P.O. Box 410
5117 US Hwy 17
Branford, FL

SUWANNEE AMERICAN CEMENT

January 6, 2005

To: **Trina Vielhauer**
Florida DEP
2600 Blair Stone Road
MS# 5500
Tallahassee, Florida 32399-2400

Ms Vielhauer,

Please find included in this package:

- Construction Permit Application Package
    - Suwannee American Cement Technical Review and Information
    - Technical Review and Application from Dr. John Koogler of Koogler & Associates
    - Check from SAC for $4,500 for Permit Application Fee
- Data Disk with Process and Emission Data related to the Permit Application Package

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

Sincerely,

Joe Horton
Suwannee American Cement

Cc; Al Linero – DEP (w/o Disk)
Jim Pennington – DEP (w/o Disk)
Chris Kirts – DEP (w/o Disk)
Celso Martini – SAC
Dr. John Koogler – Koogler and Associates

Suwannee American Cement
SAC
Branford, Florida, USA

P.O. Box 410
Branford, Fl 32008

January 04, 2005

Trina Vielhauer
Division of Air Resources
Department of Environmental Protection
2600 Blair Stone Road, MS # 5500
Tallahassee, Florida 32399-2400

SUBJECT: **Fly Ash Injection and Production Capacity Permit Application Update**
DEP File No. 1210465-012-AC
Suwannee American Cement – Branford Plant
Facility ID No. 1210465
PSD-FL-259D

Ms. Vielhauer:

On July 28, 2004, Suwannee American Cement (SAC) submitted a Long Form Permit Application to the Department that included a request to install and operate a permanent Fly Ash Injection System including silos and transferring equipment for dry fly ash. As part of that application an additional 10% increase in production limits for clinker was also requested.

SAC received a Request for Additional (RAI) from the Department on September 3, 2004 and subsequently requested a Permit to test Fly Ash Injection to gather data and resolve questions from the RAI. On October 20, 2004, SAC received a Test Permit for Fly Ash Injection and begin testing production capacity.

SAC began testing on October 20, 2004 and has found the clinker capacity of the system to be at least 10% above the permitted limit of 105 tons per hour (or at least 115 tph) without Fly Ash Injection. SAC is confident that with Fly Ash Injection, the Kiln System clinker production limit will be as much as 15% above currently permitted limit; or as much as 120 tph.

Additionally, SAC requested and received permission to test a Selective Non-Catalytic Reduction (SNCR) system (Air Permit No. 1210465-013-AC). SAC observed the advantages of operating the Kiln System with this control method for NOx during the testing. Greater stability of the kiln is possible with SNCR, because the kiln can be operated with higher oxygen levels at the kiln exit.

SAC is requesting to update the July 28, 2004 permit application to include the installation of a permanent SNCR system to be used as needed by SAC and additionally, to increase the clinker production limit by 15% or to 120 tons of clinker per hour (tph). The July 28, 2004 permit application included a request for permission to construct and operate a permanent Fly Ash Injection system including two fly ash silos and associated equipment. SAC was authorized to construct and operate a Fly Ash Injection System for the Fly Ash Testing on October 20, 2004. By this application, SAC requests the permanent installation and operation of the fly ash silos and associated equipment proposed in the July

28, 2004 Application and the equipment authorized during the Fly Ash Injection Testing (Air Permit No. 1210465-012-AC).

Please find the following included in this package:

- Emission Data During Production Rate Testing,
- A CD with process and production data for the period of Production Rate Testing,
- Information from Polysius(Kiln System Supplier) on existing Capacity of Equipment
- SNCR System Information,
- Production and Emission Limits Revisions proposed in conjunction with Increased Production and SNCR Installation
- Permanent Fly Ash Injection System Information
- Technical Review and Permit Application from Dr. John Koogler of Koogler & Associates

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: Jim Pennington – DEP
Al Linero – DEP
Chris Kirts – DEP
Celso Martini – SAC
Dr. John Koogler – Koogler and Associates

EMISSION DATA DURING PRODUCTION RATE TESTING

PRODUCTION INCREASE & EMISSION DATA

- On October 20, 2004, SAC received permission to Test Fly Ash Injection and to Test Production Capacity. From testing results and Manufacturer information SAC has found the rated clinker capacity of the system to be at least 10% above the permitted limit (or at least 115 tph) without Fly Ash Injection. SAC believes it can increase the production limit from 105 tph on a 24-hour basis to 120 tph on a 24-hour basis with Fly Ash Injection (a 15% increase). This results in an annual clinker limit of 965,425 tons per year of clinker.

- SAC measures Nitrogen Oxides (NOx), Sulfur Dioxide (SO2), and Volatile Organic Compounds measured as Total Hydrocarbons (THC) continuously at the stack to insure compliance with associated limits. Additionally, SAC measures CO with a process analyzer located upstream of the Main Baghouse and Stack. Using this analyzer, SAC can see relative changes in CO emissions and estimate emissions at the stack. During testing SAC was in compliance with all permitted limits as shown in Tables 1-4. SAC has observed a trend of slight increases in emissions in terms of pound per hour (lb/hr), but emissions are still well below permitted limits. Additionally emissions expressed in terms of pound per ton of clinker (lb/ton) have remained the same or actually decreased. This is due to the increased efficiency of the system and the incremental increase in clinker production being higher than the incremental increase in the associated pollutant.

Table 1 - Existing Limits

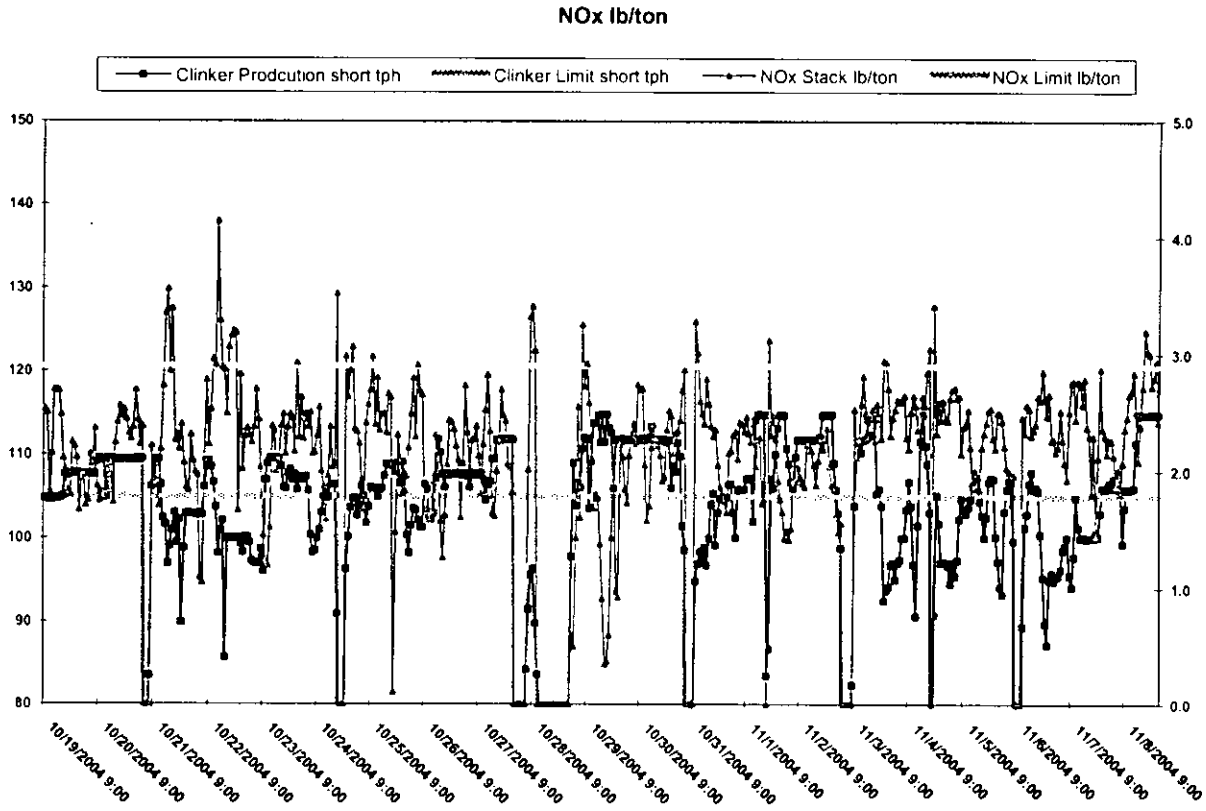
Pollutant	Annual Limit (ton/year)	Limit (lb/ton)	Limit (lb/hr)
Production	839,500	105 tph	
NOx	1217.5	2.9	304.5
SO2	113.4	0.27	28.4
VOC	50.4	0.12	12.6
CO	1511.1	3.6	378

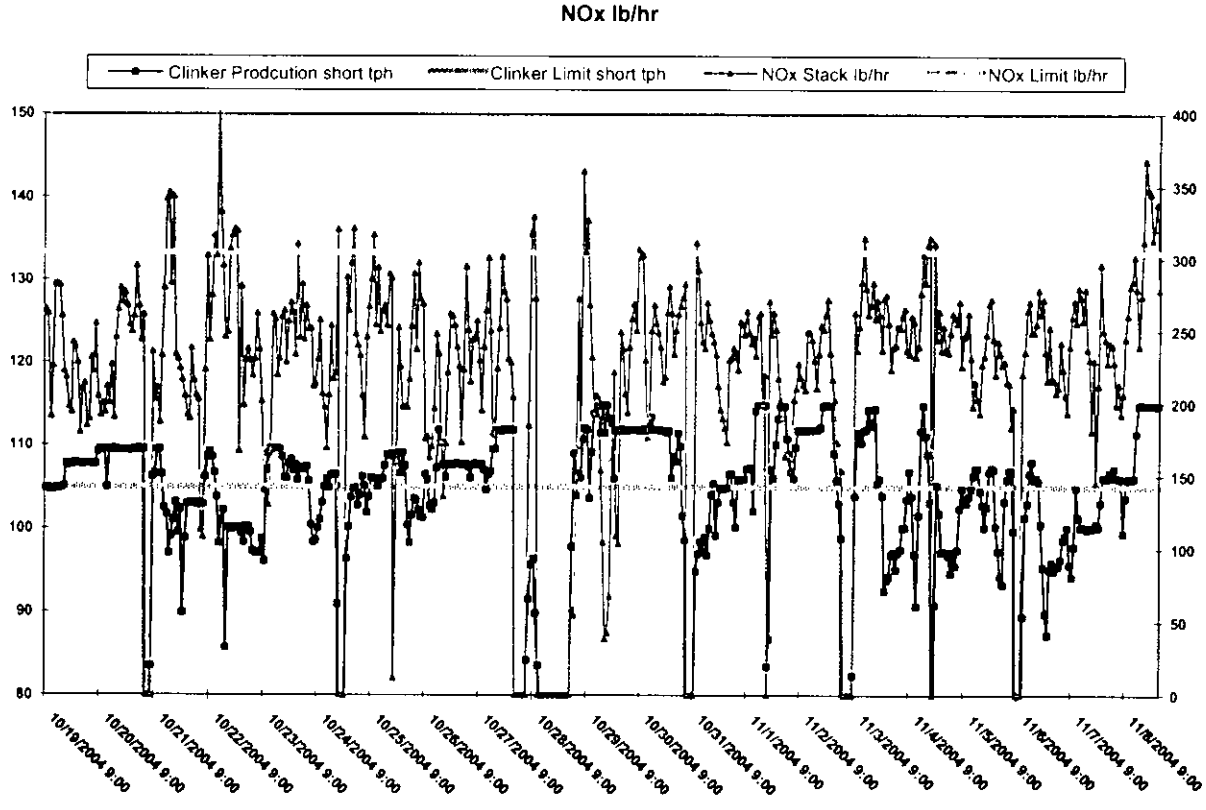
- Summaries for Nitrogen Oxides (NOx), Sulfur Dioxide (S02), Volatile Organic Compounds measured as Total Hydrocarbons (THC) and Carbon Monoxide are included for periods of the Production Capacity Test.

NOx SUMMARY

- Below In Figure 1, are emissions for NOx at the stack over the course of the production capacity testing expressed in lb/hr and lb/ton. Each graph shows the hourly lb/ton and lb/hr NOx emissions with the corresponding hourly production. Additionally, the current production limit is marked on the graph as well as the current NOx emission limit.

Figure 1: Overall NOx lb/ton & lb/hr Emissions





- From Figure 1 it can be observed that few hourly NOx averages went above the limit in terms of lb/hr and lb/ton. The 24-hour averages however, never exceeded the limit for either lb/hr or lb/ton.

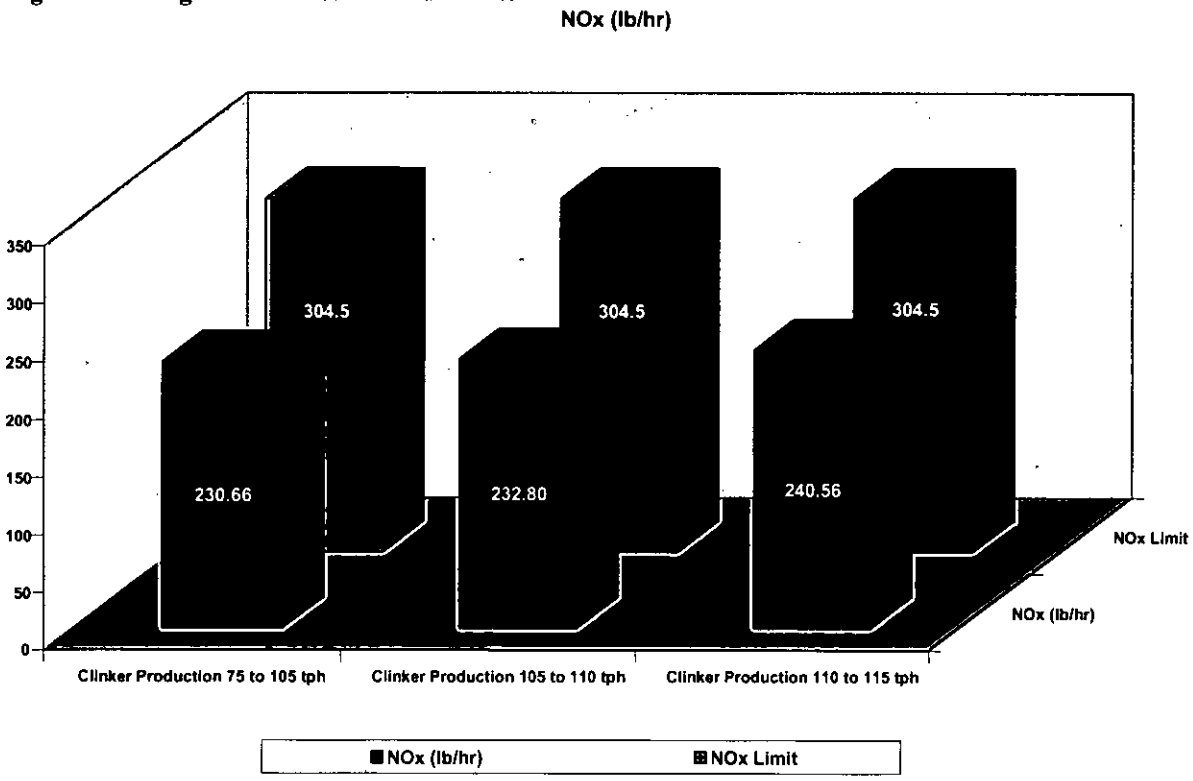
- In Table 2 the average NOx emissions over three different production rate ranges are displayed. The NOx emissions in lb/ton actually decrease with greater production while the lb/hr emissions remain fairly constant with a trend toward a slight increase during the periods with production above 110 tons per hour. The lb/hr emission rates for the three production rate ranges are statistically the same however (at the 95% C.L.).

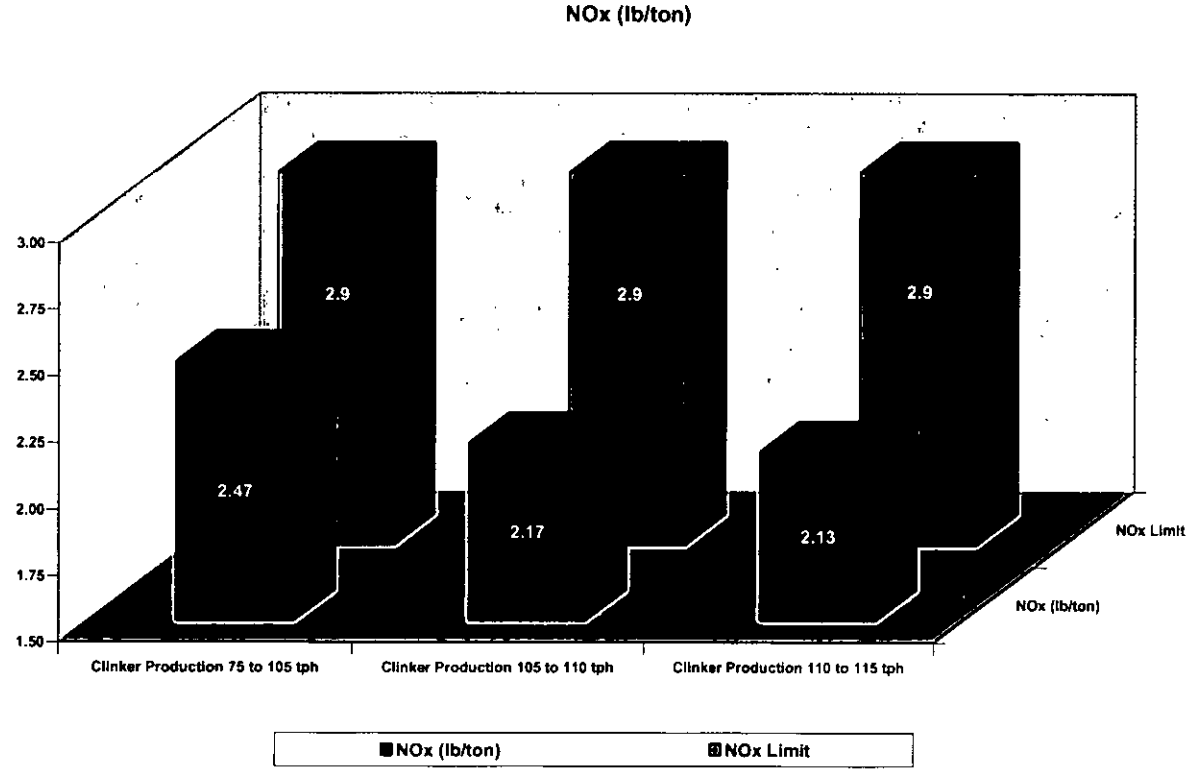
Table 2 – NOx Emission Summary

	Clinker Production		
	75 to 105 Tons per Hour	**105 to 110 Tons per Hour**	**110 to 115 Tons per Hour**
Valid Operating Hours for Production Period	194	173	98
NOx Limit (lb/hr)	**304.5**	**304.5**	**304.5**
Average NOx (lb/hr)	243.1	232.8	240.6
Standard Deviation of NOx (lb/hr)	45.9	43.4	61.2
Percent of Limit (%)	79.8%	76.5%	79.0%
NOx Limit (lb/ton)	**2.9**	**2.9**	**2.9**
Average NOx (lb/ton)	2.47	2.17	2.13
Standard Deviation of NOx (lb/ton)	0.50	0.41	0.54
Percent of Limit (%)	85.2%	74.7%	73.6%

- In Figure 2 the average NOx emissions expressed both as lb/hr and lb/ton are shown in a bar graph format with the corresponding limit. For all production ranges, the average NOx emissions were well below the permitted limit.

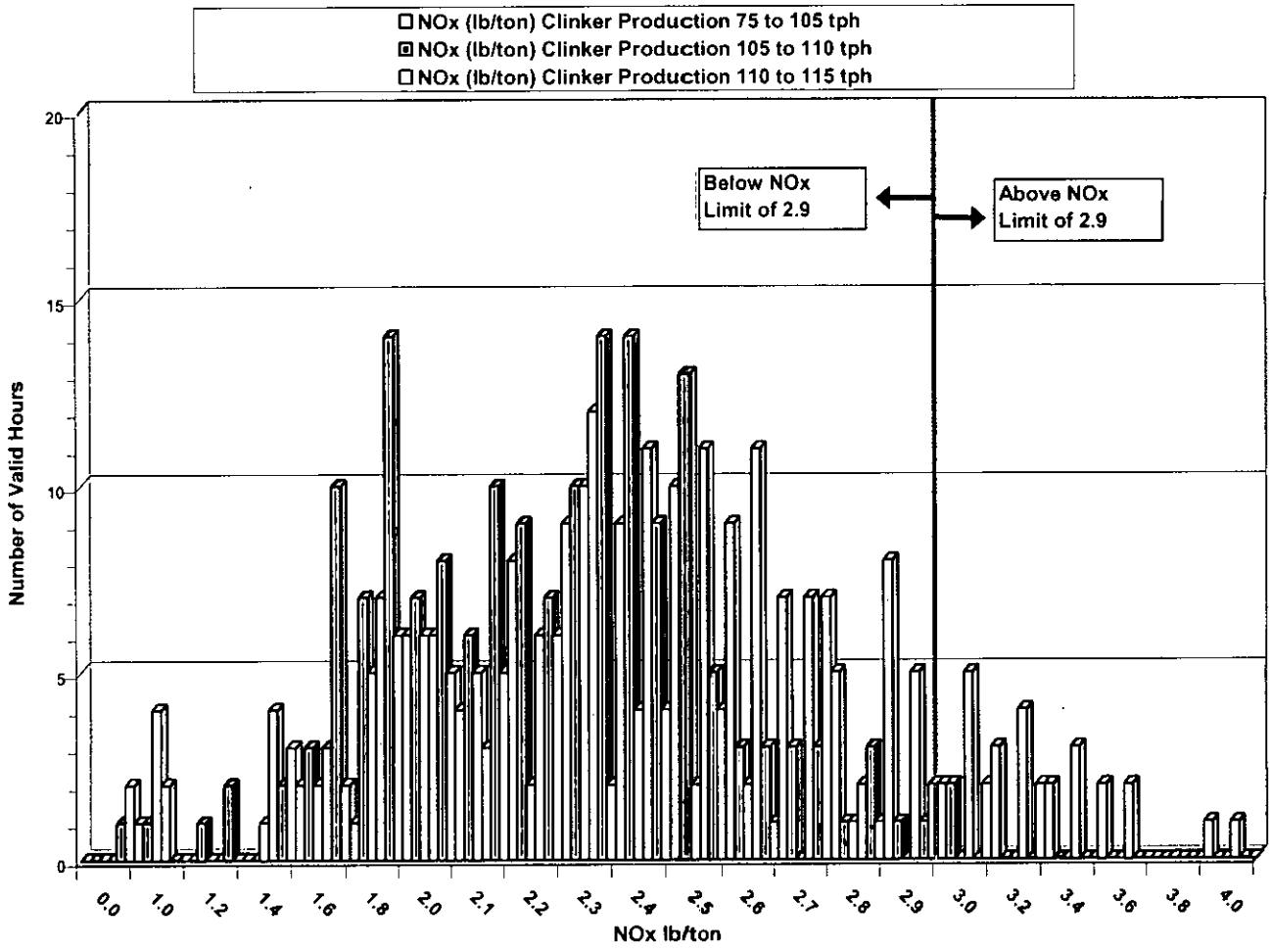
Figure 2 Average NOx Emissions and Limits





- Aside from being well below the NOx limits, the NOx emissions in terms of lb/ton show little statistical correspondence to the production rate. This can also be seen visually by the histogram in Figure 3. This histogram shows the number of NOx hourly emissions (lb/ton) in incremental ranges for the three production rate ranges. The majority of the data points fall in the 2.3 to 2.5 lb/ton range regardless of production rate. NOx emissions during the 110 to 115 tons per hour production rates show a decrease in the median with the majority of the data points falling in the 1.8 to 2.3 lb/ton range.

Figure 3 - Histogram of NOx lb/ton at Varying Production Rates



SO2 SUMMARY

- In Table 3 the average SO2 emissions over three different production ranges are displayed. SO2 emissions are so low (usually close to zero) that production increase has no discernable effect. SO2 emissions were well below the permitted limits for all production rate ranges.

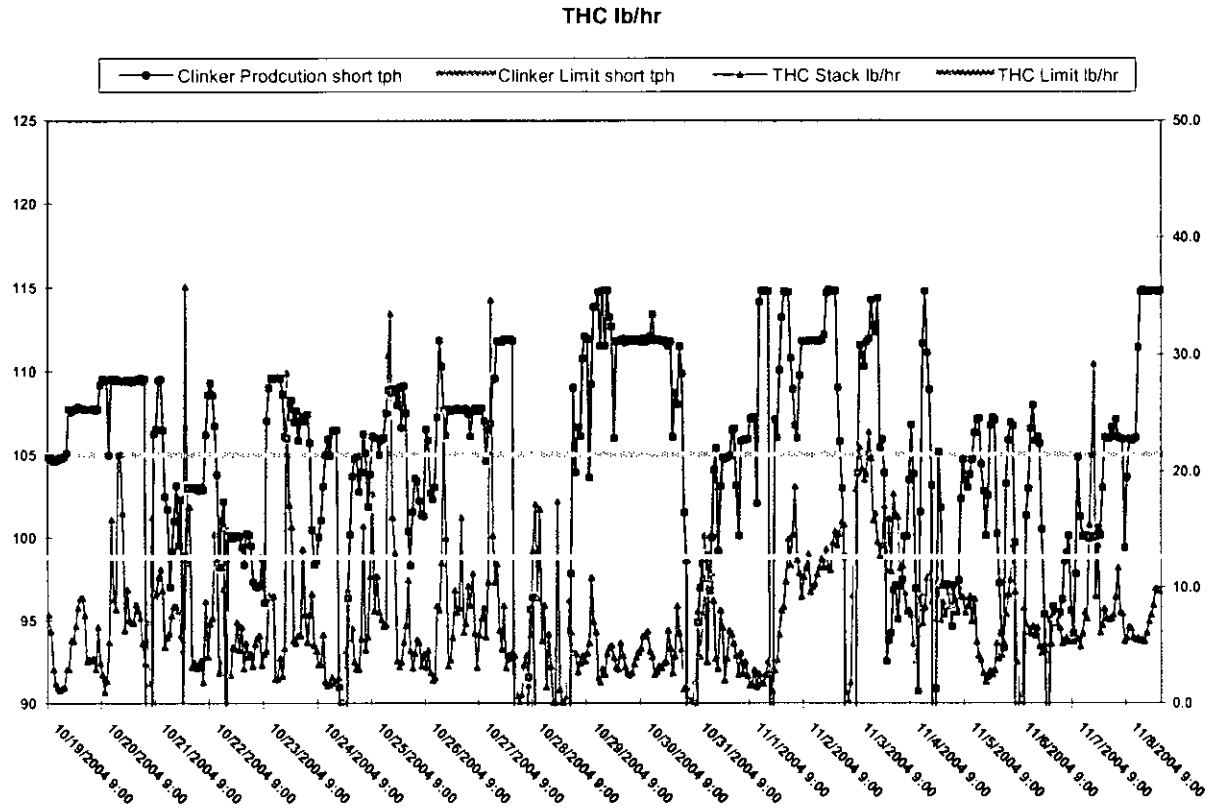
Table 3 – SO2 Emission Summary

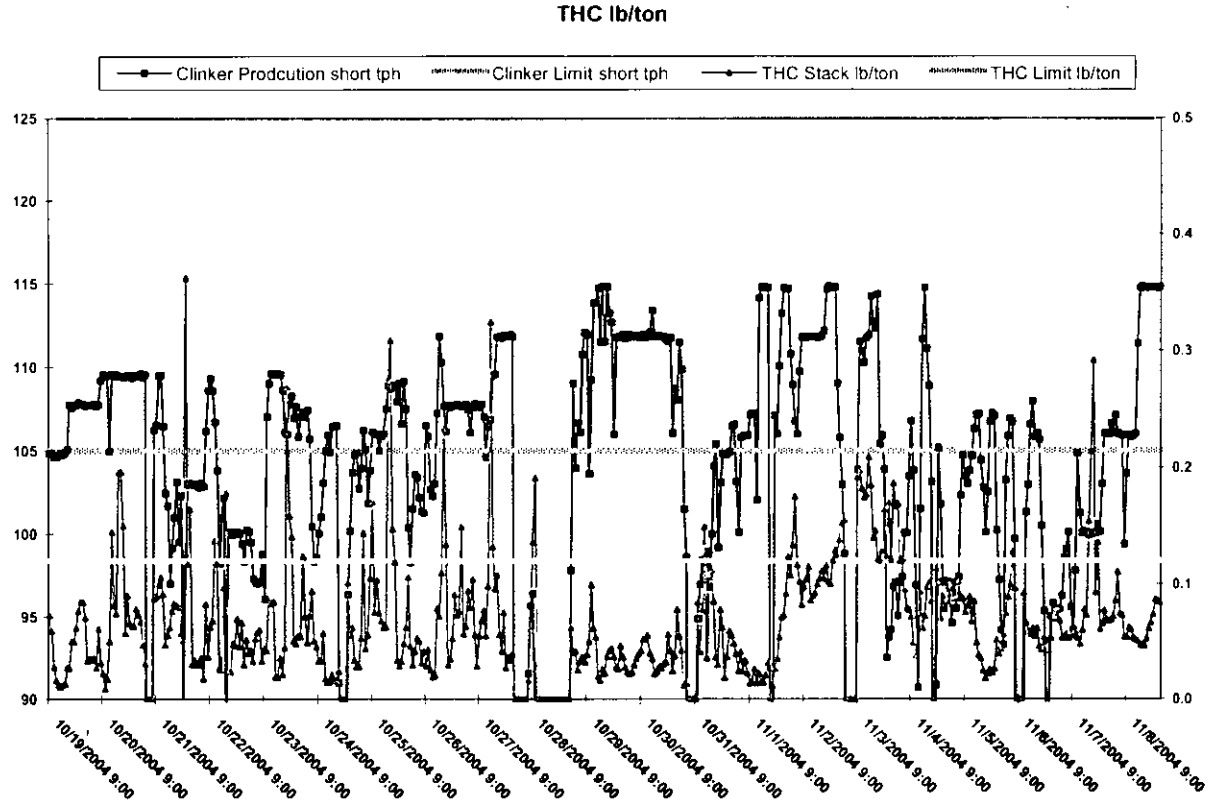
	Clinker Production		
	75 to 105 Tons per Hour	**105 to 110 Tons per Hour**	**110 to 115 Tons per Hour**
Valid Operating Hours for Production Period	194	173	98
SO2 Limit (lb/hr)	**28.4**	**28.4**	**28.4**
Average SO2 (lb/hr)	2.138	2.436	1.764
Percent of Limit (%)	7.5%	8.6%	6.2%
SO2 Limit (lb/ton)	**0.27**	**0.27**	**0.27**
Average SO2 (lb/ton)	0.022	0.023	0.016
Percent of Limit (%)	8.0%	8.4%	5.8%

THC SUMMARY

- In Figure 4 the average THC emissions at the stack over the course of the production capacity testing are expressed in lb/hr and lb/ton. Each graph shows the hourly lb/ton and lb/hr THC emissions with the corresponding hourly production rate. Additionally, the current production limit is marked on the graph as well as the current THC emission limit.

Figure 4: Overall THC lb/ton & lb/hr Emissions





- From Figure 4 it can be observed that some hourly averages went above the 30-day block THC limit in terms of lb/hr and lb/ton but the 30-day block average limit was never exceeded for either lb/hr or lb/ton.

- In Table 4 the average THC emissions over three different production ranges are displayed. The THC emissions in lb/ton and the lb/hr emissions remain fairly constant and below the permitted limit during all periods.

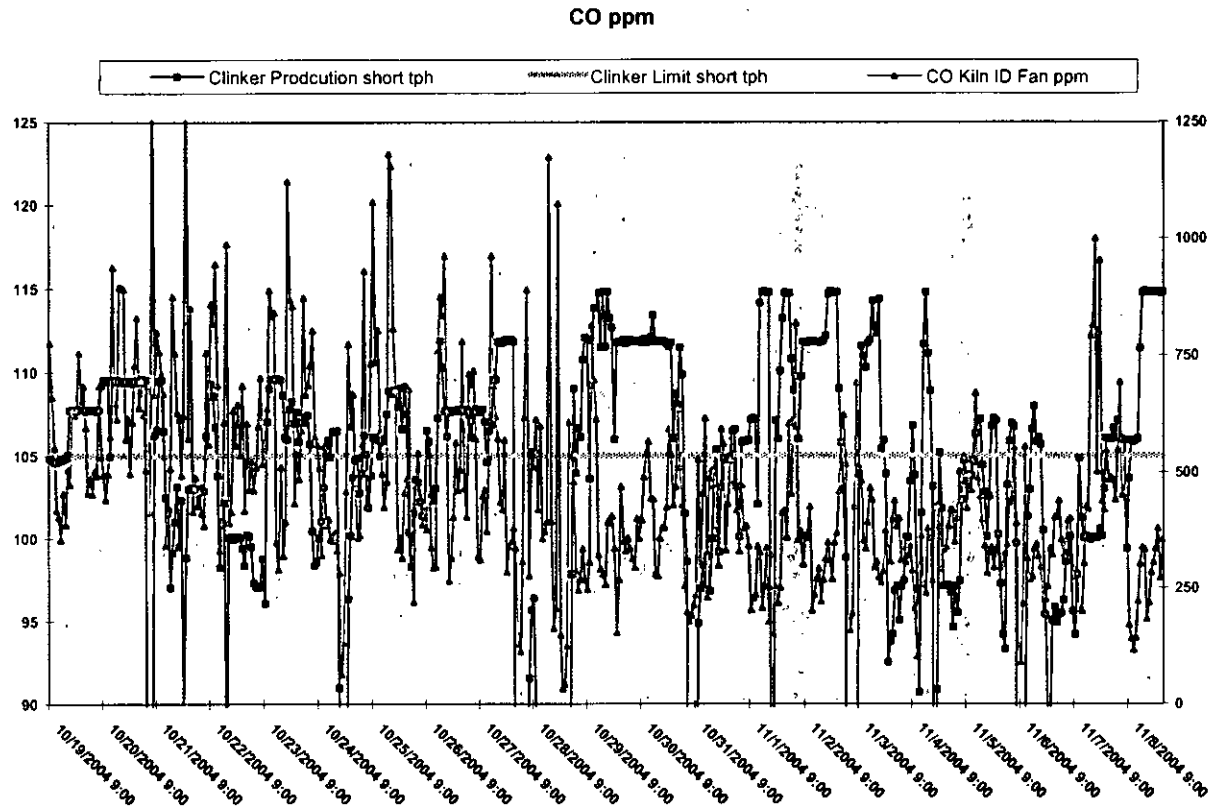
Table 4 – THC Emission Summary

	Clinker Production		
	75 to 105 Tons per Hour	**105 to 110 Tons per Hour**	**110 to 115 Tons per Hour**
Valid Operating Hours for Production Period	194	173	98
THC Limit (lb/hr)	**12.6**	**12.6**	**12.6**
Average THC (lb/hr)	7.022	8.033	7.730
Percent of Limit (%)	55.7%	63.8%	61.4%
THC Limit (lb/ton)	**0.12**	**0.12**	**0.12**
Average THC (lb/ton)	0.072	0.075	0.069
Percent of Limit (%)	59.8%	62.2%	57.2%

CO SUMMARY

- In Figure 5 the average CO emissions (expressed in ppm) as measure with the process analyzer at the Kiln ID Fan are plotted over the course of the production capacity testing.

Figure 5: Overall CO (ppm) Recordings



- In Table 5 the average CO emissions over the three different production ranges are displayed. The CO emissions are highly variable.

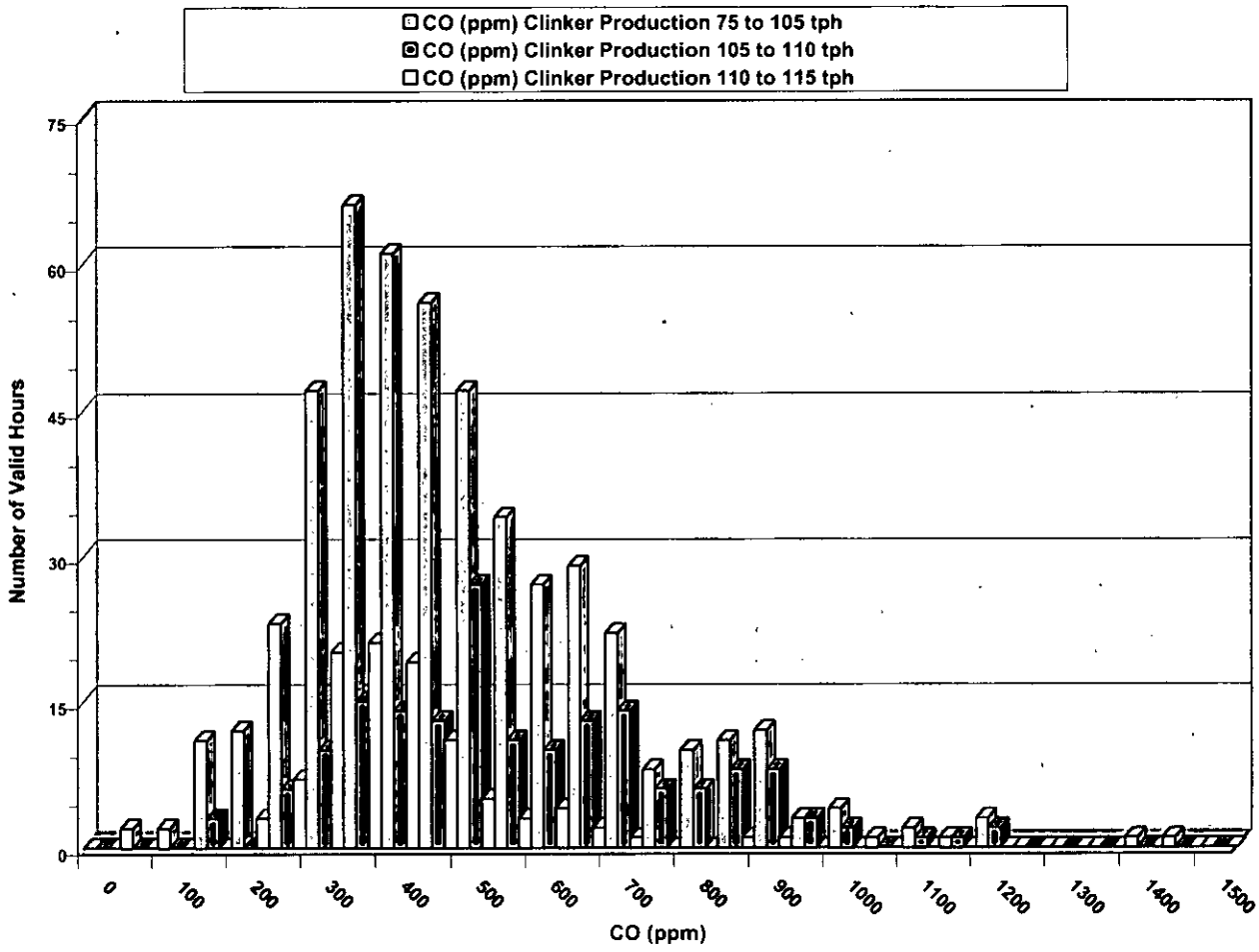
Table 5 – CO Emission Summary

	Clinker Production		
	75 to 105 Tons per Hour	**105 to 110 Tons per Hour**	**110 to 115 Tons per Hour**
Valid Operating Hours for Production Period	194	173	98
Average CO (ppm)	459.693	544.650	368.354

- In Figure 6 a histogram of the hourly average CO emission data (ppm) over the three different production rate ranges are displayed. At the currently permitted clinker production rates (105 tph), the CO emissions have a high degree of variability. This makes a correlation between production rate and the CO difficult to realize. What can be seen from the histogram is that while some CO increase is observed in the production range of 105 to 110 tph, a decrease is noted in the 110 to 115 tph range. One possible explanation could be that optimization of kiln process is need

to reach the higher ranges of production. With increased kiln optimization, process stabilization occurs, which results in lowered CO emissions in terms of ppm.

Figure 6 - Histogram CO ppm at Varying Production Rates



OTHER POLLUTANTS

- The other regulated pollutants Dioxin/Furan, Lead (Pb), Mercury (Hg), and Particulate Mater (PM) and Particulate Mater less then 10 microns (PM10) were tested during July 2003 and August through September 2004. All results were well below emission limits that where applicable. Emission testing will be performed during increased production rates to insure compliance.

EMISSION SUMMARY

During the increased production rate testing, emissions in terms of mass per time and mass per ton of clinker remained well below permitted levels. While there was a slight trend toward increases in lb/hr emissions changes were not statistically significant. The overall trend was for an improved efficiency in emissions per ton of clinker. An increase in production up to 115 tons of clinker per hour has shown to be no concern in meeting current emission limits, and emissions at an increase in production up to 120 tons of clinker per hour, if extrapolated from current data, would remain below current emission limits.

Proposed production limits and emission limits are presented in Attachment Production and Emission Limits Revisions due to Increase Production.

INFORMATION FROM POLYSIUS ON CAPACITY OF EXISTING KILN SYSTEM

Polysius Corp.
A **ThyssenKrupp** Technologies Company

180 Interstate North Parkway
Atlanta, Georgia 30339-2194
Phone: (770) 955-3660 Fax: (770) 955-8789

Mark S. Terry
President

December 14, 2004

Suwannee American Cement
P. O. Box 410
Branford, FL 32008

Attention: Mr. Celso Martini
Plant Manager

Dear Celso:

Pursuant to our discussions at the seminar in Charleston, I see no danger in operating the Branford facility at an increased capacity. As you are well aware, our plant engineers are generally quite conservative in our design and are so to enable us to quickly achieve our guaranteed figures. It is quite normal, as plant operators become more familiar with the equipment and raw materials, that they find ways to operate their new plants at capacities up to 20% in excess of the normal capacity rating. Indeed, your plant could be safely operated to achieve capacities up to 2,850 by refining your mix and your operating procedures. In fact, I believe you have even demonstrated and sustained this capacity here recently. For throughput increases beyond the 2,850 stpd clinker, I can assure you that the pyro system is designed to *mechanically* withstand higher throughput rates. In specific terms, the tower structure is designed for catastrophic process conditions whereby the normal cyclone loads are considered plus the possible plugging of the largest cyclone. Your system is, of course, protected by the gamma level detectors in the lower cyclone stages.

The kiln itself is stout enough to mechanically handle up to a 10% fill level in the inlet zone and up to 15% in the hotter sections. This is of course a function of material density and kiln speed. You have ample flexibility in the design of the drive system to achieve kiln speed rates in excess of 4.0 rpm.

The clinker cooler will also mechanically support and convey clinker throughput beyond the 2,850 stpd, but at increased outlet temperatures since the specific grate loading is quite high.

In summary, the system you have at your Branford facility can indeed safely handle capacity increases up to 20% above the nominal rating of the system and even beyond; however, I cannot speak to the quality of the product. I leave that to you and your proven skills at mix optimization and plant operation.

Should you require further specifics or have any further concerns on this issue, please contact me or Oleg directly.

Sincerely,

POLYSIUS CORP.

Mark S. Terry
President

MT/pw

cc: Dan Fritz
John Koogler

January 4,2005

2760 stpd changed to 2850 per Oleg Geskin

SNCR System Information

SNCR SYSTEM INFORMATION

On November 2, 2004, SAC received permission form the Department to conduct testing of a SNCR system for control of NOx emissions (Air Permit No. 1210465-013-AC). SAC conducted testing during November 8th to the 29th. During testing several advantages of operating with SNCR were observed. These included the following:

- Greater Kiln Stability,
- Prolonged periods of increased production of around 115 tons of clinker per hour in conjunction with Production Capacity Testing (Air Permit No. 1210465-012-AC),
- Fewer Kiln Process Problems (Buildup in Riser Duct),
- Reduced NOx emissions, and
- Possibility for use of currently permitted Pet Coke with current NOx limits.

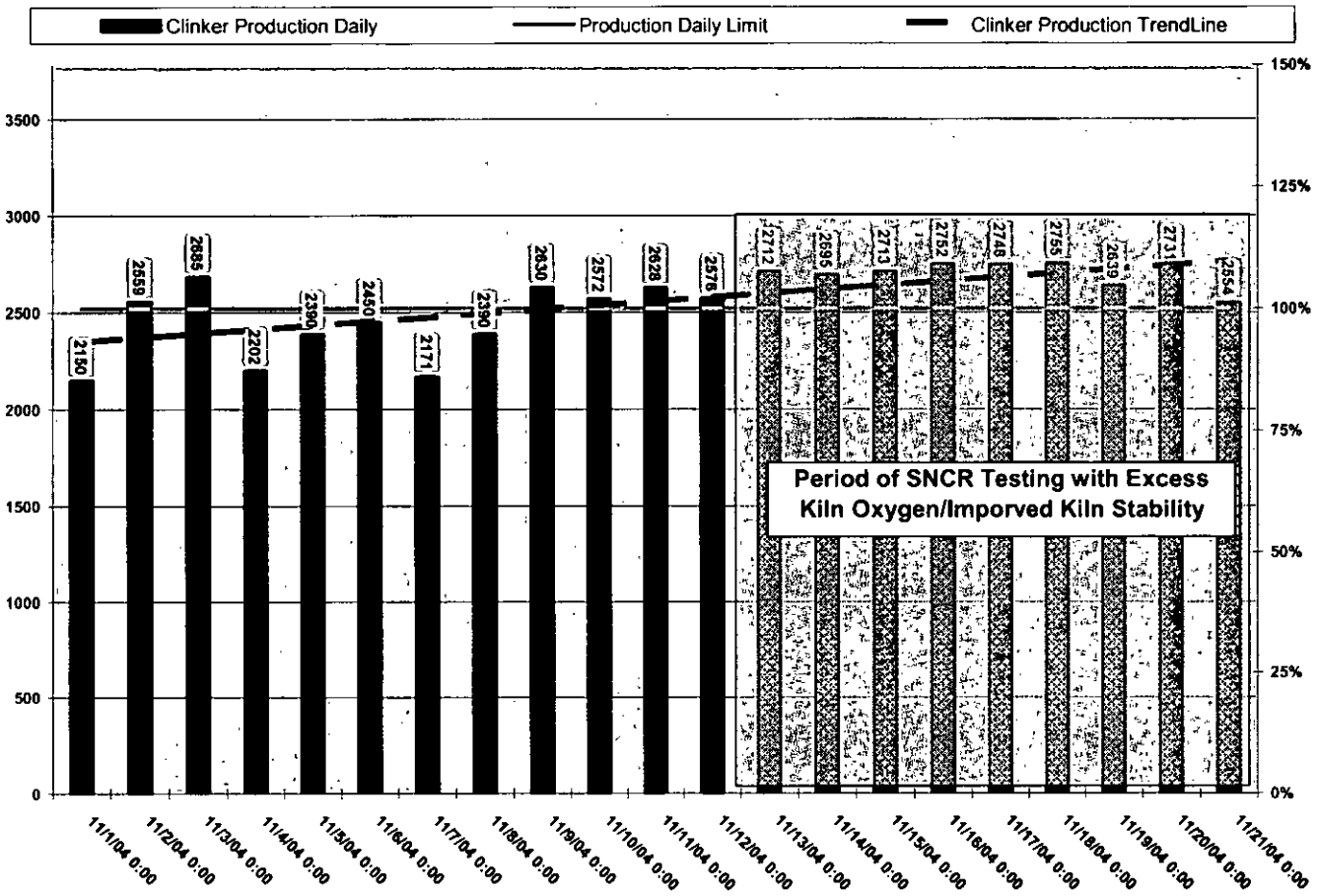
Additionally, the following disadvantages were noted during testing:

- Higher than average CO emissions were observed during testing,
- Ammonia emissions were observed during Raw Mill down periods (approximately 20 to 50 ppm). To insure NOx emissions at or below 2.5 lb/ton, some ammonia emissions may occur during Raw Mill down scenarios. Additionally, the ammonia injection testing was conducted over a period of only two weeks. Ammonia cycles within the Raw Mill may reach equilibrium over longer periods of time, resulting in Ammonia emissions with the Raw Mill on. Only prolonged operations of SNCR with optimization of ammonia use can determine ammonia emissions for the long-term,
- Failures of the ammonia injection equipment effecting injection rates can occur causing increased short-term NOx emissions. Short-term averaging of emissions at or below 2.5 lb/ton is not possible even with SNCR. Longer averaging times are needed to insure that problems with equipment can be averaged out.

SAC is confident that with improved efficiency in ammonia injection, ammonia emissions from ammonia slip can be minimized or even eliminated all together. NOx emissions can be maintained at or below 2.5 lb per ton clinker with SNCR even with the use of currently permitted Pet Coke, which has a higher potential for NOx generation than coal due to low volatiles and possible higher Nitrogen content.

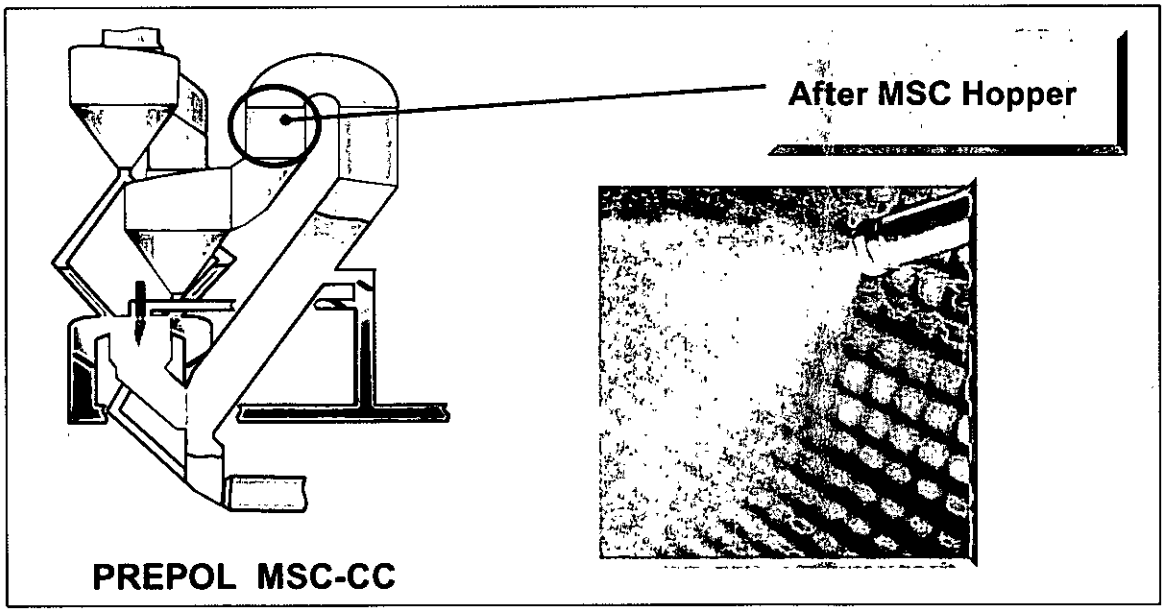
The overall findings of the SNCR testing have lead SAC to consider installation of SNCR on the existing Kiln System to be used as needed to help promote stable kiln operations with the use of various approved fuels and to allow an increase in production rate. In Figure 1, the increased production from Kiln Stability is shown during periods when SNCR was tested in conjunction with the scenario of operating the kiln with higher exit oxygen levels. Excess oxygen at the kiln exit results in increased thermal NOx from the kiln, which would typically lead to elevated NOx emissions at the stack. But, with SNCR the excess NOx generated in the kiln is reduced by the reaction with the ammonia. The SNCR system allowed emissions to remain around 2.0 pounds of NOx per ton of clinker while operating with approximately 3.0 to 3.5 lb of NOx per ton of clinker at the kiln exit.

Figure 1: Daily Production during SNCR Testing



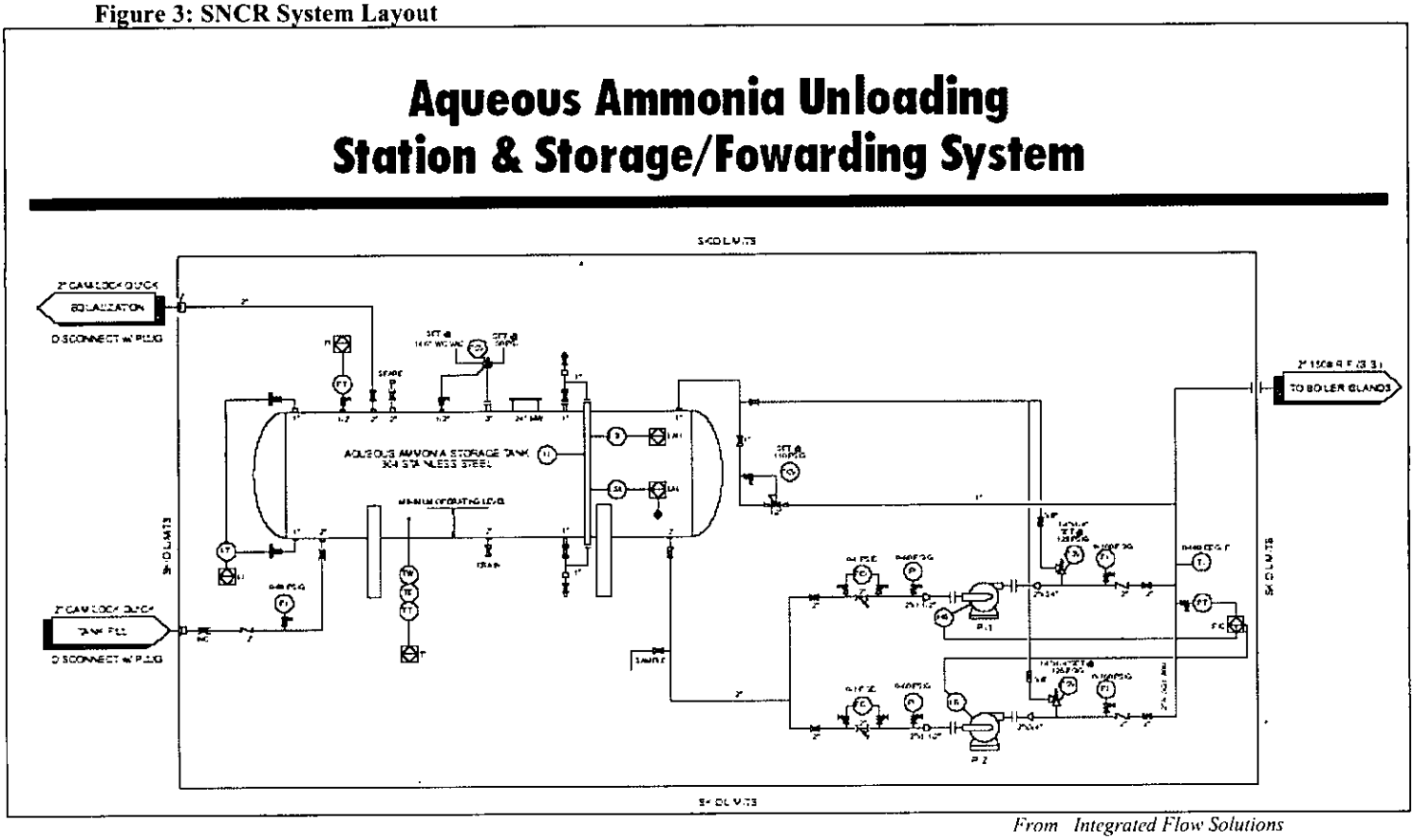
SAC injected ammonia in the Calciner just after the Multi-Staged Combustion (MSC) Hopper and just prior to the lowest stage cyclone (Stage 1) as shown in Figure 2. Optimal NOx reduction was expected to be achieved at this location based on Polysius experience with other plants. SAC would propose the injection of ammonia in this same location unless operations reveal a more optimal location for NOx reduction or process stability.

Figure 2: Ammonia Injection Location



The ammonia system will consist of a tank designed to handle up to 20% ammonia solution. The tank will be double walled or have containment to handle 110% of the tank volume. The tank capacity will be approximately 10,000 to 15,000 gallons. The tank will be equipped with overfill and leak alarms as well as level detection systems. The ammonia delivery to the SNCR system will by two pumps in parallel to insure delivery of ammonia even if one pump fails. The entire system will be automated and controlled by the control room operator and will have an interconnection with the NOx emissions as measured by the NOx Continuous Emission Monitor (CEM) in the main stack. An example layout is shown in Figure 3.

Figure 3: SNCR System Layout



From Integrated Flow Solutions

The tank and all associated equipment will be pressure rated or have means to insure vapors from ammonia solution are not freely vented to the atmosphere. The SNCR project will not result in any net increase in emissions and will only help to reduce NOx emissions despite increases in production, changes in kiln operations and/or the use of currently permitted Pet Coke as a fuel.

Federal Environmental Protection Agency (EPA) recognizes the installation of SNCR as a Pollution Control Project (PAP) in 40 CFR 52.21(b)(32). Even though Florida has yet to adopt this portion of the Federal Register in the Florida Administration Code, the environmental benefit of such a project is recognized by EPA. SAC seeks approval to install SNCR in conjunction with the other permit modifications as outlined in this package.

PRODUCTION AND EMISSION LIMIT REVISIONS DUE TO INCREASED PRODUCTION AND SNCR INSTALLATION

PRODUCTION AND EMISSION LIMIT REVISIONS DUE TO INCREASED PRODUCTION AND SNCR INSTALLATION

As discussed in attachments Emission Data During Production Rate Testing and SNCR System Information SAC wishes to increase clinker production by 15 percent on a ton per hour and ton per year bases as well install SNCR to control NOx emissions and promote stable kiln operations. Both of these projects will affect potential to emit for Prevention of Significant Deterioration (PSD) criteria pollutants. However due to the SNCR system and improved kiln operations, SAC will be able to reduce future potential emissions when compared with existing plant potential emissions for NOx, SO2, PM and PM10. Slight increases in annual emissions for VOC (expressed as THC) and CO will occur, but overall efficiency (pound per ton of clinker) will be reduced or remain the same.

Additional adjustments to the ancillary equipment will or may need to be made to support the kiln system at the elevated production capacity. These projects include the following:

- Adjustments to the Coal Mill motor and Drive to increase coal mill capacity up to 18.3 tph of ground coal and 16.4 tph of ground petroleum coke,
- Adjustments to Kiln I.D. Fan to increase rotation per minutes with the existing motor,
- Adjustments to Raw Mill I.D. Fan to increase rotations per minutes with the existing motor,
- An increase in the Cooler Fan capacity and/or Cooler capacity, and
- Other minor Adjustments to support increased production in the Kiln System.

None of the afore mentioned changes or the increase in production will result in an significant increase in emissions beyond the PSD threshold (Rule 62-212.400(2)(e)2., F.A.C.) for criteria pollutants. Furthermore, none of the changes will affect emissions from sources other than the Kiln/Raw Mill, with the exception of slightly reducing the production based (lb/ton clinker) PM/PM10 limits of the Cooler. The mass (lb/hr) and annual emission rates of PM and PM10 will remain the same and the production based emission rate (lb/ton clinker) will be reduced to the limits shown in the application for this project. Table 1 displays the current allowable potential emissions from the facility. Since SAC does not yet have two years of actual emission data, the potentials to emit shown in Table 1 are required to be used for PSD evaluation.

Table 1 - Existing Limits

Pollutant	Annual Limit (ton/year)	Limit (lb/ton)	Limit (lb/hr)
Production	839,500	105 tph	
NOx	1217.5	2.9	304.5
SO2	113.4	0.27	28.4
VOC	50.4	0.12	12.6
CO	1511.1	3.6	378

With the increase in production, no additional emissions of NOx, SO2, PM and PM10 will be generated and thus, annual limits and lb/hr limits will remain unchanged for these pollutants or even decrease. The increase in production does increase the overall system efficiency, resulting in a decrease in emissions of pollutant per ton of clinker. Thus, the existing hourly mass limits in terms of pound of pollutant per ton of clinker will have to be reduced to account for the increase in production. Table 2 expresses the existing limits as adjusted for an increase in production.

Table 2 – Limits Adjusted for Increased Production

Pollutant	Annual Limit (ton/year)	Limit (lb/ton)	Limit (lb/hr)
Production	965,425	120 tph	
NOx	1217.5	2.522	304.5
SO2	113.4	0.235	28.4
VOC	50.4	0.104	12.6
CO	1511.1	3.13	378

To insure the low NOx limits expressed in Table 2 and to be able to operate the Kiln System with oxidizing conditions, which have been shown to be favorable during testing, SAC proposes to install SNCR as a means of insuring compliance with the NOx limits. This has been discussed in detail in attachment SNCR System Information in this package. With the installation of SNCR and operating experience, SAC believes it can even further reduce the NOx emission and gain greater kiln stability.

However, several disadvantages of SNCR were observed during testing that were outlined in Attachment SNCR System Information. To summarize again, these included:

- Higher than average CO emissions were observed during testing. SAC would need to increase overall emissions of CO by some 99 tons a year to insure compliance with a pound per ton limit.
- Failures with ammonia equipment affecting injection flow rates can occur, causing increased short term NOx emissions.

CO emissions due to the use of SNCR would increase in terms of pound per hour and on an annual mass emission bases. Also averaging times for NOx would have to be revaluated due to concerns with short-term failures in the SNCR system as described in attachment SNCR System Information. If averaging times were extended, short-term interruptions in SNCR could be averaged out while annual NOx emissions would still be reduced.

Furthermore, VOC (expressed as THC) emissions remained constant in terms of pound per ton clinker during increased production testing and SNCR testing. Slight increases in annual emissions for VOC are expected although the overall pounds per ton of clinker will remain the same. This slight increase in annual emissions will result in approximately eight (8) tons of additional VOC per year but the production based emissions will remain constant at 0.12 pounds of VOC per ton of clinker.

Table 3 displays the proposed emission limits as adjusted for the changes in pollutant emission rates. NOx emissions have been further reduced based on experience gained during SNCR testing. In addition, the averaging times that SAC would propose to accompany each of the pollutants is accompanied in Table 3. PM emissions and Preheater feed have not been previously discussed, but PM emissions remain constant on an annual basis and Preheater feed is adjusted to accompany the increase in production. SAC would propose the following limits and averaging times as Final Limits for the Fly Ash Project, the Increase in Production Project and the SNCR Project.

Table 3 – Proposed Emission Limits

Pollutant	Annual Limit (ton/year)	Averaging Time	Limit (lb/ton)	Limit (lb/hr)
Production (Clinker)	965,425	24-Hour	120 tph	
Preheater Feed	1,684,578	24-Hour	210 tph	
NOx	1158.5	30-Day	2.4	288
SO2	96.5	24-Hour	0.20	24.0
VOC	58.0	30-Day Block	0.12	14.4
CO	1610.1	3-Hour Stack Test	3.34	400.3
PM	92.8	3-Hour Stack Test	0.110 lb/ton of dry preheater feed	23.1 lb/hour
PM10	78.4	3-Hour Stack Test	0.093 lb/ton of dry preheater feed	19.6 lb/hour

With the following limits SAC would achieve reductions or no change for all criteria pollutants with the exception of CO and VOC as previously discussed. Table 4 outlines the changes that would be achieved:

Table 4 – Pollutant Change

Pollutant	Current Annual Limit (ton/year)	Proposed New Annual Limit (ton/year)	Change +/- (ton/year)	PSD Significant Level (ton/year)	PSD Significance
NOx	1217.5	1158.5	- 59	40	No
SO2	113.4	96.5	- 16.9	40	No
VOC	50.4	58	+ 7.6	40	No
CO	1511.1	1610.1	+ 99	100	No
PM	92.8	92.8	0	25	No
PM10	78.4	78.4	0	15	No

The SNCR installation, as well as the increase in production in general, reduce overall emissions and increase efficiency of emissions in pounds per ton of clinker. Existing equipment plus the installation of SNCR and the proposed limits are proposed as Best Available Control Technology (BACT).

PERMANENT FLY ASH INJECTION SYSTEM INFORMATION

PERMANENT FLY ASH INJECTION SYSTEM INFORMATION

On July 28, 2004, SAC submitted a Long Form Permit Application to install and operate a permanent Fly Ash Injection System, including silos and transfer equipment for dry fly ash. On October 20, 2004, SAC received a Test Permit for Fly Ash Injection (Air Permit No. 1210465-012-AC). SAC received authorization to install silos and transfer equipment as part of the Fly Ash Test. SAC requested authority to permanently operate Fly Ash equipment as requested in the Long Form Permit Application dated July 28, 2004 and as allowed by the Department in Fly Ash Testing.

The July 28, 2004 Permit Application also included a permanent request to adjust the clinker production and kiln feed rates. Temporary authorization of these requests was part of the Test Permit received on October 20, 2004. In the attachment Emission Data During Production Rate Testing, the results of this testing were discussed. SAC would request the July 28, 2004 Application be updated to include the results of the testing and discussions included in this package on increased production. SAC requests the production increase be made permanent based on the results of testing approved by the Department from October 20, 2004, to date.

In the July 28, 2004 application additional information was provided on changes resulting form the increase in production and fly ash injection. The following are points form the original July 28, 2004 Application:

- Fuel requirement will need to be updated to reflect the additional heat capacity need for the additional kiln feed. SAC proposes to change the heat input limit from 364 to 458 million Btu per hour (mmBtu/hr).
- Coal Mill Process Rate Limitations increased to allow for increased ground fuel production for heating of the correspond increase in materials feed to the Kiln System. SAC requests to increase the monthly Process Rate Limitations for coal mill crushing from 10,658 tons of coal and petroleum coke in any month to 13,360 tons per month. This would require the annual limit change from 127,896 tons of coal and petroleum coke to 160,300 tons per year.
- Process Rate Limitations would need to be updated to reflect the new capacities as described above. Findings from Department approved testing and support for this request are included in attachment Emission Data During Production Rate Testing. Final production and emission limits are proposed in attachment Production and Emission Limits Revisions due to Increased Production and SNCR Installation.
- Means by which to calculate Process Rate Limitations. The separation of the fly ash from the preheater feed will now require SAC to combine the two inputs (preheater feed and fly ash) to determine the total kiln feed. The addition of the Fly Ash Project will change the existing LOI for the dry preheater feed and a LOI factor for Fly Ash will have to be developed. SAC proposes to develop and update LOI factors on a quarterly basis using industry proven test methods with corrections for dust return and other factors. This allows SAC greater accuracy as LOI factors may change based on variations in raw materials. The Department has clarified the means by which clinker production is calculated without Fly Ash injection. This application seeks to clarify how it shall be calculated with Fly Ash Injection.
- The means by which clinker production is determined needs to be clarified as a result of the addition of fly ash directly into the calciner. The preheater feed and the fly ash should be evaluated with separate LOI factors and summed together to determine the total clinker production. The equation should be as follows:

(Mass Input Preheater Feed * Preheater Feed LOI) + (Mass Input Fly Ash * Fly Ash LOI) = Mass Output Clinker

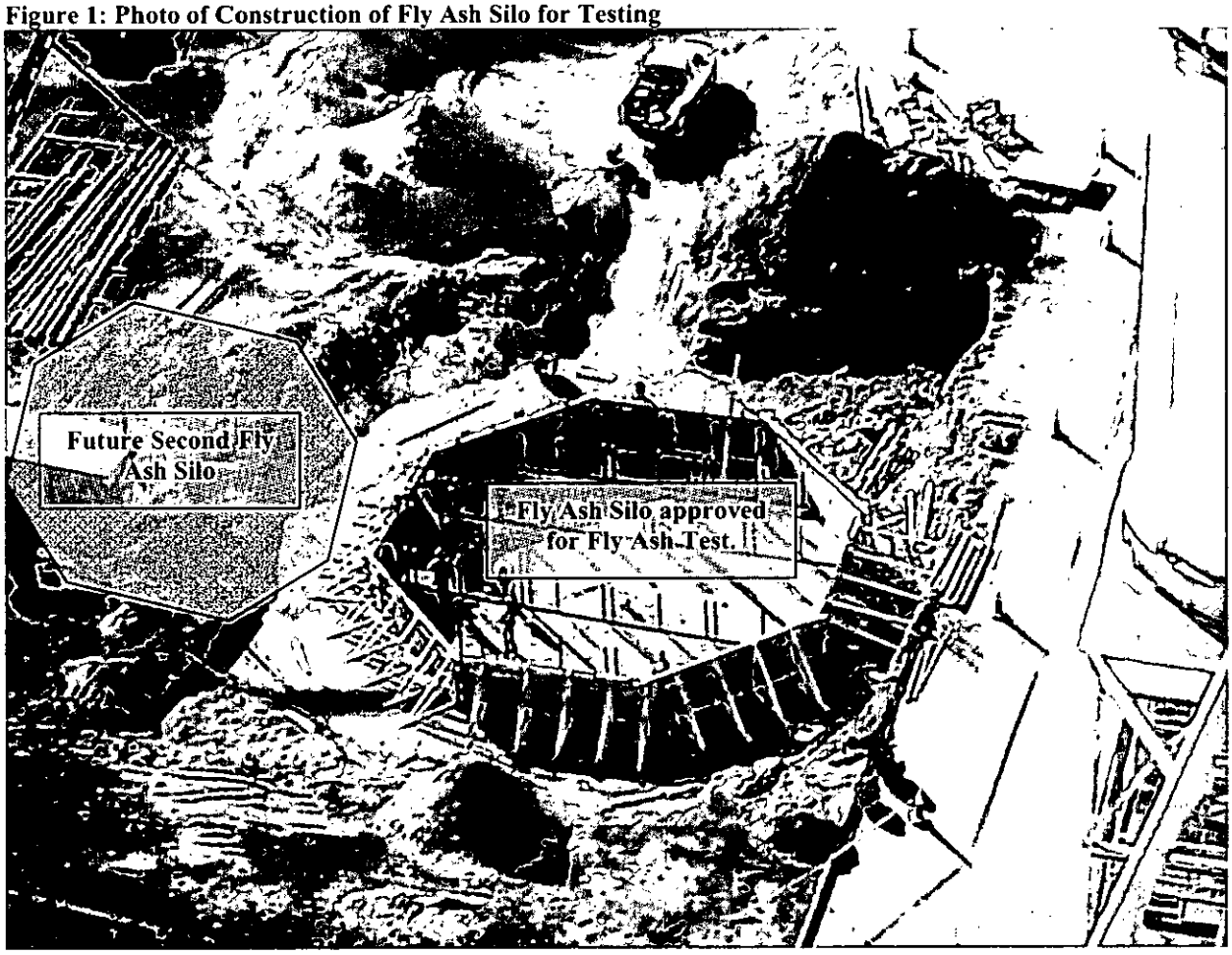
Also included in the July 28, 2004 Permit Application, SAC listed the environmental benefits of Fly Ash Injection. While testing of the system is still underway, the following benefits still apply and further

support the request to allow the injection of Fly Ash Permanently. The following recaps the benefits of the Fly Ash Project as outlined in the July 28, 2004 Permit Application:

- Reduction in CO and THC emissions due to reducing the fraction formed in preheater tower as a result of carbonaceous material in the fly ash being eliminated,
- More stable kiln operations due to the decrease in CO/THC generation in upper cyclones of the preheater,
- Increased flexibility in acceptance of varying types and quality of fly ash while still maintaining permitted emission limits, and
- Increased Thermal Efficiency of the Kiln System.

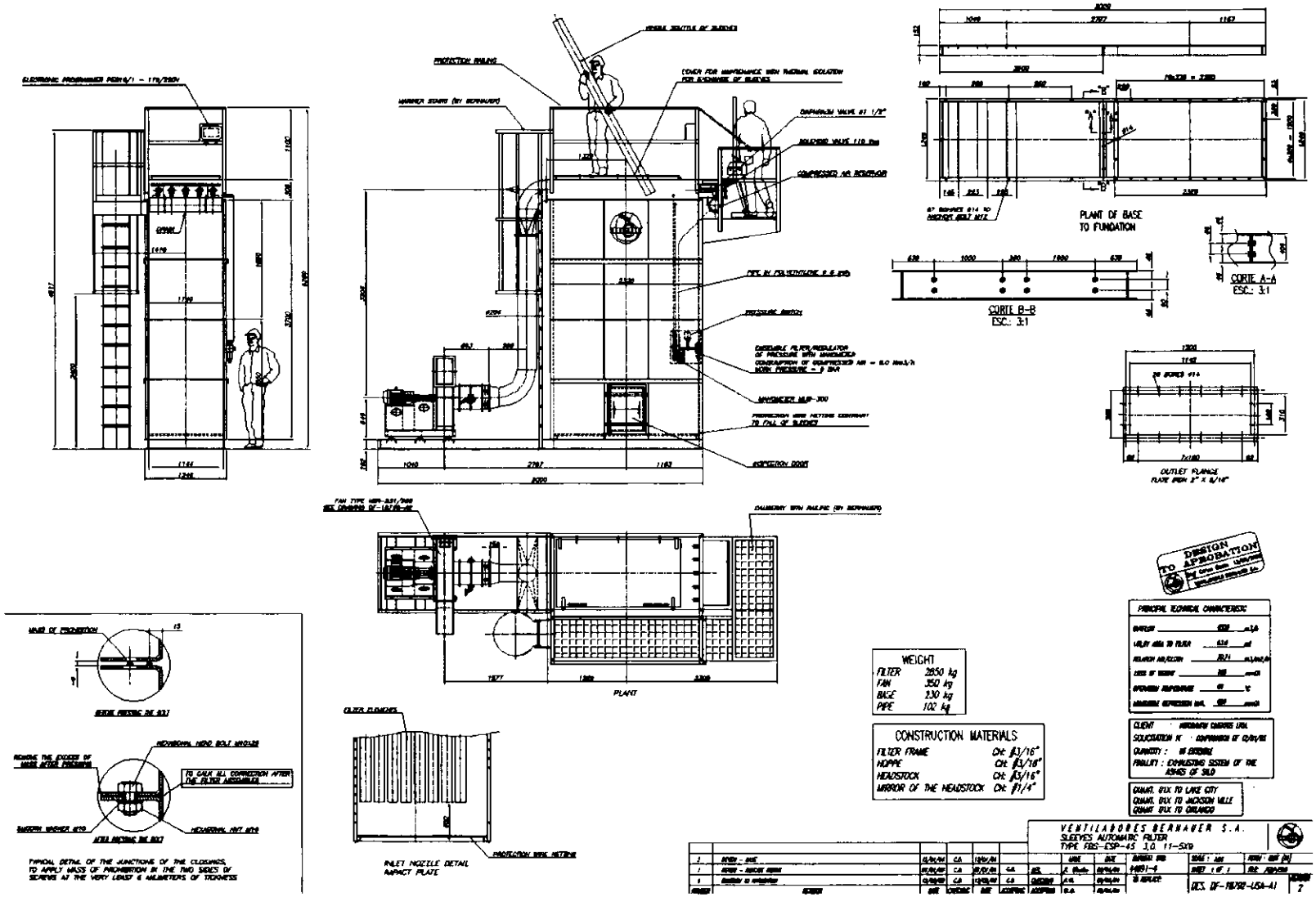
Included in the July 28, 2004 Permit Application were preliminary engineering and layout drawings. Please find included additional drawings and information for the Fly Ash System including information on construction necessary for the Fly Ash Testing.

Figure 1: Photo of Construction of Fly Ash Silo for Testing



Currently for testing only one silo is being constructed. Upon approval for permanent Fly Ash Injection a second Fly Ash silo, as originally proposed in the July 28, 2004 Application, will be constructed if needed. Both Silos are controlled by one baghouse. The details for the baghouse, as included in the July 28, 2004 application, and are in Figure 2.

Figure 2: Baghouse for Fly Ash Silo and Injection System



Details for the Baghouse are included in the Fly Ash Test Permit as well as the July 28, 2004 Permit Application. The layout and process flow of the Fly Ash System are included in Figures 3 and 4.

Figure 3: Permanent Fly Ash Silos Layout

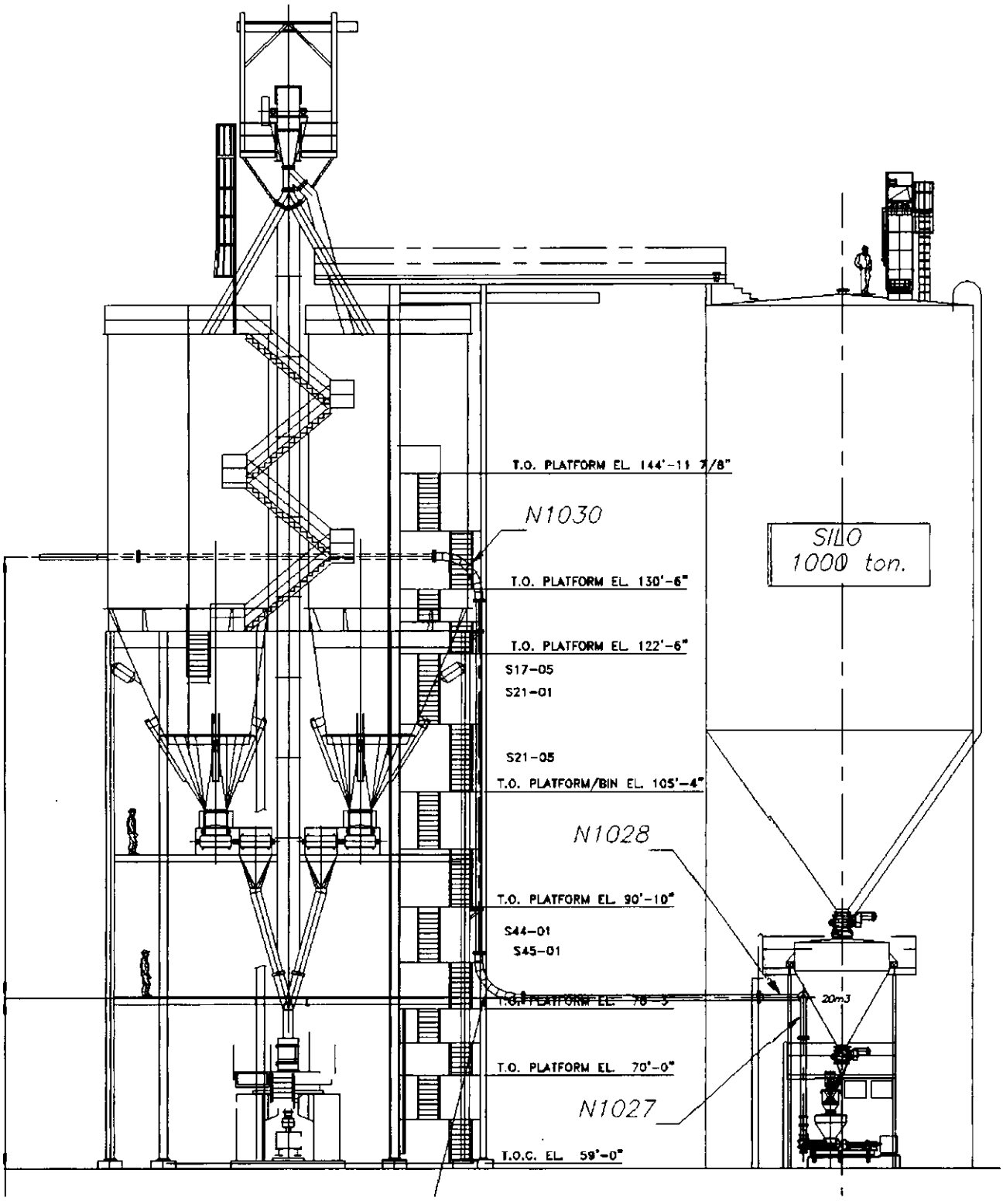
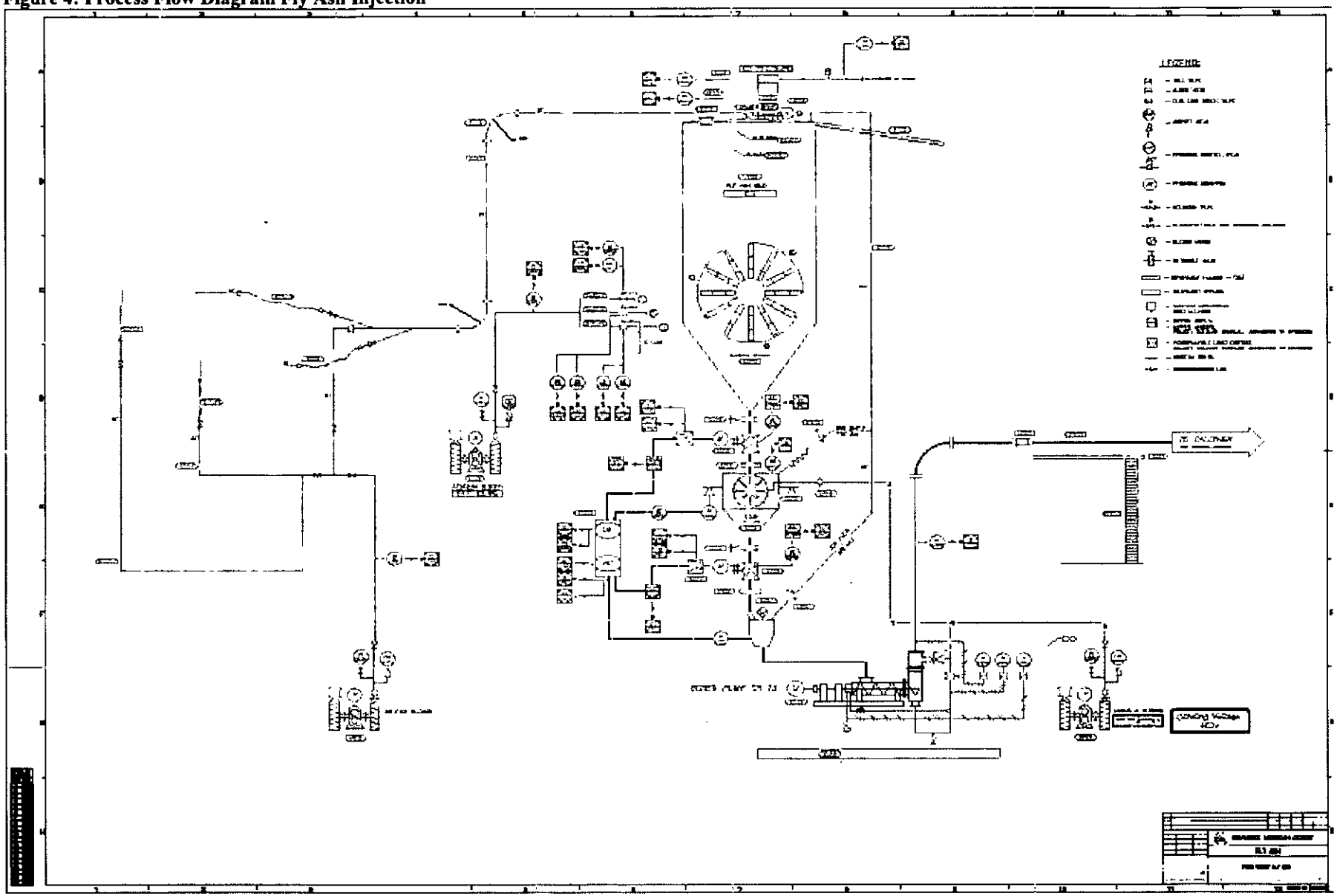


Figure 4: Process Flow Diagram Fly Ash Injection



TECHNICAL REVIEW AND PERMIT APPLICATION FROM DR. JOHN KOOGLER OF KOOGLER & ASSOCIATES

Technical Review of Projects

The following long-form Air Construction Permit Application addresses a request to increase the clinker production rate of the Suwannee American Cement (SAC) plant from 105 tons per hour to 120 tons per hour and to increase the annual clinker production rate from 839,500 tons per year to 965,425 tons per year. The corresponding increases in preheater feed rates will be from 178 tons per hour to 210 tons per hour and from 1,427,880 tons per year 1,684,578 tons per year. The hourly clinker production rate and preheater feed rate are based on 24-hour averages.

SAC conducted Department approved tests to evaluate kiln operations at increased production rates during the period October 19-November 8, 2004. The results were favorable and are reported in the Technical Report. The requested rate increases are set forth in the Application.

To accomplish this increase in production, the heat input rate to the pyroprocessing system will increase from 364 mmBTU per hour to 458 mmBTU per hour using currently permitted fuels.

In conjunction with the production rate increase, SAC is requesting authorization for two additional projects. These are addressed both in the Technical Report and Application.

First, SAC is providing additional information on the flyash injection project previously addressed by permit applications dated April 26, 2004 and July 28, 2004. This project involves the introduction of flyash (a raw material) directly into the calciner of the pyroprocessing system. Currently flyash is ground with other raw materials and introduced to the pyroprocessing system through the preheater. The proposed project will allow the introduction of the flyash into the calciner following the preheater, thus bypassing the preheater. This practice will reduce carbon monoxide (CO) and total hydrocarbon (THC) emissions caused by the formation of these compounds in the preheater. The practice will also give SAC the flexibility of accepting varying types and quality of flyash while continuing to operate within permitted emission limits. The practice will also increase the thermal efficiency of the kiln system. SAC is currently in the process of conducting Department approved tests to evaluate flyash injection. The results of these tests will be provided to the Department upon completion of the testing.

The second project for which SAC requests authorization is the permanent installation of a SNCR system for the control of NOx emissions. SAC obtained approval from the Department for short-term tests (November 8-29, 2004) to evaluate the efficacy of SNCR and found that the system offered several operating benefits. The results of these tests are being compiled and will be provided to the Department as soon as possible.

The benefits of the SNCR system, which are addressed in detail in the Technical Report, include greater kiln operating stability, fewer process problems (e.g., material build up in the kiln riser duct) as a result of being able to operate the kiln at higher oxygen levels at the kiln exit, and reduced NOx emissions. The ability to control NOx emissions will also give SAC more flexibility in using the currently permitted petroleum coke as a fuel for the pyroprocessing system.

The technical report submitted with this application includes an analysis of emission data recorded during Department approved production rate tests and an accompanying CD includes process data for this same period. The emission data demonstrates that the plant is capable of operating at increased production rates while still operating well within permitted emission limits. As a matter of fact, the production based emissions (pounds of pollutant per ton of clinker) actually decrease as the production rate increases due to increased kiln efficiency. After reviewing the emission data, and the benefits of the SNCR system, SAC is able to offer reductions in the annual emissions of NOx and SO_2 as a result of projects presented herein. Particulate matter emissions (both PM and PM10) will remain unchanged and VOC and CO emissions will increase less than significant amounts. The increase in CO emissions is primarily the result of the SNCR system while the VOC emission increase is related to the production increase; the pounds of VOC per ton of clinker remain unchanged. The emission limits proposed in conjunction with the flyash injection and SNCR projects and the production rate increase are discussed in the Technical Report and documented in the Application.

The technical report also includes a statement from the Polysius Corporation assuring that the plant can safely operate at the requested clinker production rate of 2880 tons per day (120 tons per hour, 24-hour average).

Based upon the information provided in this Application and the accompanying Technical Report, the Department should have the necessary assurance that the projects can be completed and the plant will continue to operate safely and in compliance with all existing and proposed permitted limits, as applicable.

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

State of Florida
Registration No. 12925

1/7/2005
Date

Department of
Environmental Protection
Division of Air Resource Management
APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

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

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

Air Operation Permit – Use this form to apply for:

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

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

To ensure accuracy, please see form instructions

Identification of Facility

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

Application Contact

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

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Project Number(s):	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

[X] Air construction permit.

Air Operation Permit

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

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

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

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

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

Application Comment

The purpose of this Air Construction Permit is threefold :

1. To provide additional information related to the flyash injection project initially addressed in an Air Construction Permit Applications dated April 26, 2004 and July 28, 2004 ;
2. To restate the request for a clinker production rate increase initially addressed in the July 28, 2004 application; and
3. To request approval to install an SNCR system for NOx control and kiln stabilization.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
004	In-line Kiln/Raw Mill controlled by Baghouse	AC1C	$4500.00
005	Clinker Cooler controlled by ESP	ACM1	$50.00 *
008	Coal/Coke Mill	ACM1	$50.00**
	* Paid with 7/28/2004 Application		
	* Paid with 7/28/2004 Application for minor Kiln/Raw Mill modification never implemented.		

Application Processing Fee

Check one: [x] Attached - Amount: $ 4500.00 ☐ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name : **Celso Martini**

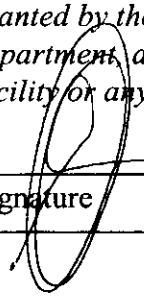
2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **Suwannee American Cement**
   Street Address: **P.O. Box 410**
   5117 US Hwy 27
   City: **Branford** State: **Florida** Zip Code: **32008**

3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(386) 935-5000** ext. Fax: **(386) 935-5080**

4. Owner/Authorized Representative Email Address: **celsom@suwanneecement.com**

5. Owner/Authorized Representative Statement:

   I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.



Signature

1-3-05

Date

APPLICATION INFORMATION

Professional Engineer Certification

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

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature 1/7/05
Date

(seal)

* Attach any exception to certification statement.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

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

Facility Contact

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

Facility Primary Responsible Official

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

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

FACILITY INFORMATION

Facility Regulatory Classifications

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

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

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM	A	N
PM10	A	N
SO_2	A	N
NOx	A	N
CO	A	N
VOC	B	N
DIOX	B	N
H114	B	N

B. EMISSIONS CAPS N/A

Facility-Wide or Multi-Unit Emissions Caps

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

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

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date: (1)
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: (2) ☐ Previously Submitted, Date:_____
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID:_____ ☒ Previously Submitted, Date: (1)

Additional Requirements for Air Construction Permit Applications

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

FACILITY INFORMATION

Additional Requirements for FESOP Applications

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

Additional Requirements for Title V Air Operation Permit Applications

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

2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):
   ☐ Attached, Document ID:_____
   ☒ Not Applicable (revision application with no change in applicable requirements)

3. Compliance Report and Plan (Required for all initial/revision/renewal applications):
   ☐ Attached, Document ID: N/A
   Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):
   ☐ Attached, Document ID:_____
   ☐ Equipment/Activities On site but Not Required to be Individually Listed
   ☒ Not Applicable

5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :
   ☐ Attached, Document ID:_____ ☒ Not Applicable

6. Requested Changes to Current Title V Air Operation Permit:
   ☐ Attached, Document ID:_____ ☒ Not Applicable

Additional Requirements Comment

(1) Submitted with original AC application
(2) Supporting information for the following requests are in the Attached Report.

III. EMISSIONS UNIT INFORMATION

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

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

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

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

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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

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

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

Emissions Unit Description and Status

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

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

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

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

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

3. Emissions Unit Identification Number: 002

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	NA	2/03	32	[ ] Yes [X] No

9. Package Unit:
   Manufacturer: NA Model Number:

10. Generator Nameplate Rating: MW NA

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

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
   Fabric Filter – High Temperature Kiln/Raw Mill Baghouse – 016
   SNCR – Ammonia Injection – 032
   Low NOx Burner – 205

2. Control Device or Method Code(s): 016 / 032 / 205

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 5040 ton/day feed (210 tph, 24-hr avg)
2. Maximum Production Rate: 2880 ton/day clinker (120 tph, 24-hr avg)
3. Maximum Heat Input Rate: 458 mmBTU/hr
4. Maximum Incineration Rate: pounds/hr NA tons/day
5. Requested Maximum Operating Schedule: hours/day 24 days/week 7 weeks/year 52 hours/year 8760
6. Operating Capacity/Schedule Comment: Kiln/Raw Mill will operate up to 8760 hours/yr with an annual production factor of approximately 0.92. Annual clinker production will be limited to 965,425 tons.

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

Emission Point Description and Type

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

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 6

1. Segment Description (Process/Fuel Type): Mineral Products: Cement Mfg: Dry Process: Preheater/Precalciner Kiln		
2. Source Classification Code (SCC): 3-05-006-23	3. SCC Units: Ton Feed	
4. Maximum Rate: 5040 tpd	5. Maximum Annual Rate: 1,684,578 tpy	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment: Preheater/Precalciner Feed at a nominal rate of 210 tph, 24-hr avg		

Segment Description and Rate: Segment 2 of 6

1. Segment Description (Process/Fuel Type): Mineral Products: Cement Mfg: Dry Process: Preheater/Precalciner Kiln		
2. Source Classification Code (SCC): 3-05-006-23	3. SCC Units: Ton clinker	
4. Maximum Rate: 2880 tpd	5. Maximum Annual Rate: 965,425	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: 3.96
10. Segment Comment: Clinker Production: 120 tph, 24-hr avg.		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 3 of 6

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

Segment Description and Rate: Segment 4 of 6

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

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 5 of 6

1. Segment Description (Process/Fuel Type): In-Process Fuel Use: Natural Gas: Cement Kiln		
2. Source Classification Code (SCC): 3-90-006-02	3. SCC Units: Million Cubic Feet Burned	
4. Maximum Hourly Rate: 0.44 mm/hr	5. Maximum Annual Rate: 3821 mm/yr	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: Nil	8. Maximum % Ash: Nil	9. Million Btu per SCC Unit: 1050
10. Segment Comment: Natural Gas at 1050 mmBTU/cu. ft.		

Segment Description and Rate: Segment 6 of 6

1. Segment Description (Process/Fuel Type): In-Process Fuel Use: Solid Waste: General		
2. Source Classification Code (SCC): 3-90-012-99	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 1.9 tph	5. Maximum Annual Rate: 16,717 tpy	6. Estimated Annual Activity Factor: 0.092
7. Maximum % Sulfur: 1.5%	8. Maximum % Ash: 20%	9. Million Btu per SCC Unit: 24 mmBTU/ton
10. Segment Comment: Whole Tire Derived Fuel (WTDF) at 12,000 BTU/lb and 10% (45.8 mmBTU/hr) of system heat input.		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**016**	**None**	**EL**
PM10	**016**	**None**	**EL**
SO_2			**EL**
NOx	**032/205**		**EL**
CO			**EL**
VOC			**EL**
DIOX			**EL**
H106			**NS**
HAPS			**NS**

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 23.1 lb/hour 92.8 tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 0.110 lb/ton feed, or 0.193 lb/ton Clinker, equivalent rates Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions: 210 tph feed x 0.110 lb/ton = 23.1 lb/hr 120 tph clinker x 0.193 lb/ton = 23.1 lb/hr 965,425 tpy clinker x 0.193 lb/ton/2000 = 92.8 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: NSPS and NESHAP limits are both 0.3 lb PM per ton of feed. SAC requests that the unitized emission rate be expressed as 0.193 lb/PM/ton clinker ; a rate equivalent to the feed rate limit of 0.110 lb/PM/ton feed.	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **PM10**	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 19.7 lb/hour 78.4 tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 0.093 lb/ton feed, or 0.164 lb/ton clinker, equivalent rates Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions: 210 tph feed x 0.093 lb/ton = 19.7 lb/hr 120 tph clinker x 0.164 lb/ton = 19.7 lb/hr 965,425 tpy clinker x 0.164 lb/ton/2000 = 78.9 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: SAC requests that the unitized emission rate be expressed as 0.164 lb PM10/ton clinker ; a rate equivalent to the feed rate limit of 0.093 lb PM10/ton feed.	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: SO_2	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 24.0 lb/hour 96.5 tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 0.20 lb/ton Clinker Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions: 120 tph Clinker x 0.20 lb/ton = 24.0 lb/hr 965,425 tpy Clinker x 0.20 lb/ton/2000 =96.5 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: NA	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **NOx**	2. Total Percent Efficiency of Control: 0 – 30% as required
3. Potential Emissions: 288.0 lb/hour 1158.5 tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 2.40 lb/ton Clinker, 30-day avg. Reference:	7. Emissions Method Code: 0
8. Calculation of Emissions: 120 tph Clinker x 2.40 lb/ton = 288.0 lb/hr, 30-day avg. 965,425 tpy Clinker x 2.40 lb/ton/2000 = 1158.5 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: SAC requests a 30-day NOx limit of 2.4 lb/ton clinker in conjunction with an SNCR System.	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control: NA
3. Potential Emissions: 400.8 lb/hour 1610.1 tons/year	4. Synthetically Limited? ☐ Yes [x] No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 3.34 lb/ton Clinker Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions: 120 tph Clinker x 3.34 lb/ton = 400.8 lb/hr 965,425 tpy Clinker x 3.34 lb/ton/2000 = 1610.1 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: CO increased PTE is 99.0 tpy	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control: NA
3. Potential Emissions: 14.4 lb/hour 58.0 tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 0.12 lb/ton Clinker Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions: 120 tpy Clinker x 0.12 lb/ton = 14.4 lb/hr 965,425 tpy Clinker x 0.12 lb/ton/2000 = 58.0 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: VOC increased PTE is 7.6 tpy	

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **DIOX**	2. Total Percent Efficiency of Control: NA
3. Potential Emissions: 1.8E-07 lb/hour 7.7E-07 tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable):NA to tons/year	
6. Emission Factor: 0.4/0.2 ng/dscm @ 7% O_2 (1) Reference: NESHAP	7. Emissions Method Code: 0
8. Calculation of Emissions: 117,175 dscfm (avg @ 7% O_2) x 1/35.31 m^3/ft^3 x 60 min/hr x 0.4 ng/dscm x 1/454 E-09 lb/ng = 1.8E-07 lb/hr x 8760/2000 = 7.7E-07 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: 0.4 ng/dscm when kiln baghouse inlet temperature is <400°F, and 0.2 ng/dscm when kiln baghouse inlet temperature is ≥400°F.	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 7; PM

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.193 lb/ton clinker	4. Equivalent Allowable Emissions: 23.1 lb/hour 92.8 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Emission limit more stringent than NSPS and NESHAP	

Allowable Emissions Allowable Emissions 2 of 7; PM10

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.164 lb/ton clinker	4. Equivalent Allowable Emissions: 19.7 lb/hour 78.4 tons/year
5. Method of Compliance: EPA Method 5, with all PM assumed to be PM10	
6. Allowable Emissions Comment (Description of Operating Method):	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 3 of 7; SO_2

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.20 lb/ton Clinker	4. Equivalent Allowable Emissions: 24.0 lb/hour 96.5 tons/year
5. Method of Compliance: SO_2 CEMS	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions 4 of 7; NOx

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: 1 yr following startup of flyash system
3. Allowable Emissions and Units: 2.40 lb/ton Clinker (30-day avg)	4. Equivalent Allowable Emissions: 288.0 lb/hour 1158.5 tons/year
5. Method of Compliance: NOx CEMS	
6. Allowable Emissions Comment (Description of Operating Method):	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 5 of 7; CO

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 3.34 lb/ton Clinker	4. Equivalent Allowable Emissions: 400.8 lb/hour 1610.1 tons/year
5. Method of Compliance: EPA Method 10	
6. Allowable Emissions Comment (Description of Operating Method): PTE increases 99.0 tpy because of SNCR	

Allowable Emissions Allowable Emissions 6 of 7; VOC

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.12 lb/ton Clinker	4. Equivalent Allowable Emissions: 14.4 lb/hour 58.0 tons/year
5. Method of Compliance: THC CEMS	
6. Allowable Emissions Comment (Description of Operating Method): PTE increases 7.6 tpy but emissions per ton of clinker are unchanged.	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 7 of 7; DIOX

1. Basis for Allowable Emissions Code: NESHAP	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.4/0.2 ng/dscm @ 7% O_2	4. Equivalent Allowable Emissions: 1.8E-07 lb/hour 7.7E-07tons/year
5. Method of Compliance: EPA Method 23	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE10	2. Basis for Allowable Opacity: [x] Rule-BACT [ ] Other
3. Allowable Opacity: 10% Normal Conditions: 0 % Exceptional Conditions: 10 % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: COM	
5. Visible Emissions Comment: NESHAP and NSPS limit is 20%	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 1 of 6; VE

1. Parameter Code: VE	2. Pollutant(s): NA
3. CMS Requirement:	☒ Rule-BACT ☐ Other
4. Monitor Information... Manufacturer: SICK Model Number: 0MD41-M321	Serial Number:
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor 2 of 6; SO_2

1. Parameter Code: EM	2. Pollutant(s): SO_2
3. CMS Requirement:	☒ rule-BACT ☐ Other
4. Monitor Information... Manufacturer: SICK Model Number: GM31	Serial Number: 8040-8003
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment: $SO_2/NO/NO_2$ Gas Analyzer	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 3 of 6; NOx

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement:	[X] Rule-BACT [ ] Other
4. Monitor Information... Manufacturer: SICK Model Number: GM31	Serial Number: 8040-8003
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment: SO_2/NO/NOx Gas Analyzer	

Continuous Monitoring System: Continuous Monitor 4 of 6; THC/VOC

1. Parameter Code: EM	2. Pollutant(s): THC
3. CMS Requirement:	[X] Rule-BACT [ ] Other
4. Monitor Information... Manufacturer: SICK Model Number: EuroFID-3010	Serial Number: 005266-0300
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment: Required by NESHAP and BACT	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 5 of 6; TEMP

1. Parameter Code: TEMP	2. Pollutant(s): NA
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor 6 of 6; FLOW

1. Parameter Code: FLOW	2. Pollutant(s): NA
3. CMS Requirement:	☒ Rule-BACT ☐ Other
4. Monitor Information... Manufacturer: SICK Model Number: FLOWSIC - 100	Serial Number:
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [X] Attached, Document ID: __ [ ] Previously Submitted, Date _____

2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [ ] Attached, Document ID: __ [X] Previously Submitted, Date Unknown

3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [ ] Attached, Document ID: _____ [X] Previously Submitted, Date Unknown

4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [ ] Attached, Document ID: _____ [ ] Previously Submitted, Date _____
   [X] Not Applicable (construction application)

5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [ ] Attached, Document ID: _____ [X] Previously Submitted, Date Unknown
   [ ] Not Applicable

6. Compliance Demonstration Reports/Records
   [ ] Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   [X] Previously Submitted, Date: 11/2004
   Test Date(s)/Pollutant(s) Tested: 9/2004
   [ ] To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   _____
   [ ] Not Applicable

   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute
   [ ] Attached, Document ID: _____ [X] Not Applicable

EMISSIONS UNIT INFORMATION
Section [1] of [3] [Kiln/Raw Mill – EU-004]

Additional Requirements for Air Construction Permit Applications

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

Additional Requirements for Title V Air Operation Permit Applications - NA

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

Additional Requirements Comment

None

EMISSIONS UNIT INFORMATION
Section [2] of [3] [Clinker Cooler – EU-005]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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

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

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

Emissions Unit Description and Status

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

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

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

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

2. Description of Emissions Unit Addressed in this Section: Clinker Cooler; EU-005

3. Emissions Unit Identification Number: 002

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	NA	2/03	32	[ ] Yes [x] No

9. Package Unit:
Manufacturer: NA Model Number:

10. Generator Nameplate Rating: MW NA

11. Emissions Unit Comment: This permit application addresses only a change in the clinker throughput rate (from 105 tph to 120 tph, 24-hr avg) and a change in PM/PM10 emission factors (lb/ton) so there will be no increase in mass emission rates (lb/hr and tpy).

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
   Clinker Cooler electrostatic precipitator (ESP).

2. Control Device or Method Code(s): 010

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 2880 tons per day	
2. Maximum Production Rate: NA	
3. Maximum Heat Input Rate: NA	
4. Maximum Incineration Rate: pounds/hr NA tons/day	
5. Requested Maximum Operating Schedule: hours/day 24 weeks/year 52	 days/week 7 hours/year 8760
6. Operating Capacity/Schedule Comment: Annual clinker production is limited to 965,425 tons per year.	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: K-15	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Clinker Cooler ESP stack (K-15) – Emission Unit 005		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA		
5. Discharge Type Code: V	6. Stack Height: 115 feet	7. Exit Diameter: 11.0 feet
8. Exit Temperature: 440°F	9. Actual Volumetric Flow Rate: 124,500 acfm	10. Water Vapor: 12 %
11. Maximum Dry Standard Flow Rate: 64,300 dscfm	12. Nonstack Emission Point Height: feet NA	
13. Emission Point UTM Coordinates...NA Zone: East (km): North (km):	14. Emission Point Latitude/Longitude...NA Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: None		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): Mineral Products: Cement Mfg: Dry Process: Clinker Cooler		
2. Source Classification Code (SCC): 3-05-006-14	3. SCC Units: Tons Clinker	
4. Maximum Rate: 2880 tpd	5. Maximum Annual Rate: 965,425 tpy	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment: None		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**010**	**NA**	**EL**
PM10	**010**	**NA**	**EL**

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 12.5 lb/hour 49.9 tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 0.060 lb/ton feed, or 0.104 lb/ton clinker; equivalent rates Reference: BACT (proposed)	7. Emissions Method Code: 0

8. Calculation of Emissions:

210 tph feed x 0.060 lb/ton = 12.5 lb/hr

120 tph clinker x 0.104 lb/ton = 12.5 lb/hr

965,425 tpy clinker x 0.104 lb/ton/2000 = 49.9 tpy

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
NSPS and NESHAP limits are both 0.1 lb PM per ton of feed. SAC requests that the unitized emission rate be expressed as 0.104 lb/PM/ton clinker; a rate equivalent to the feed rate limit of 0.060 lb/PM/ton feed.

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

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

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

1. Pollutant Emitted: **PM10**	2. Total Percent Efficiency of Control: 99+%
3. Potential Emissions: 10.7 lb/hour 42.9 tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year	
6. Emission Factor: 0.051 lb/ton feed, or 0.089 lb/ton clinker; equivalent rates Reference: BACT (proposed)	7. Emissions Method Code: 0
8. Calculation of Emissions: 210 tph feed x 0.051 lb/ton = 10.7 lb/hr 120 tph clinker x 0.089 lb/ton = 10.7 lb/hr 965,425 tpy clinker x 0.089 lb/ton/2000 = 42.9 tpy	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: SAC requests that the unitized emission rate be expressed as 0.089 lb PM10/ton clinker; a rate equivalent to the feed rate limit of 0.051 lb PM10/ton feed.	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

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

Allowable Emissions Allowable Emissions 1 of 2; PM

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.104 lb/ton clinker	4. Equivalent Allowable Emissions: 12.5 lb/hour 49.9 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Emission limit more stringent than NSPS and NESHAP	

Allowable Emissions Allowable Emissions 2 of 2; PM10

1. Basis for Allowable Emissions Code: BACT	2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 0.089 lb/ton clinker	4. Equivalent Allowable Emissions: 10.7 lb/hour 42.9 tons/year
5. Method of Compliance: EPA Method 5, with all PM assumed to be PM10	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE10	2. Basis for Allowable Opacity: [X] Rule-BACT [ ] Other
3. Allowable Opacity: 10% Normal Conditions: 0 % Exceptional Conditions: 10 % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: COM	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: VE	2. Pollutant(s): NA
3. CMS Requirement:	☒ Rule-BACT ☐ Other
4. Monitor Information... Manufacturer: SICK Model Number: 0MD41-M321	Serial Number:
5. Installation Date: 2/03	6. Performance Specification Test Date: 7/03
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION
Section [2] of [3] [Clinker Cooler – EU-005]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [x] Attached, Document ID: _ [ ] Previously Submitted, Date _____

2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [ ] Attached, Document ID: __ [x] Previously Submitted, Date Unknown

3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [ ] Attached, Document ID: _____ [x] Previously Submitted, Date Unknown

4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [ ] Attached, Document ID: _____ [ ] Previously Submitted, Date _____
   [x] Not Applicable (construction application)

5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   [ ] Attached, Document ID: _____ [x] Previously Submitted, Date Unknown
   [ ] Not Applicable

6. Compliance Demonstration Reports/Records
   [ ] Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   _____
   [x] Previously Submitted, Date: 11/2004
   Test Date(s)/Pollutant(s) Tested: 9/2004
   _____
   [ ] To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested: _____
   _____
   [ ] Not Applicable

   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute
   [ ] Attached, Document ID: _____ [x] Not Applicable

EMISSIONS UNIT INFORMATION
Section [2] of [3] [Clinker Cooler – EU-005]

Additional Requirements for Air Construction Permit Applications

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

Additional Requirements for Title V Air Operation Permit Applications NA

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

Additional Requirements Comment

None

EMISSIONS UNIT INFORMATION
Section [3] of [3] [EU-008 : Coal Mill and Transfer]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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

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

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

Emissions Unit Description and Status

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

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

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

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

2. Description of Emissions Unit Addressed in this Section:

3. Emissions Unit Identification Number:

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	NA	2/03	32	[ ] Yes [X] No

9. Package Unit:
Manufacturer: NA Model Number:

10. Generator Nameplate Rating: NA

11. Emissions Unit Comment: Coal/coke grinding and handling

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
   Fabric Filters – Low Tempertures – 018

   - S-17 Coal/Coke Mill
   - S-21 Coal/Coke Bin

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

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 18.3 tph coal / 16.4 tph coke	
2. Maximum Production Rate: NA	
3. Maximum Heat Input Rate: million Btu/hr NA	
4. Maximum Incineration Rate: pounds/hr NA tons/day	
5. Requested Maximum Operating Schedule: hours/day 24 weeks/year 52	days/week 7 hours/year 8760

6. Operating Capacity/Schedule Comment:

Only the grinding capacity of the mill is affected by increasing the grinding rate of coal from 15.4 tph to 18.3 tph. The pet coke grinding rate will increase to 16.4 tph. No emissions will change, as emissions are a function of baghouse discharge PM/PM10 concentration and fan capacity; neither of which will change.

This section of the Application addresses only the requested change in coal/coke mill grinding rates. The information in the original application related to emissions and monitoring remains unchanged.

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: Previously submitted	2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: • S-17 Coal/Coke Mill • S-21 Coal/Coke Bin		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA		
5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates...NA Zone: East (km): North (km):	14. Emission Point Latitude/Longitude...NA Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **All information previously submitted and unchanged.**		

EMISSIONS UNIT INFORMATION
Section [3] of [3] [EU-008 : Coal Mill and Transfer]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2: Coal

1. Segment Description (Process/Fuel Type): Mineral Products : coal cleaning : material handling : crushing		
2. Source Classification Code (SCC): 3-05-010-10	3. SCC Units: Tons processed	
4. Maximum Hourly Rate: 18.3 tph; 30-day avg	5. Maximum Annual Rate: 160,300 tpy	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: 25.0
10. Segment Comment: Coal Grinding and Handling		

Segment Description and Rate: Segment 2 of 2: Petroleum Coke

1. Segment Description (Process/Fuel Type): Mineral Products : coal cleaning : material handling : crushing		
2. Source Classification Code (SCC): 3-05-010-10	3. SCC Units: Tons processed	
4. Maximum Hourly Rate: 16.4 tph; 30-day avg	5. Maximum Annual Rate: 143,660 tpy	6. Estimated Annual Activity Factor: 0.92
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: 28.0
10. Segment Comment: Petroleum Coke Grinding and Handling		