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

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Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

JAN 09 2005

RECEIVED





Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

December 22, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: Extension of Submittal of Test Evaluation for Permit No. 1210465-013-AC
Branford Cement Plant
Selective Non-Catalytic Reduction (SNCR) Testing and Written Report

Dear Mr. Martini,

On December 10, 2004, the Department received a request from Suwannee American Cement, LLC (SAC) for additional time to submit the written report as required by Condition 1 of air construction permit number 1210465-013-AC, for its Branford Cement Plant located at US Highway 27 and County Road 49, Branford, Suwannee County. The expiration date is hereby extended by an additional forty-five (45) days to submit the written report summarizing the results from the SNCR testing.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

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,

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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. Mediation is not available in this proceeding.

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. 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.

This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this order will not be effective until further order of the Department.

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 order was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 12/23/04 to the person(s) listed:

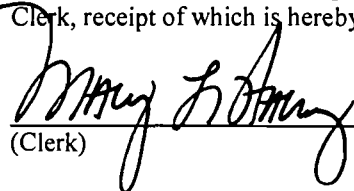
Trina Vielhauer, DEP-BAR
Jim Pennington, DEP-BAR
Bobby Bull, DEP-BAR
Chris Kirts, DEP-NED
Richard Banks, DEP-NED

Rita Felton-Smith, DEP-NED
Joe Kahn, DEP-BAMMS
Dr. John B. Koogler, PhD, P.E., Koogler and Associates
Chair, Alachua County Commission
Joe Horton, SAC

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.

 12/23/04
(Clerk) (Date)



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DEC 10 2004

BUREAU OF AIR REGULATION

December 7, 2004

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

SUBJECT: Selective Non-Catalytic Reduction (SNCR) Written Report
DEP File No. 1210465-013-AC
Suwannee American Cement – Branford Plant
Facility ID No. 1210465
PSD-FL-259D

Dear Mr. Pennington:

In accordance with Condition 1 of Air Permit No. 1210465-013-AC, Suwannee American Cement (SAC) is required to submit a written report within 45 days upon completion of the last test run and parameter measurements and monitoring. SAC notified the Department via email on November 29, 2004 that testing was completed on November 29, 2004. In accordance with the Permit SAC is required to submit a written report by January 13, 2005 summarizing the results and findings of the test.

During the testing SAC monitored and recorded all process and emission data to fully evaluate the test results. This included additional process variables from the SCNR test equipment and additionally emission monitoring. Polysius supplied the test equipment for the SNCR test and helped in overseeing the testing as the supplier of both the SNCR test equipment and the Kiln System. Polysius recorded all relevant data from the test equipment as well as employing an additional emission monitor for use in monitoring emissions. Additionally Koogler & Associates were onsite during the entire testing period recording continuously for Ammonia emissions in the stack.

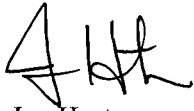
SAC as well as Polysius and Koogler & Associates recorded data during the approximately three week test period usually on a minute average basis. This created an extensive amount of data from SAC, Polysius and Koogler & Associates. Additionally SAC had to send some samples of kiln feed and baghouse dust collected during testing for specialized testing to an offsite laboratory.

The need to compile data from all these sources before evaluation of the test results can begin has created a time delay. Data files are too large for emailing and must be mailed on disks and lab results for the samples taken requires some time to analyze. SAC has still yet to compile all the needed data to begin a complete evaluation of the testing. Due to this SAC requests and additional 45 days for submission of the written report which will summarize the results from the SNCR testing.

This written report will include data from Polysius, Koogler & Associates, Lab Analysis and Process/Emission data from SAC. Included in SAC's written report to the Department will be a summary of the test results from Polysius as well as a summary from SAC's independent third party expert on Kiln Operations, Dr. Gregory Miller.

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.

Sincerely,

A handwritten signature in black ink, appearing to read 'J Horton', written in a cursive style.

Joe Horton
Suwannee American Cement

CC: Trina Vielhauer – DEP
Al Linero – DEP
Chris Kirts – DEP
Celso Martini – SAC
Dr. John Koogler – Koogler and Associates
Gregory Miller – Cement Etc., Inc.
Oleg Geskin – Polysius USA

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

PS Form 3800, May 2000

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature
 X *Susan Vaughan* Agent
 Addressee

B. Received by (-Printed Name) C. Date of Delivery
Susan Vaughan *11-5-04*

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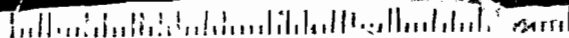
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Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400

APR 24 2004
BUREAU OF AIR REGULATION



INTEROFFICE MEMORANDUM

TO: Michael G. Cooke

THRU: Trina L. Vielhauer *TV*

FROM: Jim Pennington *JKP*

DATE: November 1, 2004

SUBJECT: Authorization to Conduct Pollutant Testing and Parameter Measurements for the Implementation of Selective Non Catalytic Reduction (SNCR) for the Control of Oxides of Nitrogen (NOx)
1210465-013-AC

The proposed project was requested to conduct pollutant testing and parameter measurements for the evaluation of SNCR technology for the control of NOx using the SAC Branford Cement Manufacturing Facility, which is located near Branford, Suwannee County. This evaluation will require SAC to vary the operational modes of the cement manufacturing facility to establish expected NOx emissions while using SNCR, thus potentially creating operational conditions with emissions near or in excess of the present permitted limits. The data gathered will allow the evaluation of SNCR technology applicability to the cement manufacturing industry. The pollutants and or parameters to be measured or monitored will include sulfur dioxide [CEM (continuous emission monitor)], nitrogen oxides (CEM), particulate matter, visible emissions, carbon monoxide (CEM), ash content of the fuel, ultimate fuel analyses, unit operational parameters including load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the evaluation. Particulate size distribution may be evaluated also. The testing is scheduled to run from November 3 through December 31, 2004.

There were no comments received during the Public Notice period (14-days), which concluded on October 28th. Therefore, it is recommended that the Final air construction permit (authorization letter) be signed as drafted and noticed.

MGC/jkp

Attachments

Final Determination

Suwannee American Cement, LLC (SAC)

Project No.: 1210465-013-AC

I. Public Notice and Comments.

The Public Notice of the permitting project was published in the Branford News on October 14, 2004. There were no written comments received in the commenting period (14-days), which concluded at the close of business of October 28th. Therefore, it is recommended that the Final air construction permit (authorization letter) be issued.

II. Conclusion.

It is recommended to issue the Final air construction permit (authorization letter) as drafted and public noticed.

NOTICE OF FINAL AIR CONSTRUCTION PERMIT

In the Matter of an
Application for Permit:

Mr. Celso Martini.
Plant Manager
Suwannee American Cement, LLC (SAC)
P.O. Box 410
Branford, Florida 32008

Permit Project No.: 1210465-013 -AC
Branford Cement Plant
Suwannee County

Enclosed is the Final Air Construction Permit (letter), No. 1210465-013-AC. The proposed project was requested to conduct the requested testing and measurements on its existing kiln and associated equipment at the 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. The purpose of this testing is to help the company and the Department assess the viability of SNCR as a NOx control measure in the cement industry. This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received during the Public Notice period (14-days).

Any party to this order (permit) has the right to seek judicial review of the permit revision 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 AIR CONSTRUCTION PERMIT (including the Final permit (authorization letter)) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 11/3/04 to the person(s) listed or as otherwise noted:

Trina Vielhauer, DEP - BAR
Jim Pennington, DEP - BAR
Bobby Bull, DEP - BAR
Chris Kirts, DEP - NED
Richard Banks, DEP - NED

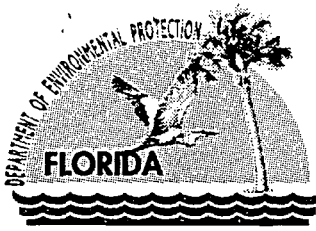
Rita Felton-Smith, DEP - NED
Joe Kahn, DEP - BAMMS
Dr. John B. Koogler, PhD, P.E. Koogler and Associates
Chair, Alachua County Commission
Joe Horton, SAC

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk)

11/3/04
(Date)



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

November 2, 2004

CERTIFIED MAIL – Return Receipt Requested

Mr. Celso Martini
Plant Manager
Suwannee American Cement, LLC (SAC)
P.O. Box 410
Branford, Florida 32008

RE: Authorization to Conduct Pollutant Testing and Parameter Measurements for the
Implementation of Selective Non Catalytic Reduction (SNCR) for the Control of Oxides of
Nitrogen (NOx) 1210465-013 -AC

Dear Mr. Martini:

The Department has reviewed the request that you provided on October 1, 2004. We have considered the Department's legal authority to allow SAC to conduct the requested testing and measurements on its existing kiln and associated equipment at the 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. The purpose of this testing is to help the company and the Department assess the viability of SNCR as a NOx control measure in the cement industry. Paragraph 403.061(16), Florida Statutes (F.S.), authorizes the Department to encourage voluntary cooperation by persons in order to achieve the purposes of the state environmental control act. Paragraph 403.061(18), F.S., authorizes the Department to encourage and conduct studies, investigations, and research relating to the causes and control of pollution. Rule 62-210.700(5), Florida Administrative Code (F.A.C.), authorizes the Department to consider variation in industrial equipment and make allowances for excess emissions that provide reasonable and practical regulatory controls consistent with public interest.

In accordance with the provisions of Paragraphs 403.061(16) and (18), F.S., and Rule 62-210.700(5), F.A.C., you are hereby authorized to conduct pollutant testing and parameter measurements for the evaluation of emission ranges and the effectiveness of SNCR for NOx control under a variety of operating scenarios for the kiln and associated equipment at the Branford Cement Plant. This evaluation will require SAC to vary the collection efficiency of the existing NOx controls to establish performance curves between NOx emissions and ammonia

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Mr. Celso Martini
Suwannee American Cement
Branford Cement Plant
Page Two

injection, thus creating an operational condition near or in excess of the Florida NOx emissions and opacity standards. The data gathered will allow the calibration of the SNCR system and evaluation of the various NOx control scenarios outlined in Attachment A. The pollutants and parameters to be measured or monitored will include sulfur dioxide, nitrogen oxides, particulate matter, visible emissions, carbon monoxide, unit operational parameters including load, fuel flow, excess air and flue gas temperature, and other unit specific parameters that are needed for the evaluation.

The performance tests and parameter measurements or monitoring shall be subject to the following conditions:

1. Unless waived, the permittee shall notify the Department's Northeast District and Bureau of Air Regulation offices at least 15 days prior to commencement of the performance tests and parameter measurements or monitoring. A written test protocol shall be submitted to these offices at least 15 days prior to beginning the tests. The written protocol shall as a minimum address the testing principles in Attachment A (Attached). A written report shall be submitted to these offices within 45 days upon completion of the last test run and parameter measurements and monitoring.
2. The authorized testing and measurement and monitoring schedule is from November 3 thru December 31, 2004, for a total of 60 days. If additional time is needed, the permittee shall provide the Department with documentation of the progress accomplished to date and shall identify what is left to be done to complete the testing and measurements or monitoring.
3. The parameters to be measured or monitored are sulfur dioxide by use of a continuous emission monitoring system (CEM), nitrogen oxides by the use of a CEM, opacity by the use of a continuous opacity monitor and/or EPA Method 9, Total Hydrocarbons (THC) by the use of a CEM, carbon monoxide using EPA Method 10, ammonia slip using either a portable CEM or EPA Method CTM 027, load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the SNCR evaluation.
4. In addition to the parameter monitoring in (3.) above, one time emissions tests during each phase of SNCR evaluation shall be conducted for the following pollutants and using the following test methods:
 - a. Particulate matter EPA Test Method 5 (including EPA Test Methods 1 thru 4)
 - b. Visible emissions EPA Test Method 9
5. The release of objectionable odors pursuant to Rule 62-296.320(2), F.A.C., is not authorized for this activity.
6. Performance testing shall immediately cease upon the occurrence of a valid environmental complaint by a citizen or other party, or a nuisance or danger to the public health or welfare. Performance testing shall not resume until appropriate measures to correct the problem have been implemented.

Mr. Celso Martini
Suwannee American Cement
Branford Cement Plant
Page Three

7. The performance tests and parameter measurements and monitoring shall be under the direct supervision and responsible charge of a professional engineer registered in Florida.
8. This Department action is just to authorize the performance testing and parameter measurements and monitoring for the Branford Cement Plant for the purpose of evaluating the effectiveness of the use of SNCR on controlling and reducing NOx emissions in the cement industry.
9. Complete documentation of the activity shall be kept on file for at least 5 (five) years.
10. The Department shall be notified in writing on the date of the last test run and parameter measurement and monitoring completion. If after work hours, notification shall occur on the next work day.
11. Attachment Section.
 - a. Dr. John B. Koogler, P.E. letter received October 1, 2004.
 - b. Final Determination
 - c. Testing Principles

The Department has relied on the information referenced in the Attachment Section and conversations with representatives of SAC in authorizing this activity.

Sincerely,



Michael G. Cooke, Director
Division of Air Resource Management

TLV/jkp

Enclosures

cc: Trina Vielhauer, DEP - BAR
Jim Pennington, DEP - BAR
Al Linero, DEP - BAR
Bobby Bull, DEP - BAR
Chris Kirts, DEP - NED
Richard Banks, DEP - NED
Rita Felton-Smith, DEP - NED
Joe Kahn, DEP - BAMMS
Dr. John B. Koogler, PhD, P.E. Koogler and Associates
Chair, Suwannee County Commission
Joe Horton, SAC

ATTACHMENT A
Suwannee American Cement Branford Cement Plant SNCR Test
1210465-013-AC

Testing Principles

The following points are the basis for the protocol that needs to be developed by Suwannee American Cement (SAC) and its consultants. SAC shall try to find the combination of SNCR and degree of reducing conditions in the calciner that yields best operation and around 150 ppm (corrected) NO_x emissions. The various objectives stated below can be adjusted as operational problems occur or are aggravated.

1. **Baseline:** Establish and document a baseline under the present operations. This should include present NO_x and CO values together with documentation of the kinds of problems already encountered such as: frequency of air cannon use, cardox charges, blockages, stops, starts, etc.
2. Establish an oxidizing atmosphere in the calciner. Tune/adjust main kiln burner to the extent possible to minimize thermal NO_x formation while making good quality clinker.
3. Establish a baseline prior to initiation of SNCR or renewed operation in MSC modes. The baseline NO_x emission limit shall not be more than 400 ppm (corrected). This is approximately equal to 4 lb/ton of clinker. This data will be excluded from the daily limit of 2.9 lb of NO_x/ton of clinker for those hours (or days) when the baseline is established. Additionally, data showing CO and opacity excursions as a result of these tests will be excluded. All other emission limits shall be met. The Company shall document all excursions and take appropriate steps to minimize them during testing.
4. **SNCR without staged air:** After establishing the baseline and steady state operation is established, ammonia shall be injected to progressively reduce NO_x emissions to 350, 300, 250, 200, and 150 ppm (corrected). Minimum achievable NO_x emissions are expected to be around 100 ppm (corrected).
5. **Multi-staged Combustion:** Oxygen shall then be progressively depleted in the calciner to operate in fuel staged combustion to determine further reductions possible, if any, by the combination of fuel staged (MSC) and moderate ammonia use.
6. Ammonia use shall be increased to achieve 100 ppm (corrected) or lower if feasible.
7. Ammonia use shall then be decreased to achieve 150 ppm.
8. **Air Staged Combustion:** Reduction of the NO_x emission rates of about 150 ppm and 200 ppm shall be established by operating the calciner in the air staged combustion (ASC) mode while using SNCR.



P.O. Box 410
Branford, FL 32008

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OCT 20 2004

BUREAU OF AIR REGULATION

October 15, 2004

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

SUBJECT: Selective Non-Catalytic Reduction (SNCR) Test Schedule
DEP File No. 1210465-013-AC
Suwannee American Cement (SAC) – Branford Plant
Facility ID No. 1210465
PSD-FL-259D

Dear Mr. Pennington:

In accordance with Condition 1 of Air Permit No. 1210465-013-AC, SAC is submitting the following preliminary schedule in the Attachment 1. This schedule is based on the availability of testing equipment being supplied from the vendor and maybe subject to change due to delays in equipment availability. SAC will notify the Department as soon as possible if delays or rescheduling occurs.

Also included in Attachment 1 is information on the data to be collected during testing.

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.

Sincerely,

A handwritten signature in black ink, appearing to read "J Horton".

Joe Horton
Suwannee American Cement

CC: Trina Vielhauer – DEP
Celso Martini – SAC

Estimated Schedule for SAC SNCR Test

SAC Test Steps		2004									2005						
		October			November			December			January			February			
SNCR Test	Equipment Setup																
	SNCR Test																
	Data Review																
	Submit Report to DEP																

SNCR Testing Protocol:

- SAC will establish stable operating conditions under oxidizing conditions with NOx not exceeding 400 ppm
- SAC will establish the optimum location for SNCR testing with the help of the vendor and consultants
- SAC will incrementally increase the amount of ammonia solution feed until a molar ratio of 0.8 Ammonia to NOx is reached or operational/environmental conditions make additional ammonia injection impossible
- SAC will establish stable operating conditions under reducing conditions with NOx emissions near 200 to 250 ppm
- SAC will establish the optimum location for SNCR testing with the help of the vendor and consultant
- SAC will incrementally increase the amount of ammonia solution feed until a molar ratio of 0.8 Ammonia to NOx is reached or operational/environmental conditions make additional ammonia injection impossible

Data Collection:

SAC will record all relevant process data through its data collection system Polcid.
 SAC will record all emission data that is currently required through the NEXUS system which DEP can access real time.
 SAC will also employ Continuous Emission Monitors for CO and Ammonia
 All relevant data will be included in the Final Report

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Mr. Celso Martini, Plant Manager
~~Suwannee American Cement (SAC)~~
Post Office Box 410
 City, State, ZIP+4
Branford, FL 32008

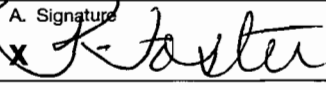
PS Form 3800, May 2000 See Reverse for Instructions

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- 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 (SAC)
Branford Plant
Post Office Box 410
Branford, Florida 32008

COMPLETE THIS SECTION ON DELIVERY

A. Signature
 Agent
 Addressee

B. Received by (Printed Name)
P. Foster

C. Date of Delivery
1/28/04

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OCT 12 2004

Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd , MS 5505
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

October 5, 2004

CERTIFIED MAIL – Return Receipt Requested

Mr. Celso Martini
Plant Manager
Suwannee American Cement (SAC)
Branford Plant
P.O. Box 410
Branford, Florida 32008

RE: **Draft** Authorization to Conduct Pollutant Testing and Parameter Measurements for the Evaluation of Selective Non Catalytic Reduction (SNCR) for the Control of Oxides of Nitrogen (NOx) 1210465-013-AC

Dear Mr. Martini:

Attached is one copy of the proposed authorization, 1210465-013-AC, to conduct pollutant testing and parameter measurements for the evaluation of SNCR technology for the control of NOx using the SAC Branford Cement Manufacturing Facility, which is located near Branford, Suwannee County. This evaluation will require SAC to vary the operational modes of the cement manufacturing facility to establish expected NOx emissions while using SNCR, thus potentially creating operational conditions with emissions near or in excess of the present permitted limits. The data gathered will allow the evaluation of SNCR technology applicability to the cement manufacturing industry. The pollutants and or parameters to be measured or monitored will include sulfur dioxide [CEM (continuous emission monitor)], nitrogen oxides (CEM), particulate matter, visible emissions, carbon monoxide (CEM), ash content of the fuel, ultimate fuel analyses, unit operational parameters including load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the evaluation. Particulate size distribution may be evaluated also. The testing is scheduled to run from October 15 through December 15, 2004.

The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" are also included. The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to James K. Pennington, P.E., at the above letterhead address. If you have any other questions, please contact him at 850/921-9515.

Sincerely,

Trina L. Vielhauer
Chief
Bureau of Air Regulation

TLV/jkp

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of an
Application for Permit by:

Suwannee American Cement (SAC)
P.O. Box 410
Branford, Florida 32008

Air Construction Permit No.: 1210465-013-AC
Branford Plant
Suwannee County

INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an air construction permit [copy of the draft permit (letter) enclosed] for the facility detailed in the application specified above, to authorize Suwannee American Cement (SAC) to conduct pollutant testing and parameter measurements for the evaluation of SNCR technology for the control of NO_x using the SAC's Branford Cement Manufacturing Facility, which is located near Branford, Suwannee County.

The permittee, SAC, applied on October 1, 2004, for authorization, to conduct pollutant testing and parameter measurements for the evaluation of SNCR technology for the control of NO_x using the SAC's Branford Cement Manufacturing Facility, which is located near Branford, Suwannee County. This evaluation will require SAC to vary the operational modes of the cement manufacturing facility to establish expected NO_x emissions while using SNCR, thus potentially creating operational conditions with emissions near or in excess of the present permitted limits. The data gathered will allow the evaluation of SNCR technology applicability to the cement manufacturing industry. The pollutants and or parameters to be measured or monitored will include sulfur dioxide [CEM (continuous emission monitor)], nitrogen oxides (CEM), particulate matter, visible emissions, carbon monoxide (CEM), ash content of the fuel, ultimate fuel analyses, unit operational parameters including load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the evaluation. Particulate size distribution may be evaluated also. The testing is scheduled to run from October 15 through December 15, 2004.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4 and 62-210, F.A.C. This source is not exempt from permitting procedures. The permitting authority has determined that an Air Construction Permit is required for the proposed activity.

The permitting authority intends to issue this Air Construction Permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. 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 permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax: 850/922-6979), within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

The permitting authority will issue the Final Air Construction Permit in accordance with the conditions of the enclosed Draft Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority 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 AN AIR CONSTRUCTION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

The permitting authority 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. Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with 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 of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any other person must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. A petitioner must 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 28-5.207, F.A.C.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;
- (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;
- (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority 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 to the Department of Environmental Protection 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. 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 of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

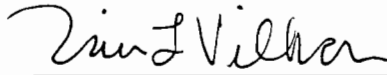
- (a) The name, address, and telephone number of the petitioner;
- (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
- (c) Each rule or portion of a rule from which a variance or waiver is requested;
- (d) The citation to the statute underlying (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 United States Environmental Protection Agency 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.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**



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 AN AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE and the Draft Permit (letter)) and all copies were sent by certified mail before the close of business on 10/6/04 to the person(s) listed:

Mr. Celso Martini, Plant Manager, SAC

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE and the Draft Permit (letter)) were sent by U.S. mail on the same date to the person(s) listed:

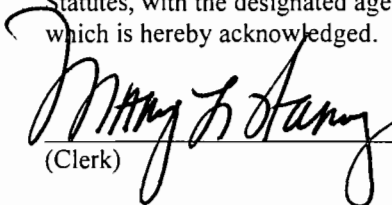
Joe Horton, SAC
John Koogler, Koogler and Associates
Chris Kirts, DEP – NED
Rick Banks, DEP – NED
Rita Felton-Smith, DEP – NED
Joe Kahn, DEP – BAMMS
Al Linero, DEP – BAR
Claude Grinfelder, SAC
Larry Sellars, Esq.
Steve Cullen, Koogler and Associates
Jim Little, EPA
John Bunyak, NPS

Tom Workman, DEP
Mark Latch, DEP
December McSherry
Svenn Linkskold
Tom Greenhalgh
Dave Bruderly
Chris Bird, Alachua Co. DER
Chair, Alachua Co. BCC
J. Calvin Gaddy
Craig Pittman, St. Pete. Times
Frank Darabi, P.E.

Patrice Boyes, Esq.
Kathy Cantwell
Ralph Ashodian
Virginia Seacrist
Bob and Lynn Milner
Helen Beaty
Linda Pollini
Helen Beatty
Bessie Robinson
Chuck Yagel
Jim Stevenson

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.


(Clerk) 10/6/04
(Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

Florida Department of Environmental Protection

Suwannee American Cement
Branford Plant - Branford
Suwannee County

Draft Air Construction Permit (Letter)No.: 1210465-013-AC

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit (letter) to Suwannee American Cement (SAC) to allow the evaluation of selective non-catalytic reduction (SNCR) at the Branford Plant located near Branford in Suwannee County. A new Best Available Control Technology (BACT) determination was not required. The applicant's name and address are: Suwannee American Cement, P.O. Box 410, Branford, Florida 32008.

SAC requests permission to use SNCR in a test program that will allow the Department and SAC to determine the range of NO_x emission reductions possible under multiple operating scenarios using SNCR. The proposed testing evaluation will not result in significant net emissions increases and a new evaluation under the rules for the Prevention of Significant Deterioration (PSD) is not required.

The plant has continuous emissions monitoring (CEM) equipment for NO_x, SO₂, opacity and total hydrocarbons as well as annual testing requirements for all of the regulated pollutants. The plant is subject to 40CFR63, Subpart LLL. As part of these tests, additional testing will be performed for particulate matter and visible emissions in conjunction with the CEM data.

The Department will issue the Final Permit (Letter) 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 fourteen (14) days from the date of publication of this 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, 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. 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) 488-0114
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 technical evaluation, Draft Air Construction Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, North Permitting Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. The technical evaluation and draft permit (authorization letter) can be viewed at www.dep.state.fl.us/air/permitting/construct.htm in the Suwannee American Cement Branford link.

October XX, 2004

CERTIFIED MAIL – Return Receipt Requested

Mr. Celso Martini
Plant Manager
Suwannee American Cement, LLC (SAC)
P.O. Box 410
Branford, Florida 32008

RE: **Draft** Authorization to Conduct Pollutant Testing and Parameter Measurements for the Implementation of Selective Non Catalytic Reduction (SNCR) for the Control of Oxides of Nitrogen (NOx) 1210465-013 -AC

Dear Mr. Martini:

The Department has reviewed the request that you provided on October 1, 2004. We have considered the Department's legal authority to allow SAC to conduct the requested testing and measurements on its existing kiln and associated equipment at the 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. The purpose of this testing is to help the company and the Department assess the viability of SNCR as a NOx control measure in the cement industry. Paragraph 403.061(16), Florida Statutes (F.S.), authorizes the Department to encourage voluntary cooperation by persons in order to achieve the purposes of the state environmental control act. Paragraph 403.061(18), F.S., authorizes the Department to encourage and conduct studies, investigations, and research relating to the causes and control of pollution. Rule 62-210.700(5), Florida Administrative Code (F.A.C.), authorizes the Department to consider variation in industrial equipment and make allowances for excess emissions that provide reasonable and practical regulatory controls consistent with public interest.

In accordance with the provisions of Paragraphs 403.061(16) and (18), F.S., and Rule 62-210.700(5), F.A.C., you are hereby authorized to conduct pollutant testing and parameter measurements for the evaluation of emission ranges and the effectiveness of SNCR for NOx control under a variety of operating scenarios for the kiln and associated equipment at the Branford Cement Plant. This evaluation will require SAC to vary the collection efficiency of the existing NOx controls to establish performance curves between NOx

Mr. Celso Martini
Suwannee American Cement
Branford Cement Plant
Page Two

emissions and ammonia injection, thus creating an operational condition near or in excess of the Florida NO_x emissions and opacity standards. The data gathered will allow the calibration of the SNCR system and evaluation of the various NO_x control scenarios outlined in Attachment A. The pollutants and or parameters to be measured or monitored will include sulfur dioxide, nitrogen oxides, particulate matter, visible emissions, carbon monoxide, unit operational parameters including load, fuel flow, excess air and flue gas temperature, and other unit specific parameters that are needed for the evaluation.

The performance tests and parameter measurements or monitoring shall be subject to the following conditions:

1. Unless waived, the permittee shall notify the Department's Northeast District and Bureau of Air Regulation offices at least 15 days prior to commencement of the performance tests and parameter measurements or monitoring. A written test protocol shall be submitted to these offices at least 15 days prior to beginning the tests. The written protocol shall as a minimum address the testing principles in Attachment A (Attached). A written report shall be submitted to these offices within 45 days upon completion of the last test run and parameter measurements and monitoring.
2. The authorized testing and measurement and monitoring schedule is from October 15 thru December 15, 2004, for a total of 60 days. If additional time is needed, the permittee shall provide the Department with documentation of the progress accomplished to date and shall identify what is left to be done to complete the testing and measurements or monitoring.
3. The parameters to be measured or monitored are sulfur dioxide by use of a continuous emission monitoring system (CEM), nitrogen oxides by the use of a CEM, opacity by the use of a continuous opacity monitor and/or EPA Method 9, Total Hydrocarbons (THC) by the use of a CEM, carbon monoxide using EPA Method 10, ammonia slip using either a portable CEM or EPA Method CTM 027, load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the SNCR evaluation.
4. In addition to the parameter monitoring in 3. above, one time emissions tests during each phase of SNCR evaluation shall be conducted for the following pollutants and using the following test methods:
 - a. Particulate matter EPA Test Method 5 (including EPA Test Methods 1 thru 4)
 - b. Visible emissions EPA Test Method 9
5. The release of objectionable odors pursuant to Rule 62-296.320(2), F.A.C., is not authorized for this activity.
6. Performance testing shall immediately cease upon the occurrence of a valid environmental complaint by a citizen or other party, or a nuisance or danger to the public health or welfare. Performance testing shall not resume until appropriate measures to correct the problem have been implemented.

Mr. Celso Martini
Suwannee American Cement
Branford Cement Plant
Page Three

7. The performance tests and parameter measurements and monitoring shall be under the direct supervision and responsible charge of a professional engineer registered in Florida.
8. This Department action is just to authorize the performance testing and parameter measurements and monitoring for the Branford Cement Plant for the purpose of evaluating the effectiveness of the use of SNCR on controlling and reducing NOx emissions in the cement industry.
9. Complete documentation of the activity shall be kept on file for at least 5 (five) years.
10. The Department shall be notified in writing on the date of the last test run and parameter measurement and monitoring completion. If after work hours, notification shall occur on the next work day.
11. Attachment Section.
 - a. Dr. John B. Koogler, P.E. letter received October 1, 2004.
 - b. Final Determination

The Department has relied on the information referenced in the Attachment Section and conversations with representatives of SAC in authorizing this activity.

Sincerely,

Michael G. Cooke, Director
Division of Air Resource Management

TLV/jkp

Enclosures

cc: Trina Vielhauer, DEP - BAR
Jim Pennington, DEP - BAR
Al Linero, DEP - BAR
Bobby Bull, DEP - BAR
Chris Kirts, DEP - NED
Richard Banks, DEP - NED
Rita Felton-Smith, DEP - NED
Joe Kahn, DEP - BAMMS
Dr. John B. Koogler, PhD, P.E. Koogler and Associates
Chair, Suwannee County Commission
Joe Horton, SAC

Testing Principles

The following points are the basis for the protocol that needs to be developed by Suwannee American Cement (SAC) and its consultants. SAC shall try to find the combination of SNCR and degree of reducing conditions in the calciner that yields best operation and around 150 ppm (corrected) NO_x emissions. The various objectives stated below can be adjusted as operational problems occur or are aggravated.

1. **Baseline:** Establish and document a baseline under the present operations. This should include present NO_x and CO values together with documentation of the kinds of problems already encountered such as: frequency of air cannon use, carbox charges, blockages, stops, starts, etc.
2. Establish an oxidizing atmosphere in the calciner. Tune/adjust main kiln burner to the extent possible to minimize thermal NO_x formation while making good quality clinker.
3. Establish a baseline prior to initiation of SNCR or renewed operation in MSC modes. The baseline NO_x emission limit shall not be more than 400 ppm (corrected). This is approximately equal to 4 lb/ton of clinker. This data will be excluded from the daily limit of 2.9 lb of NO_x/ton of clinker for those hours (or days) when the baseline is established. Additionally, data showing CO and opacity excursions as a result of these tests will be excluded. All other emission limits shall be met. The Company shall document all excursions and take appropriate steps to minimize them during testing.
4. **SNCR without staged air:** After establishing the baseline and steady state operation is established, ammonia shall be injected to progressively reduce NO_x emissions to 350, 300, 250, 200, and 150 ppm (corrected). Minimum achievable NO_x emissions are expected to be around 100 ppm (corrected).
5. **Multi-staged Combustion:** Oxygen shall then be progressively depleted in the calciner to operate in fuel staged combustion to determine further reductions possible, if any, by the combination of fuel staged (MSC) and moderate ammonia use.
6. Ammonia use shall be increased to achieve 100 ppm (corrected) or lower if feasible.
7. Ammonia use shall then be decreased to achieve 150 ppm.
8. **Air Staged Combustion:** Reduction of the NO_x emission rates of about 150 ppm and 200 ppm shall be established by operating the calciner in the air staged combustion (ASC) mode while using SNCR.



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

P.E. Certification Statement

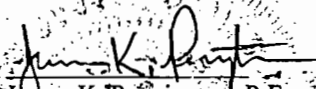
Permittee: Suwannee American Cement, LLC (SAC)
Branford Cement Plant

DRAFT Permit No.: 1210465-013-AC

Project: Air Construction Permit for SNCR Testing

I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

This draft permit was prepared by me with input from Bureau of Air Regulation personnel as needed.


James K. Pennington, P.E.
Registration Number: 34536

10/6/04
Date

Permitting Authority
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0144
Fax: 850/922-6979



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

P.E. Certification Statement

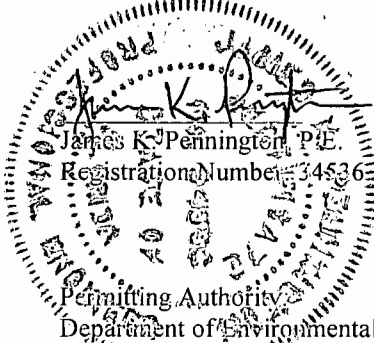
Permittee: Suwannee American Cement, LLC (SAC)
Branford Cement Plant

DRAFT Permit No.: 1210465-013-AC

Project: Air Construction Permit for SNCR Testing

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This draft permit was prepared by me with input from Bureau of Air Regulation personnel as needed.



10/6/04
Date

Permitting Authority
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0144
Fax: 850/922-6979

Jim



KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES

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

Mr. Jim Pennington

FDEP

Twin Towers Office Building

2600 Blair Stone Road

Tallahassee, FL 32399-2400

KA 624-03-11
September 30, 2004

Via Email and Overnight Delivery

RECEIVED

OCT 01 2004

BUREAU OF AIR REGULATION

RE: Suwannee American Cement

Facility ID: 1210465

SNCR Test

1210465-013-AC

Dear Jim:

As engineer of record for several environmental related projects at the Suwannee American Cement (SAC) Branford, Florida Cement Plant, I am writing to certify, as a professional engineer registered in the state of Florida, the selective non-catalytic reduction (SNCR) tests proposed by SAC.

The SNCR tests will be conducted at the existing SAC Branford Cement Plant to evaluate the efficacy of SNCR for controlling NOx emissions under various kiln operating conditions. The tests will be conducted by SAC in conjunction with Krupp Polysius; the designer of the plant. The tests are planned to be conducted during or about the week of October 25, 2004.

The test program has been conceptually described in the letter to you dated September 28, 2004 from Joe Horton, Environmental Manager of SAC. I have reviewed the test plan and have discussed the test objectives with Horton and am of the professional opinion that the proposed tests and the emission data and process data collected during the tests will provide the information necessary to evaluate the efficacy of SNCR for NOx reduction at the SAC plant.

Regarding the stack emissions during the test period, NOx, SO2, THC and opacity will be monitored by the continuous monitors installed in the kiln/raw mill stack. Koogler and Associates will be responsible for measuring carbon monoxide (EPA Method 10) and ammonia emissions. It is anticipated that ammonia emissions will be monitored with a continuous monitoring instrument. The specific instrument that will be used for these tests is presently under investigation by Koogler and Associates. The specific type of instrument and specifications of the instrument will be provided to the Department prior to the test period.

The emission data collected by the continuous monitors and by Koogler and Associates personnel will be incorporated with the process data and SNCR data collected

during the test period and transmitted to the Department as a SNCR test report. The general content of this report has been outlined in Horton's letter to you dated September 28, 2004.

One final matter is the processing fee for the approval requested for the SNCR tests. Attached hereto find a check payable to the Florida Department of Environmental Protection in the amount of \$250 for a minor modification to the existing SAC air construction permit with no significant change in emissions.

If there are further questions or comments regarding this project, please do not hesitate to contact me by email at jkoogler@kooglerassociates.com or by telephone at 352-377-5822.

Very truly yours,

KOOGLER & ASSOCIATES


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

JBK/lt

cc: Trina Vielhauer
Al Linerio
Celso Martini
Joe Horton



RECEIVED

SEP 30 2004

BUREAU OF AIR REGULATION

September 28, 2004

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

SUBJECT: SNCR Test
Suwannee American Cement – Branford Plant
Facility ID No. 1210465
PSD-FL-259D
1210465-013-AC

Dear Mr. Linero:

Suwannee American Cement (SAC) requests approval for a temporary test of a Selective Non-Catalytic Reduction (SNCR) system on the existing kiln system. SAC wishes to evaluate the feasibility and reductions possible in NO_x emissions with use of a system on Kiln System with Separate Line Calciner and Multi-Stage Combustion. This test would be conducted over a five to seven day period. Therefore SAC requests a 10 operating day Test Period to conduct appropriate testing with SNCR.

This test shall be conducted in conjunction with the Kiln System manufacturer Polysius. Polysius will be supplying SAC with a temporary SNCR system capable of injecting an ammonia and water solution into the appropriate locations of the kiln system. Polysius will assist in determining the correct location and assist in operations of the amount of ammonia used for the reduction. A suitable temperature and oxygen profile must exist for the location of injection, this will area will be determined with help from Polysius.

SAC hopes to evaluate the following scenarios if possible:

- Scenario 1 – Operate the kiln system in an oxidizing condition with no reducing conditions created by the staged combustion. In intervals of molar ratio increase the amount of ammonia and determine the optimal reduction with SNCR alone while not injecting more than a 1 to 1 molar ratio of ammonia to NO_x.
- Scenario 2 – Operate the kiln system in a reducing phase with use of the multi-staged combustion. In intervals of molar ratio increase the amount of ammonia to determine the reduction possible with the use of both SNCR and multi-staged combustion. Again doing so while no injecting more than a 1 to 1 molar ratio of ammonia to NO_x.

During each of these tests SAC will be monitoring all emissions with close regard paid to NO_x emissions. SAC will also closely monitor all process variables which could possibly be negatively affected from the injection of ammonia. These include, pressure increases due to buildup or ammonia scaling, temperature profiles, quality including ammonia in the clinker, visual stack problems including opacity and detached

plume, increase in Carbon Monoxide (CO) in the preheater tower and at the stack, and odors caused by ammonia.

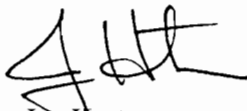
Due to the possible negative outcomes of the test SAC requests relief from certain conditions to determine the full effect of injection of ammonia. SAC requests the following permit conditions be evaluated:

- NOx Emissions – Due to the testing SAC will first need to run the kiln system in an oxidizing state which will result in higher NOx emissions. This needs to be done to determine the capability for reducing NOx emissions with the SNCR system. Additionally the use of SNCR could cause process upsets resulting in difficulty in maintaining pound per ton of clinker limits. During the test SAC would request relief from all of its NOx limits and from any emission limits expressed in terms of pound per ton due to the problems caused during low production.
- Opacity – A known problem with the use of SNCR is opacity from the main stack. SAC has a 10% Opacity limit which during the test period may be exceeded from the formation of mists, aerosols or vapors from the use of ammonia. These opacity issues will not be caused from dust but from the formation of these mists. Additionally to opacity concerns are detached plumes. Although there are no limits or standards for detached plumes SAC wishes to notify the Department that detached plumes are a possibility during the test.
- Ammonia – Although SAC has no ammonia limit and no ammonia standard exists for cement kilns, SAC would request that any ammonia data gathered be referenced in terms of the test and not normal operations.
- Carbon Monoxide (CO) – SAC does not monitor CO real time but does however have a limit in terms of pound per hour and pounds per ton of clinker. During the test SAC would request relief from these limits due to the potential increase in the generation of CO from the SNCR process.

At the conclusion of the test SAC will provide to the Department a written report detailing the findings of the SNCR test. The test will include all relevant process data, emission results, feed rates of ammonia, and additional testing that has been conducted. The report will also evaluate the effectiveness of the use of SNCR on strictly oxidizing kiln conditions, and in conjunction with multi-staged combustion. In the evaluation SAC will consider the effects of opacity, detached plumes, ammonia emissions, odor, kiln operations, clinker quality, and overall NOx reductions in determining the feasibility of SNCR.

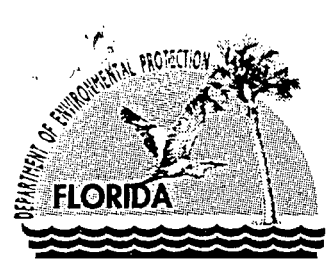
If you have any questions or require any additional information, please feel free to contact me at (386) 935-5039 or by e-mail at jbhorton@suwanneecement.com.

Sincerely,



Joe Horton
Suwannee American Cement

CC: Trina Vielhauer – DEP
Jim Pennington – DEP
Celso Martini – SAC
Dr. John Koogler – Koogler and Associates



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

October 5, 2004

CERTIFIED MAIL – Return Receipt Requested

Mr. Celso Martini
Plant Manager
Suwannee American Cement (SAC)
Branford Plant
P.O. Box 410
Branford, Florida 32008

RE: **Draft** Authorization to Conduct Pollutant Testing and Parameter Measurements for the Evaluation of Selective Non Catalytic Reduction (SNCR) for the Control of Oxides of Nitrogen (NOx) 1210465-013-AC

Dear Mr. Martini:

Attached is one copy of the proposed authorization, 1210465-013-AC, to conduct pollutant testing and parameter measurements for the evaluation of SNCR technology for the control of NOx using the SAC Branford Cement Manufacturing Facility, which is located near Branford, Suwannee County. This evaluation will require SAC to vary the operational modes of the cement manufacturing facility to establish expected NOx emissions while using SNCR, thus potentially creating operational conditions with emissions near or in excess of the present permitted limits. The data gathered will allow the evaluation of SNCR technology applicability to the cement manufacturing industry. The pollutants and or parameters to be measured or monitored will include sulfur dioxide [CEM (continuous emission monitor)], nitrogen oxides (CEM), particulate matter, visible emissions, carbon monoxide (CEM), ash content of the fuel, ultimate fuel analyses, unit operational parameters including load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the evaluation. Particulate size distribution may be evaluated also. The testing is scheduled to run from October 15 through December 15, 2004.

The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" are also included. The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to James K. Pennington, P.E., at the above letterhead address. If you have any other questions, please contact him at 850/921-9515.

Sincerely,

Trina L. Vielhauer
Chief
Bureau of Air Regulation

TLV/jkp

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of an
Application for Permit by:

Suwannee American Cement (SAC)
P.O. Box 410
Branford, Florida 32008

Air Construction Permit No.: 1210465-013-AC
Branford Plant
Suwannee County

INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an air construction permit [copy of the draft permit (letter) enclosed] for the facility detailed in the application specified above, to authorize Suwannee American Cement (SAC) to conduct pollutant testing and parameter measurements for the evaluation of SNCR technology for the control of NOx using the SAC's Branford Cement Manufacturing Facility, which is located near Branford, Suwannee County.

The permittee, SAC, applied on October 1, 2004, for authorization, to conduct pollutant testing and parameter measurements for the evaluation of SNCR technology for the control of NOx using the SAC's Branford Cement Manufacturing Facility, which is located near Branford, Suwannee County. This evaluation will require SAC to vary the operational modes of the cement manufacturing facility to establish expected NOx emissions while using SNCR, thus potentially creating operational conditions with emissions near or in excess of the present permitted limits. The data gathered will allow the evaluation of SNCR technology applicability to the cement manufacturing industry. The pollutants and or parameters to be measured or monitored will include sulfur dioxide [CEM (continuous emission monitor)], nitrogen oxides (CEM), particulate matter, visible emissions, carbon monoxide (CEM), ash content of the fuel, ultimate fuel analyses, unit operational parameters including load, fuel flow, excess air, flue gas temperature, and other unit specific parameters that are needed for the evaluation. Particulate size distribution may be evaluated also. The testing is scheduled to run from October 15 through December 15, 2004.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4 and 62-210, F.A.C. This source is not exempt from permitting procedures. The permitting authority has determined that an Air Construction Permit is required for the proposed activity.

The permitting authority intends to issue this Air Construction Permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. 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 permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax: 850/922-6979), within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

The permitting authority will issue the Final Air Construction Permit in accordance with the conditions of the enclosed Draft Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority 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 AN AIR CONSTRUCTION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

The permitting authority 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. Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with 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 of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any other person must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. A petitioner must 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 28-5.207, F.A.C.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;
- (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;
- (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority 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 to the Department of Environmental Protection 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. 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 of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

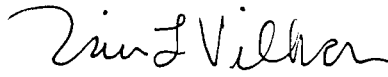
- (a) The name, address, and telephone number of the petitioner;
- (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
- (c) Each rule or portion of a rule from which a variance or waiver is requested;
- (d) The citation to the statute underlying (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 United States Environmental Protection Agency 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.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**



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 AN AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE and the Draft Permit (letter)) and all copies were sent by certified mail before the close of business on 10/6/04 to the person(s) listed:

Mr. Celso Martini, Plant Manager, SAC

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE and the Draft Permit (letter)) were sent by U.S. mail on the same date to the person(s) listed:

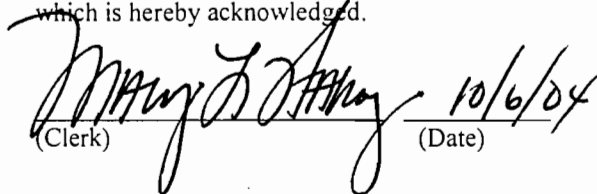
Joe Horton, SAC
John Koogler, Koogler and Associates
Chris Kirts, DEP – NED
Rick Banks, DEP – NED
Rita Felton-Smith, DEP – NED
Joe Kahn, DEP – BAMMS
Al Linero, DEP – BAR
Claude Grinfelder, SAC
Larry Sellars, Esq.
Steve Cullen, Koogler and Associates
Jim Little, EPA
John Bunyak, NPS

Tom Workman, DEP
Mark Latch, DEP
December McSherry
Svenn Linkskold
Tom Greenhalgh
Dave Bruderly
Chris Bird, Alachua Co. DER
Chair, Alachua Co. BCC
J. Calvin Gaddy
Craig Pittman, St. Pete. Times
Frank Darabi, P.E.

Patrice Boyes, Esq.
Kathy Cantwell
Ralph Ashodian
Virginia Seacrist
Bob and Lynn Milner
Helen Beaty
Linda Pollini
Helen Beatty
Bessie Robinson
Chuck Yagel
Jim Stevenson

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.


(Clerk) 10/6/04 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

Florida Department of Environmental Protection

Suwannee American Cement
Branford Plant - Branford
Suwannee County

Draft Air Construction Permit (Letter) No.: 1210465-013-AC

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit (letter) to Suwannee American Cement (SAC) to allow the evaluation of selective non-catalytic reduction (SNCR) at the Branford Plant located near Branford in Suwannee County. A new Best Available Control Technology (BACT) determination was not required. The applicant's name and address are: Suwannee American Cement, P.O. Box 410, Branford, Florida 32008.

SAC requests permission to use SNCR in a test program that will allow the Department and SAC to determine the range of NO_x emission reductions possible under multiple operating scenarios using SNCR. The proposed testing evaluation will not result in significant net emissions increases and a new evaluation under the rules for the Prevention of Significant Deterioration (PSD) is not required.

The plant has continuous emissions monitoring (CEM) equipment for NO_x, SO₂, opacity and total hydrocarbons as well as annual testing requirements for all of the regulated pollutants. The plant is subject to 40CFR63, Subpart LLL. As part of these tests, additional testing will be performed for particulate matter and visible emissions in conjunction with the CEM data.

The Department will issue the Final Permit (Letter) 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 fourteen (14) days from the date of publication of this 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, 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. 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) 488-0114
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 technical evaluation, Draft Air Construction Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, North Permitting Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. The technical evaluation and draft permit (authorization letter) can be viewed at www.dep.state.fl.us/air/permitting/construct.htm in the Suwannee American Cement Branford link.

October XX, 2004

CERTIFIED MAIL – Return Receipt Requested

Mr. Celso Martini
Plant Manager
Suwannee American Cement, LLC (SAC)
P.O. Box 410
Branford, Florida 32008

RE: **Draft** Authorization to Conduct Pollutant Testing and Parameter Measurements for the Implementation of Selective Non Catalytic Reduction (SNCR) for the Control of Oxides of Nitrogen (NOx) 1210465-013 -AC

Dear Mr. Martini:

The Department has reviewed the request that you provided on October 1, 2004. We have considered the Department's legal authority to allow SAC to conduct the requested testing and measurements on its existing kiln and associated equipment at the 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. The purpose of this testing is to help the company and the Department assess the viability of SNCR as a NOx control measure in the cement industry. Paragraph 403.061(16), Florida Statutes (F.S.), authorizes the Department to encourage voluntary cooperation by persons in order to achieve the purposes of the state environmental control act. Paragraph 403.061(18), F.S., authorizes the Department to encourage and conduct studies, investigations, and research relating to the causes and control of pollution. Rule 62-210.700(5), Florida Administrative Code (F.A.C.), authorizes the Department to consider variation in industrial equipment and make allowances for excess emissions that provide reasonable and practical regulatory controls consistent with public interest.

In accordance with the provisions of Paragraphs 403.061(16) and (18), F.S., and Rule 62-210.700(5), F.A.C., you are hereby authorized to conduct pollutant testing and parameter measurements for the evaluation of emission ranges and the effectiveness of SNCR for NOx control under a variety of operating scenarios for the kiln and associated equipment at the Branford Cement Plant. This evaluation will require SAC to vary the collection efficiency of the existing NOx controls to establish performance curves between NOx

Mr. Celso Martini
Suwannee American Cement
Branford Cement Plant
Page Three

7. The performance tests and parameter measurements and monitoring shall be under the direct supervision and responsible charge of a professional engineer registered in Florida.
8. This Department action is just to authorize the performance testing and parameter measurements and monitoring for the Branford Cement Plant for the purpose of evaluating the effectiveness of the use of SNCR on controlling and reducing NOx emissions in the cement industry.
9. Complete documentation of the activity shall be kept on file for at least 5 (five) years.
10. The Department shall be notified in writing on the date of the last test run and parameter measurement and monitoring completion. If after work hours, notification shall occur on the next work day.
11. Attachment Section.
 - a. Dr. John B. Koogler, P.E. letter received October 1, 2004.
 - b. Final Determination

The Department has relied on the information referenced in the Attachment Section and conversations with representatives of SAC in authorizing this activity.

Sincerely,

Michael G. Cooke, Director
Division of Air Resource Management

TLV/jkp

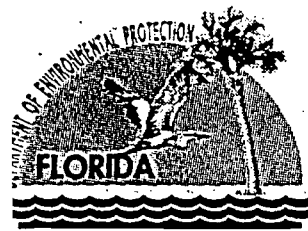
Enclosures

cc: Trina Vielhauer, DEP - BAR
Jim Pennington, DEP - BAR
Al Linero, DEP - BAR
Bobby Bull, DEP - BAR
Chris Kirts, DEP - NED
Richard Banks, DEP - NED
Rita Felton-Smith, DEP - NED
Joe Kahn, DEP - BAMMS
Dr. John B. Koogler, PhD, P.E. Koogler and Associates
Chair, Suwannee County Commission
Joe Horton, SAC

Testing Principles

The following points are the basis for the protocol that needs to be developed by Suwannee American Cement (SAC) and its consultants. SAC shall try to find the combination of SNCR and degree of reducing conditions in the calciner that yields best operation and around 150 ppm (corrected) NO_x emissions. The various objectives stated below can be adjusted as operational problems occur or are aggravated.

1. **Baseline:** Establish and document a baseline under the present operations. This should include present NO_x and CO values together with documentation of the kinds of problems already encountered such as: frequency of air cannon use, cardox charges, blockages, stops, starts, etc.
2. Establish an oxidizing atmosphere in the calciner. Tune/adjust main kiln burner to the extent possible to minimize thermal NO_x formation while making good quality clinker.
3. Establish a baseline prior to initiation of SNCR or renewed operation in MSC modes. The baseline NO_x emission limit shall not be more than 400 ppm (corrected). This is approximately equal to 4 lb/ton of clinker. This data will be excluded from the daily limit of 2.9 lb of NO_x/ton of clinker for those hours (or days) when the baseline is established. Additionally, data showing CO and opacity excursions as a result of these tests will be excluded. All other emission limits shall be met. The Company shall document all excursions and take appropriate steps to minimize them during testing.
4. **SNCR without staged air:** After establishing the baseline and steady state operation is established, ammonia shall be injected to progressively reduce NO_x emissions to 350, 300, 250, 200, and 150 ppm (corrected). Minimum achievable NO_x emissions are expected to be around 100 ppm (corrected).
5. **Multi-staged Combustion:** Oxygen shall then be progressively depleted in the calciner to operate in fuel staged combustion to determine further reductions possible, if any, by the combination of fuel staged (MSC) and moderate ammonia use.
6. Ammonia use shall be increased to achieve 100 ppm (corrected) or lower if feasible.
7. Ammonia use shall then be decreased to achieve 150 ppm.
8. **Air Staged Combustion:** Reduction of the NO_x emission rates of about 150 ppm and 200 ppm shall be established by operating the calciner in the air staged combustion (ASC) mode while using SNCR.



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

P.E. Certification Statement


Permittee: Suwannee American Cement, LLC (SAC)
Branford Cement Plant

DRAFT Permit No.: 1210465-013-AC

Project: Air Construction Permit for SNCR Testing

I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

This draft permit was prepared by me with input from Bureau of Air Regulation personnel as needed.


James K. Pennington, P.E.
Registration Number: 34536

10/6/04
Date

Permitting Authority
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0144
Fax: 850/922-6979

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KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES

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

Mr. Jim Pennington

FDEP

Twin Towers Office Building

2600 Blair Stone Road

Tallahassee, FL 32399-2400

KA 624-03-11
September 30, 2004

Via Email and Overnight Delivery

RECEIVED

OCT 01 2004

BUREAU OF AIR REGULATION

RE: Suwannee American Cement

Facility ID: 1210465

SNCR Test

1210465-013-AC

Dear Jim:

As engineer of record for several environmental related projects at the Suwannee American Cement (SAC) Branford, Florida Cement Plant, I am writing to certify, as a professional engineer registered in the state of Florida, the selective non-catalytic reduction (SNCR) tests proposed by SAC.

The SNCR tests will be conducted at the existing SAC Branford Cement Plant to evaluate the efficacy of SNCR for controlling NOx emissions under various kiln operating conditions. The tests will be conducted by SAC in conjunction with Krupp Polysius; the designer of the plant. The tests are planned to be conducted during or about the week of October 25, 2004.

The test program has been conceptually described in the letter to you dated September 28, 2004 from Joe Horton, Environmental Manager of SAC. I have reviewed the test plan and have discussed the test objectives with Horton and am of the professional opinion that the proposed tests and the emission data and process data collected during the tests will provide the information necessary to evaluate the efficacy of SNCR for NOx reduction at the SAC plant.

Regarding the stack emissions during the test period, NOx, SO₂, THC and opacity will be monitored by the continuous monitors installed in the kiln/raw mill stack. Koogler and Associates will be responsible for measuring carbon monoxide (EPA Method 10) and ammonia emissions. It is anticipated that ammonia emissions will be monitored with a continuous monitoring instrument. The specific instrument that will be used for these tests is presently under investigation by Koogler and Associates. The specific type of instrument and specifications of the instrument will be provided to the Department prior to the test period.

The emission data collected by the continuous monitors and by Koogler and Associates personnel will be incorporated with the process data and SNCR data collected

during the test period and transmitted to the Department as a SNCR test report. The general content of this report has been outlined in Horton's letter to you dated September 28, 2004.

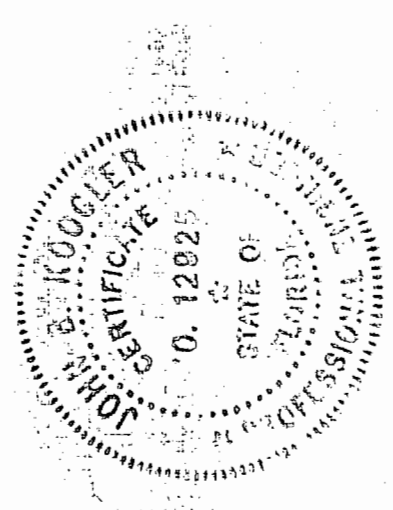
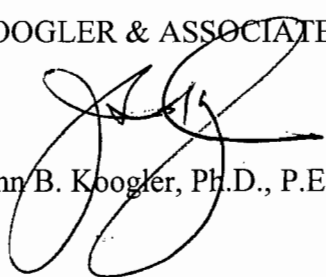
One final matter is the processing fee for the approval requested for the SNCR tests. Attached hereto find a check payable to the Florida Department of Environmental Protection in the amount of \$250 for a minor modification to the existing SAC air construction permit with no significant change in emissions.

If there are further questions or comments regarding this project, please do not hesitate to contact me by email at jkoogler@kooglerassociates.com or by telephone at 352-377-5822.

Very truly yours,

KOOGLER & ASSOCIATES

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



JBK/lt

cc: Trina Vielhauer
Al Linerio
Celso Martini
Joe Horton

C. Kirta, NED
C. Yeast
of Pennington





KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES

4014 NW THIRTEENTH STREET
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Mr. Jim Pennington
FDEP

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

KA 624-03-11
September 30, 2004

Via Email and Overnight Delivery

RECEIVED

OCT 20 2004

BUREAU OF AIR REGULATION

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Facility ID: 1210465
SNCR Test

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Very truly yours,

KOOGLER & ASSOCIATES


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

JBK/lt

cc: Trina Vielhauer
Al Linerio
Celso Martini
Joe Horton



RECEIVED

SEP 30 2004

BUREAU OF AIR REGULATION

September 28, 2004

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

SUBJECT: SNCR Test
Suwannee American Cement – Branford Plant
Facility ID No. 1210465
PSD-FL-259D
1210465-013-AC

Dear Mr. Linero:

Suwannee American Cement (SAC) requests approval for a temporary test of a Selective Non-Catalytic Reduction (SNCR) system on the existing kiln system. SAC wishes to evaluate the feasibility and reductions possible in NO_x emissions with use of a system on Kiln System with Separate Line Calciner and Multi-Staged Combustion. This test would be conducted over a five to seven day period. Therefore SAC requests a 10 operating day Test Period to conduct appropriate testing with SNCR.

This test shall be conducted in conjunction with the Kiln System manufacturer Polysius. Polysius will be supplying SAC with a temporary SNCR system capable of injecting an ammonia and water solution into the appropriate locations of the kiln system. Polysius will assist in determining the correct location and assist in operations of the amount of ammonia used for the reduction. A suitable temperature and oxygen profile must exist for the location of injection, this will area will be determined with help from Polysius.

SAC hopes to evaluate the following scenarios if possible:

- Scenario 1 – Operate the kiln system in an oxidizing condition with no reducing conditions created by the staged combustion. In intervals of molar ratio increase the amount of ammonia and determine the optimal reduction with SNCR alone while not injecting more than a 1 to 1 molar ratio of ammonia to NO_x.
- Scenario 2 – Operate the kiln system in a reducing phase with use of the multi-staged combustion. In intervals of molar ratio increase the amount of ammonia to determine the reduction possible with the use of both SNCR and multi-staged combustion. Again doing so while not injecting more than a 1 to 1 molar ratio of ammonia to NO_x.

During each of these tests SAC will be monitoring all emissions with close regard paid to NO_x emissions. SAC will also closely monitor all process variables which could possibly be negatively affected from the injection of ammonia. These include, pressure increases due to buildup or ammonia scaling, temperature profiles, quality including ammonia in the clinker, visual stack problems including opacity and detached

plume, increase in Carbon Monoxide (CO) in the preheater tower and at the stack, and odors caused by ammonia.

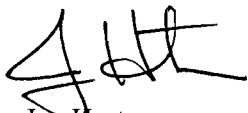
Due to the possible negative outcomes of the test SAC requests relief from certain conditions to determine the full effect of injection of ammonia. SAC requests the following permit conditions be evaluated:

- NOx Emissions – Due to the testing SAC will first need to run the kiln system in an oxidizing state which will result in higher NOx emissions. This needs to be done to determine the capability for reducing NOx emissions with the SNCR system. Additionally the use of SNCR could cause process upsets resulting in difficulty in maintaining pound per ton of clinker limits. During the test SAC would request relief from all of its NOx limits and from any emission limits expressed in terms of pound per ton due to the problems caused during low production.
- Opacity – A known problem with the use of SNCR is opacity from the main stack. SAC has a 10% Opacity limit which during the test period may be exceeded from the formation of mists, aerosols or vapors from the use of ammonia. These opacity issues will not be caused from dust but from the formation of these mists. Additionally to opacity concerns are detached plumes. Although there are no limits or standards for detached plumes SAC wishes to notify the Department that detached plumes are a possibility during the test.
- Ammonia – Although SAC has no ammonia limit and no ammonia standard exists for cement kilns, SAC would request that any ammonia data gathered be referenced in terms of the test and not normal operations.
- Carbon Monoxide (CO) – SAC does not monitor CO real time but does however have a limit in terms of pound per hour and pounds per ton of clinker. During the test SAC would request relief from these limits due to the potential increase in the generation of CO from the SNCR process.

At the conclusion of the test SAC will provide to the Department a written report detailing the findings of the SNCR test. The test will include all relevant process data, emission results, feed rates of ammonia, and additional testing that has been conducted. The report will also evaluate the effectiveness of the use of SNCR on strictly oxidizing kiln conditions, and in conjunction with multi-staged combustion. In the evaluation SAC will consider the effects of opacity, detached plumes, ammonia emissions, odor, kiln operations, clinker quality, and overall NOx reductions in determining the feasibility of SNCR.

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.

Sincerely,



Joe Horton
Suwannee American Cement

CC: Trina Vielhauer – DEP
Jim Pennington – DEP
Celso Martini – SAC
Dr. John Koogler – Koogler and Associates

C. Kinta, NED
C. Yashil

