Suwannee American Cement
SAC
Branford, Florida, USA
P.O. Box 410
Branford, Fl 32008

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BUREAU OF AIR REGULATION

November 16, 2004

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

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

Dear Mr. Linero:

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

Fly ash injection and permanent production increase:

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

Hydrated Lime:

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

Clinker Scales:

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

Wheel Wash:

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

Tire Derived Fuel:

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

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

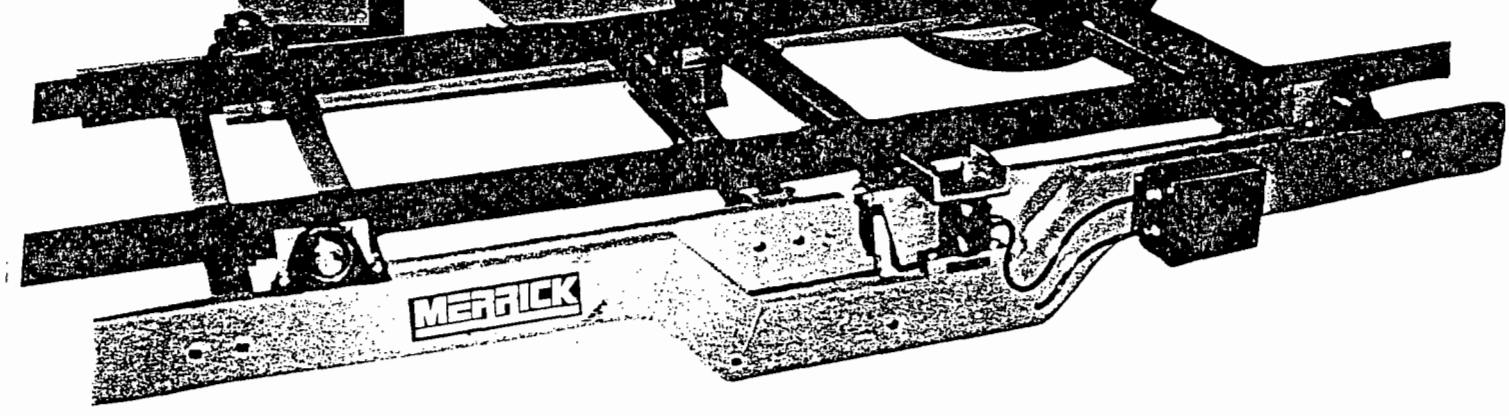
Sincerely,

Joe Horton
Suwannee American Cement

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

214-04

465A



MERRICK model 465A

WEIGHTOMETER®

FOR APRON CONVEYOR WEIGHING

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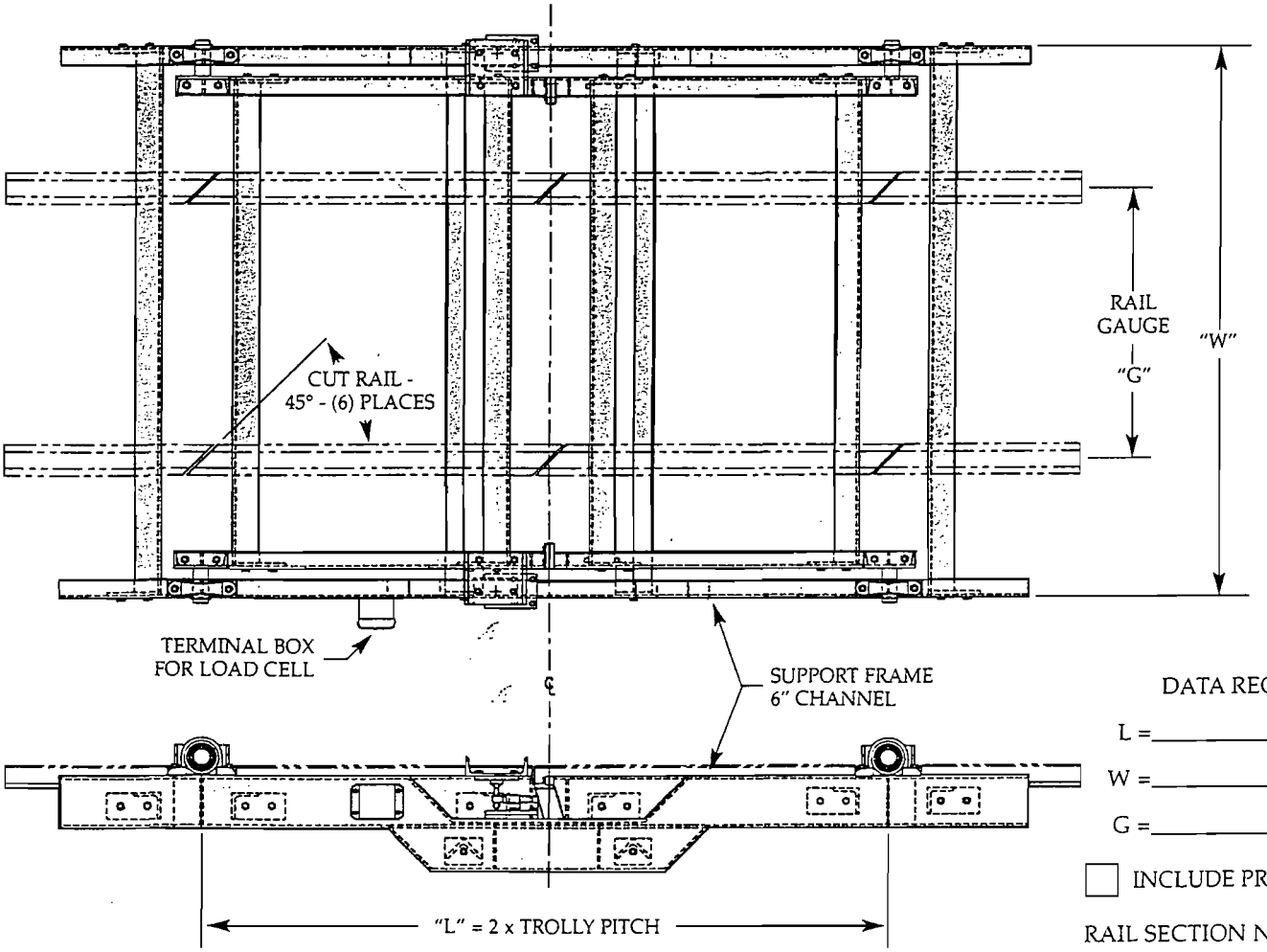
- The MERRICK model 465A WEIGHTOMETER® is a specialized Approach-Retreat Suspension System that provides the ability to weigh on an Apron Conveyor.
- The material being conveyed can be very hot and the unit can be installed on inclines of up to 45°.
- The model 465A WEIGHTOMETER® includes a heavy channel stringer with the Approach-Retreat Suspension bridges pre-installed. Optionally, the unit can be supplied disassembled to reduce shipping costs and allow easier installation.
- The unit can be supplied with the rails precut and intalled as shown, or the customer can adapt existing rails on site.
- ACCURACY: 1-2% over a 3 to 1 operating range.



DATA REQUEST

L =_____

W =_____

G =_____

☐ INCLUDE PRECUT RAILS

RAIL SECTION NO._____

Accurate and Reliable Continuous Weighing Solutions since 1908

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MERRICK INDUSTRIES, INC.

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DELEG, Cuauhtemoc
Co. Condesa
06140 MEXICO, D.F.
Phone: (525) 286-3544
FAX: (525) 553-4063

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Equipment:
Where Is It:
Parent :
VC ISA #
Location: BRN-CLI-KO KILN- COOLER
Description: L1F01 Clinker production Scale broken

Status:	WAPPR	Type:	02-CO
Reported By:	STDARCY	Reported Date:	10-Feb-04
Supervisor:	JFVALERIO	Department:	EM
Leadcraft:	LAMAR	Crew:	EM-INS
Parent:		WO Sequence:	
Priority:	3	Critical PM:	
Downtime:		Sdown Area:	

Failure Class: Problem Code:
Cause: Solution:
Comments:

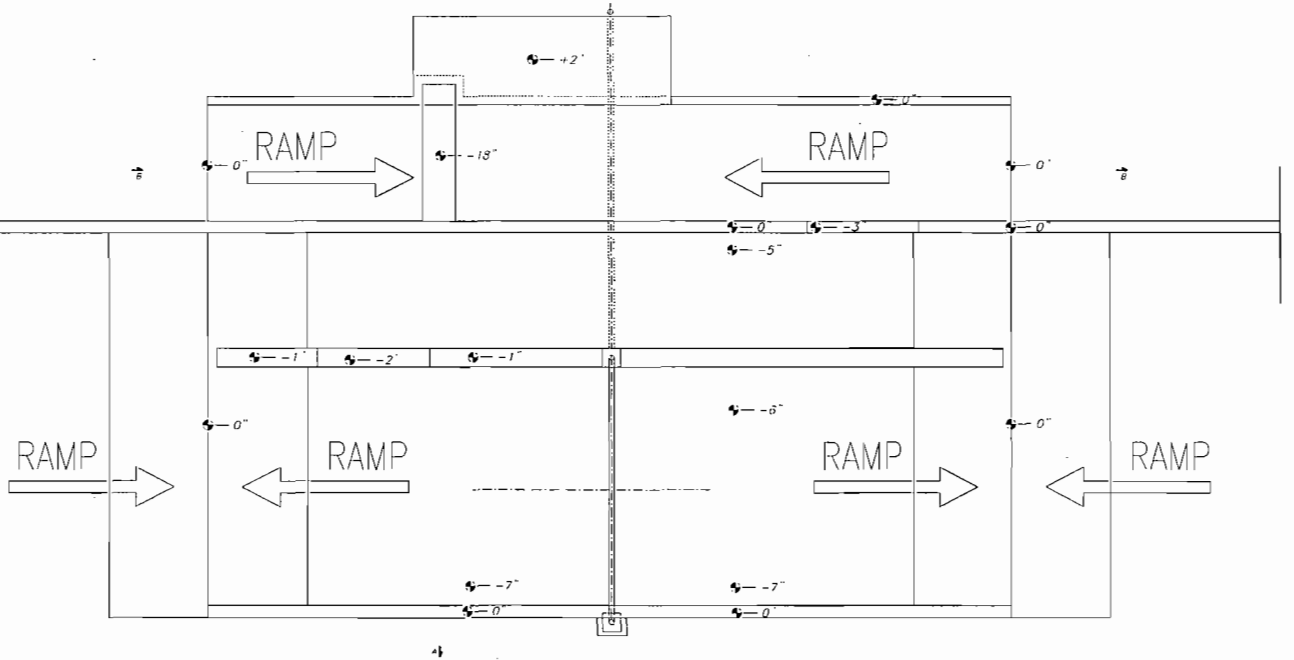
CLEANED AND CALIBRATED LOI SCALE

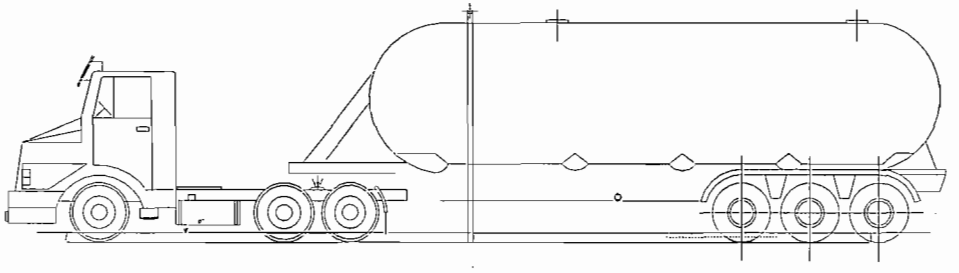
ZERO PROCEDURE 1ST -9.436 % DIFF *
2ND -0.262 % DIFF

WEIGHT PROCEDURE 1ST 0.199%
2ND -0.156%

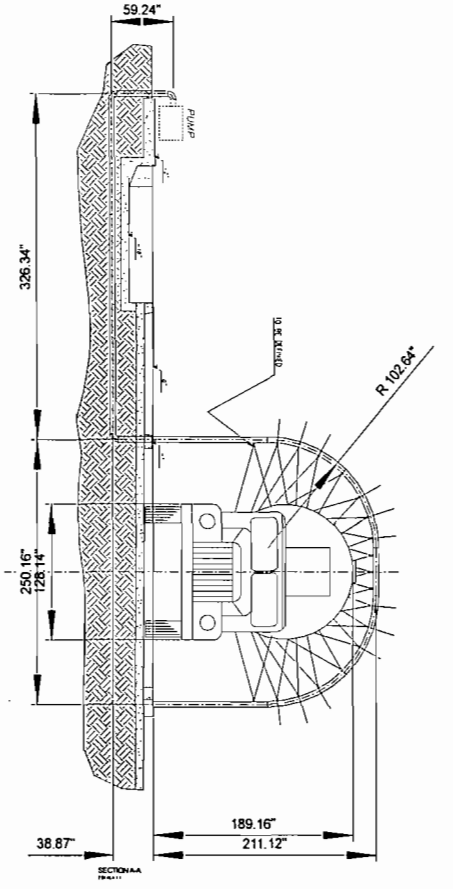
* -9 % DIFF @ THIS IS RESULT OF CABLE BEING REMOVED FROM BUCKET CONVEYOR ON 2-13-04

Date Completed: 2-15-04 Completed By: L. Pitts Supervisor: R.





SECTION B-B



SECTION A-A

LOCAL DA INSTALLAZIONE/INSTALLATION PLACE	SUMMNEE AMERICAN CEMENT
SW	TRUCK WASH 01 A

Equipment:
Where Is It:
Parent : BRN-L01-10 VC ISA #

Location: BRN-CLI-KO KILN- COOLER

Description: Calibration at L01 conveyor scale- Clinker

Status:	INPRG	**Type:**	01-PM
Reported By:	JOSEV	**Reported Date:**	11-Aug-03
Supervisor:		**Department:**	EM
Leadcraft:		**Crew:**	EM-MPR
Parent:		**WO Sequence:**	
Priority:	3	**Critical PM:**	
Downtime:		**Sdown Area:**	

Operations		Point	Value	Date	Observations	Done
10	Performed zero check and calibration wit h standart weight, per SOP					

Failure Class: **Problem Code:**
Cause: **Solution:**
Comments:

ZERO PROCEDURE

#1 OLD ZERO LOAD 194.80 LbFt
NEW ZERO LOAD 191.26 LbFt
DIFF -3.887 % ACCEPT YES

#2 OLD ZERO LOAD 191.26 LbFt
NEW ZERO LOAD 191.33 LBFt
DIFF = 0.07 % ACCEPT YES

#3 OLD ZERO LOAD 191.33 LBFT
NEW ZERO LOAD 191.61 LBFT
DIFF = 0.315 % ACCEPT YES

WEIGHT PROCEDURE

#1 OLD SCALE FACTOR 1303.6323
NEW SCALE FACTOR 1309.7587
DIFF = 0.47 % ACCEPT

#2 OLD SCALE FACTOR 1309.7587
NEW SCALE FACTOR 1315.5137
DIFF = 0.439 % ACCEPT

Date Completed: Completed By: Supervisor:

* WORK DONE TO CLINKER CONVEYOR (L01) AND CLINKER WEIGHT SCALE

Work Order Tracking List

MAXIMO®
September 16, 2004

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000009809	BRN-L01-01	Check Of Tare	05/12/2003	06/20/2003	EM-MP	3
0000010945	BRN-L01-01	INSTALL INFRARED TEMPERATURE SENSOR CLIINQUER	06/20/2003	01/21/2004	EM-MP	3
0000016001	BRN-L01-01	CHANGE L01 WHEEL COUNTER	09/15/2003	09/15/2003	PR-PR	2
0000016253	BRN-L01-01	INSTALL ROTO-BINDICATOR IN CLINKER DISCHARGE CHUTE	09/16/2003	09/16/2003	PR-PR	2
0000020768	BRN-L01-01	Assembly Protections	10/28/2003	12/03/2003	EM-MP	3
0000023512	BRN-L01-01	RE-STRING PULL CORD - FOR BUCKETS	12/01/2003	11/26/2003	EM-MP	3
0000023729	BRN-L01-01	HOOK ALARM BACK UP	12/03/2003	11/01/2003	EM-MP	3
0000024493	BRN-L01-01	PM - EMERGENCY SWITCH TEST	12/18/2003	01/13/2004	EM-MP	3
0000028549	BRN-L01-01	L1F01 Clinker production Scale broken 2/15/04 Cleaned and calibrated L01 scale Zero Procedure 1st - 9.436% Diff* 2nd. - 0.262% Diff Weight Procedure 1st - 0.189% 2nd. - 0.156% * -9% Diff This is result of cable being removed from bucket conveyor on 2/13/04 Lamar Pate	02/10/2004	02/17/2004	EM-IN	3

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September 16, 2004

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000030737	BRN-L01-01	Load cell not responding WIRES LOOSE, RE-TERMINATED, ADDED WEIGHT TO LOAD CELL, IT RESPONDED, BELIEVE IT IS OKAY. MAYBE NEEDS TO BE RE-CALIBRATED. MATT DAVIS KEVIN ROLLING	03/02/2004	03/10/2004	EM-MP	3
0000032753	BRN-L01-01	Instal VFD to control speed - PO Lines	03/24/2004	03/30/2004	EM-MP	4
0000019665	BRN-L01L	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026795	BRN-L01L	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029964	BRN-L01L	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045652	BRN-L01L	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000009827	BRN-L01-M1	CHECK CONNECTION BOX	05/12/2003	06/20/2003	EM-MP	3
0000010130	BRN-L01-M1	Standard Weight	05/13/2003	06/20/2003	EM-MP	2
0000014847	BRN-L01-M1	INSTALL MOTION SENSORS	08/20/2003	08/20/2003	EM-MP	2
0000019651	BRN-L01-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026781	BRN-L01-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000029950	BRN-L01-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045638	BRN-L01-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000019652	BRN-L02-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026782	BRN-L02-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029951	BRN-L02-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045639	BRN-L02-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000018167	BRN-L03-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS	09/29/2003	12/03/2003	EM-MP	3
0000018245	BRN-L03-01	CHECK AIR SOLENOIDS	09/30/2003	01/22/2004	EM-MP	3
0000019135	BRN-L03-01	CHECK AIR SOLENOIDS	10/08/2003	10/08/2003	EM-MP	3
0000027704	BRN-L03-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	02/06/2004		EM-MP	3
0000033602	BRN-L03-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	03/29/2004	08/31/2004	EM-MP	3

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WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000036908	BRN-L03-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	04/23/2004	06/01/2004	EM-MP	3
0000039880	BRN-L03-01	Fix dust bags - JUMP OUT PROTECTIVE INTERLOCKS	05/24/2004	06/08/2004	EM-AU	4
0000039885	BRN-L03-01	RE-START PROTECTIVE INTERLOCKS JOB COMPLETE	05/24/2004	06/08/2004	EM-AU	4
0000040032	BRN-L03-01	Fix dust bags - JUMP OUT PROTECTIVE INTERLOCKS Job already concluded!	05/27/2004	07/26/2004	EM-AU	4
0000040033	BRN-L03-01	RE-START PROTECTIVE INTERLOCKS JOB COMPLETE	05/27/2004	07/26/2004	EM-AU	4
0000042215	BRN-L03-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	06/11/2004	07/28/2004	EM-MP	3
0000043196	BRN-L03-01	JUMP OUT PROTECTIVE INTERLOCKS to repair dust bags Job already concluded!	06/25/2004	07/26/2004	EM-AU	4
0000049440	BRN-L03-01	JUMP OUT/RESTART PROTECTIVE INTERLOCKS Done!	08/06/2004	08/06/2004	EM-AU	4
0000051575	BRN-L03-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	08/27/2004		EM-MP	3
0000019653	BRN-L03-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000026783	BRN-L03-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029952	BRN-L03-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045640	BRN-L03-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000017352	BRN-L05-01	PM- RAW MILL INSPECTION ROUTE- THURSDAY	09/19/2003	12/03/2003	EM-MP	3
0000020805	BRN-L05-01	Assembly protection installed wheel sensors, was unable to test other protections because there is no automation person at night. installed west side wheel counter damaged. need to relocate. 2/13 went to Bruno to get wire, cut the old conjuction. reset lever. attached wire and inch above buckets. tested to be sure it would trip if wire was broken. was assisted by Lamar (electrician), replaced guards	10/30/2003	01/22/2004	EM-MP	4
0000022155	BRN-L05-01	REPAIR ALARMS & TEST	11/10/2003	11/17/2003	EM-MP	4
0000024494	BRN-L05-01	PM - EMERGENCY SWITCH TEST	12/18/2003	01/13/2004	EM-MP	3
0000019654	BRN-L05-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026784	BRN-L05-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029953	BRN-L05-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3

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WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000045641	BRN-L05-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000018168	BRN-L06-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS	09/29/2003	12/03/2003	EM-MP	3
0000027705	BRN-L06-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	02/06/2004		EM-MP	3
0000033603	BRN-L06-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	03/29/2004	08/31/2004	EM-MP	3
0000036909	BRN-L06-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	04/23/2004	06/01/2004	EM-MP	3
0000039879	BRN-L06-01	JUMP OUT PROTECTIVE INTERLOCKS to repair dust bags	05/24/2004	06/08/2004	EM-AU	4
0000039881	BRN-L06-01	RE-START PROTECTIVE INTERLOCKS JOB COMPLETE	05/24/2004	06/08/2004	EM-AU	4
0000042216	BRN-L06-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	06/11/2004	07/28/2004	EM-MP	3
0000051576	BRN-L06-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	08/27/2004		EM-MP	3
0000019655	BRN-L06-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000026785	BRN-L06-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029954	BRN-L06-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045642	BRN-L06-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000024164	BRN-L07-01	INSTALL EXIT LIGHTS	12/09/2003	12/01/2003	EM-MP	3
0000031323	BRN-L07-01	PERIODIC MAINTENANCE ON LIGHTS-CEMENT MILLING Top Part of Silo 3/8/04 can not get lights clean, they have hardened cement on them. Kevin & Ricky	03/05/2004	03/31/2004	EM-MP	3
0000031324	BRN-L07-01	PERIODIC MAINTENANCE ON LIGHTS-CEMENT MILLING Bottom Part of Cilo 3/8/04 Brown fixtures in clinker tunnel are fed out of ER7, Yellow lites are out of ER6 Kevin & Ricky	03/05/2004	03/10/2004	EM-MP	3
0000031334	BRN-L07-01	PERIODIC MAINTENANCE ON RECEPTACLES Bottom Part of Cilo	03/05/2004	03/10/2004	EM-MP	3
0000031335	BRN-L07-01	PERIODIC MAINTENANCE ON RECEPTACLES Top Part of Cilo	03/05/2004	03/10/2004	EM-MP	3
0000037990	BRN-L07-01	Check the worn flash light (BEACON LIGHT) winch for lowering light is froze up with cement. Ricky Crews & Daniel French	05/06/2004	05/20/2004	EM-MP	3

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0000039794	BRN-L07-01	PERIODIC MAINTENANCE ON LIGHTS-CEMENT MILLING Bottom Part of Cilo	05/21/2004	06/03/2004	EM-MP	3
0000039795	BRN-L07-01	PERIODIC MAINTENANCE ON LIGHTS-CEMENT MILLING Top Part of Cilo	05/21/2004	06/03/2004	EM-MP	3
0000039796	BRN-L07-01	PERIODIC MAINTENANCE ON RECEPTACLES Bottom Part of Cilo	05/21/2004	06/03/2004	EM-MP	3
0000039797	BRN-L07-01	PERIODIC MAINTENANCE ON RECEPTACLES Top Part of Cilo	05/21/2004	06/03/2004	EM-MP	3
0000045685	BRN-L07-01	PERIODIC MAINT. ON LIGHTS & RECPTS-CEMENT MILG-BTM Bottom Part of Cilo	07/09/2004	09/09/2004	EM-MP	3
0000045686	BRN-L07-01	PERIODIC MAINT. ON LIGHTS & RECPTS-CEMENT MILG-TOP Top Part of Cilo	07/09/2004	09/09/2004	EM-MP	3
0000020655	BRN-L07-01A	CHECK BINDICATOR/ALARM	10/21/2003	10/21/2003	EM-MP	3
0000020670	BRN-L07-01A	BINDICATOR SHOWING HIGH LEVEL	10/21/2003	10/14/2003	EM-MP	3
0000020667	BRN-L07-01B	NO COMMUNICATION	10/21/2003	10/14/2003	EM-MP	3
0000030072	BRN-L07-01B	Radar level detector installation complete	02/25/2004	07/27/2004	EM-AU	3
0000019656	BRN-L10-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026786	BRN-L10-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000029955	BRN-L10-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045643	BRN-L10-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000020804	BRN-L11-01	Assembly protections 1/13/04 Mechanics need to modify bent bucket aparatus Kevin Rolling/Ricky Crews 2/10/04 Installed wheel sensors, was unable to test other protections because there is not automation person at night. Installed wire on I11 pcs 11 Jose Borjon/Matt Davis	10/30/2003	01/22/2004	EM-MP	4
0000022159	BRN-L11-01	REPAIR ALARMS & TEST	11/17/2003	11/17/2003	EM-MP	4
0000024495	BRN-L11-01	PM - EMERGENCY SWITCH TEST	12/18/2003	01/13/2004	EM-MP	3
0000026106	BRN-L11-01	Assembly protections 2/13/04 MADE ADJUSTMENTS, TESTED PROTECTIONS WITH JIM A., EVERTHING WORKS GOOD MECHANICS BRACKETS & SUPPORTS OKAY LAMAR PATE 2/13/04 went to Bruno to get wire, cut the old conjunction, reset lever, attended by Lamar, Electrical, we attached wire, and tested to see if it would reset if wire is broken/replaced guard. Neil Hough/Mara Brooks	01/22/2004	02/17/2004	EM-MP	4

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000019657	BRN-L11-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026787	BRN-L11-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029956	BRN-L11-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045644	BRN-L11-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000014734	BRN-L1-F01	Calibration at L01 conveyor scale- Clinker	08/11/2003	10/06/2003	EM-MP	3
0000017626	BRN-L1-I01	REPLACE FIRING BOARD	09/26/2003	10/07/2003	EM-MP	4
0000045662	BRN-L1-L01	PM- ROUTE OF ULTRASONIC LEVEL HAWK-YEARLY	07/09/2004		EM-MP	3
0000045663	BRN-L1-L03	PM- ROUTE OF ULTRASONIC LEVEL HAWK-YEARLY	07/09/2004		EM-MP	3
0000044800	BRN-L1-L05	Replace circuit board in Offspec weighfeeder	07/06/2004	07/27/2004	EM-AU	2
0000045664	BRN-L1-L05	PM- ROUTE OF ULTRASONIC LEVEL HAWK-YEARLY	07/09/2004		EM-MP	3
0000045665	BRN-L1-L07	PM- ROUTE OF ULTRASONIC LEVEL HAWK-YEARLY	07/09/2004		EM-MP	3
0000034523	BRN-L20-01	Force motion switch run signal	04/08/2004	04/27/2004	EM-AU	5

Work Order Tracking List

MAXIMO®
September 16, 2004

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000010682	BRN-L20-M1	L- 20ms we are not seeing motion	06/06/2003	06/20/2003	EM-MP	4
0000014707	BRN-L20-M1	REPLACE MOTION SWITCH	08/07/2003	01/22/2004	EM-MP	3
0000019658	BRN-L20-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026788	BRN-L20-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029957	BRN-L20-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045645	BRN-L20-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000014706	BRN-L22-01	CLINKER SILO ELEVATOR	08/07/2003	08/07/2003	EM-MP	4
0000014718	BRN-L22-01	TROUBLE SHOOT/REPAIR	08/08/2003	08/08/2003	EM-MP	4
0000019659	BRN-L22-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026789	BRN-L22-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029958	BRN-L22-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045646	BRN-L22-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000019660	BRN-L22-M2	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026790	BRN-L22-M2	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029959	BRN-L22-M2	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045647	BRN-L22-M2	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000019661	BRN-L23-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026791	BRN-L23-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029960	BRN-L23-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045648	BRN-L23-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3
0000018169	BRN-L25-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS	09/29/2003	12/03/2003	EM-MP	3
0000023611	BRN-L25-01	Change Solenoide Valves	12/02/2003	12/08/2003	EM-MP	3
0000027706	BRN-L25-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	02/06/2004		EM-MP	3

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000033604	BRN-L25-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	03/29/2004	08/31/2004	EM-MP	3
0000034429	BRN-L25-01	PM - INLET ANALYZER - WEEKLY	04/02/2004	09/09/2004	EM-MP	3
0000034439	BRN-L25-01	PM - INLET ANALYZER - WEEKLY	04/02/2004	09/09/2004	EM-MP	3
0000035092	BRN-L25-01	PM - INLET ANALYZER - WEEKLY	04/08/2004	05/06/2004	EM-MP	3
0000036910	BRN-L25-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	04/23/2004	06/01/2004	EM-MP	3
0000039817	BRN-L25-01	PM - INLET ANALYZER - WEEKLY	05/21/2004	09/09/2004	EM-MP	3
0000039889	BRN-L25-01	JUMP OUT PROTECTIVE INTERLOCKS to repair dust bags Job already concluded!	05/24/2004	07/26/2004	EM-AU	4
0000039890	BRN-L25-01	RE-START PROTECTIVE INTERLOCKS JOB COMPLETE	05/24/2004	07/26/2004	EM-AU	4
0000042217	BRN-L25-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	06/11/2004	07/28/2004	EM-MP	3
0000051577	BRN-L25-01	BAGHOUSE SOLENOID & TIMER SYSTEM INSPECTIONS-MONTH	08/27/2004		EM-MP	3

WO#	Equip # / Loc	Eqp / Loc / WO Description	Report Date	Completion Date	Crew ID	Priority
0000019662	BRN-L25-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	10/10/2003	11/19/2003	EM-MP	3
0000026792	BRN-L25-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	01/27/2004	03/02/2004	EM-MP	3
0000029961	BRN-L25-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	02/20/2004	04/30/2004	EM-MP	3
0000045649	BRN-L25-M1	PM - KILN MOTOR INSPECTION ROUTE - MONTHLY	07/09/2004	07/28/2004	EM-MP	3

Work Orders Selected: 137

P.O. Box 410
Branford, Fl 32008

July 28, 2004

MV 410

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

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

Dear Mr. Linero:

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

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

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

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

Sincerely,

Joe Horton
Suwannee American Cement

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

Attachment 1

Application for Construction Permit

Attachment 2
Fly Ash Project Description

Permit Language Revision Information

SECTION II – EMISSION LIMITING STANDARDS CONDITION 10

24. Unconfined Emissions of Particulate Matter:

(c) Reasonable precautions include the following

- ~~Bulk transport trucks leaving the plant shall travel through a tire wash, designed to remove particulate matter from vehicle tires, before traveling on the facility's access roadways.~~

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

Explanation/Rationale: SAC has experienced no fugitive dust problems from bulk transport trucks. Roadways are cleaned with a street sweeper and fugitive dust from truck traffic just does not occur or foreseen to be a problem. The addition of a wheel wash raises several concerns with both SAC and Florida DEP Water Division. The SAC facility is designed to have no industrial wastewater. Furthermore SAC discharges no stormwater off of the property as well. The addition of the wheel wash would create an industrial waste water source that could possible create a discharge or outfall for SAC. Since fugitive dust is not a problem from bulk transport trucks this addition of industrial wastewater is not needed and this condition should be removed from the permit. This will insure SAC can continue to generate no industrial wastewater and discharge no water from the property.

SECTION III.B - SPECIFIC CONDITION 24

Records of Process Production Rates

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

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

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

SAC also uses a load cell for measurement of clinker production as it exits the clinker cooler. This rate is recorded in the NEXUS software, but should not used for determining compliance with production limits or in emission limit calculations due to various factors that may cause this information to be inaccurate.

Load cells operate accurately to measure throughput only when a known area of flexible conveyor belt comes in consistent and uniform contact with the load cell. Clinker must be

transported from the clinker cooler using a bucket or pan conveyor because of the high heat of the clinker. Bucket and pan conveyors do not uniformly contact the load cell in the same manner as a flexible belt due to the stiffness of the metal buckets and the chain pulling the buckets. .In addition, clinker leaving the kiln system is not in a steady state because various amounts of accumulation can occur in the clinker cooler dependent on the amount of cooling needed. For these reasons, a load cell may not always provide an accurate determination of clinker production. Accordingly SAC requests that paragraph 24 be revised by deleting the unnecessary requirement to measure clinker production independently of preheater feed.

June 16, 2004

Chris Kirts, P.E.
Northeast District -- Air Program
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, FL 32256-7590

SUBJECT: **Response to Warning Letter No. WL04-009-AP61-NED**
Suwannee American Cement – Branford Plant
Facility ID No. 1210465
PSD-FL-

Dear Mr. Kirts:

The purpose of this correspondence is to respond to the Warning Letter dated June 8, 2004. The References and Permit Language from the Letter are italicized, and Suwannee American Cement's responses follow.

If you have any questions or wish to meet with us to further discuss these issues, please call me at (386) 935-5039.

Sincerely,

Joe Horton
Suwannee American Cement

CC: Al Linero – Division Air Resources, DEP
Celso Martini – SAC
Dr. John Koogler – Koogler & Associates

Section III, Subsection B, Paragraph 4:

"Process Rate Limitations: The kiln shall not process more than 178 tons of dry preheater feed per hour and ash shall not produce more than 105 tons of clinker per hour."

Suwannee American Cement (SAC) is in compliance with this requirement. In particular, SAC has not processed more than 178 tons per hour of preheater feed or produced more than 105 tons per hour of clinker in any 24- hour period, in accordance with the permit. SAC uses a very accurate system for processing and measuring the preheater feed. This system is supplied by Polysius and is called the Poldos. The Poldos accurately measures and transfers preheater feed into the kiln system. The system calibrates twice a day within the accuracy required in the permit.

SAC uses the preheater feed measurement and a set Loss of Ignition (LOI) Factor to determine the clinker produced. SAC determined the LOI factor using the ASTM test method 2863 on its preheater feed with consideration for dust return from the main baghouse. This method accurately determines the clinker produced and corresponds with physical inventory numbers and cement production (Figure 1). This method is an industry standard for determining clinker production, and it is the method for which SAC determines its own production for accounting and inventory purposes. The LOI factor was included in SAC's Construction Permit Application and determined to be 0.5899 from the test. The LOI factor correlates exactly with preheater feed limit and the clinker production limit [178 x 0.5899 = 105]. This was also discussed and noted in a subsequent letter to the Northeast District and the Division of Air Resources in Tallahassee from George Townsend dated February 26, 2003. SAC has used this LOI factor exclusively since compliance testing began in July of 2003.

Figure 1:

Clinker Production January 1st, 2004 to June 1st, 2004			
	Total	**Percent Difference**	**Average Production (tons/hr)**
Total Preheater Feed (tons)	476,066 Poldos	NA	170.3
Clinker Production from Preheater feed (tons)	280,831	NA	100.5
Clinker Production from Inventory and Clinker Feed to Finish Mill	284,438	1.28%	101.8

SAC uses this accurate clinker production number from the preheater feed to demonstrate compliance with production limits and as the basis for emission limits with pound per ton units. It is SAC's understanding that this was discussed in conversations with DEP in conjunction with the letter from SAC dated February 26, 2003.] This clinker production number is reported to the Northeast District through the NEXUS software.

SAC has recently submitted information to the Division of Air Resources to clarify that clinker production limits and pound per ton clinker limits use only the clinker production based off of the preheater feed measurements.

Section III, Subsection B, Paragraph 24:

"Records of Process and Production Rates: The owner or operator shall make and maintain records of the process rate of dry preheater feed in units of tons per hour and tons per consecutive 12-month period and the production rate of clinker and cement in units of ton per hour and tons per consecutive 12-month period. The clinker production rate shall be directly measured independent of preheater feed."

SAC keeps records of preheater feed, clinker and cement production in both pounds per hour and tons per consecutive 12 month period in accordance with the permit. This information is tracked using the NEXUS software and is available to the Northeast District through the NEXUS software. SAC also measures the clinker production rate independent of preheater feed by several methods. One method is by physical inventory measurements and feed rate of clinker to the finish mill. All clinker produced has to be in inventory or fed to the finish mill for cement production. SAC also uses a load cell for measurement of clinker as it exits the clinker cooler. This number is recorded in the NEXUS software, but it is not used for determining compliance with production limits or in emission limit calculations due to its high level of inaccuracy. Several factors contribute to this. SAC along with its consultant Dr. John Koogler and the Department's consultant Dr. Greg Miller are unaware of any cement plant that uses a load cell to measure clinker for compliance purposes due to its high level of inaccuracy. SAC continues to monitor the clinker production in this method solely because it is required by this permit condition. If the Department determines that it is necessary to make this clear, SAC would have no objection to the agency revising the permit: (1) to expressly provide that SAC will use only clinker measurements based off of preheater feed, and (2) to delete the unnecessary requirement for clinker production to be measured independently of preheater feed.

Load cells operate accurately only when a known area of belt comes in consistent and uniform contact with the load cell to measure throughput. Load cells used for determination of clinker production necessarily are inaccurate due to the fact that clinker has to be transported from the clinker cooler using a bucket or pan conveyor because of the high heat of the clinker. Bucket and pan conveyors do not uniformly contact the load cell in the same manner as a flexible belt due to the stiffness of the metal buckets and the chain pulling the buckets. Additionally SAC uses a variable frequency drive (VFD) to control the speed of the conveyor. This use of a VFD disrupts the known area by introducing a variable speed across the load cell. Clinker leaving the kiln system is also not in a steady state because accumulation occurs in the clinker cooler dependent on the amount of cooling needed. In contrast, preheater feed is a consistent measurement of the feed entering the system and thus a consistent method for determining production independent of the retention time in the kiln system and clinker cooler. For these reasons, SAC uses the clinker production determined from preheater feed to determine production and compliance with production and emission limits.

Section II, Paragraph 19(b) of the Permit states:

"Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value."

SAC calibrates all instruments and equipment used to determine process variables. The Poldos preheater feed system is calibrated automatically twice daily and within the 10% accuracy required in the permit. Although the load cell on the clinker bucket conveyor is calibrated at each outage of the kiln system the load cell may be accessed only when production is stopped. The load cell is calibrated within 10% accuracy as well. However, only the load cell itself can be calibrated. The bucket conveyors that travel across the load cell have to be "zeroed out" as close as possible. Each bucket can contact the load cell in a different manner when empty than when full. SAC can insure only that the load cell itself is accurate and then attempt to "zero out" the empty buckets. SAC's procedures for the calibration are based on information provided by the vendor. SAC also maintains records for each calibration of the Poldos and the load cell, and these are available for review.

The Monthly Production for both April and May of 2004 at no time exceeded clinker production as determined by measurement of the preheater feed. The monthly averages referenced in the June 8, 2004 letter are from the clinker bucket conveyor load cell, which are less accurate (due to the reasons explained above). The actual average clinker production numbers for these months from the preheater feed and from inventory/cement production are listed below in Figure 2.

Figure 2:

Average and Maximum Clinker Production for April and May 2004				
	April Monthly Average	**April Maximum 24-Hour Average**	**May Monthly Average**	**May Maximum 24-Hour Average**
Clinker Production from Preheater Feed (tph)	101.7	105.1	101.8	105.1
Clinker Production from Inventory and Clinker Feed to Finish Mill (tph)	103.5	105.0	101.1	105.1

P.O. Box 410
Branford, Fl 32008

August 19, 2004

Chris Kirts, P.E.
Northeast District -- Air Program
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, FL 32256-7590

SUBJECT: **Response to Warning Letter No. WL04-023-AP61-NED**
Suwannee American Cement – Branford Plant
Facility ID No. 1210465
PSD-FL-259

Dear Mr. Kirts:

The purpose of this correspondence is to respond to the Warning Letter dated August 12, 2004. The References and Permit Language from the Letter are italicized, and Suwannee American Cement's responses follow.

If you have any questions or wish to meet with us to further discuss these issues, please call me at (386) 935-5039.

Sincerely,

Joe Horton
Suwannee American Cement

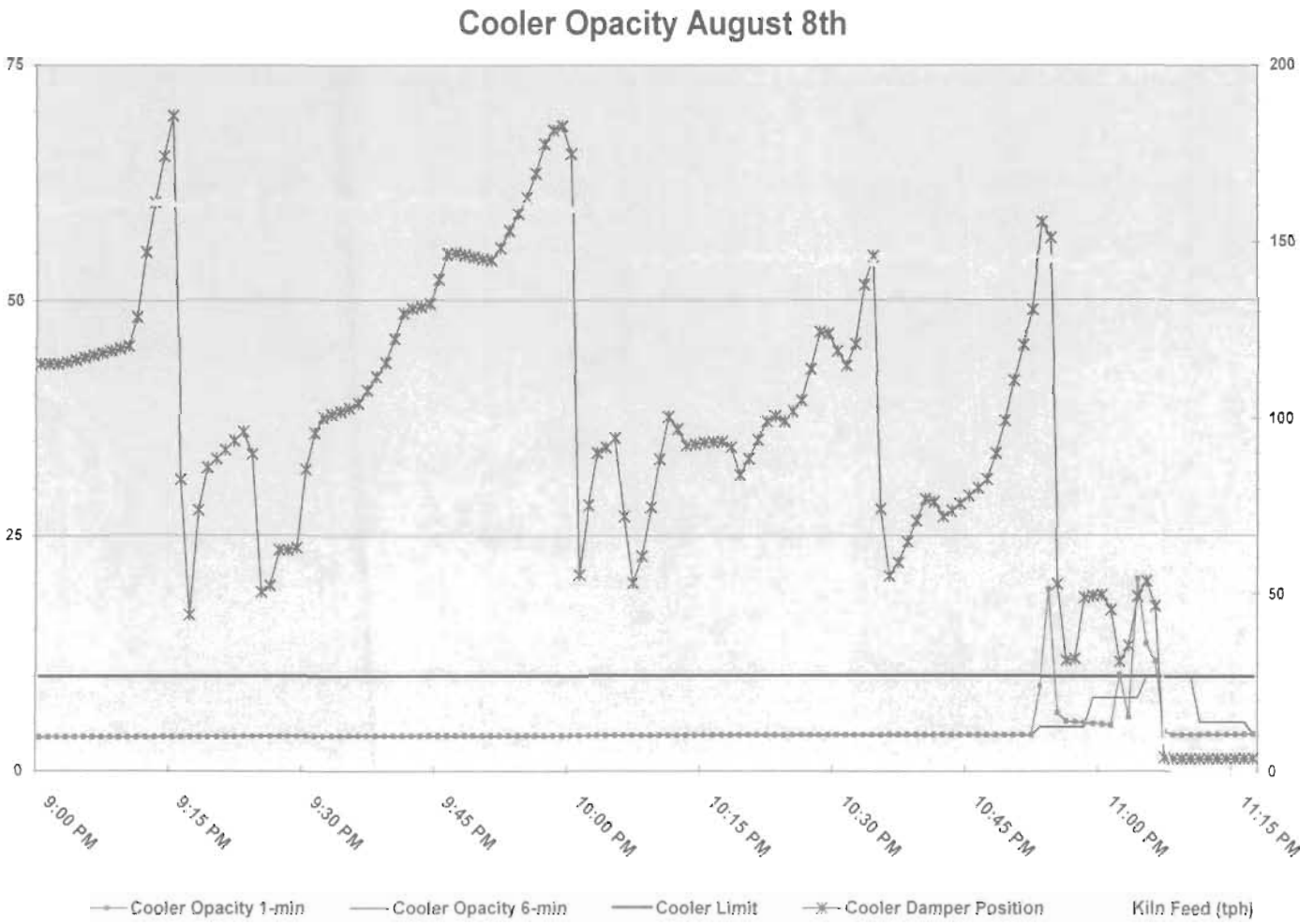
CC: Al Linero – Division Air Resources, DEP
Celso Martini – SAC
Dr. John Koogler – Koogler & Associates

On August 8, 2004, the 11:00 PM, 6 minute average opacity exceeded the 10% opacity limit as stated in the facility's permit for the clinker cooler stack.

Suwannee American Cement (SAC) experienced a process upset as it was cleaning the preheater tower of buildup. A surge of material flushed through the preheater tower, kiln and finally into the clinker cooler. This rush of material caused process upsets in air flow to the cooler. This caused elevated air flows to the clinker cooler control device, Electrostatic Precipitator (ESP), which in turn elevated the opacity (to approximately 10% opacity).

SAC's used interlocks to insure that opacity limits for the kiln stack and cooler stack never reach above 10% opacity while operations occur. These interlocks shutdown the kiln and the clinker cooler prior to the 11:00 PM block average. This resulted in no air flow through the clinker cooler stack during the readings taken at 11:00 PM. With no air flow there was no opacity at the emission point of the stack only the suspended particles within the stack where the Continuous Opacity Monitor records the opacity. With no air flow or equipment running during the 11:00 PM opacity reading there was no exceedance of the opacity limit. Please refer to Graph 1 showing the Clinker Cooler Opacity, Kiln Feed, and Damper Position of Clinker Cooler fan. The high opacity reading occurs after the kiln feed is stopped and the damper closed for the clinker cooler fan meaning there is no air flow to the clinker cooler stack.

GRAPH 1 – CLINKER COOLER OPACITY



Section II, Emission Limiting Standards, Condition 10:

"Bulk transport trucks leaving the plant shall travel through a tire wash, designed to remove particulate matter from vehicle tires, before traveling on the facility's access roadways"

SAC has installed all the necessary equipment for a tire wash. SAC also previously requested to the Department to remove this condition from the permit because of several factors that were detailed in the Permit Application dated July 28, 2004.
These include the following items:

- SAC currently experiences no problem with fugitive dust from bulk truck traffic on access roads.
- As advised by North East District Water Division, a truck and/or wheel wash could possible require an Industrial Waste Water Permit for its discharge. The SAC facility currently discharges no industrial wastewater and re-circulates all process water. SAC also discharges no stormwater from its facility as it is all retained in retention ponds. The addition of a truck/wheel wash would create a need for a discharge of wastewater which SAC feels is unnecessary. SAC currently does not have an industrial wastewater discharge permit and wishes to remain a zero discharge facility since water concerns are a major concern for the local community and SAC.
- SAC currently uses a Street Sweeper as necessary to clean internal access roads and keep them free of fugitive dust.
- SAC has monitored ambient air quality for PM10 at two locations near the plant for approximately four years. No statistical difference can be determined between periods before the plants operation to now. Additionally results from the monitors are well below both ambient air quality standers for PM10.

Please find included in Attachment 1 relevant information from the Construction Permit Application submitted to the Department on July 28, 2004 pertaining to the removal of the condition requiring a truck wheel wash.

Attachment 1

Suwannee American Cement
SAC
Branford, Florida, USA
P.O. Box 410
Branford, Fl 32008

August 19, 2004

Chris Kirts, P.E.
Northeast District -- Air Program
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, FL 32256-7590

already planned

SUBJECT: **Response to Warning Letter No. WL04-023-AP61-NED**
Suwannee American Cement – Branford Plant
Facility ID No. 1210465
PSD-FL-259

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Joe Horton
Suwannee American Cement

CC: Al Linero – Division Air Resources, DEP
Celso Martini – SAC
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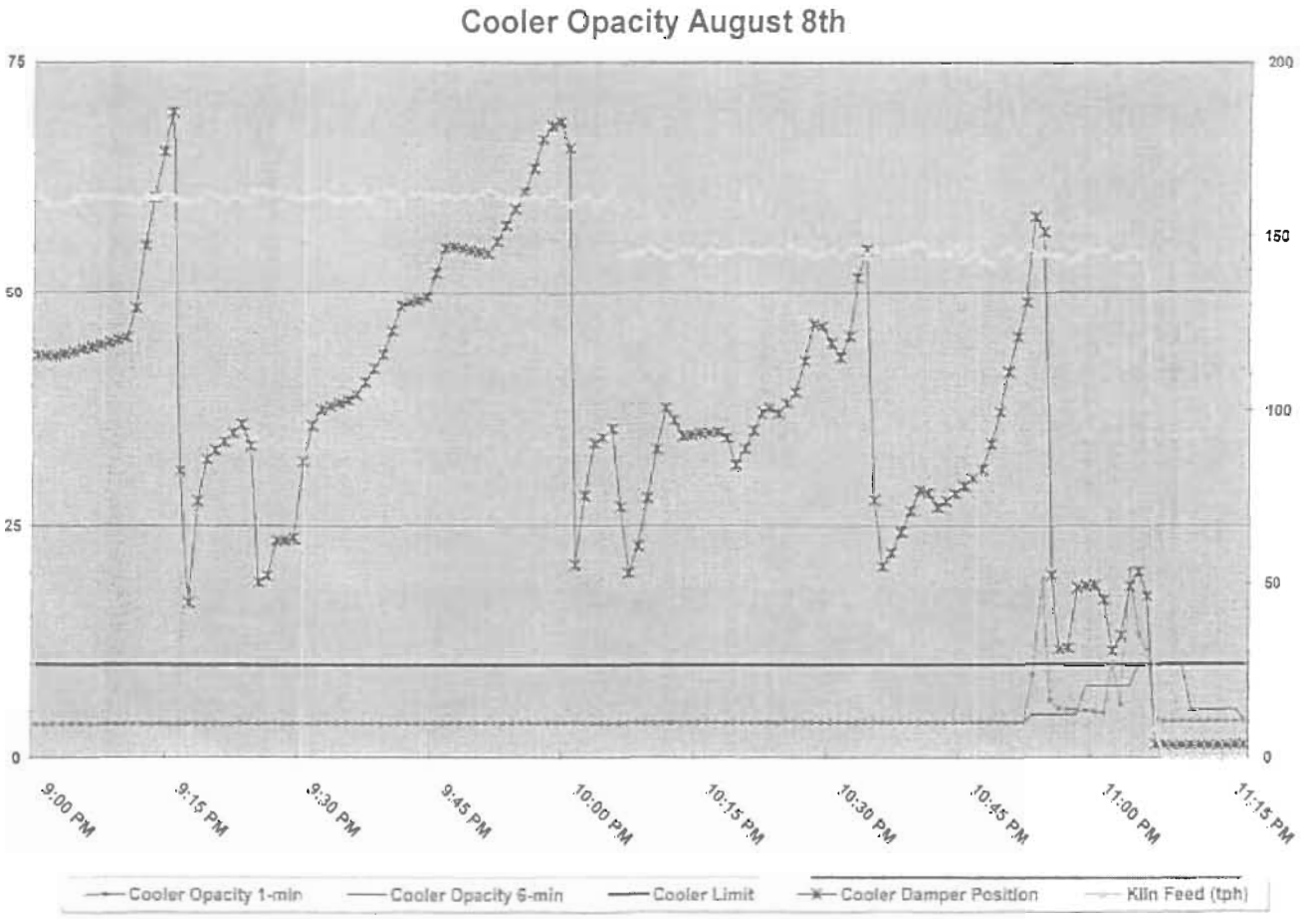

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"Bulk transport trucks leaving the plant shall travel through a tire wash, designed to remove particulate matter from vehicle tires, before traveling on the facility's access roadways"

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Attachment 1

Suwannee American Cement
SAC
Branford, Florida, USA
P.O. Box 410
Branford, Fl 32008

July 28, 2004

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

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

Dear Mr. Linero:

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2. Fly Ash Injection Project Description (additional information re production increase)
3. Request for approval to construct and operate a permanent Hydrated Lime System.
4. Request for revision to clarify permit language in reference to additional means to determine clinker production and remove wheel wash.

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

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

Sincerely,

Joe Horton
Suwannee American Cement

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

Permit Language Revision Information

SECTION II – EMISSION LIMITING STANDARDS CONDITION 10

24. Unconfined Emissions of Particulate Matter:

(c) Reasonable precautions include the following

- ~~Bulk transport trucks leaving the plant shall travel through a tire wash, designed to remove particulate matter from vehicle tires, before traveling on the facility's access roadways.~~

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

Explanation/Rationale: SAC has experienced no fugitive dust problems from bulk transport trucks. Roadways are cleaned with a street sweeper and fugitive dust from truck traffic just does not occur or foreseen to be a problem. The addition of a wheel wash raises several concerns with both SAC and Florida DEP Water Division. The SAC facility is designed to have no industrial wastewater. Furthermore SAC discharges no stormwater off of the property as well. The addition of the wheel wash would create an industrial waste water source that could possible create a discharge or outfall for SAC. Since fugitive dust is not a problem from bulk transport trucks this addition of industrial wastewater is not needed and this condition should be removed from the permit. This will insure SAC can continue to generate no industrial wastewater and discharge no water from the property.

SECTION III.B - SPECIFIC CONDITION 24

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

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

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

SAC also uses a load cell for measurement of clinker production as it exits the clinker cooler. This rate is recorded in the NEXUS software, but should not used for determining compliance with production limits or in emission limit calculations due to various factors that may cause this information to be inaccurate.

Load cells operate accurately to measure throughput only when a known area of flexible conveyor belt comes in consistent and uniform contact with the load cell. Clinker must be

transported from the clinker cooler using a bucket or pan conveyor because of the high heat of the clinker. Bucket and pan conveyors do not uniformly contact the load cell in the same manner as a flexible belt due to the stiffness of the metal buckets and the chain pulling the buckets. .In addition, clinker leaving the kiln system is not in a steady state because various amounts of accumulation can occur in the clinker cooler dependent on the amount of cooling needed. For these reasons, a load cell may not always provide an accurate determination of clinker production. Accordingly SAC requests that paragraph 24 be revised by deleting the unnecessary requirement to measure clinker production independently of preheater feed.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Suwannee American Cement Company, Inc.

Branford Plant

Portland Cement Plant

Suwannee County

DEP File No. 1210465-001-AC

PSD-FL-259

Department of Environmental Protection

November 16, 1999

Permit File Scanning Request from Lynn

Priority: ☐-ASAP (Public Records Request, etc.) ☑-Place in Normal Scanning Queue

Facility ID	Project#	Type	PSD #	Submittal Date	Batch #
1210465	008	AC	259	259D	

☑ File Approved For Disposal ☐ Correspondence ☑ Intent ☐ Permit ☐ Draft (Title V)
☐ Return File to BAR ☐ Amendment ☐ Application ☐ OGC ☐ Proposed (Title V)

Document Date 11-16-99

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

Suwannee American Cement Company, Inc.
Branford Plant
PO Box 410
Branford, Florida 32008

Authorized Representative: Fred W. Koester, President

1.2 REVIEWING AND PROCESS SCHEDULE

11/30/98	Received permit application, report and fee
12/22/98	Received comments from EPA dated 12/18/98 via e-mail
12/29/98	Department's request for additional information
1/4/99	Received technical review dated 12/15/98 from FWS
1/8/99	Department's request for additional information
2/10/99	Received comments from FWS and NPS via e-mail
2/16/99	Department's request for additional information
2/18/99	Received comments from FWS via fax
2/25/99	Received response from applicant's representatives to Department's requests for additional information
3/19/99	Received memorandum dated 3/19/99 authored by John Koogler via fax
3/25/99	Department held public meeting in Branford, 6:00 to 9:30 p.m.
3/26/99	Received comments from FWS via e-mail
3/26/99	Department's request for additional information
4/16/99	Received comments from FWS and NPS via e-mail
4/19/99	Department's request for additional information
4/21/99	Received response from applicant's representatives to Department's requests for additional information; applicant requested processing pursuant to Section 403.0876(2)(a), F.S.
4/22/99	Department letter to the applicant
5/4/99	Received letter from John Koogler dated 4/28/99
5/4/99	Telephone conversation between Joseph Kahn, P.E. and Ken Olen, Ph.D. regarding dry circulating scrubber
5/27/99	Received regional haze summary results from Steve Cullen
5/28/99	Received additional technical review dated 5/19/99 from FWS
5/28/99	Received ESP information from Steve Cullen via fax
6/22/99	Denial of permit by Department
7/7/99	Request for administrative hearing on denial by applicant
11/8/99	Received additional information and comments on the preliminary draft permit and related documents from Koogler & Associates dated November 8, 1999
11/11/99	Notice of administrative hearing published by applicant in the Branford News
11/11/99	Received revised permit application and modeling information from Koogler & Associates by electronic mail
11/12/99 & 11/15/99	Received revised application pages by mail and additional modeling information by facsimile and electronic mail

2. FACILITY INFORMATION

2.1 FACILITY LOCATION

This permit authorizes Suwannee American Cement Company, Inc. to construct a dry process, preheater/precalciner type portland cement plant to be located at US Highway 27 at County Road 49, Suwannee County. The UTM coordinates are: Zone 17; 321.4 km E and 3315.9 km N. The nearest distance of this site from the Chassahowitzka, St. Marks, Bradwell Bay, and Okefenokee Class I PSD areas is 132, 106, 150 and 83 kilometers, respectively.

2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

Industry Group No.	32	Stone, Clay, Glass, and Concrete Products
Industry No.	3241	Cement, Hydraulic

2.3 FACILITY CATEGORY

This facility will consist of a portland cement plant and associated quarry, and raw material and cement handling operations. The plant will combine raw materials and utilize a preheater/precalciner kiln with in-line raw mill to produce clinker. The clinker will be milled and combined with gypsum to produce portland cement, which will be stored in silos and shipped in bags or in bulk by truck. Raw materials other than limestone, and all fuels will be brought to the site by truck. Additional details may be found in the BACT determination.

3. PROJECT DESCRIPTION

This permitting action is to allow for the construction of a preheater/precalciner process portland cement plant. Emissions units addressed by this permit and a detailed description of this project are described in the BACT determination.

The applicant proposed to fire coal, petroleum coke, tires and tire derived fuel, and to use natural gas for startup and a small supplementary air heater for the raw mill. The applicant will not fire or introduce hazardous wastes, petroleum contaminated soil or materials, used oil, oil fuels, other solid fuels, or solid wastes other than tires and tire derived fuel. Tires and tire derived fuel may be fed into the kiln feed end at up to 10% of heat input, or may be fed into a tire gasification system at up to 40% of heat input. The tire gasification system will use hot air from the clinker cooler to decompose tires into gas, coke, and steel. The coke and steel will be introduced into material stream above the transition point of the precalciner to the kiln feed end, and the gas will be burned in the precalciner region.

Generally the entire process may be summarized as follows. Raw materials, predominantly limestone, but also including sand, clay, iron ore, and coal ash, will be crushed and then blended and milled in the raw mill. The resulting material will be conveyed to the pyroprocessing system in the top stage of the preheater. It will exit the preheater/precalciner and enter the kiln at the elevated end (feed end). The rotation of the kiln causes the solid materials to be slowly transported downward from the front end (discharge end). Fuel will be supplied to the precalciner combustion chamber, optionally at the feed end of the kiln, and at the lower or discharge end of the kiln. The hot, gaseous combustion products will move countercurrent to the material flow, thereby transferring heat to solids in the kiln and preheater/precalciner, and to the raw mill.

The clinker will enter the clinker cooler where it will be cooled by ambient air. This cooling or quenching serves to "freeze" the clinker, halting the formation chemistry. Hot air from the clinker cooler will be recovered and returned to the pyroprocessing system as combustion air and will also be supplied to the coal mill for drying the coal and petroleum coke. The cooled clinker will be stored in silos before

being mixed with gypsum and limestone and ground in a ball mill in the finish milling operation to produce portland cement. The portland cement will be stored in silos and loaded in bulk into tanker trailers or in bags which will be palletized. The cement will be hauled by truck.

4. PROJECT EMISSIONS

The total annual air pollutant potential emissions are shown in the BACT determination.

5. RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The proposed project is subject to the provisions of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because it will be a new major facility. The project is subject to PSD review for PM, PM_{10}, SO_2, NOx, CO and VOC. This project will emit less than significant emission rates of the other regulated pollutants of Table 62-212.400-2. Specific rule applicability is discussed in the BACT determination.

6. AIR POLLUTION CONTROL TECHNIQUES, COMPLIANCE PROCEDURES, EXCESS EMISSIONS

The applicant proposed to control air pollutant emissions through various methods which are described fully in the BACT determination. Compliance procedures are described in the BACT determination and detailed in the draft permit. Allowable excess emissions are detailed in the draft permit.

7. SOURCE IMPACT ANALYSIS

The proposed project will increase PM_{10}, SO_2, NOx, CO and VOC emissions at levels in excess of PSD significant amounts. Therefore an air quality impact analyses was required by the PSD regulations.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A summary of the required analyses follows.

7.1 MODELS AND METEOROLOGICAL DATA USED IN SIGNIFICANT IMPACT, PSD INCREMENT AND AAQS ANALYSES

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project and other existing major facilities.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Gainesville, Florida (surface data) and Waycross, Georgia (upper air data). The 5-year period of meteorological data was from 1989 through 1993. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site.

Because five years of data are used in ISCST3, the highest-second-high (HSH) short-term predicted concentrations were compared with the appropriate AAQS or PSD increments. For the annual averages,

the highest predicted yearly average was compared with the standards. For determining the project's significant impact area in the vicinity of the facility, and for determining if there are significant impacts occur from the project on any PSD Class I area, both the highest short-term predicted concentrations and the highest predicted yearly averages were compared to their respective significant impact levels.

7.2 SIGNIFICANT IMPACT ANALYSIS

Preliminary modeling is conducted using only the proposed project's worst case emission scenario for each pollutant and applicable averaging time. In addition to Class II areas, receptors were placed in the Chassahowitzka, St. Marks, Bradwell Bay, and Okefenokee PSD Class I areas. For each pollutant subject to PSD and also subject to PSD increment and/or AAQS analyses, this modeling compares maximum predicted impacts due to the project with PSD significant impact levels to determine whether significant impacts due to the project were predicted in the vicinity of the facility or in the Class I areas. In the event that the maximum predicted impact of a proposed project is less than the appropriate significant impact level, a full impact analysis for that pollutant is not required. Full impact modeling is modeling that considers not only the impact of the project but also other major sources, including background concentrations, located within the vicinity of the project to determine whether all applicable AAQS or PSD increments are predicted to be met for that pollutant. Consequently, a preliminary modeling analysis which shows an insignificant impact is accepted as the required air quality analysis (AAQS and PSD increments) for that pollutant and no further modeling for comparison to the AAQS and PSD increments is required for that pollutant. The tables below show the results of this modeling. The radius of significant impact, if any, for each pollutant and applicable pollutant averaging time is also shown in the tables below.

MAXIMUM PROJECT AIR QUALITY IMPACTS FOR COMPARISON TO THE PSD CLASS II SIGNIFICANT IMPACT LEVELS IN THE VICINITY OF THE FACILITY

Pollutant	Averaging Time	Maximum Predicted Impact ($\mu g/m^3$)	Significant Impact Level ($\mu g/m^3$)	Significant Impact (Yes/No)	Radius of Significant Impact (km)
SO_2	Annual	0.09	1	No	None
	24-hr	1	5	No	None
	3-hr	4	25	No	None
PM_{10}	Annual	7	1	Yes	1.5
	24-hr	23	5	Yes	3
CO	8-hr	30	500	No	None
	1-hr	86	2,000	No	None
NO_2	Annual	1.3	1	Yes	3

MAXIMUM PROJECT IMPACTS IN THE OKEFENOKEE, ST. MARKS, CHASSAHOWITKA AND BRADWELL BAY NWA'S FOR COMPARISON TO THE PSD CLASS I SIGNIFICANT IMPACT LEVELS

Pollutant	Averaging Time	Maximum Predicted Impact ($\mu g/m^3$)	Significant Impact Level ($\mu g/m^3$)	Significant Impact (Yes/No)
SO_2	Annual	0.004	0.1	No
	24-hr	0.08	0.2	No
	3-hr	0.3	1.0	No
PM_{10}	Annual	0.006	0.2	No
	24-hr	0.2	0.3	No
NO_2	Annual	0.04	0.1	No

7.3 PSD INCREMENT ANALYSIS

The PSD increment represents the amount that new sources in an area may increase ambient ground level concentrations of a pollutant. The results of the required PSD Class II increment analyses presented in the table below show that all of the maximum predicted impacts are less than the allowable Class II increments.

PSD CLASS II INCREMENT ANALYSIS				
Pollutant	**Averaging Time**	**Maximum Predicted Impact ($\mu g/m^3$)**	**Impact Greater than Allowable Increment (Yes/No)**	**Allowable Increment ($\mu g/m^3$)**
PM_{10}	Annual	8	No	17
	24-hr	26	No	30
NO_2	Annual	3	No	25

7.4 AAQS ANALYSIS

For pollutants subject to an AAQS review, the total impact on ambient air quality is obtained by adding a "background" concentration to the maximum modeled concentration. This "background" concentration takes into account all sources of a particular pollutant that are not explicitly modeled. The results of the AAQS analysis are summarized in the table below. As shown in this table, emissions from the proposed facility are not expected to cause or significantly contribute to a violation of any AAQS.

AMBIENT AIR QUALITY IMPACTS						
Pollutant	**Averaging Time**	**Major Sources Impact ($\mu g/m^3$)**	**Background Concentration ($\mu g/m^3$)**	**Total Impact ($\mu g/m^3$)**	**Total Impact Greater than AAQS**	**Florida AAQS ($\mu g/m^3$)**
PM_{10}	Annual	8	21	29	No	50
	24-hr	26	44	70	No	150
NO_2	Annual	3	27	30	No	100

7.5 ADDITIONAL IMPACTS ANALYSIS

7.5.1 IMPACTS ON SOILS, VEGETATION, WILDLIFE, AND VISIBILITY

The maximum ground-level concentrations predicted to occur due to PM_{10}, SO_2, NOx and CO emissions as a result of the proposed project, including all other nearby sources, will be below the associated AAQS. The AAQS are designed to protect both the public health and welfare. As such, this project is not expected to have a harmful impact on soils and vegetation in the PSD Class II area. An air quality related values (AQRV) analysis was done by the applicant for the Class I area. No significant impacts on this area are expected. Regional haze analyses were done for the Class I areas. These analyses showed no significant impact on visibility in this area.

7.5.2 GROWTH-RELATED AIR QUALITY IMPACTS

There will be no growth associated with this project.

8. ADDITIONAL REQUIREMENTS

The permit has additional requirements that provide reasonable assurance that Department rules can be met which are detailed in the draft permit. Some of these are conditions that:

Limit fuels and materials to exclude hazardous wastes, contaminated materials and other fuels;
Require a data retrieval system so the Department may retrieve CEM and COM system data remotely at one of the Department's offices;
Require an independent annual audit of the maintenance records and physical condition of the plant process equipment and emission control equipment; and
Require ambient monitoring for PM_{10} at two offsite locations to be determined by the Department.

9. PUBLIC COMMENTS

The Department received public comments for this project prior to denial of the permit and petition of that denial by the applicant. In anticipation of receipt of further comments related to this action, the Department will defer discussion of all comments until final action.

10. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department intends to issue an air construction permit to the applicant based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Department will therefore issue a draft permit to the applicant that allows the applicant to construct a dry process, preheater/precalciner type portland cement plant subject to the conditions of that permit.

Department of
Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

September 3, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

already scanned.

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

Re: DEP File No. 1210465 -008, 009, 010 and 011
Cement Plant – Branford, Suwannee County, Florida

Dear Mr. Martini:

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

The Department reviewed the status of the application dated April 26, 2004 to: extend the expiration date of the construction permit until June 30, 2006; implement a flyash injection project; and modify the design of the tire derived fuel system. Per the DEP letter dated July 27, 2004 the application is still incomplete. The submittal dated July 28, 2004 (received August 6) did not address the details of the tire system that we had requested.

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

- ~~Modify~~ the fly ash injection project to include a permanent production increase;
- Add a 30-day NO_X limit of 2.6 lb/ton of clinker after one year of operation at the higher rate;
- ~~Construct a permanent hydrated lime system~~;
- Revise permit language with respect to direct measurement of clinker production; and
- Remove the truck wheel washing requirement.

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

Fly ash injection and permanent production increase:

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

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

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

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

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

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

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

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

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

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

Hydrated Lime:

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

Separate Project

- **Clinker Scales**:

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

Separate Project

- **Wheel Wash**:

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

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

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

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

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

Sincerely,

A. A. Linero, Program Administrator
South Permitting Section

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

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

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

SUWANNEE AMERICAN CEMENT, LLC
BRANFORD, SUWANNEE COUNTY

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

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

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

September 3, 2004

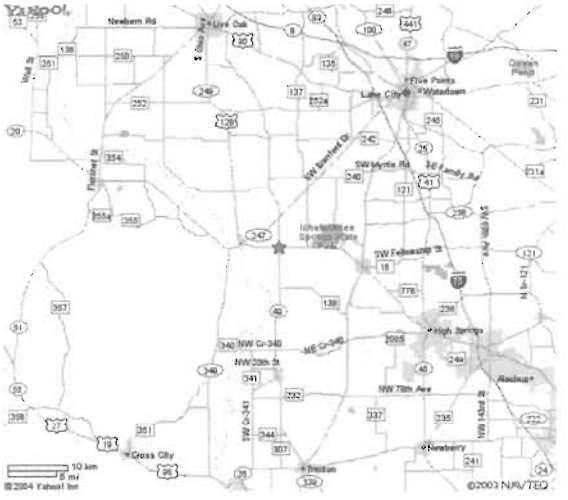
I. APPLICANT NAME AND ADDRESS

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

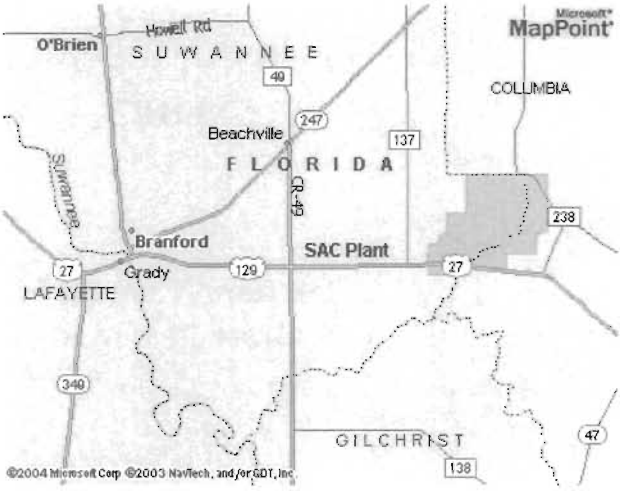
II. FACILITY INFORMATION

A. FACILITY LOCATION

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



Regional Map Showing Branford Area



Suwannee American Cement Plant Location

B. FACILITY CLASSIFICATION CODE (SIC)

Major Group No. 32, Clay, Glass, and Concrete Products
Industry Group No. 324 Cement, Hydraulic
Industry No. 3241 Cement, Hydraulic

C. FACILITY CATEGORY

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

This industry is listed in Table 212.400-1, "Major Facilities Categories", Section 62-212.400, F.A.C. Therefore, stack and fugitive emissions of over 100 TPY of carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide (SO_2), nitrogen oxides (NO_X), or particulate matter (PM/PM_{10}) characterize the existing installation as a Major Facility per the definitions in Rule 62-210.200, F.A.C. and subject it applicability review for the requirements of Prevention of Significant Deterioration (PSD) per Rule 62-212.400, F.A.C. Accordingly, the original SAC project was subject to New Source Review (NSR) including the PSD provisions and requirement to conduct a determination of Best Available Control Technology (BACT).

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

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

III. ORIGINAL PROJECT

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

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

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

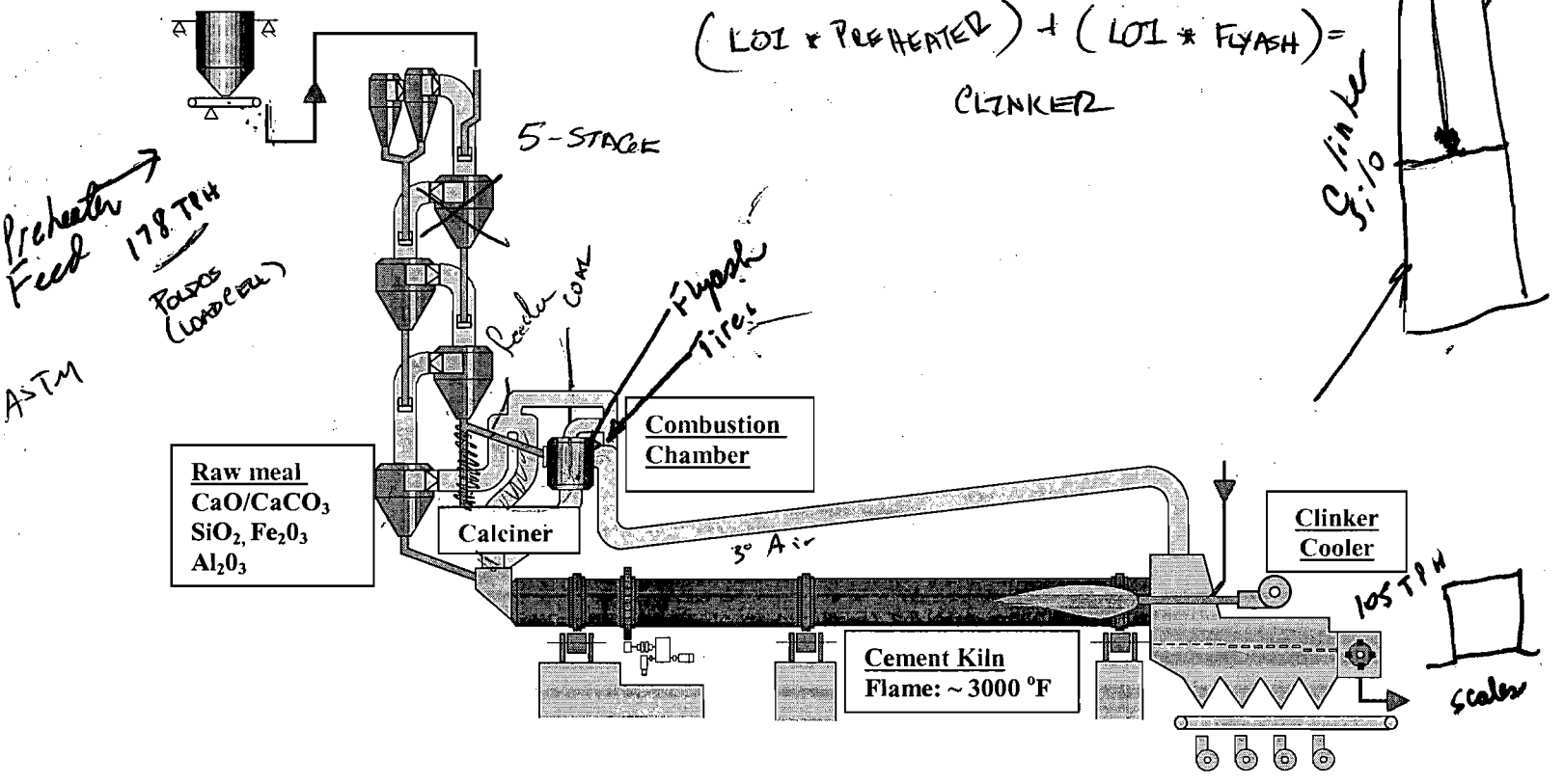


Diagram of Dry Process Cement Kiln with Preheater and Calciner Kiln

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

The calciner has a burner in a separate combustion chamber that provides the necessary heat to drive off carbon dioxide from the limestone converting it to free lime ($CaCO_3 = CaO + CO_2$). The calciner operates at a temperature of approximately 2000 degrees F and burns coal.

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

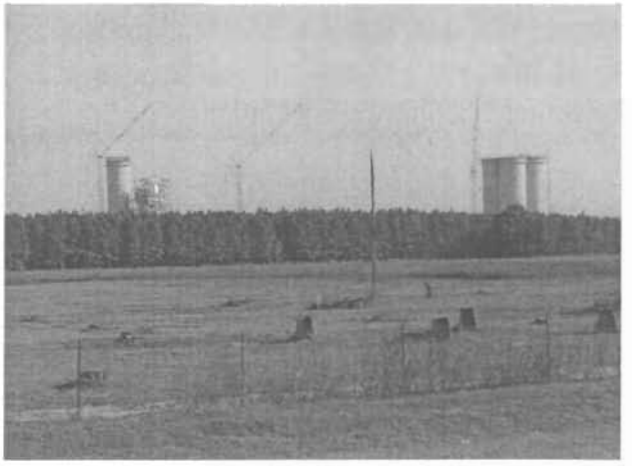
The heated air from the clinker cooler is used as secondary air to support combustion at the kiln burner and is also conveyed along a tertiary air duct to support combustion in and near the calciner combustion chamber.

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

The main pollution control measures consist of:

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

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



Cement Plant Under Construction (Photo DEP)

Completed Cement Plant (Photo SAC Website)

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

IV. HYDRATED LIME PROJECT

SAC has requested an air construction permit to install a hydrated lime system to provide additional SO_2 control. The role of the project is better understood by reviewing the existing, inherent SO_2 control system.

Limestone in the feed is converted into finely divided dry lime in the calciner by the reaction: $CaCO_3 = CaO + CO_2$. Lime in the calciner serves as an excellent scrubbing reagent and binds sulfur dioxide formed by combustion of coal in the kiln and calciner as calcium sulfites and sulfates that are ultimately incorporated into the clinker thus avoiding emissions into the atmosphere. The process is so efficient that typical emissions of SO_2 are less than 2 pounds per hour from the SAC plant.

There is also the possibility of SO_2 emissions resulting from "roasting" of feed as it travels down the preheater. This occurs when occasional pockets of sulfur-containing raw materials are encountered. Even these potential emissions are generally abated when the exhaust gases are used to dry incoming raw materials in the raw mill. Some of the SO_2 roasted off in the preheater can be absorbed by the finely ground limestone in the moist conditions that occur in the raw mill environment.

Raw mills do not operate continuously. Therefore SAC proposes an intermittent system for SO_2 removal that will function when high sulfur raw materials are encountered and the raw mill is off.

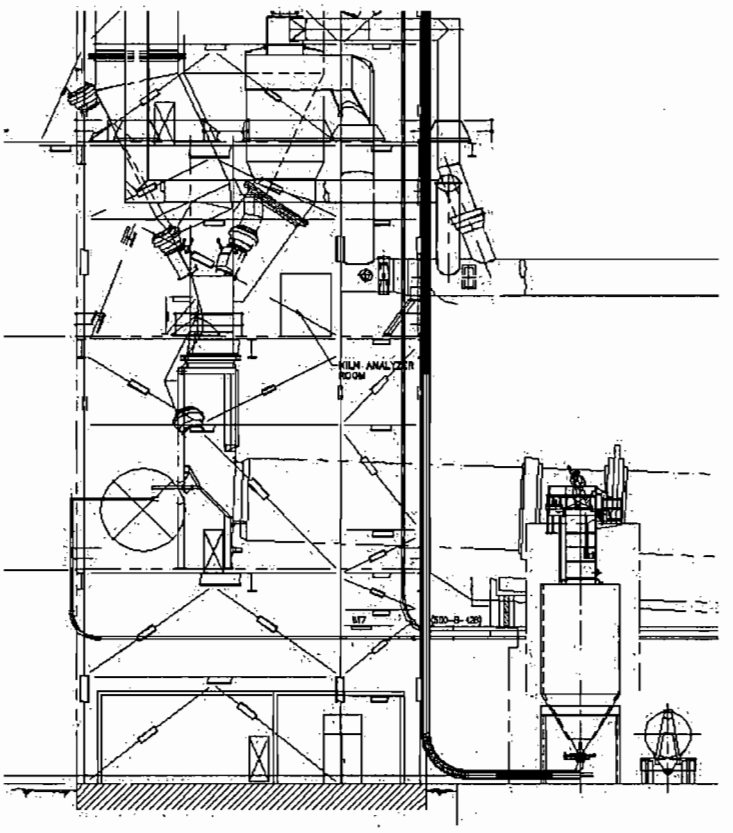
SAC proposes to introduce purchased hydrated lime with the feed at the top of the preheater as needed to scrub out SO_2 evolved in the preheater section. The hydrated lime will be provided by an off-site supplier who manufactures the product by calcining limestone and then slaking the product lime by the reaction: $CaO + 2H_2O = Ca(OH)_2$.

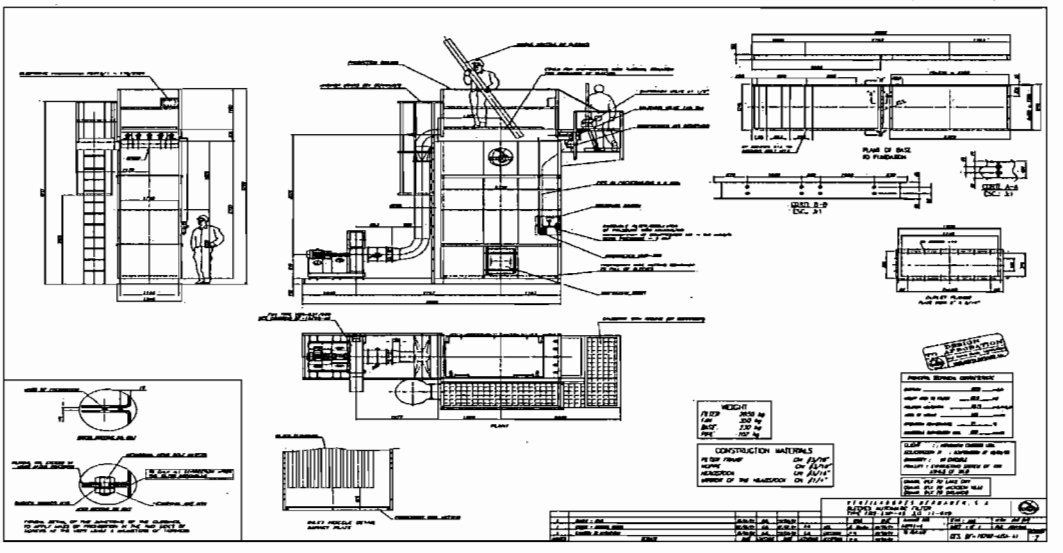
SAC already practices hydrated lime injection as needed through a temporary system using existing equipment. SAC proposes a more robust and permanenet system with automated controls actuated by the SO_2 continuous emission monitoring system (CEMS) and the plant expert control system. The system will automatically feed hydrated lime as SO_2 is detected in the stack and will control the dosage based on the concentration of SO_2 at the stack. This automation of the system will allow for the most efficient control and reduction of SO_2 emissions.

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

Such hydrated lime systems are often used at cement plants for the continuous removal of SO_2 when raw material sulfur is inherently high and overwhelms the modest scrubbing capability of the raw mill.

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





Hydrated Lime Silo with Delivery Duct and Detail of Dust Collector

V. OTHER REQUESTED OR NECESSARY PERMIT CHANGES

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

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

A. MERCURY MONITORING RECONCILIATION

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

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

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

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

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

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

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

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

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

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

The BACT standard is in terms of mass emissions (0.12 lb VOC/ton clinker and 12.6 lb VOC/hour) whereas the MACT is 50 parts per million by volume, dry corrected to 7% oxygen (ppmvd @7% O_2). For reference, the BACT standard is believed to be equal to 12 to 15 ppmvd @7% O_2 and is substantially more stringent than the MACT limit.

The Department proposes to adopt the same compliance averaging time for the two pollutants. No change is proposed to the actual BACT standard. The only change is that compliance will be determined over a period of 30 operating days instead of 30 calendar days. Over a period of time, the Department will review the results of VOC and THC testing and consider additional making additional simplifications such as reporting both parameters in terms of ppmvd @7% O_2. Analysis of the data is needed to insure that there will be no loss in stringency when changing reporting units.

VI. CONCLUSION

The Department will extend the original permit until March 31, 2005 with modifications to reflect the hydrated lime project and the other changes cited above. The proposed changes are highlighted in the draft permit modification distributed concurrently with this evaluation.

The original permitted BACT limits still apply. The Department may revise the final emission limits for the plant during the time provided by this extension in accordance with Subsection B, Specific Condition 12 of the permit. The Department will also require SAC to demonstrate the adequacy of the BACT in conjunction with other projects they plan to conduct in the near future.

No emission increases will occur as a result of these changes. SO_2 emissions are already very low. The permanent hydrated lime injection project will make it easier to maintain the very low SO_2 emission characteristics throughout the full range of raw materials and operating conditions.

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

Florida Department of Environmental Protection

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

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

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

The plant started up in February 2003, is presently operating at or near full capacity and has demonstrated compliance with the current BACT limitations. Sulfur dioxide (SO_2) emissions are extremely low due to very thorough scrubbing of combustion gases in the calciner. A temporary hydrated lime injection system provides for additional scrubbing of sulfur dioxide (SO_2) emissions when the raw mill is not in operation and raw materials containing a relatively high fraction of sulfur are encountered. The permanent system proposed by this permitting action will be more robust and automated than the present one.

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

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

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

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

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

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

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

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

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

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

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

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

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