supplier of the hybrid system states that the system can be used to provide up to 40 percent of the heat input required by the pyroprocessing system.

SAC intends to investigate the hybrid system more thoroughly, and if it appears feasible and meets with Department approval, SAC would like the opportunity to install the hybrid system without reopening the air construction permit to amend permit language to authorize such an installation.

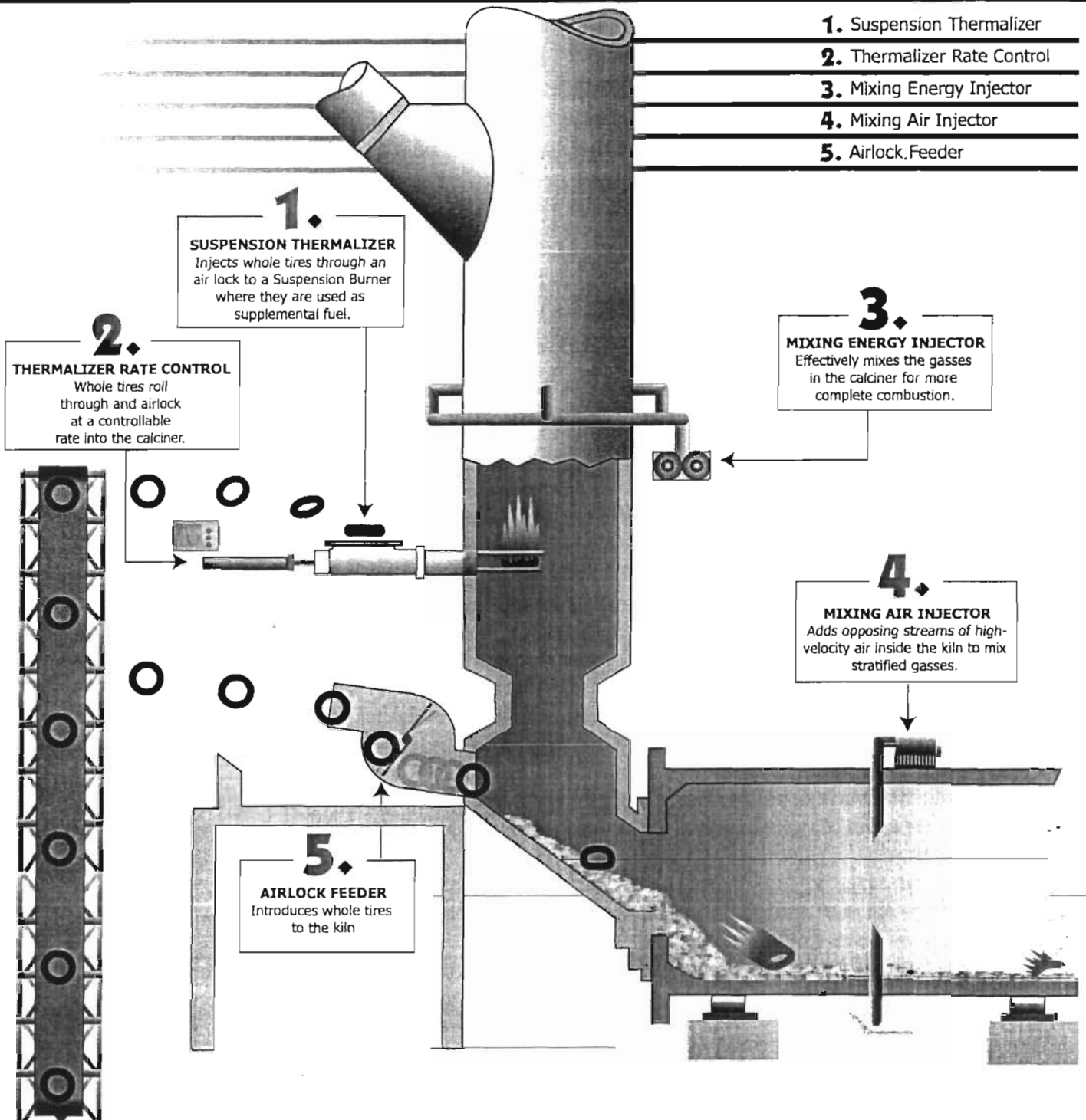
Attachment A

**Cadence TDF Feed System**

# Preheater / Precalciner Technology

## SUSPENSION THERMALIZER SYSTEM

- Up To 40% Fuel Substitution Rates -

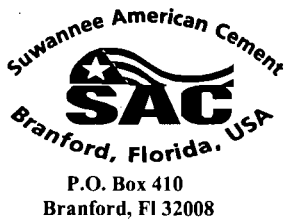


To see more technologies from the patent portfolio of Cadence contact:

Cadence Environmental Energy  
 Cadence Park Plaza  
 Michigan City, IN 46360  
 Phone: 219.879.0371  
 Web: [www.cadencerecycling.com](http://www.cadencerecycling.com)



Cadence  
 Environmental Energy



July 28, 2004

Mr. Al Linero  
Division of Air Resources  
Department of Environmental Protection  
2600 Blair Stone Road, MS # 5505  
Tallahassee, Florida 32399-2400

RECEIVED

AUG 06 2004

BUREAU OF AIR REGULATION

**SUBJECT:** Construction Permit Application  
Suwannee American Cement – Branford Plant  
Facility ID No. 1210465  
PSD-FL-259D

Dear Mr. Linero:

In accordance with our previous discussions, Suwannee American Cement hereby submits the attached construction permit application. This application provides additional information regarding certain items covered by the construction permit application submitted on April 26, 2004, and it addresses the following matters:

1. Department of Environmental Protection Construction Permit Application – Long Form, completed by Koogler and Associates.
2. Fly Ash Injection Project Description (additional information re production increase)
3. Request for approval to construct and operate a permanent Hydrated Lime System.
4. Request for revision to clarify permit language in reference to additional means to determine clinker production and remove wheel wash.

Also enclosed is a check in the amount of \$350.00 payable to the Florida Department of Environmental Protection for processing the application.

If you have any questions, please feel free to contact me at (386) 935-5039.

Sincerely,

Joe Horton  
Suwannee American Cement

CC: Celso Martini – SAC  
Dr. John Koogler – Koogler & Associates

C. Kints, WED  
C. Yagel

# Attachment 1

## Application for Construction Permit



# Department of Environmental Protection

## Division of Air Resource Management

### APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

- Air Construction Permit** – Use this form to apply for an air construction permit for a proposed project:
- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
  - where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
  - at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.
- Air Operation Permit** – Use this form to apply for:
- an initial federally enforceable state air operation permit (FESOP); or
  - an initial/revised/renewal Title V air operation permit.
- Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option)** – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions

#### Identification of Facility

1. Facility Owner/Company Name: Suwannee American Cement	
2. Site Name: Branford Cement Plant	
3. Facility Identification Number: 1210465	
4. Facility Location... Street Address or Other Locator: 5117 U.S. Hwy 27 City: Branford                              County: Suwannee                              Zip Code: 32008	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

#### Application Contact

1. Application Contact Name: John B. Koogler, Ph.D., P.E.
2. Application Contact Mailing Address... Organization/Firm: Koogler and Associates, Inc. Street Address: 4014 NW 13 <sup>th</sup> Street City: Gainesville                      State: FL                      Zip Code: 32609
3. Application Contact Telephone Numbers... Telephone: (352) 377 - 5822      ext.      Fax: (352) 377 - 7158
4. Application Contact Email Address: jkoogler@kooglerassociates.com

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	8-6-04
2. Project Number(s):	1210465-011-AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

## APPLICATION INFORMATION

### Purpose of Application

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

#### **Air Construction Permit**

Air construction permit.

#### **Air Operation Permit**

Initial Title V air operation permit.

Title V air operation permit revision.

Title V air operation permit renewal.

Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

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

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

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

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

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

### Application Comment

The purpose of this air construction permit is threefold :

1. To provide additional information related to the flyash injection project initially addressed in an Air Construction Permit Application dated April 26, 2004. The additional information includes a request for a clinker production rate increase which is a side benefit of flyash injection ;
2. A request for approval to construct and operate a permanent hydrated lime system for supplemental SO<sub>2</sub> control ; and
3. A request to revise two conditions in Permit 1210465-001-AC specifying the requirements for determining clinker production and wheel wash.

**APPLICATION INFORMATION**

**Scope of Application**

<b>Emissions Unit ID Number</b>	<b>Description of Emissions Unit</b>	<b>Air Permit Type</b>	<b>Air Permit Proc. Fee</b>
002	Raw material processing operations controlled by Baghouse	AC1F	\$250
004	In-line Kiln/Raw Mill controlled by Baghouse	ACM1	\$50
005	Clinker Cooler controlled by ESP	ACM1	\$50

**Application Processing Fee**

Check one:  Attached - Amount: \$ 350.00  Not Applicable



## APPLICATION INFORMATION

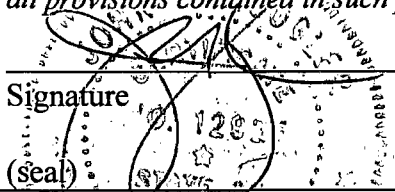
### Application Responsible Official Certification

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

1. Application Responsible Official Name: <b>Celso A. Martini – Plant Manager</b>
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: <b>Suwannee American Cement</b> Street Address: <b>Post Office Box 410</b> City: <b>Branford</b> State: <b>Florida</b> Zip Code: <b>32008</b>
4. Application Responsible Official Telephone Numbers... Telephone: <b>(386) 935-5000</b> ext. <b>2516</b> Fax: <b>(386) 935-5080</b>
5. Application Responsible Official Email Address: <u><b>celsom@suwanneecement.com</b></u>
6. Application Responsible Official Certification: <i>I, the undersigned, am a responsible official of the <del>Title V</del> 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. <del>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.</del></i>  Signature _____ Date <u>8-2-04</u>

**APPLICATION INFORMATION**

**Professional Engineer Certification**

1. Professional Engineer Name: John B. Koogler, Ph.D., P.E. Registration Number: 12925
2. Professional Engineer Mailing Address... Organization/Firm: Koogler and Associates, Inc. Street Address: 4014 NW 13 <sup>th</sup> Street City: Gainesville State: FL Zip Code: 32609
3. Professional Engineer Telephone Numbers... Telephone: (352) 377 - 5822 ext. Fax: (352) 377 - 7158
4. Professional Engineer Email Address: jkoogler@kooglerassociates.com
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>8/2/04</u>

\* 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)      321.4 km North (km)    3315.9 km		2. Facility Latitude/Longitude... Latitude (DD/MM/SS)    29/57/45 Longitude (DD/MM/SS) 82/51/03	
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 32	6. Facility SIC(s): 3241
7. Facility Comment : None			

#### Facility Contact

1. Facility Contact Name: Joe B. Horton, Environmental Manager
2. Facility Contact Mailing Address... Organization/Firm: Suwannee American Cement Street Address: 5117 US Hwy 27 City: Branford                      State: FL                      Zip Code: 32008
3. Facility Contact Telephone Numbers: Telephone: (386) 935 - 5039      ext.    Fax:(386) 935 - 5080
4. Facility Contact Email Address: jbhorton@suwanneecement.com

#### Facility Primary Responsible Official

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

1. Facility Primary Responsible Official Name: Celso A. Martini – Plant Manager
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Suwannee American Cement Street Address: Post Office Box 410 City: Branford                      State: FL                      Zip Code: 32008
3. Facility Primary Responsible Official Telephone Numbers... Telephone: ( 386 ) 935 - 5000      ext. 2516    Fax:(386) 935 - 5080
4. Facility Primary Responsible Official Email Address: celsom@suwanneecement.com

## FACILITY INFORMATION

### Facility Regulatory Classifications

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

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

## FACILITY INFORMATION

### List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	A	N
PM10	A	N
SO <sub>2</sub>	A	N
NO <sub>x</sub>	A	N
CO	A	N
VOC	B	N
DIOX	B	N
H114	B	N

**FACILITY INFORMATION**

**B. EMISSIONS CAPS N/A**

**Facility-Wide or Multi-Unit Emissions Caps**

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
7. Facility-Wide or Multi-Unit Emissions Cap Comment: NONE					

## 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: (1) _____
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: 001-003 <input type="checkbox"/> Previously Submitted, Date: _____
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: (1) _____

#### Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted Facility)
2. Description of Proposed Construction or Modification: <input checked="" type="checkbox"/> Attached, Document ID: 001-003
3. Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: (1)
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): <input type="checkbox"/> Attached, Document ID: (1) <input type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): <input type="checkbox"/> Attached, Document ID: (1) <input type="checkbox"/> Not Applicable
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

## FACILITY INFORMATION

### Additional Requirements for FESOP Applications

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

### Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities (Required for initial/renewal applications only):  
 Attached, Document ID: \_\_\_\_\_  Not Applicable (revision application)

2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):

- Attached, Document ID: \_\_\_\_\_  
 Not Applicable (revision application with no change in applicable requirements)

3. Compliance Report and Plan (Required for all initial/revision/renewal applications):

- Attached, Document ID: N/A

Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):

- Attached, Document ID: \_\_\_\_\_  
 Equipment/Activities On site but Not Required to be Individually Listed  
 Not Applicable

5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :

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

6. Requested Changes to Current Title V Air Operation Permit:

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

### Additional Requirements Comment

- (1) Submitted with original AC application  
(2) Supporting information for the following requests are in Attachments :  
1. Hydrated Lime Project – 001  
2. Flyash Injection Project – 002  
3. Clinker Rate Determination - 003



## EMISSIONS UNIT INFORMATION

Section [1] of [1]

### III. EMISSIONS UNIT INFORMATION

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

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

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

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

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

**A. GENERAL EMISSIONS UNIT INFORMATION****Title V Air Operation Permit Emissions Unit Classification**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

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

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

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

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

2. Description of Emissions Unit Addressed in this Section: Raw Materials Processing Operations controlled by Baghouse.

3. Emissions Unit Identification Number: 002

4. Emissions Unit Status Code: A	5. Commence Construction Date: NA	6. Initial Startup Date: 2/03	7. Emissions Unit Major Group SIC Code: 32	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit:

Manufacturer: NA

Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment: None

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

**Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:  
Fabric Filter – Low Temperature on Lime Silo.

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

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

**B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate: 30 tph
2. Maximum Production Rate: NA
3. Maximum Heat Input Rate: million Btu/hr NA
4. Maximum Incineration Rate: pounds/hr NA tons/day
5. Requested Maximum Operating Schedule: hours/day 24 days/week 7 weeks/year 52 hours/year 8760
6. Operating Capacity/Schedule Comment: Hydrated lime will be introduced with preheater feed at the top of the preheater, as necessary to control SO <sub>2</sub> (See Attachment 001). The lime will be fed pneumatically from a 40 ton capacity silo to the preheater at a rate of up to approximately one percent of the preheater feed rate; or about 20-25 tons per hour. For design purposes, the silo discharge rate is 30 tph. The silo filling rate will be approximately 50 tph.  <u>NOTE:</u> As shown in Attachment 001, there is one 40 ton silo. The emissions from the silo will be controlled by a dust collector (baghouse).

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: Attachment 001		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:  Dust collector (baghouse) for 40-ton lime silo.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: H	6. Stack Height: 45 feet	7. Exit Diameter: 2.2 feet	
8. Exit Temperature: 90°F	9. Actual Volumetric Flow Rate: 2650 acfm	10. Water Vapor: 3 %	
11. Maximum Dry Standard Flow Rate: 2468 dscfm		12. Nonstack Emission Point Height: feet NA	
13. Emission Point UTM Coordinates...NA Zone: East (km): North (km):		14. Emission Point Latitude/Longitude...NA Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Dust Collector Specifications : Flow - 2650 acfm - 2468 dscfm Cloth Area - 685 sq. ft Air/Cloth Ratio - 3.87 Number of Bags - 45			

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type): Industrial Processes, Mineral Products, Cement Manufacturing (Dry Process), Raw Material Unloading		
2. Source Classification Code (SCC): 3-05-006-07		3. SCC Units: Tons unloaded
4. Maximum Hourly Rate: 50	5. Maximum Annual Rate: 100,000	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment: Silo Filling		

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

1. Segment Description (Process/Fuel Type): Industrial Processes, Mineral Products, Cement Manufacturing (Dry Process), Raw Material Transfer		
2. Source Classification Code (SCC): 3-05-006-12		3. SCC Units: Tons handled
4. Maximum Hourly Rate: 30	5. Maximum Annual Rate: 100,000	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment: Silo Discharge Rate		

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	018	None	EL
PM10	018	None	EL

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>PM</b>	2. Total Percent Efficiency of Control: 99%
3. Potential Emissions: 0.21 lb/hour                      0.93 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 0.01 gr/dscf  Reference: BACT	7. Emissions Method Code: 0
8. Calculation of Emissions: <u>Hourly</u> : 2468 dscfm x 60 min/hr x 0.01 gr/dscf x 1/7000 lb/gr = 0.21 lb/hr  <u>Annual</u> : 0.21 lb/hr x 8760 hr/yr x 1/2000 ton/lb = 0.93 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: None	



**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>PM10</b>	2. Total Percent Efficiency of Control: 99%
3. Potential Emissions: 0.18 lb/hour                      0.78 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 0.0085 gr/dscf  Reference: BACT	7. Emissions Method Code: 0
8. Calculation of Emissions: <u>Hourly</u> : PM x 0.85 = 0.21 x 0.85 = 0.18 lb/hr  <u>Annual</u> : PM x 0.85 = 0.93 x 0.85 = 0.78 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: None	

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

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

**Allowable Emissions** Allowable Emissions 1 of 2 (PM)

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.01 gr/dscf	4. Equivalent Allowable Emissions: 0.21 lb/hour      0.93 tons/year
5. Method of Compliance: EPA Method 9	
6. Allowable Emissions Comment (Description of Operating Method): BACT; Rule 62-212.400, F.A.C.	

**Allowable Emissions** Allowable Emissions 2 of 2 (PM10)

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.0085 gr/dscf	4. Equivalent Allowable Emissions: 0.18 lb/hour      0.78 tons/year
5. Method of Compliance: EPA Method 9	
6. Allowable Emissions Comment (Description of Operating Method): BACT; Rule 62-212.400, F.A.C.	

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

**G. VISIBLE EMISSIONS INFORMATION**

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

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

1. Visible Emissions Subtype: VE05	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: 5% Normal Conditions: 0 % Exceptional Conditions: 5 % Maximum Period of Excess Opacity Allowed: 0 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: BACT; Rule 62-212.400, F.A.C.	

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor \_\_\_ of \_\_\_

1. Parameter Code:NA	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information...	
Manufacturer:	Serial Number:
Model Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

**I. EMISSIONS UNIT ADDITIONAL INFORMATION**

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

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>001</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: <u>NA</u> <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>001</u> <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>Unknown</u> <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable  Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**EMISSIONS UNIT INFORMATION**

Section [1] of [3] [EU-002 : Raw Material Processing]

**Additional Requirements for Air Construction Permit Applications**

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications NA**

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

**Additional Requirements Comment**

None
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**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

**A. GENERAL EMISSIONS UNIT INFORMATION**

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

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

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

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

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

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

2. Description of Emissions Unit Addressed in this Section: Kiln/Raw Mill; EU-004

3. Emissions Unit Identification Number: 002

4. Emissions Unit Status Code: A	5. Commence Construction Date: NA	6. Initial Startup Date: 2/03	7. Emissions Unit Major Group SIC Code: 32	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit:  
Manufacturer: NA Model Number:

10. Generator Nameplate Rating: MW NA

11. Emissions Unit Comment: This emission unit covers the pyroprocessing system from the raw mill (including auxillary air heater) to the point of clinker discharge from the kiln.

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]



**Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:  
Fabric Filter – High Temperature Kiln/Raw Mill Baghouse.

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

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

**B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate: 4920 ton/day feed
2. Maximum Production Rate: 2772 ton/day clinker
3. Maximum Heat Input Rate: 458 mmBTU/hr
4. Maximum Incineration Rate: pounds/hr NA tons/day
5. Requested Maximum Operating Schedule: hours/day 24 days/week 7 weeks/year 52 hours/year 8760
6. Operating Capacity/Schedule Comment: Kiln/Raw Mill will operate up to 8760 hours/yr with an annual production factor of approximately 0.92.

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: Attachment 002		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:  Baghouse discharge for Kiln/Raw Mill – E-21 Stack			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: V	6. Stack Height: feet 315	7. Exit Diameter: feet 9.42	
8. Exit Temperature: °F 230/375	9. Actual Volumetric Flow Rate: acfm 189,500/207,000	10. Water Vapor: % 15/11	
11. Maximum Dry Standard Flow Rate: dscfm 123,250/116,500		12. Nonstack Emission Point Height: feet NA	
13. Emission Point UTM Coordinates...NA Zone: East (km): North (km):		14. Emission Point Latitude/Longitude...NA Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: 3. Existing Kiln/Raw Mill Baghouse 8-11. Compound Operation (90+%/)/Direct Operation (10-%)			

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

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

**Segment Description and Rate:** Segment 1 of 6

1. Segment Description (Process/Fuel Type): Mineral Products: Cement Mfg: Dry Process: Preheater/Precalciner Kiln		
2. Source Classification Code (SCC): 3-05-006-23		3. SCC Units: Ton Feed
4. Maximum Rate: 4920 tpd	5. Maximum Annual Rate: 1,644,469 tpy	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment: Preheater/Precalciner Feed at a nominal rate of 205 tph		

**Segment Description and Rate:** Segment 2 of 6

1. Segment Description (Process/Fuel Type): Mineral Products: Cement Mfg: Dry Process: Preheater/Precalciner Kiln		
2. Source Classification Code (SCC): 3-05-006-23		3. SCC Units: Ton clinker
4. Maximum Rate: 2772 tpd	5. Maximum Annual Rate: 923,450	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: 3.96
10. Segment Comment: Clinker Production		

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 3 of 6

1. Segment Description (Process/Fuel Type): In-Process Fuel Use: Bituminous Coal: Cement Kiln		
2. Source Classification Code (SCC): 3-90-002-01	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 18.3 tph	5. Maximum Annual Rate: 160,483 tpy	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: 1.5%	8. Maximum % Ash: 10.0%	9. Million Btu per SCC Unit: 25 mmBTU/ton
10. Segment Comment: Coal as primary fuel at 12,520 BTU/lb		

**Segment Description and Rate:** Segment 4 of 6

1. Segment Description (Process/Fuel Type): In-Process Fuel Use: Coke: Cement Kiln		
2. Source Classification Code (SCC): 3-90-008-99	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 16.4 tph	5. Maximum Annual Rate: 143,664 tpy	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: 5%	8. Maximum % Ash: <1%	9. Million Btu per SCC Unit: 28 mmBTU/ton
10. Segment Comment: Petcoke at 14,000 BTU/lb		

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 5 of 6

1. Segment Description (Process/Fuel Type): In-Process Fuel Use: Natural Gas: Cement Kiln		
2. Source Classification Code (SCC): 3-90-006-02	3. SCC Units: Million Cubic Feet Burned	
4. Maximum Hourly Rate: 0.44 mm/hr	5. Maximum Annual Rate: 3821 mm/yr	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: Nil	8. Maximum % Ash: Nil	9. Million Btu per SCC Unit: 1050
10. Segment Comment: Natural Gas at 1050 mmBTU/cu. ft.		

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

1. Segment Description (Process/Fuel Type): In-Process Fuel Use: Solid Waste: General		
2. Source Classification Code (SCC): 3-90-012-99	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 1.9 tph	5. Maximum Annual Rate: 16,717 tpy	6. Estimated Annual Activity Factor: 0.092
7. Maximum % Sulfur: 1.5%	8. Maximum % Ash: 20%	9. Million Btu per SCC Unit: 24 mmBTU/ton
10. Segment Comment: Whole Tire Derived Fuel (WTDF) at 12,000 BTU/lb and 10% (45.8 mmBTU/hr) of system heat input.		

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>PM</b>	<b>016</b>	<b>None</b>	<b>EL</b>
<b>PM10</b>	<b>016</b>	<b>None</b>	<b>EL</b>
<b>SO<sub>2</sub></b>			<b>EL</b>
<b>NO<sub>x</sub></b>			<b>EL</b>
<b>CO</b>			<b>EL</b>
<b>VOC</b>			<b>EL</b>
<b>DIOX</b>			<b>EL</b>
<b>H106</b>			<b>NS</b>
<b>HAPS</b>			<b>NS</b>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>PM</b>	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 23.1 lb/hour                      92.9 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 0.113 lb/ton feed, or 0.200 lb/ton Clinker, equivalent rates Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions:  205 tph feed x 0.113 lb/ton = 23.1 lb/hr  115.5 tph clinker x 0.200 lb/ton = 23.1 lb/hr  923,450 tpy clinker x 0.2000 lb/ton/2000 = 92.9 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: NSPS and NESHAP limits are both 0.3 lb PM per ton of <u>feed</u> . SAC requests that the unitized emission rate be expressed as 0.200 lb/PM/ton clinker ; a rate equivalent to the feed rate limit of 0.113 lb/PM/ton feed.	



**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>PM10</b>	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 19.7 lb/hour                      78.9 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 0.096 lb/ton feed, or 0.171 lb/ton clinker, equivalent rates  Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions:  205 tph feed x 0.096 lb/ton = 19.7 lb/hr  115.5 tph clinker x 0.171 lb/ton = 19.7 lb/hr  923,450 tpy clinker x 0.171 lb/ton/2000 = 78.9 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: SAC requests that the unitized emission rate be expressed as 0.171 lb PM10/ton clinker ; a rate equivalent to the feed rate limit of 0.096 lb PM10/ton feed.	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: SO <sub>2</sub>	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 28.4 lb/hour                      113.6 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 0.246 lb/ton Clinker  Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions:  115.5 tph Clinker x 0.246 lb/ton = 28.4 lb/hr  923,450 tpy Clinker x 0.246 lb/ton/2000 = 113.6 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: NA	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>NOx</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: 335.0/300.3 lb/hour                      1200.5 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 2.9 lb/ton Clinker, 24-hr avg. 2.6 lb/ton Clinker, 30-day avg. Reference:	7. Emissions Method Code: 0
8. Calculation of Emissions:  115.5 tph Clinker x 2.9 lb/ton = 335.0 lb/hr, 24-hr avg.  115.5 tph Clinker x 2.6 lb/ton = 300.3 lb/hr, 30-day avg.  923,450 tpy Clinker x 2.6 lb/ton/2000 = 1200.5 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: SAC requests a 30-day NOx limit of 2.9 lb/ton Clinker (335.0 lb/hr and 1339.0 tpy) during the first calendar year after startup of the Flyash Injection System.	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>CO</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: 377.7 lb/hour      1509.8 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 3.27 lb/ton Clinker  Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions:  115.5 tph Clinker x 3.27 lb/ton = 377.7 lb/hr  923,450 tpy Clinker x 3.27 lb/ton/2000 = 1509.8 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: NA	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>VOC</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: 13.9 lb/hour                      55.4 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 0.12 lb/ton Clinker  Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions:  115.5 tpy Clinker x 0.12 lb/ton = 13.9 lb/hr  923,450 tpy Clinker x 0.12 lb/ton/2000 = 55.4 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: SAC requests an equivalent VOC limit of 14.9 ppmvd VOC (as propane) @ 7% O <sub>2</sub> . This limit will be consistent with the units of the NESHAP VOC limit.	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>DIOX</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: 1.8E-07 lb/hour      7.7E-07 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 0.4/0.2 ng/dscm @ 7% O <sub>2</sub> (1)  Reference: NESHAP	7. Emissions Method Code: 0
8. Calculation of Emissions:  117,175 dscfm (avg @ 7% O <sub>2</sub> ) x 1/35.31 m <sup>3</sup> /ft <sup>3</sup> x 60 min/hr x 0.4 ng/dscm x 1/454 E-09 lb/ng = 1.8E-07 lb/hr x 8760/2000 = 7.7E-07 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: 0.4 ng/dscm when kiln baghouse inlet temperature is <400EF, and 0.2 ng/dscm when kiln baghouse inlet temperature is ≥400EF.	

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

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

**Allowable Emissions** Allowable Emissions   1   of   7  ; PM

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.200 lb/ton clinker	4. Equivalent Allowable Emissions: 23.1 lb/hour      92.9 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Emission limit more stringent than NSPS and NESHAP	

**Allowable Emissions** Allowable Emissions   2   of   7  ; PM10

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.171 lb/ton clinker	4. Equivalent Allowable Emissions: 19.7 lb/hour      78.9 tons/year
5. Method of Compliance: EPA Method 5, with all PM assumed to be PM10	
6. Allowable Emissions Comment (Description of Operating Method):	

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

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

**Allowable Emissions** Allowable Emissions   3   of   7  ; SO<sub>2</sub>

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.246 lb/ton Clinker	4. Equivalent Allowable Emissions: 28.4 lb/hour      113.6 tons/year
5. Method of Compliance: SO <sub>2</sub> CEMS	
6. Allowable Emissions Comment (Description of Operating Method):	

**Allowable Emissions** Allowable Emissions   4   of   7  ; NO<sub>x</sub>

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: 1 yr following startup of flyash system
3. Allowable Emissions and Units: 2.9 (24-hr, avg)/2.6 (30-day, avg) lb/ton Clinker	4. Equivalent Allowable Emissions: 335.0/300.3 lb/hour      1200.5 tons/year
5. Method of Compliance: NO <sub>x</sub> CEMS	
6. Allowable Emissions Comment (Description of Operating Method): Hourly: 335.0 lb/hr, 24-hr avg and 300.3 lb/hr, 30-day avg  Annual: 1200.5 tpy, except during first year following startup of flyash injection system when NO <sub>x</sub> = 1339 tpy	



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

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

**Allowable Emissions** Allowable Emissions 5 of 7; CO

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 3.27 lb/ton Clinker	4. Equivalent Allowable Emissions: 377.7 lb/hour 1509.8 tons/year
5. Method of Compliance: EPA Method 10	
6. Allowable Emissions Comment (Description of Operating Method):	

**Allowable Emissions** Allowable Emissions 6 of 7; VOC

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.12 lb/ton Clinker	4. Equivalent Allowable Emissions: 13.9 lb/hour 55.4 tons/year
5. Method of Compliance: THC CEMS	
6. Allowable Emissions Comment (Description of Operating Method): SAC requests an equivalent VOC limit of 14.9 ppmvd VOC (as propane) @ 7% O <sub>2</sub> . NESHAP limit is 50 ppmvd THC @ 7% O <sub>2</sub> .	

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

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

**Allowable Emissions** Allowable Emissions 7 of 7; DIOX

1. Basis for Allowable Emissions Code: NESHAP	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.4/0.2 ng/dscm @ 7% O <sub>2</sub>	4. Equivalent Allowable Emissions: 1.8E-07 lb/hour 7.7E-07tons/year
5. Method of Compliance: EPA Method 23	
6. Allowable Emissions Comment (Description of Operating Method):	

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

**G. VISIBLE EMISSIONS INFORMATION**

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

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

1. Visible Emissions Subtype: VE10	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule-BACT <input type="checkbox"/> Other
3. Allowable Opacity: 10% Normal Conditions:                    0 %    Exceptional Conditions:                    10 % Maximum Period of Excess Opacity Allowed:                    min/hour	
4. Method of Compliance: COM	
5. Visible Emissions Comment: NESHAP and NSPS limit is 20%	

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004] Page [1] of [3]

**H. CONTINUOUS MONITOR INFORMATION****Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 1 of 6; VE

1. Parameter Code: VE	2. Pollutant(s): NA
3. CMS Requirement: <input checked="" type="checkbox"/> Rule-BACT <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SICK Model Number: 0MD41-M321 Serial Number:	
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment:	

**Continuous Monitoring System:** Continuous Monitor 2 of 6; SO<sub>2</sub>

1. Parameter Code: EM	2. Pollutant(s): SO <sub>2</sub>
3. CMS Requirement: <input checked="" type="checkbox"/> rule-BACT <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SICK Model Number: GM31 Serial Number: 8040-8003	
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment: SO <sub>2</sub> /NO/NO <sub>2</sub> Gas Analyzer	

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004] Page[2] of [3]

**H. CONTINUOUS MONITOR INFORMATION****Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 3 of 6; NOx

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule-BACT <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: SICK Model Number: GM31	Serial Number: 8040-8003
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment:  SO <sub>2</sub> /NO/NO <sub>x</sub> Gas Analyzer	

**Continuous Monitoring System:** Continuous Monitor 4 of 6; THC/VOC

1. Parameter Code: EM	2. Pollutant(s): THC
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule-BACT <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: SICK Model Number: EuroFID-3010	Serial Number: 005266-0300
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment:  Required by NESHAP and BACT	

**EMISSIONS UNIT INFORMATION**

**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor 5 of 6; TEMP

1. Parameter Code: TEMP	2. Pollutant(s): NA
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: Model Number: <span style="float: right;">Serial Number:</span>	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**Continuous Monitoring System:** Continuous Monitor 6 of 6; FLOW

1. Parameter Code: FLOW	2. Pollutant(s): NA
3. CMS Requirement: <input checked="" type="checkbox"/> Rule-BACT <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SICK Model Number: FLOWSIC - 100 <span style="float: right;">Serial Number:</span>	
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment:	

**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

**I. EMISSIONS UNIT ADDITIONAL INFORMATION**

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

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>002</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>Unknown</u>
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>Unknown</u>
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>Unknown</u> <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____  <input checked="" type="checkbox"/> Previously Submitted, Date: <u>8/03</u> Test Date(s)/Pollutant(s) Tested: <u>7-8/03</u>  <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____  <input type="checkbox"/> Not Applicable  Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: \_\_\_\_\_

Not Applicable



**EMISSIONS UNIT INFORMATION**

Section [2] of [3] [Kiln/Raw Mill – EU-004]

**Additional Requirements for Air Construction Permit Applications**

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications NA**

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

5. Acid Rain Part Application

NA, Continued

- Certificate of Representation (EPA Form No. 7610-1)
  - Copy Attached, Document ID: \_\_\_\_\_
- Acid Rain Part (Form No. 62-210.900(1)(a))
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- New Unit Exemption (Form No. 62-210.900(1)(a)2.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Not Applicable

**Additional Requirements Comment**

None

**EMISSIONS UNIT INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

**A. GENERAL EMISSIONS UNIT INFORMATION**

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

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

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

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

2. Description of Emissions Unit Addressed in this Section: Clinker Cooler; EU-005

3. Emissions Unit Identification Number: 002

4. Emissions Unit Status Code: A	5. Commence Construction Date: NA	6. Initial Startup Date: 2/03	7. Emissions Unit Major Group SIC Code: 32	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit:

Manufacturer: NA

Model Number:

10. Generator Nameplate Rating: MW NA

11. Emissions Unit Comment: This permit application addresses only a change in the clinker throughput rate (from 105 tph to 115.5. tph, 24-hr avg) and a change in PM/PM10 emission factors (lb/ton) so there will be no increase in mass emission rates (lb/hr and tpy).

**EMISSIONS UNIT INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

**Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:  
Clinker Cooler electrostatic precipitator (ESP).

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

**EMISSIONS UNIT INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

**B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate: 2772 tons per day
2. Maximum Production Rate: NA
3. Maximum Heat Input Rate: NA
4. Maximum Incineration Rate: pounds/hr NA tons/day
5. Requested Maximum Operating Schedule: hours/day 24 days/week 7 weeks/year 52 hours/year 8760
6. Operating Capacity/Schedule Comment: Annual clinker production is limited to 923,450 tons per year.

**EMISSIONS UNIT INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

**C. EMISSION POINT (STACK/VENT) INFORMATION****(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: K-15		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:  Clinker Cooler ESP stack (K-15) – Emission Unit 005			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: V	6. Stack Height: 115 feet	7. Exit Diameter: 11.0 feet	
8. Exit Temperature: 440°F	9. Actual Volumetric Flow Rate: 124,500 acfm	10. Water Vapor: 12 %	
11. Maximum Dry Standard Flow Rate: 64,300 dscfm		12. Nonstack Emission Point Height: feet NA	
13. Emission Point UTM Coordinates...NA Zone: East (km): North (km):		14. Emission Point Latitude/Longitude...NA Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: None			

**EMISSIONS UNIT INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type): Mineral Products: Cement Mfg: Dry Process: Clinker Cooler		
2. Source Classification Code (SCC): 3-05-006-14		3. SCC Units: Tons Clinker
4. Maximum Rate: 2772 tpd	5. Maximum Annual Rate: 923,450 tpy	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment: None		



**EMISSIONS UNIT INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>PM</b>	<b>010</b>	<b>NA</b>	<b>EL</b>
<b>PM10</b>	<b>010</b>	<b>NA</b>	<b>EL</b>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>PM</b>	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 12.5 lb/hour                      49.9 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 0.061 lb/ton feed, or 0.108 lb/ton clinker; equivalent rates Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions:  205 tph feed x 0.061 lb/ton = 12.5 lb/hr  115.5 tph clinker x 0.108 lb/ton = 12.5 lb/hr  923,450 tpy clinker x 0.108 lb/ton/2000 = 49.9 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: NSPS and NESHAP limits are both 0.1 lb PM per ton of <u>feed</u> . SAC requests that the unitized emission rate be expressed as 0.108 lb/PM/ton clinker; a rate equivalent to the feed rate limit of 0.061 lb/PM/ton feed.	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

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

**Potential/Estimated Fugitive Emissions**

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

1. Pollutant Emitted: <b>PM10</b>	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 10.7 lb/hour                      tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 0.052 lb/ton feed, or 0.093 lb/ton clinker; equivalent rates  Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions:  205 tph feed x 0.052 lb/ton = 10.7 lb/hr  115.5 tph clinker x 0.093 lb/ton = 10.7 lb/hr  923,450 tpy clinker x 0.093 lb/ton/2000 = 42.9 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: SAC requests that the unitized emission rate be expressed as 0.093 lb PM10/ton clinker; a rate equivalent to the feed rate limit of 0.052 lb PM10/ton feed.	

**EMISSIONS UNIT INFORMATION**

**POLLUTANT DETAIL INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

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

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

**Allowable Emissions** Allowable Emissions   1   of   2  ; PM

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.108 lb/ton clinker	4. Equivalent Allowable Emissions: 12.5 lb/hour            49.9 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Emission limit more stringent than NSPS and NESHAP	

**Allowable Emissions** Allowable Emissions   2   of   2  ; PM10

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.093 lb/ton clinker	4. Equivalent Allowable Emissions: 10.7 lb/hour            42.9 tons/year
5. Method of Compliance: EPA Method 5, with all PM assumed to be PM10	
6. Allowable Emissions Comment (Description of Operating Method):	

**EMISSIONS UNIT INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

**G. VISIBLE EMISSIONS INFORMATION**

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

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

1. Visible Emissions Subtype: VE10	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule-BACT <input type="checkbox"/> Other
3. Allowable Opacity: 10% Normal Conditions:                      0 %      Exceptional Conditions:                      10 % Maximum Period of Excess Opacity Allowed:                      min/hour	
4. Method of Compliance: COM	
5. Visible Emissions Comment:	

**EMISSIONS UNIT INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

**H. CONTINUOUS MONITOR INFORMATION**

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

**Continuous Monitoring System:** Continuous Monitor 1 of 1

1. Parameter Code: VE	2. Pollutant(s): NA
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule-BACT <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: SICK Model Number: OMD41-M321 Serial Number:	
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment:	

**EMISSIONS UNIT INFORMATION**

Section [3] of [3] [Clinker Cooler – EU-005]

**I. EMISSIONS UNIT ADDITIONAL INFORMATION**

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

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>003</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: ____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>Unknown</u>
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>Unknown</u>
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>Unknown</u> <input type="checkbox"/> Not Applicable

6. Compliance Demonstration Reports/Records

Attached, Document ID: \_\_\_\_\_

Test Date(s)/Pollutant(s) Tested: \_\_\_\_\_

Previously Submitted, Date: 8/03

Test Date(s)/Pollutant(s) Tested: 7-8/03

To be Submitted, Date (if known): \_\_\_\_\_

Test Date(s)/Pollutant(s) Tested: \_\_\_\_\_

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: \_\_\_\_\_

Not Applicable



**EMISSIONS UNIT INFORMATION**

**Section [3] of [3] [Clinker Cooler – EU-005]**

**Additional Requirements for Air Construction Permit Applications**

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications NA**

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

5. Acid Rain Part Application

NA, Continued

- Certificate of Representation (EPA Form No. 7610-1)
  - Copy Attached, Document ID: \_\_\_\_\_
- Acid Rain Part (Form No. 62-210.900(1)(a))
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- New Unit Exemption (Form No. 62-210.900(1)(a)2.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
  - Attached, Document ID: \_\_\_\_\_
  - Previously Submitted, Date: \_\_\_\_\_
- Not Applicable

**Additional Requirements Comment**

None

Attachments:

001 – Hydrated Lime

002 – Flyash Injection

003 – Clinker Production

# Attachment 2

## Fly Ash Project Description

# FLY ASH INJECTION PROJECT

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## PROJECT OVERVIEW

Suwannee American Cement (SAC) requested permission to construct and operate a dry fly ash injection system to introduce fly ash directly into the calciner of the kiln system on April 26, 2004. The following additional information is provided herein on the production increase that will result as an additional benefit of this project.

## PRODUCTION INCREASE INFORMATION

The installation of the Fly Ash Injection project will create additional production capacity in the kiln system, which in turn will result in an increase in production. This is exclusively due to the fact that approximately 10% of the current kiln feed (the fly ash component) will be introduced directly into the calciner instead of through the preheater tower.

Currently the blended and dried kiln feed is fed through the feed system to the top of the preheater tower. This kiln feed is made up of approximately 10% fly ash, 3% sand, 2% iron and 85% limestone on a dry weight basis. The kiln feed travels from the top of the preheater tower down through the 4-stage preheater tower undergoing further drying and eventually partial calcination in the bottom cyclone and calciner. The Fly Ash Injection Project will remove this 10% fly ash from the kiln feed and introduce this material directly into the calciner, thereby bypassing the entire preheater tower.

Fly ash, being a residual of coal combustion, does not need to travel through the preheater tower for drying and partial calcination. Fly ash only needs to be added prior to the sintering zone for its mineral composition to be incorporated into the final product, *clinker*. By introducing the fly ash directly into the calciner, the fly ash will bypass the preheater feed delivery system, preheater cyclones, and calciner; as a result, these systems will have additional capacity for the other preheater feed materials.

SAC desires to continue feeding the currently-permitted limit of 178 tons of preheater feed materials through the existing feed delivery system and preheater tower (as well as introducing the additional 10% fly ash directly into the calciner). This will require the changing of the existing preheater feed limit to an overall system limit. The preheater tower and riser duct portion of the calciner will continue to see current rates of 178 tons of preheater feed and only the rotary kiln will see the combined effect of the addition of the fly ash. This combined effect would result in approximately 10 tons of additional clinker production capacity due to the 10% fly ash being injected directly into the calciner and bypassing the previously-described portions of the preheater/precalciner. In a modern preheater/precalciner plant (like SAC's facility), air flow restrictions either as

result of limited cyclone capacity or fan capacity typically limit production. The introduction of the fly ash into the calciner bypasses these areas and is why the increase in capacity is realized. The rotary kiln and clinker cooler are typically not a limiting factor for production capacity, and at the SAC plant this equipment can handle the additional 10% of clinker production realized from this project.

## **BENEFITS**

The environmental benefits listed in the April 26 application include the following:

- Reduction in CO and THC emissions due to the fraction formed in preheater tower as a result of carbonaceous material in the fly ash being eliminated.
- Greater ability to control NO<sub>x</sub> emissions since CO/THC from fly ash in the preheater feed is now eliminated and reducing conditions at the precalciner can be created under more favorable conditions.
- More stable kiln operations due to the decrease in CO/THC generation in upper cyclones of the preheater.
- Increased flexibility in acceptance of varying types and quality of fly ash while still maintaining permitted emission limits.

The project also will result in increased thermal efficiency. The fly ash does not need to be added as wet component to the raw mill feed, thus injecting it directly into the calciner eliminates the unnecessary drying and grinding it presently undergoes in the Raw Mill. Fly ash can now be added as a dry substance (the form it occurs in after collection in the generating sources particulate control device). Similarly, due to its inherent fineness, fly ash does not need to undergo additional grinding with other raw materials. Fly ash also does not need to undergo the thermal heat exchange of the preheater process since it is a byproduct of coal combustion resulting in even more thermal efficiency of clinker production.

With the increase in production and efficiency as described above, the incremental increase in production will be less than the incremental increase in emissions. This will result in overall greater efficiency in mass emissions per ton of clinker. With preheater/precalciner kiln systems, as more production is achieved via greater efficiency the incremental change in emissions decreases until reaching some optimum emission efficiency. This is due to the fact that an inherent amount of thermal energy (fuel) is required in a given preheater/precalciner kiln system to produce quality clinker due to the thermally driven chemical reaction of the formation of clinker. This required baseline thermal load generates most of the emissions, especially for SAC since very small amounts of sulfur and organic materials are present in raw materials. As a kiln system finds way to increase the production beyond this point, the overall efficiency of emissions (expressed as pounds of emission per ton of clinker) will decrease.

Accordingly, the Fly Ash Injection Project will decrease the emissions per pound of clinker. Because of this increased emission efficiency, SAC proposes to keep its existing mass emission limits per time essentially the same (expressed both in pounds per hour and tons per year mass emission limits) but to lower all emission limits that are expressed in terms of pound per ton of clinker or preheater feed.

This increased efficiency allows SAC to produce more clinker with no significant increase in mass emissions. Indeed, SAC believes that this project actually will allow the further decrease in annual allowable NO<sub>x</sub> emissions beyond current permitted limits. SAC proposes that, using the suggested thirty-day operating average, it can reduce the emissions of NO<sub>x</sub> as expressed in pounds per ton of clinker from 2.9 down to 2.6. This effectively reduces annual allowable emissions of NO<sub>x</sub> by 17 tons.

## **PERMIT MODIFICATIONS**

The completion of the Fly Ash Injection Project will require some permit modifications to more accurately reflect the kiln system. In particular, the following areas will need to be reexamined:

- Fuel requirement will need to be updated to reflect the additional heat capacity needed to address the additional kiln feed. SAC proposes to change the heat input limits from 364 to 458 million Btu per hour (mmBtu/hr).
- Process Rate Limitations will need to be updated to reflect the new capacities as described above. The Fly Ash Injection project allows for the same 178 tons of dry preheater feed to be fed through the kiln system with the additional fly ash feed to be fed through the new Fly Ash Injection Project. Given the ability to injection of the fly ash into the calciner will allow fly ash with greater percentages of volatile fraction to the mineral fraction to be used. This requires more than the current 10% by dry mass feed rate to equal the 10% mineral composition need from the fly ash to produce clinker. For this reason a new limit of 205 tons of dried preheater feed and fly ash is required to insure that 115.5 tons of clinker can be produced. This in turn equals a yearly production total of dry preheater feed of 1,644,469 tons. This also will affect clinker production. SAC currently uses a LOI factor of 0.5899 based on ASTM test methods and process calculations. Using this factor, the calculated increase in clinker production from the Fly Ash Project would result in a new hourly production limit of 115.5 tons and a new yearly production limit of 923,450 tons of clinker.
- Means by which to calculate Process Rate Limitations. The separation of the fly ash from the preheater feed will now require SAC to combine the two inputs (preheater feed and fly ash) to determine the total kiln feed. The addition of the Fly Ash Injection Project will change the existing LOI for the dry preheater feed, and a LOI factor for Fly Ash will need to be developed. SAC proposes to develop and



update LOI factors on a quarterly basis using industry-proven test methods with corrections for dust return and other factors. This allows SAC greater accuracy as LOI factors may change based on variance in raw materials.

- The means by which clinker production is determined needs to be clarified as a result of the addition of fly ash directly into the calciner. The preheater feed and the fly ash should be evaluated with separate LOI factors and summed together to determine the total clinker production. The equation should be as follows:

$$(\text{Mass Input Preheater Feed} * \text{Preheater Feed LOI}) + (\text{Mass Input Fly Ash} * \text{Fly Ash LOI}) = \text{Mass Output Clinker}$$

- Emission Limits for the Kiln System need to be corrected for the pound per ton clinker limits, since clinker production will now increase. The annual mass emission limits (expressed as annual and pound per hour limits) will remain essentially the same, but limits related to production will be lowered. However, NO<sub>x</sub> Limits will be lowered on an annual basis by the implementation of a thirty-day, pound per ton limit. Since annual emission limits remain essentially the same or lower, no Prevention of Significant Deterioration (PSD) impacts can occur. In addition, the VOC limit should be converted to a part per million volume dry (ppmvd) basis to accurately correlate with the already existing NESHAP limit. The following table demonstrates the new adjusted emission limits.

Emissions from emissions unit 004, the in-line kiln/raw mill, shall not exceed the following limits for the following pollutants: [Emissions from the natural gas fired air heater are included in the limits below]

POLLUTANT	EMISSION LIMIT		AVERAGING TIME	BASIS
PM	<del>0.13</del> 0.113 lb/ton of dry preheater feed	23.1 lb/hour	3 hours 3	BACT
PM10	<del>0.11</del> 0.096 lb/ton of dry preheater feed	19.6 lb/hour	3 hours 3	BACT
SO2	<del>0.27</del> 0.246 lb/ton of clinker	28.4 lb/hour	3 hours 4	BACT
NOX	2.9 lb/ton of clinker 1	304.5 lb/hour 1	24 hours 4	BACT
	2.6 lb/ton clinker		30 days 4	BACT
CO	<del>3.6</del> 3.27 lb/ton of clinker	378.0 lb/hour	3 hours 5	BACT
VOC	<del>0.12</del> lb/ton of clinker 2	<del>12.6</del> lb/hour 2	30 days 6	BACT
	14.91 ppmvd VOC @7% O2 2			
	50.4 tons per year		Annual 6	BACT

- Additionally a twelve months period will be needed after completion of the Fly Ash Project for optimization of the project before SAC can achieve the reductions in NO<sub>x</sub> pound per ton of clinker limits. With the introduction of the new system many operational factors such as fuel to feed ratios, fuel location ratios, burner adjustments, temperature profiles, raw material feed ratios for quality, etc will need to be evaluated with new set points established before optimization of emissions can occur. SAC requests that during the first operational year of the Fly Ash Project, 2.8 pounds of NO<sub>x</sub> per ton of clinker be established as the 30-day limit until optimization of the project is completed. This would require the following permit changes:

[Note: These emission limits, along with annual production limits, effectively limit annual emissions to: PM, ~~92.8-92.9~~; PM<sub>10</sub>, ~~78.4 78.9~~; SO<sub>2</sub>, ~~113.4 113.6~~; NO<sub>x</sub>, ~~1217.5 1200.5~~; CO, ~~1511.1 1509.8~~; and VOC, 50.4 tons per year. First year NO<sub>x</sub> emissions are effectively limited to ~~1595.4 tons per year~~ and 1339.0 during two years of preconstruction, construction and optimization of Fly Ash Project. NO<sub>x</sub> emissions are estimated assuming that two startups as specified occur per year, each resulting in maximum allowable excess emissions. Mercury introduced into the pyroprocessing system is limited pursuant to specific condition 13 of this subsection of this permit; annual emissions of mercury are effectively limited by this condition to 97 pounds per year.]

- The low clinker production operating scenarios that allow SAC to exclude emissions from the pound per ton clinker limits due to low clinker production will need to be reevaluated for the new clinker production. This would insure the effectiveness and the intent of the low production operations mode.

## CONCLUSION

With the addition of the Fly Ash Project SAC can increase the production of clinker without a significant increase in mass emissions to the environment. SAC even predicts the ability to reduce NO<sub>x</sub> emissions after optimization of the project. SAC also can increase the thermal efficiency of its clinker production with this project. In addition, SAC gains more flexibility in the quality of fly ash used in the process which continues to recycle and utilize material that otherwise would be disposed of in a land fill.

# Hydrated Lime System Information

# HYDRATED LIME SYSTEM

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## OVERVIEW

Suwannee American Cement (SAC) requests authorization to install a permanent hydrated lime system for the control of SO<sub>2</sub> emissions. Under most circumstances, there are virtually no SO<sub>2</sub> emissions from the plant. This project will include features that will further reduce any SO<sub>2</sub> emissions and will provide additional assurances that any emissions will be well below the applicable emission limits.

The system will consist of a storage bin for hydrated lime and a pneumatic delivery system to transport the lime to the top of the preheater of the tower to be introduced with the kiln feed. Particulate matter emissions from the storage bin will be controlled by a fabric filter baghouse. No emissions will be associated with the pneumatic delivery system or the introduction of the lime into the kiln system.

## BENEFITS

**SAC BELIEVES THAT THIS SYSTEM WILL FURTHER REDUCE AND ALMOST COMPLETELY ELIMINATE SO<sub>2</sub> EMISSIONS.**

## DESCRIPTION

Hydrated lime is similar to the raw materials currently fed into the kiln system. When the SO<sub>2</sub> emissions are detected, the hydrated lime will be feed into the kiln system with the kiln feed. The hydrated lime will act as a scrubbing/absorbing agent similar to the raw materials in the raw mill/roller mill, effectively scrubbing virtually all of the SO<sub>2</sub> in the kiln exhaust gas and thereby resulting in further reduced SO<sub>2</sub> emissions. Since hydrated lime is similar to the limestone in the raw materials the hydrated lime is incorporated into the clinker. It is estimated that the hydrated lime will make up only a small portion (less then one percent) of the total kiln feed.

Presently, SO<sub>2</sub> emissions are close to zero for the vast majority of the time, so this system will only be used for short periods when there are SO<sub>2</sub> emissions for whatever reasons. The system will be controlled automatically by the CEM in the stack. The system will feed lime as SO<sub>2</sub> is detected in the stack and will control the dosage based on the concentration of SO<sub>2</sub> at the stack. This automation of the system will allow for the most efficient control and reduction of SO<sub>2</sub> emissions.

The department previously authorized SAC to test a temporary version of this hydrated lime system. The results of that test shows hydrated lime injection to be an effective method in further reducing SO<sub>2</sub> emissions. This request seeks authorization to install a storage bin and associated equipment to allow for the efficient operation of a hydrated lime system.

Included in Figure 1 and 2 are drawings of the Hydrated Lime System. Figure 3 includes the dust collector specifications.

Figure 1: Hydrated\_Lime  
Drawing

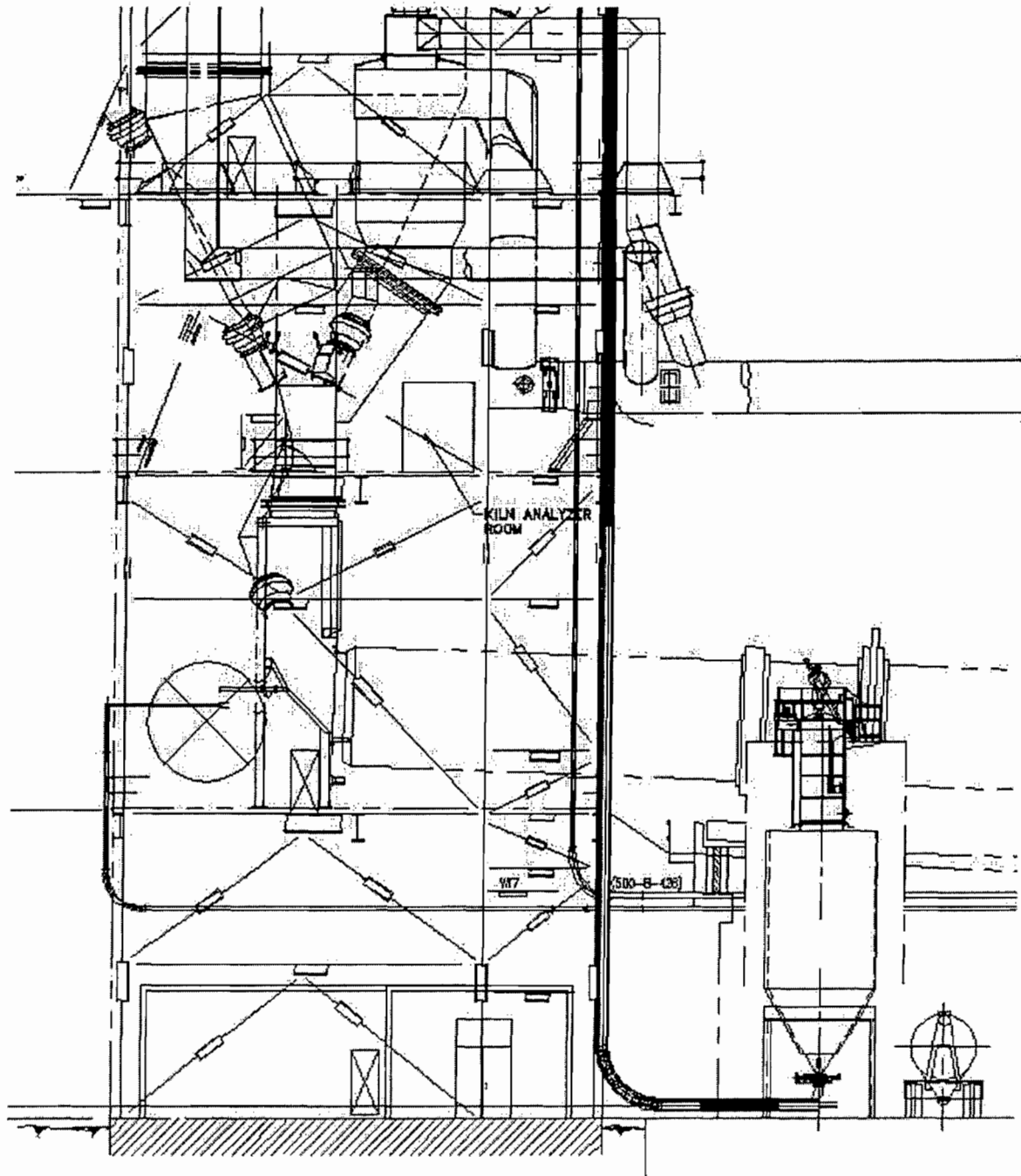
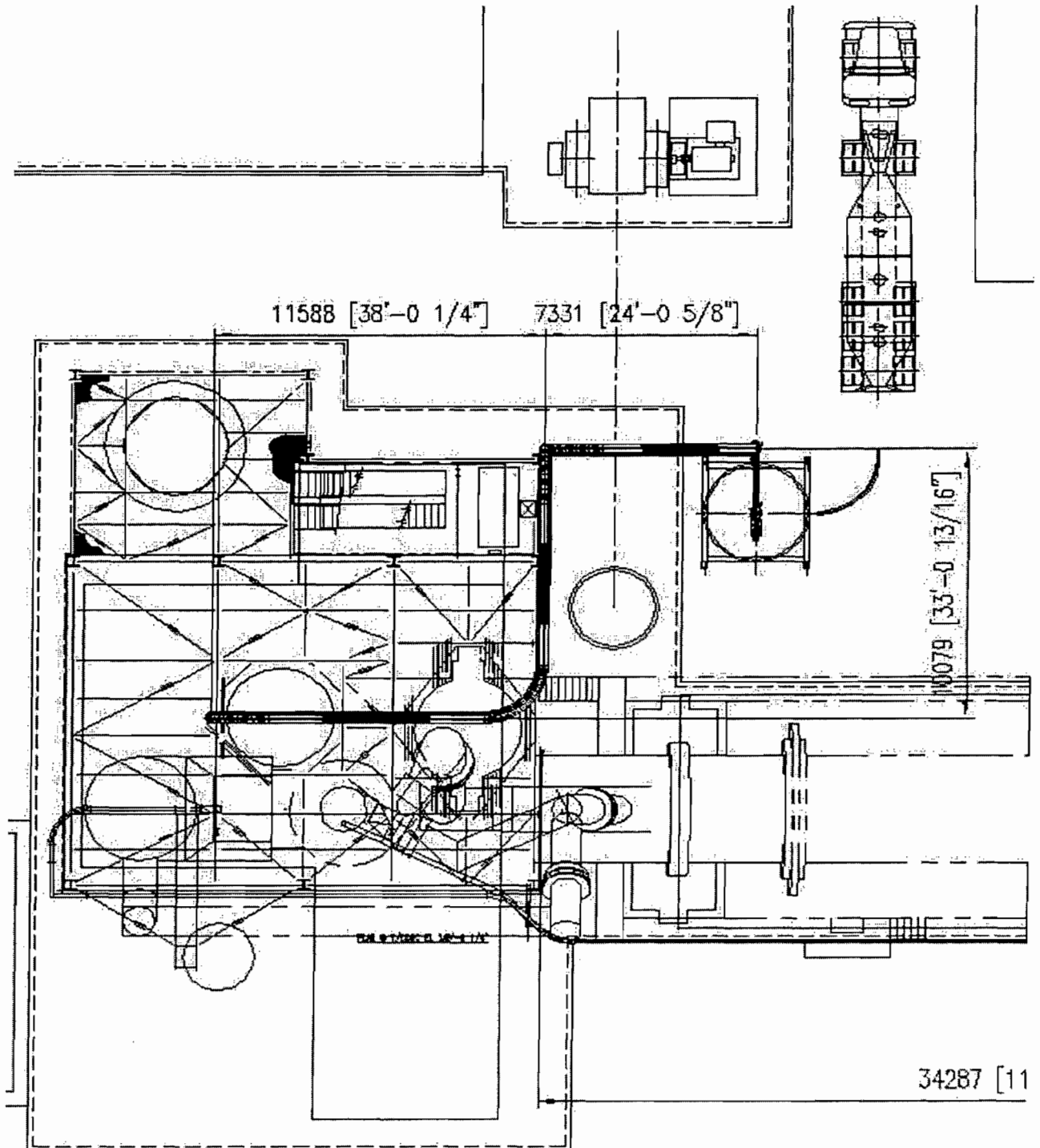


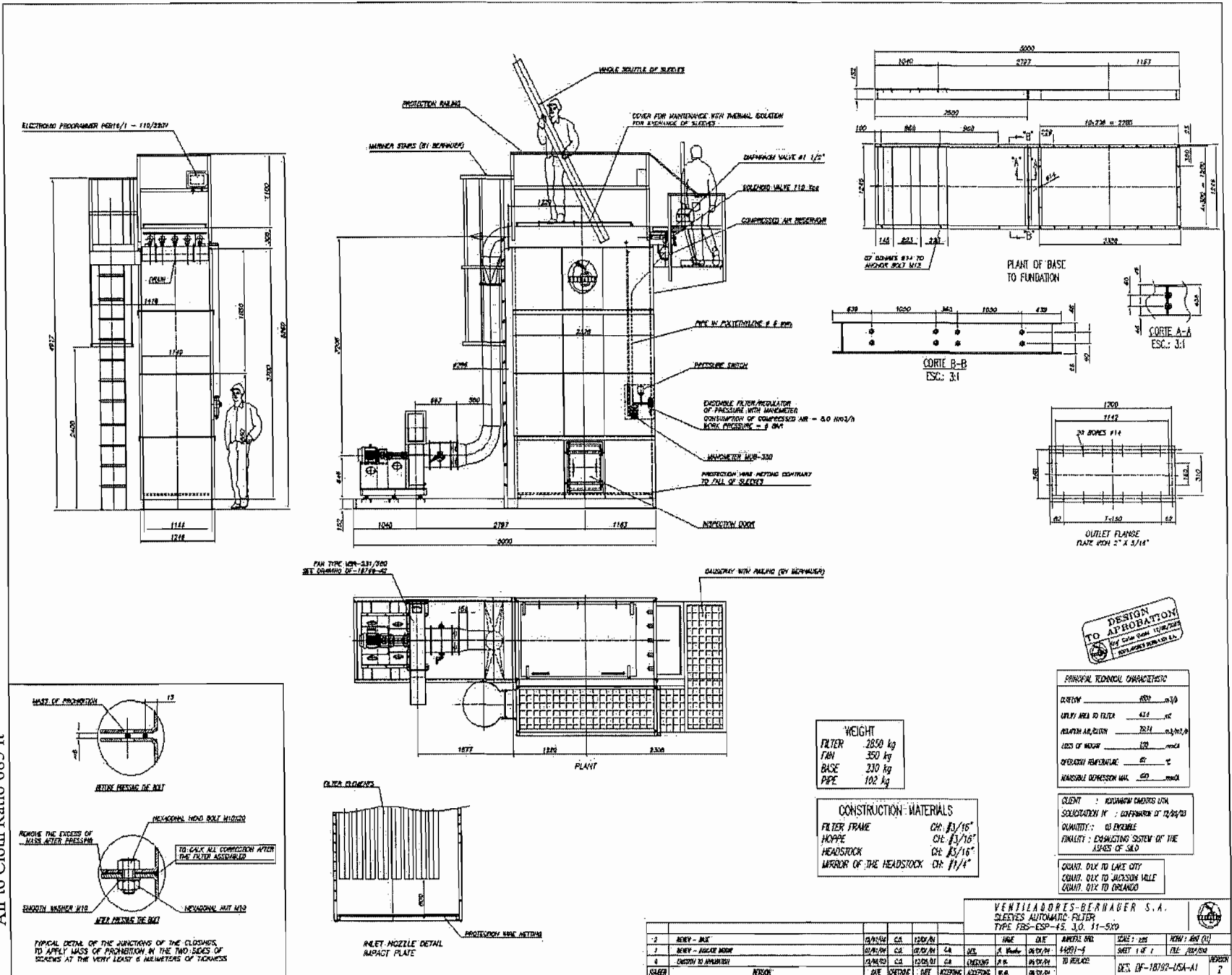
Figure 2: Hydrated Lime Drawing 2



**Figure 3: Dust Collector Information**

Airflow - 2700 acfm

Air to Cloth Ratio 685 ft<sup>2</sup>



# Permit Language Revision Information



SECTION II – EMISSION LIMITING STANDARDS CONDITION 10

**24. Unconfined Emissions of Particulate Matter:**

(c) Reasonable precautions include the following

- ~~▪ Bulk transport trucks leaving the plant shall travel through a tire wash, designed to remove particulate matter from vehicle tires, before traveling on the facility's access roadways.~~

[SAC additions to permit underscored; SAC deletions are ~~stricken~~]

Explanation/Rationale: SAC has experienced no fugitive dust problems from bulk transport trucks. Roadways are cleaned with a street sweeper and fugitive dust from truck traffic just does not occur or foreseen to be a problem. The addition of a wheel wash raises several concerns with both SAC and Florida DEP Water Division. The SAC facility is designed to have no industrial wastewater. Furthermore SAC discharges no stormwater off of the property as well. The addition of the wheel wash would create an industrial waste water source that could possible create a discharge or outfall for SAC. Since fugitive dust is not a problem from bulk transport trucks this addition of industrial wastewater is not needed and this condition should be removed from the permit. This will insure SAC can continue to generate no industrial wastewater and discharge no water from the property.

SECTION III.B - SPECIFIC CONDITION 24

**24. Process Rate Limitations:** The owner or operator shall make and maintain records of the process rate of dry preheater feed in units of tons per hour and tons per consecutive 12-month period, and the production rate of clinker and cement in units of tons per hour and tons per consecutive 12-month period. ~~The clinker rate shall be directly measured independently of preheater feed.~~

[SAC additions to permit underscored; SAC deletions are ~~stricken~~]

Explanation/Rationale: SAC uses a very accurate system for processing and measuring the preheater feed. This system is supplied by Polysius and is called the Poldos. The Poldos accurately measures and transfers preheater feed into the kiln system. SAC uses this preheater feed measurement and a set Loss of Ignition (LOI) Factor to determine the clinker produced. SAC determined the LOI factor using the ASTM test method 2863 on its preheater feed with consideration for dust return from the main baghouse. This method accurately determines the clinker produced and corresponds with physical inventory numbers and cement production. This method is an industry standard for determining clinker production, and it is the method by which SAC determines its own production for accounting and inventory purposes.

SAC also uses a load cell for measurement of clinker production as it exits the clinker cooler. This rate is recorded in the NEXUS software, but should not used for determining compliance with production limits or in emission limit calculations due to various factors that may cause this information to be inaccurate.

Load cells operate accurately to measure throughput only when a known area of flexible conveyor belt comes in consistent and uniform contact with the load cell. Clinker must be

transported from the clinker cooler using a bucket or pan conveyor because of the high heat of the clinker. Bucket and pan conveyors do not uniformly contact the load cell in the same manner as a flexible belt due to the stiffness of the metal buckets and the chain pulling the buckets. .In addition, clinker leaving the kiln system is not in a steady state because various amounts of accumulation can occur in the clinker cooler dependent on the amount of cooling needed. For these reasons, a load cell may not always provide an accurate determination of clinker production. Accordingly SAC requests that paragraph 24 be revised by deleting the unnecessary requirement to measure clinker production independently of preheater feed.

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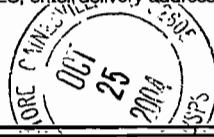
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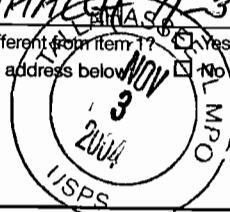
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 *[Signature]*  Agent  
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 1211 Paul Russell Road  
 Tallahassee, Florida 32301-7102

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

2. Article Number  
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 *Susan Vaughan*  Agent  
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*Susan Vaughan*

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 Suwannee American Cement  
 Post Office Box 410  
 Branford, Florida 32008

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 *Susan Vaughan*  Agent  
 Addressee

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*Susan Vaughan*

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Branford, Florida 32008

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**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 32008.

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 (SO<sub>2</sub>) 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 (SO<sub>2</sub>) 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 (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 Regulations 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.

Petition 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 28-108.205, 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 to require reversal or modification on 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 in 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 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) 922-6879

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 850/921-8523 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](http://www.dep.state.fl.us/air/permitting/construction/suwannee.htm) 10/01.

**SENDER: COMPLETE THIS SECTION**


- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Lawrence Sellers, Jr. Esq.  
 Holland & Knight, LLP  
 Post Office Drawer 810  
 Tallahassee, Florida 32301

2. Article Number **7000 1670 0013 3110 3148**  
 (Transfer from service label)

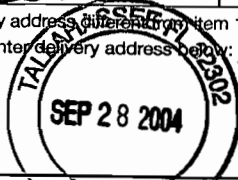
PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  


B. Received by (Printed Name) **E. Kent** C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No



3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Celso A. Martini, Plant  
 Manager  
 Suwannee American Cement, LLC  
 Post Office Box 410  
 Branford, Florida 32008

2. Article Number **7001 0320 0001 3692 6662**  
 (Transfer from service label)

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee  


B. Received by (Printed Name) **Susan Vaughan** C. Date of Delivery **10/4/04**

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**U.S. Postal Service CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

Sent To  
 Mr. Lawrence Seller, Jr., Esq.  
 Holland & Knight, LLP  
 Post Office Box 810  
 Tallahassee, Florida 32301

**U.S. Postal Service CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

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

7000 1670 0013 3110 3148

7001 0320 0001 3692 6662



**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Claude Grinfeder  
 Suwannee American Cement, LLC  
 Post Office Box 410  
 Branford, Florida 32008

2. Article Number 7000 1670 0013 3110 3155  
 (Transfer from service label)

PS Form 3811, August 2001 102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 Addressee  
*Susan Vaughan*  
 B. Received by (Printed Name) C. Date of Delivery  
*Susan Vaughan* 10/17/04  
 D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Mike Byerly, Chair  
 Alachua County Board of County  
 Commission  
 Post Office Box 2877  
 Gainesville, Florida 32602-2877

2. Article Number 7000 1670 0013 3110 3179  
 (Transfer from service label)

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 Addressee  
*J. Crow*  
 B. Received by (Printed Name) C. Date of Delivery  
*J. Crow* 9-29-04  
 D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark Here

Sent To: Mr. Claude Grinfeder  
 Suwannee American Cement, LLC  
 Street, Apt. No., or PO Box No.  
 Post Office Box 401  
 Branford, Florida 32008

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark Here

Sent To: Mr. Mike Byerly, Chair  
 Alachua County Board of County Comm.  
 Street, Apt. No., or PO Box No.  
 P.O. Box 2877  
 City, State, ZIP+4  
 Gainesville, Florida 32602-2877

7000 1670 0013 3110 3155

7000 1670 0013 3110 3179

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Charles Yagel, President  
 Suwannee Industrial Solution, LLC  
 26841 CR 49  
 Branford, Florida 32008

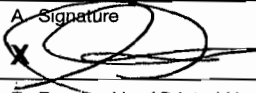
2. Article Number 7000 1670 0013 3110 3162  
 (Transfer from service label)

PS Form 3811, August 2001

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature   Agent  
 Addressee

B. Received by (Printed Name) CHARLES W. YAGEL C. Date of Delivery 10-12-04

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 Mr. Tom Greenhalgh  
 1211 Paul Russell Road  
 Tallahassee, Florida 32301-7102

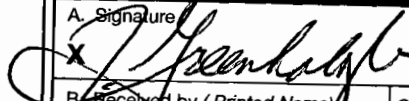
2. Article Number 7000 1670 0013 3110 3186  
 (Transfer from service label)

PS Form 3811, August 2001

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature   Agent  
 Addressee

B. Received by (Printed Name) GREENHALGH C. Date of Delivery 10-7-04

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark  
 Here

Sent To  
 Mr. Charles Yagel, President  
 Suwannee Industrial Solution, LLC  
 Street, Apt. No., or PO Box No.  
 26841 CR 49  
 City, State, ZIP+4  
 Branford, Florida 32008

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark  
 Here

Sent To  
 Mr. Tom Greenhalgh  
 Street, Apt. No., or PO Box No.  
 1211 Paul Russell Road  
 Tallahassee, Florida 32301-7102  
 City, State, ZIP+4

297E 017E E100 029T 0000

997E 017E E100 029T 0000

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>■ Print your name and address on the reverse so that we can return the card to you.</li> <li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul> <p>1. Article Addressed to: Mr. Celso Martini, Plant Manager Suwannee American Cement Post Office Box 410 Branford, Florida 32008</p>	<p>A. Signature  <input checked="" type="checkbox"/> <i>Susan Vaughan</i> <input type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p> <p>B. Received by (<i>Printed Name</i>)  <i>Susan Vaughan</i></p> <p>C. Date of Delivery  <i>9/20/01</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>2. Article Number <span style="float: right;">7000 1670 0013 3110 3117</span>  <i>(Transfer from service label)</i></p>	<p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>
<p>PS Form 3811, August 2001</p>	<p>4. Restricted Delivery? (<i>Extra Fee</i>) <input type="checkbox"/> Yes  Domestic Return Receipt <span style="float: right;">102595-02-M-1540</span></p>

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee <small>(Endorsement Required)</small>		
Restricted Delivery Fee <small>(Endorsement Required)</small>		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

SENT TO  
Mr. Celso Martini, Plant Manager  
Suwannee American Cement  
Post Office Box 410  
City, State, ZIP+4  
Branford, Florida 32008

PS Form 3800, May 2000 See Reverse for Instructions

7000 1670 0013 3110 3117

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature <input type="checkbox"/> Agent  <input type="checkbox"/> Addressee  <i>P. Foster</i></p> <p>B. Received by (Printed Name) <i>P. Foster</i> C. Date of Delivery <i>8-2-04</i></p>
<p>1. Article Addressed to:          Mr. Celso Martini, Plant Manager          Suwannee American Cement          Post Office Box 410          Branford, Florida 32008</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  <input type="checkbox"/> No          If YES, enter delivery address below:</p> <p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label) 7000 2870 0000 7027 9638</p>	

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

7000 2870 0000 7027 9638

**OFFICIAL USE**

Mr. Celso Martini, Plant Manager

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	

Sent To  
 Mr. Celso Martini, Plant Manager  
 Street, Apt. No.; or PO Box No.  
 Post Office Box 410  
 City, State, ZIP+4  
 Branford, Florida 32008

PS Form 3800, May 2000 See Reverse for Instructions

8499 269E 0000 02E0 0000

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

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

2. Article Number

(Transfer from service label)

7001 0320 0001 3692 6648

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

*Melida Brown*  Agent  
 Addressee

B. Received by (Printed Name)

Melida Brown

C. Date of Delivery

6-1-04

D. Is delivery address different from item 1?  Yes

If YES, enter delivery address below:  No

3. Service Type

- Certified Mail  Express Mail
- Registered  Return Receipt for Merchandise
- Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

**OFFICIAL USE**

7001 0320 0001 3692 6648

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark  
Here

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



P.O. Box 410  
Branford, FL 32008

*COPY*

January 5, 2005

RECEIVED

JAN 07 2005

BUREAU OF AIR REGULATION

Ms. Trina Vielhauer  
Department of Environmental Protection  
2600 Blair Stone Road, MS # 5500  
Tallahassee, Florida 32399-2400

Mr. Christopher L. Kirts, P.E.  
Florida Department of Environmental Protection  
Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, FL 32256-7590

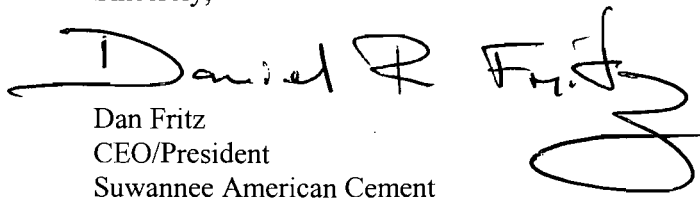
**SUBJECT:** Responsible Official Notification  
Suwannee American Cement – Branford Plant  
Facility ID No. 1210465  
PSD-FL-259D

Dear Ms. Vielhauer & Mr. Kirts:

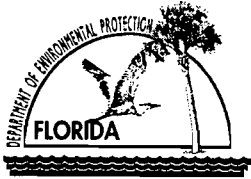
The enclosed DEP Form No. 62-213.900(8) is submitted to notify you of a change in the responsible official at Suwannee American Cement. Mr. Tom Messer is added as responsible official for Suwannee American Cement, Branford Facility. Mr. Celso Martini will also remain as a responsible official as previously submitted in January 6<sup>th</sup> of 2003.

Should you have any question and/or comments concerning this notification or you require additional information, please contact Tom Messer at (386) 935-5017 or Joe Horton at (386) 935-5039.

Sincerely,

  
Dan Fritz  
CEO/President  
Suwannee American Cement

CC: Al Linero – DEP  
Celso Martini – SAC  
Tom Messer – SAC  
Joe Horton - SAC



# Department of Environmental Protection

## Division of Air Resource Management

### RESPONSIBLE OFFICIAL NOTIFICATION FORM

**Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.**

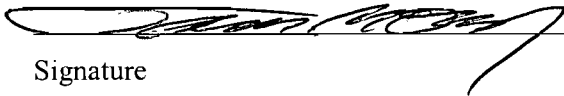
#### Identification of Facility

1. Facility Owner/Company Name: <b>Suwannee American Cement</b>	
2. Site Name: <b>Branford Plant</b>	3. County: <b>Suwannee</b>
4. Title V Air Operation Permit/Project No. (leave blank for initial Title V applications): <b>1210465-001-AC &amp; PSD-FL-259</b>	

#### Notification Type (Check one or more)

<input type="checkbox"/> <b>INITIAL:</b>	Notification of responsible officials for an initial Title V application.
<input type="checkbox"/> <b>RENEWAL:</b>	Notification of responsible officials for a renewal Title V application.
<input checked="" type="checkbox"/> <b>CHANGE:</b>	Notification of change in responsible official(s). Effective date of change in responsible official(s) <b>January 15, 2005</b>

#### Primary Responsible Official

1. Name and Position Title of Responsible Official: <b>Tom Messer, Plant Manager</b>
2. Responsible Official Mailing Address: Organization/Firm: <b>Suwannee American Cement</b> Street Address: <b>5117 US Hwy 27</b> City: <b>Branford</b> State: <b>FL</b> Zip Code: <b>32008</b>
3. Responsible Official Telephone Numbers: Telephone: <b>( 386 ) 935 - 5000</b> Fax: <b>( 386 ) 935 - 5080</b>
4. Responsible Official Qualification (Check one or more of the following options, as applicable): [x] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. [ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively. [ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. [ ] The designated representative at an Acid Rain source.
5. Responsible Official Statement: <i>I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.</i>   Signature  <u>January 3, 2005</u> Date