

FLORIDA ROCK INDUSTRIES INC

CEMENT GROUP / 4000 N.W. CR 235 / P.O. Box 459 / Newberry, FL 32669 / (352) 472-4722



RECEIVED

SEP 14 2005

BUREAU OF AIR REGULATION

September 12, 2005

Ms. Cindy Mulkey
Division of Air Resources
Department of Environmental Protection
2600 Blair Stone Road, MS #5505
Tallahassee, FL 32399-2400

RE: Proof of publication of public notice; Facility 0010087, Permit No. 0010087-015-AC
Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant

Dear Ms. Mulkey:

Enclosed is an affidavit providing proof of publication; the legal notice appeared in the newspaper on September 10, 2005. If you have any questions, please call me at 352-472-4722, ext. 121.

Sincerely,
FLORIDA ROCK INDUSTRIES, INC.

A handwritten signature in cursive script that reads "Henry Gotsch".

Henry Gotsch
Environmental Manager

AFFIDAVIT OF PUBLICATION

The Gainesville Sun
Published – Daily
Gainesville, Alachua County, Florida

RECEIVED

SEP 14 2005

BUREAU OF AIR REGULATION

STATE OF FLORIDA
COUNTY OF ALACHUA


Before the undersigned, a Notary Public of Said County and State, Ernest Blake, III, who on oath says that he is Legal Advertising Coordinator of THE GAINESVILLE SUN, a daily newspaper published at Gainesville, in Alachua County, Florida; that the attached copy of advertisement, being a notice in the matter of


PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT Florida Department of Environmental Protection DEP File No.: 0010087-015-AC Florida Rock Industries, Inc. Thompson S. Baker Cement Plant - Newberry Alachua County The Florida Department of Envi

was published in said newspaper in the issues of:

9/10 1x

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


Sworn to and subscribed before me this 12th day of September, A.D., 2005


Jeffrey L. Blount
Jeffrey L. Blount, Notary Public
MY COMMISSION # DD159430 EXPIRES
October 20, 2006
BONDED THRU TROY FAIN INSURANCE, INC.
(Print, Type or Stamp Name of Notary Public)

My commission expires 20 day of October 2006

Ad #: A000063050

**PUBLIC NOTICE OF INTENT TO ISSUE
AIR CONSTRUCTION PERMIT
Florida Department of Environmental Protection
DEP File No.: 0010087-015-AC**

Florida Rock Industries, Inc.
Thompson S Baker Cement Plant - Newberry
Alachua County

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit to Florida Rock Industries, Inc. (FRI) for a number of fuel related projects at the Thompson S Baker Cement Plant located 2.5 miles Northeast of Newberry on County Road 235 in Alachua County. The Department has determined that the project does not trigger the Prevention of Significant Deterioration (PSD) requirements of Paragraph 62-212.400, F.A.C. A new Best Available Control Technology (BACT) determination was not required. The applicant's name and address are Florida Rock Industries, Inc., 4000 NW County Road 235, Post Office Box 45, Newberry, Florida 32699.

FRI presently uses coal with a maximum sulfur content of 1.25 percent (%) in the cement kiln and calciner. The company introduces whole tires at the kiln inlet. No. 2 fuel oil is used in the raw mill air heater to assist in drying of raw materials. FRI proposes to: add natural gas capability for the kiln, calciner, and raw mill air heater, replace and upgrade the main kiln burner, add fly ash and petroleum coke (up to 40% by heat input) to the calciner and kiln fuel slate, and increase the maximum coal sulfur content to 1.75%.

Fly ash is already used as a raw material additive for its calcium, iron, aluminum, and silica content and is introduced into the preheater with the feed (primarily finely ground limestone). Introduction into the kiln and calciner will also allow beneficial use of energy contained in the unburned carbon fraction of the fly ash.

The company requested no increases in allowable emission or production limits. A recent and publicly noticed permit allowed testing in order to evaluate emissions while co-firing petroleum coke and fly ash with coal. Test results showed no significant increases, with respect to the PSD rules, in emissions of nitrogen oxides (NOX), particulate matter (PM), sulfur dioxide (SO₂), or volatile organic compound (VOC) emissions as a direct result of the combustion of the additional fuels. There was actually a small, but statistically significant decrease in NOX emissions.

SO₂ is inherently "scrubbed" within the calciner. The plant currently has the lowest cement kiln SO₂ emission limit (0.16 pounds per ton of clinker) known to the Department and is equipped with a CEMS to demonstrate compliance with the SO₂ limit. FRI easily complied with the limit even while burning high sulfur petroleum coke. Therefore the Department will permit the increase in the coal sulfur content as requested. The plant also has low emissions limits and CEMS for NOX, opacity and total hydrocarbons (conservative surrogate for VOC).

The calciner incorporates staged air combustion using hot tertiary air from the clinker cooler to promote CO burnout. There is a process CO monitor in the downcomer prior to the particulate control equipment. CO emissions determined by in-stack testing were marginally less than allowed by the present permit while burning 30% petroleum coke and operating at 92% of the daily clinker production limit. The Department will limit use of petroleum coke to 25% and require quarterly instead of annual in-stack compliance testing.

The new Mono Airduct System kiln burner is designed with an improved ability to make flame adjustments within the kiln. This will provide better process and emissions control with the expanded fuel slate.

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

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

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions must be filed within fourteen (14) days of publication of this Public Notice of Intent to Issue Air Construction Permit. Under Section 120.60(3), F.S., however, petitions submitted by person(s) who asked the Department for notice of agency action must be filed within fourteen (14) days of receipt of that notice or the date of publication of the public notice whichever occurs first. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

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

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

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

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

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: (850) 488-0114
Fax: (850) 922-6979

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

The complete project file includes the technical evaluation, Draft Air Construction Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Bureau of Air Regulation at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-8968, for additional information. The relevant documents can be viewed at www.dep.state.fl.us/air/permitting/constructors/frock.htm

28996, 9/10/05
#A000063050

FLORIDA ROCK INDUSTRIES INC

CEMENT GROUP / 4000 N.W. CR 235 / P.O. Box 459 / Newberry, FL 32669 / (352) 472-4722



July 14, 2005

Ms. Trina Vielhauer,
Bureau Chief
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road, MS #5505
Tallahassee, FL 32399-2400

RECEIVED

JUL 15 2005

BUREAU OF AIR REGULATION

RE: Application dated May 5, 2005, to allow use of petroleum coke and flyash as fuels;
Facility 0010087, Permit Nos. 0010087-009-AV and 0010087-012-AC
Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant

Dear Ms. Vielhauer:

With this letter, we are requesting that the above-referenced application be treated as an application for air-construction permit only. Included with this letter is an amended page 3 along with the Owner/Authorized Representative Statement.

If you have any questions, please call me at 352-472-4722, ext. 121.

Sincerely,
FLORIDA ROCK INDUSTRIES, INC.

A handwritten signature in black ink that reads "Henry Gotsch".

Henry Gotsch
Environmental Manager

APPLICATION INFORMATION

Purpose of Application

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

Air Construction Permit

Air construction permit.

Air Operation Permit

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

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

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

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

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

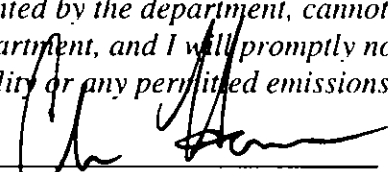
Application Comment

The purpose of this Air Construction permit is to expand the selection of fuels to include petroleum coke and flyash. Also, a request to increase the allowable coal-sulfur to 1.75% is included.

APPLICATION INFORMATION

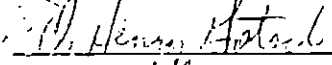
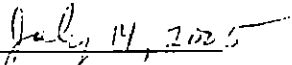
Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name : Chris Horner, Plant Manager
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant Street Address: 4000 NW CR 235 City: Newberry State: FL Zip Code: 32669
3. Owner/Authorized Representative Telephone Numbers... Telephone: (352) 472-4722 ext. 130 Fax: (352) 472-2449
4. Owner/Authorized Representative Email Address: chrish@flarock.com
5. Owner/Authorized Representative Statement: <i>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.</i>  _____ Signature _____ Date <u>7/14/05</u>

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: O. Henry Gotsch Registration Number: 58039
2. Professional Engineer Mailing Address... Organization/Firm: Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant Street Address: 4000 NW CR 235 City: Newberry State: FL Zip Code: 32669
3. Professional Engineer Telephone Numbers... Telephone: (352) 472-4722 ext. 121 Fax: (352) 472-2449
4. Professional Engineer Email Address: hgotsch@flarock.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/> , if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/> , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i>  Signature <i>July 14, 2005</i>  Date <i>July 14, 2005</i> (seal)

* Attach any exception to certification statement.

FLORIDA ROCK INDUSTRIES INC

CEMENT GROUP / 4000 N.W. CR 235 / P.O. Box 459 / Newberry, FL 32669 / (352) 472-4722

August 4, 2005

RECEIVED



AUG 05 2005

Ms. Cindy Mulkey,
Permit Engineer
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road, MS #5505
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

RE: Application dated July 28, 2005, to allow use of natural gas for fueling kiln and RM air heater; Facility 0010087, Permit Nos. 0010087-009-AV
Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant

Dear Ms. Mulkey:

Regarding your questions about the source and transmission of natural gas:

Florida Rock Industries, Inc., will construct a natural-gas pipeline from near Bell, Florida, to the Thompson S. Baker Cement Plant in Newberry. The pipeline will transport natural gas from the Florida Gas Transmission Company's pipeline near the intersection of US 129 and Gilchrist County Road 232 through Gilchrist and Alachua Counties. The pipeline will extend across the west side of FRI property and enter the cement-plant industrial site at the NW corner, where it will be piped for use by the existing raw-mill air heater and kiln and calciner burners.

The pipeline will be designed and constructed IAW U.S. D.O.T. standards, the Florida Utility Accommodation Manual, and both counties' right-of-way usage requirements. The natural gas will be metered at the FGTC interconnection and at the cement plant to ensure prompt detection of leakage or damage to the pipeline.

The pipeline will be of coated-steel construction, with a nominal diameter of six inches. The operating pressure will be approximately 300 psig. The pipeline is expected to be completely buried until it reaches the raw-mill building. There will be cathodic protection provided for the pipeline to minimize corrosion.

If you have any questions, please call me at 352-472-4722, ext. 121.

Sincerely,
FLORIDA ROCK INDUSTRIES, INC.

Henry Gotsch
Environmental Manager

FLORIDA ROCK INDUSTRIES INC

CEMENT GROUP / 4000 N.W. CR 235 / P O Box 459 / Newberry, FL 32669 / (352) 472-4722



June 17, 2005

Ms. Trina Vielhauer,
Bureau Chief
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road, MS #5505
Tallahassee, FL 32399-2400

RECEIVED

JUN 20 2005

BUREAU OF AIR REGULATION

RE: Application dated May 5, 2005, to allow use of petroleum coke and flyash as fuels;
Facility 0010087, Permit Nos. 0010087-009-AV and 0010087-012-AC
Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant

Dear Ms. Vielhauer:

Thank you for meeting with us earlier this week. Based upon the concerns expressed by you and Al Linero regarding our application of May 5, 2005, to allow 100% use of petroleum coke, we have revised our application. We hereby revise our application to request that up to 40% of the total kiln-heat input be obtained from petroleum coke. The enclosed pages are the only pages affected.

Also, we request that the sulfur limit of 1.25% on coal we use be raised to 1.75%. As we discussed during this week's meeting, the emission data collected during the 60-day, petroleum coke/flyash fuel trial demonstrated that emissions of sulfur dioxide from this cement plant are not related to fuel sulfur; those data were submitted to DARM on June 1, 2005. Assurance of compliance with the emission limit for SO₂ is provided by continuous monitoring, and this cement plant is reported to have the second lowest sulfur-dioxide emission limit in the U.S.

This revision request, along with the original application submitted May 5, 2005, and supporting documents (Report of PM, CO, and D/F Emissions dated May 16, 2005; Report of Results of Petroleum Coke and Flyash Fuel Trial dated June 1, 2005; and PSD-applicability evaluation report dated June 13, 2005) are made to allow limited use of petroleum coke and flyash as fuels and to increase the coal-sulfur limit only. No other changes are sought with this application.

If you have any questions, please call me at 352-472-4722, ext. 121.

Sincerely,
FLORIDA ROCK INDUSTRIES, INC.

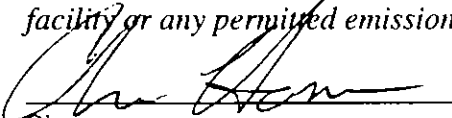
Chris Horner
Plant Manager

cc: B. Bull
E. Korte, NED

APPLICATION INFORMATION

Owner/Authorized Representative Statement


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

1. Owner/Authorized Representative Name : Chris Horner, Plant Manager
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant Street Address: 4000 NW CR 235 City: Newberry State: FL Zip Code: 32669
3. Owner/Authorized Representative Telephone Numbers... Telephone: (352) 472-4722 ext. 130 Fax: (352) 472-2449
4. Owner/Authorized Representative Email Address: chrish@flarock.com
5. Owner/Authorized Representative Statement: <i>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.</i>  Signature <u>6/17/05</u> Date

APPLICATION INFORMATION

Application Responsible Official Certification

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

1. Application Responsible Official Name: Chris Horner, Plant Manager
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant Street Address: 4000 NW CR 235 City: Newberry State: FL Zip Code: 32669
4. Application Responsible Official Telephone Numbers... Telephone: (352) 472-4722 ext. 130 Fax: (352) 472-2449
5. Application Responsible Official Email Address: chrish@flarock.com
6. Application Responsible Official Certification: <i>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</i>  _____ Signature <u>6/17/05</u> _____ Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: O. Henry Gotsch Registration Number: 58039
2. Professional Engineer Mailing Address... Organization/Firm: Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant Street Address: 4000 NW CR 235 City: Newberry State: FL Zip Code: 32669
3. Professional Engineer Telephone Numbers... Telephone: (352) 472-4722 ext. 121 Fax: (352) 472-2449
4. Professional Engineer Email Address: hgotsch@flarock.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/> , if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/> , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input checked="" type="checkbox"/> , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> <i>O. Henry Gotsch</i> Signature <u>June 17, 2005</u> (seal) <u>June 17, 2005</u> Date

* Attach any exception to certification statement.

EMISSIONS UNIT INFORMATION (EU 003)

Section [1] of [2]

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

Segment Description and Rate: Segment 3 of 7

1. Segment Description (Process/Fuel Type): In-process Fuel Use : Distillate Oil : Cement Kiln		
2. Source Classification Code (SCC): 3-90-005-02		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 0	5. Maximum Annual Rate: 0	6. Estimated Annual Activity Factor: 125
7. Maximum % Sulfur: 0.05	8. Maximum % Ash: N/A	9. Million Btu per SCC Unit: 141
10. Segment Comment: No change requested in this application.		

Segment Description and Rate: Segment 4 of 7

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: 14.0	5. Maximum Annual Rate: 122,640	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: 1.75	8. Maximum % Ash: 10	9. Million Btu per SCC Unit: 26
10. Segment Comment: Request to increase maximum sulfur to 1.75% based upon results of SO2 emission monitoring during February-April, 2005, fuel trial.		

EMISSIONS UNIT INFORMATION (EU 003)

Section [1] of [2]

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

Segment Description and Rate: Segment 5 of 7

1. Segment Description (Process/Fuel Type): In-process Fuel Use : Tires		
2. Source Classification Code (SCC): 3-90-012-99	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 4.2	5. Maximum Annual Rate: 36,792	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: N/A	8. Maximum % Ash: N/A	9. Million Btu per SCC Unit: 26
10. Segment Comment: No change requested in this application.		

Segment Description and Rate: Segment 6 of 7

1. Segment Description (Process/Fuel Type): In-process Fuel Use : Petroleum Coke : Cement Kiln		
2. Source Classification Code (SCC): 3-90-008-89	3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 5.4	5. Maximum Annual Rate: 47,304	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: 8.0	8. Maximum % Ash: 2.8	9. Million Btu per SCC Unit: 26.8
10. Segment Comment: 40% of total, kiln heat input		

Attachment 4

Requested Changes to Title V Air Operation Permit

FROM: C.3. Methods of Operation - (i.e. Fuels). Fuels fired in the pyroprocessing system (kiln and precalciner) shall not exceed a total maximum heat input of 364 MMBtu/hr and shall consist of only coal, (usage rate shall not exceed 14.0 TPH), whole tires, propane and “unused No. 2” fuel oil which may also be fired in the Raw Mill Air Heater. Propane usage is limited to startup and in lieu of tires in the first stage of the MSC. The burning of RCRA hazardous waste or used oil is prohibited. All fuel usage shall be in compliance with the following limits and conditions: [Rule 62-210.200(203), F.A.C.]

Coal	<ul style="list-style-type: none"> The sulfur content shall not exceed 1.25% by weight. The maximum usage rate shall not exceed 14.0 tons per hour. The sulfur content shall be determined by ASTM Method D-2234, D-3173, D-3176, D-3177 or D-4239.
Whole Tires	<ul style="list-style-type: none"> The maximum feed rate shall not exceed 109.2 MMBtu/hour (30% of the total kiln fuel input) or 4.2 tons per hour (approximately 400 tires per hour) and 36,792 tons per year. The tires shall be fed into the kiln system at the transition section between the base of the precalciner and the point where gases exit the kiln. The tire feeder mechanism shall consist of a rotary feeder, which seals the tire entry point from the atmosphere. Prior to initiating tire firing, the gases exiting the kiln ahead of the calciner burner shall be maintained at a minimum of 1,400 °F for at least one hour. The facility shall maintain records of the exit temperature and duration time of the exit gases to verify compliance with this requirement.
No. 2 Fuel Oil (unused)	<ul style="list-style-type: none"> Shall be fired and the sulfur content shall not exceed 0.05% by weight. The maximum usage rate shall not exceed 125,000 gallons per year for kiln startup.
Propane	<ul style="list-style-type: none"> Limited to startup and in lieu of tires in the first stage of the MSC.

[Rule 62-213.410, F.A.C., AC01-267311/PSD-FL-228; 0010087-003-AC/PSD-FL-228A]

TO: C.3. Methods of Operation - (i.e. Fuels). Fuels fired in the pyroprocessing system (kiln and precalciner) shall not exceed a total maximum heat input of 364 MMBtu/hr and shall consist of only coal, (usage rate shall not exceed 14.0 TPH), whole tires, propane, **petroleum coke, flyash,** and “unused No. 2” fuel oil which may also be fired in the Raw Mill Air Heater. Propane usage is limited to startup and in lieu of tires in the first stage of the MSC. The burning of RCRA hazardous waste or used oil is prohibited. All fuel usage shall be in compliance with the following limits and conditions: [Rule 62-210.200(203), F.A.C.]

Coal	<ul style="list-style-type: none"> The sulfur content shall not exceed 1.75% by weight. The maximum usage rate shall not exceed 14.0 tons per hour. The sulfur content shall be determined by ASTM Method D-2234, D-3173, D-3176, D-3177 or D-4239.
Whole Tires	<ul style="list-style-type: none"> The maximum feed rate shall not exceed 109.2 MMBtu/hour (30% of the total kiln fuel input) or 4.2 tons per hour (approximately 400 tires per hour) and 36,792 tons per year. The tires shall be fed into the kiln system at the transition section between the base of the precalciner and the point where gases exit the kiln. The tire feeder mechanism shall consist of a rotary feeder, which

	<ul style="list-style-type: none"> seals the tire entry point from the atmosphere. Prior to initiating tire firing, the gases exiting the kiln ahead of the calciner burner shall be maintained at a minimum of 1,400 °F for at least one hour. The facility shall maintain records of the exit temperature and duration time of the exit gases to verify compliance with this requirement.
No. 2 Fuel Oil (unused)	<ul style="list-style-type: none"> Shall be fired and the sulfur content shall not exceed 0.05% by weight. The maximum usage rate shall not exceed 125,000 gallons per year for kiln startup.
Propane	<ul style="list-style-type: none"> Limited to startup and in lieu of tires in the first stage of the MSC.
Petroleum Coke	<ul style="list-style-type: none"> The usage rate shall not exceed 40% of the total, kiln heat input nor a maximum of 145.6 MMBtu/hr (approx. 5.4 tph).
Flyash	<ul style="list-style-type: none"> The usage rate shall not exceed 5% of the total, kiln heat input nor a maximum of 18.2 MMBtu/hr (approx. 3.6 tph).

[Rule 62-213.410, F.A.C., AC01-267311/PSD-FL-228; 0010087-003-AC/PSD-FL-228A]

FROM: C.18. The permittee shall test the emissions from the Kiln System for the following pollutants annually:

Description	Pollutant	Fuel(s) [1]	EPA Reference Method	Testing Time Frequency [2]	Min. Compliance Test duration
Kiln/ Raw Mill	VE	Coal/Oil Propane/WTD F	9/COM	Annual/COM [3]	60 minutes
Kiln/ Raw Mill	PM/PM ₁₀	Coal/Oil Propane/WTD F	5	Annual	3 one hour runs
Kiln/ Raw Mill	SO ₂ [5]	Coal/Oil Propane/WTD F	CEMS	Daily average	Continuous
Kiln/ Raw Mill	NO _x [6]	Coal/Oil Propane/WTD F	CEMS	Daily average	Continuous
Kiln/ Raw Mill	CO	Coal/Oil Propane/WTD F	10	Annual [4]	3 one hour runs
Kiln/ Raw Mill	VOC	Coal/Oil Propane/WTD F	25/25A/ CEM [7]	Annual	3 one hour runs

[6] NO_x - The continuous emission monitor (CEM) data shall be used to demonstrate compliance with the kiln emissions limits. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B.

[7] THC CEMs.

[Rule 62-297.310(7)(a)4, F.A.C.]

FROM: C.19. Stack Test Conditions. The manual stack test shall be conducted while firing both primary fuels at permitted capacity (70 to 100% coal and 0 to 30% tires) and while all continuous monitoring systems are functioning properly, and with all process units operating at their permitted capacity. Permitted capacity is defined as 90-100 % of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the units may be tested at less than 90% of the maximum operating rate allowed by the permit. In this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the units are so limited, then operation at higher capacities (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.310(2)(b), F.A.C.]

If the kiln is tested while firing less than 30% tires, subsequent operation is limited to 110% the percentage of tires burned during the test, not to exceed 30% of the total heat input. Once the kiln is so limited, then operation at greater tire burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

[AC01-267311/PSD-FL-228; Rule 62-297.310(2)(b), F.A.C.; and, 0010087-003-AC/PSD-FL-228A]

TO: C.19. Stack Test Conditions. The manual stack test shall be conducted while firing fuels at permitted capacity (and heat input of **25 to 100% coal, 0 to 40% petroleum coke, 0 to 30% tires, and 0 to 5% flyash**) and while all continuous monitoring systems are functioning properly, and with all process units operating at their permitted capacity. Permitted capacity is defined as 90-100 % of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the units may be tested at less than 90% of the maximum operating rate allowed by the permit. In this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the units are so limited, then operation at higher capacities (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.310(2)(b), F.A.C.]

If the kiln is tested while firing less than 30% tires, subsequent operation is limited to 110% the percentage of tires burned during the test, not to exceed 30%, of the total heat input. Once the kiln is so limited, then operation at greater tire burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

[AC01-267311/PSD-FL-228; Rule 62-297.310(2)(b), F.A.C.; and, 0010087-003-AC/PSD-FL-228A]

If the kiln is tested while firing less than 40% petroleum coke, subsequent operation is limited to 110% the percentage of petroleum coke burned during the test, not to exceed 40%, of the total, kiln heat input. Once the kiln is so limited, then operation at greater petroleum coke burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

If the kiln is tested while firing less than 5% flyash, subsequent operation is limited to 110% the percentage of flyash burned during the test, not to exceed 5%, of the total, kiln heat input. Once the kiln is so limited, then operation at greater flyash burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

FROM: C.39. Coal, Tires, Raw Materials and Fuel Oil. An operating log shall be established and maintained for the weight of tires fired. The log shall include the daily tire usage, a monthly running total of the tire usage, and a cumulative annual running total to ensure that the annual limit is not exceeded. The log shall be maintained on file for at least five (5) years and shall be made available to the Department upon request. Records of the quantity and analysis of coal and fuel oil consumed and invoices for all fuel purchases along with logs for all raw materials and products shall be kept for a minimum of 5 years. Periods of startup, shutdown, and process malfunctions shall be noted on the same logs used for tires.
[AC01-267311/PSD-FL-228]

TO: C.39. Coal, Tires, Raw Materials and Fuel Oil. An operating log shall be established and maintained for the weight of tires fired. The log shall include the daily tire usage, a monthly running total of the tire usage, and a cumulative annual running total to ensure that the annual limit is not exceeded. The log shall be maintained on file for at least five (5) years and shall be made available to the Department upon request. Records of the quantity and analysis of coal, **petroleum coke, flyash,** and fuel oil consumed and invoices for all fuel purchases along with logs for all raw materials and products shall be kept for a minimum of 5 years. Periods of startup, shutdown, and process malfunctions shall be noted on the same logs used for tires.
[AC01-267311/PSD-FL-228]

FROM: Mercury Compounds (as Hg). Monthly sampling and analysis shall be conducted of the raw mill feed, coal and tires to demonstrate compliance with specific condition C.5. SW-846 Method 7471 or an approved EPA, DEP or ASTM test methods shall be used and records shall be maintained for inspection.
[AC01-267311/PSD-FL-228]

TO: Mercury Compounds (as Hg). Monthly sampling and analysis shall be conducted of the raw mill feed, coal, tires, **petroleum coke, and flyash** to demonstrate compliance with specific condition C.5. SW-846 Method 7471 or an approved EPA, DEP or ASTM test methods shall be used and records shall be maintained for inspection.
[AC01-267311/PSD-FL-228]

Addition of petroleum coke would make use of a high-Btu fuel that is a byproduct of the region's oil-refining industry. Reduction in the use of coal would reduce the environmental costs associated with coal mining and delivery from more distant coal fields.

PERMIT MODIFICATION

Based upon results of this project, some modifications of the Title V permit would be necessary. In particular:

- The allowable fuels would be expanded to include coal blended with up to 11% flyash and/or 30% or more petroleum coke.
- Fueling limit would be based upon total heat input, not a maximum coal feed rate.
- The ratio of dry preheater feedrate to clinker production rate might increase slightly as the flyash fraction of the dry preheater feedrate is reduced.
- The percent of coal sulfur would be raised from 1.25% to 2.00%.

CONCLUSION

Optimization of the rates of addition of flyash and petroleum coke to the coal fired in the kiln and calciner is expected to expand the selection of fuel while improving emissions of THC and CO associated with carbonaceous materials in the feed and allow better NO_x control by improving reducing-condition controls.

FLORIDA ROCK INDUSTRIES INC

CEMENT GROUP / 4000 N.W. CR 235 / P.O. Box 459 / Newberry, FL 32669 / (352) 472-4722



June 17, 2005

Ms. Trina Vielhauer,
Bureau Chief
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road, MS #5505
Tallahassee, FL 32399-2400

RECEIVED

JUN 20 2005

BUREAU OF AIR REGULATION

RE: Application dated May 5, 2005, to allow use of petroleum coke and flyash as fuels;
Facility 0010087, Permit Nos. 0010087-009-AV and 0010087-012-AC
Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant

Dear Ms. Vielhauer:

Thank you for meeting with us earlier this week. Based upon the concerns expressed by you and Al Linero regarding our application of May 5, 2005, to allow 100% use of petroleum coke, we have revised our application. We hereby revise our application to request that up to 40% of the total, kiln-heat input be obtained from petroleum coke. The enclosed pages are the only pages affected.

Also, we request that the sulfur limit of 1.25% on coal we use be raised to 1.75%. As we discussed during this week's meeting, the emission data collected during the 60-day, petroleum coke/flyash fuel trial demonstrated that emissions of sulfur dioxide from this cement plant are not related to fuel sulfur; those data were submitted to DARM on June 1, 2005. Assurance of compliance with the emission limit for SO₂ is provided by continuous monitoring, and this cement plant is reported to have the second lowest sulfur-dioxide emission limit in the U.S.

This revision request, along with the original application submitted May 5, 2005, and supporting documents (Report of PM, CO, and D/F Emissions dated May 16, 2005; Report of Results of Petroleum Coke and Flyash Fuel Trial dated June 1, 2005; and PSD-applicability evaluation report dated June 13, 2005) are made to allow limited use of petroleum coke and flyash as fuels and to increase the coal sulfur limit only. No other changes are sought with this application.

If you have any questions, please call me at 352-472-4722, ext. 121.

Sincerely,
FLORIDA ROCK INDUSTRIES, INC.

Chris Horner
Plant Manager

APPLICATION INFORMATION

Owner/Authorized Representative Statement

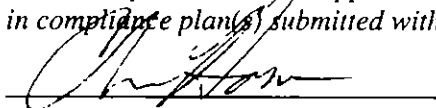
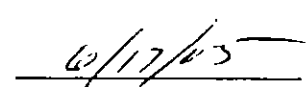
Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name : Chris Horner, Plant Manager
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant Street Address: 4000 NW CR 235 City: Newberry State: FL Zip Code: 32669
3. Owner/Authorized Representative Telephone Numbers... Telephone: (352) 472-4722 ext. 130 Fax: (352) 472-2449
4. Owner/Authorized Representative Email Address: chrish@flarock.com
5. Owner/Authorized Representative Statement: <i>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.</i>  Signature  Date

APPLICATION INFORMATION

Application Responsible Official Certification

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

1. Application Responsible Official Name: Chris Horner, Plant Manager
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant Street Address: 4000 NW CR 235 City: Newberry State: FL Zip Code: 32669
4. Application Responsible Official Telephone Numbers... Telephone: (352) 472-4722 ext. 130 Fax: (352) 472-2449
5. Application Responsible Official Email Address: chrish@flarock.com
6. Application Responsible Official Certification: <i>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</i>  Signature  Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: O. Henry Gotsch Registration Number: 58039
2. Professional Engineer Mailing Address... Organization/Firm: Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant Street Address: 4000 NW CR 235 City: Newberry State: FL Zip Code: 32669
3. Professional Engineer Telephone Numbers... Telephone: (352) 472-4722 ext. 121 Fax: (352) 472-2449
4. Professional Engineer Email Address: hgotsch@flarock.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/> , if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/> , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input checked="" type="checkbox"/> , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> Signature: <u><i>O. Henry Gotsch</i></u> Date: <u><i>June 17, 2005</i></u> (seal)

* Attach any exception to certification statement.

EMISSIONS UNIT INFORMATION (EU 003)

Section [1] of [2]

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)**Segment Description and Rate: Segment 3 of 7**

1. Segment Description (Process/Fuel Type): In-process Fuel Use : Distillate Oil : Cement Kiln		
2. Source Classification Code (SCC): 3-90-005-02		3. SCC Units: 1000 Gallons Burned
4. Maximum Hourly Rate: 0	5. Maximum Annual Rate: 0	6. Estimated Annual Activity Factor: 125
7. Maximum % Sulfur: 0.05	8. Maximum % Ash: N/A	9. Million Btu per SCC Unit: 141
10. Segment Comment: No change requested in this application.		

Segment Description and Rate: Segment 4 of 7

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: 14.0	5. Maximum Annual Rate: 122,640	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: 1.75	8. Maximum % Ash: 10	9. Million Btu per SCC Unit: 26
10. Segment Comment: Request to increase maximum sulfur to 1.75% based upon results of SO2 emission monitoring during February-April, 2005, fuel trial.		

EMISSIONS UNIT INFORMATION (EU 003)

Section [1] of [2]

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

Segment Description and Rate: Segment 5 of 7

1. Segment Description (Process/Fuel Type): In-process Fuel Use : Tires		
2. Source Classification Code (SCC): 3-90-012-99		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 4.2	5. Maximum Annual Rate: 36,792	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: N/A	8. Maximum % Ash: N/A	9. Million Btu per SCC Unit: 26
10. Segment Comment: No change requested in this application.		

Segment Description and Rate: Segment 6 of 7

1. Segment Description (Process/Fuel Type): In-process Fuel Use : Petroleum Coke : Cement Kiln		
2. Source Classification Code (SCC): 3-90-008-89		3. SCC Units: Tons Burned
4. Maximum Hourly Rate: 5.4	5. Maximum Annual Rate: 47,304	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: 8.0	8. Maximum % Ash: 2.8	9. Million Btu per SCC Unit: 26.8
10. Segment Comment: 40% of total, kiln heat input		

Attachment 4

Requested Changes to Title V Air Operation Permit

FROM: C.3. Methods of Operation - (i.e. Fuels). Fuels fired in the pyroprocessing system (kiln and precalciner) shall not exceed a total maximum heat input of 364 MMBtu/hr and shall consist of only coal, (usage rate shall not exceed 14.0 TPH), whole tires, propane and “unused No. 2” fuel oil which may also be fired in the Raw Mill Air Heater. Propane usage is limited to startup and in lieu of tires in the first stage of the MSC. The burning of RCRA hazardous waste or used oil is prohibited. All fuel usage shall be in compliance with the following limits and conditions: [Rule 62-210.200(203), F.A.C.]

Coal	<ul style="list-style-type: none"> The sulfur content shall not exceed 1.25% by weight. The maximum usage rate shall not exceed 14.0 tons per hour. The sulfur content shall be determined by ASTM Method D-2234, D-3173, D-3176, D-3177 or D-4239.
Whole Tires	<ul style="list-style-type: none"> The maximum feed rate shall not exceed 109.2 MMBtu/hour (30% of the total kiln fuel input) or 4.2 tons per hour (approximately 400 tires per hour) and 36,792 tons per year. The tires shall be fed into the kiln system at the transition section between the base of the precalciner and the point where gases exit the kiln. The tire feeder mechanism shall consist of a rotary feeder, which seals the tire entry point from the atmosphere. Prior to initiating tire firing, the gases exiting the kiln ahead of the calciner burner shall be maintained at a minimum of 1,400 °F for at least one hour. The facility shall maintain records of the exit temperature and duration time of the exit gases to verify compliance with this requirement.
No. 2 Fuel Oil (unused)	<ul style="list-style-type: none"> Shall be fired and the sulfur content shall not exceed 0.05% by weight. The maximum usage rate shall not exceed 125,000 gallons per year for kiln startup.
Propane	<ul style="list-style-type: none"> Limited to startup and in lieu of tires in the first stage of the MSC.

[Rule 62-213.410, F.A.C., AC01-267311/PSD-FL-228; 0010087-003-AC/PSD-FL-228A]

TO: C.3. Methods of Operation - (i.e. Fuels). Fuels fired in the pyroprocessing system (kiln and precalciner) shall not exceed a total maximum heat input of 364 MMBtu/hr and shall consist of only coal, (usage rate shall not exceed 14.0 TPH), whole tires, propane, **petroleum coke, flyash**, and “unused No. 2” fuel oil which may also be fired in the Raw Mill Air Heater. Propane usage is limited to startup and in lieu of tires in the first stage of the MSC. The burning of RCRA hazardous waste or used oil is prohibited. All fuel usage shall be in compliance with the following limits and conditions: [Rule 62-210.200(203), F.A.C.]

Coal	<ul style="list-style-type: none"> The sulfur content shall not exceed 1.75% by weight. The maximum usage rate shall not exceed 14.0 tons per hour. The sulfur content shall be determined by ASTM Method D-2234, D-3173, D-3176, D-3177 or D-4239.
Whole Tires	<ul style="list-style-type: none"> The maximum feed rate shall not exceed 109.2 MMBtu/hour (30% of the total kiln fuel input) or 4.2 tons per hour (approximately 400 tires per hour) and 36,792 tons per year. The tires shall be fed into the kiln system at the transition section between the base of the precalciner and the point where gases exit the kiln. The tire feeder mechanism shall consist of a rotary feeder, which

	<p>seals the tire entry point from the atmosphere.</p> <ul style="list-style-type: none"> • Prior to initiating tire firing, the gases exiting the kiln ahead of the calciner burner shall be maintained at a minimum of 1,400 °F for at least one hour. The facility shall maintain records of the exit temperature and duration time of the exit gases to verify compliance with this requirement.
No. 2 Fuel Oil (unused)	<ul style="list-style-type: none"> • Shall be fired and the sulfur content shall not exceed 0.05% by weight. The maximum usage rate shall not exceed 125,000 gallons per year for kiln startup.
Propane	<ul style="list-style-type: none"> • Limited to startup and in lieu of tires in the first stage of the MSC.
Petroleum Coke	<ul style="list-style-type: none"> • The usage rate shall not exceed 40% of the total, kiln heat input nor a maximum of 145.6 MMBtu/hr (approx. 5.4 tph).
Flyash	<ul style="list-style-type: none"> • The usage rate shall not exceed 5% of the total, kiln heat input nor a maximum of 18.2 MMBtu/hr (approx. 3.6 tph).

[Rule 62-213.410, F.A.C., AC01-267311/PSD-FL-228; 0010087-003-AC/PSD-FL-228A]

FROM: C.18. The permittee shall test the emissions from the Kiln System for the following pollutants annually:

Description	Pollutant	Fuel(s) [1]	EPA Reference Method	Testing Time Frequency [2]	Min. Compliance Test duration
Kiln/ Raw Mill	VE	Coal/Oil Propane/WTD F	9/COM	Annual/COM [3]	60 minutes
Kiln/ Raw Mill	PM/PM ₁₀	Coal/Oil Propane/WTD F	5	Annual	3 one hour runs
Kiln/ Raw Mill	SO ₂ [5]	Coal/Oil Propane/WTD F	CEMS	Daily average	Continuous
Kiln/ Raw Mill	NO _x [6]	Coal/Oil Propane/WTD F	CEMS	Daily average	Continuous
Kiln/ Raw Mill	CO	Coal/Oil Propane/WTD F	10	Annual [4]	3 one hour runs
Kiln/ Raw Mill	VOC	Coal/Oil Propane/WTD F	25/25A/ CEM [7]	Annual	3 one hour runs

[6] NO_x - The continuous emission monitor (CEM) data shall be used to demonstrate compliance with the kiln emissions limits. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B.

[7] THC CEMs.

[Rule 62-297.310(7)(a)4, F.A.C.]

FROM: C.19. Stack Test Conditions. The manual stack test shall be conducted while firing both primary fuels at permitted capacity (70 to 100% coal and 0 to 30% tires) and while all continuous monitoring systems are functioning properly, and with all process units operating at their permitted capacity. Permitted capacity is defined as 90-100 % of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the units may be tested at less than 90% of the maximum operating rate allowed by the permit. In this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the units are so limited, then operation at higher capacities (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.310(2)(b), F.A.C.]

If the kiln is tested while firing less than 30% tires, subsequent operation is limited to 110% the percentage of tires burned during the test, not to exceed 30% of the total heat input. Once the kiln is so limited, then operation at greater tire burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

[AC01-267311/PSD-FL-228; Rule 62-297.310(2)(b), F.A.C.; and, 0010087-003-AC/PSD-FL-228A]

TO: C.19. Stack Test Conditions. The manual stack test shall be conducted while firing fuels at permitted capacity (and heat input of **25 to 100% coal, 0 to 40% petroleum coke, 0 to 30% tires, and 0 to 5% flyash**) and while all continuous monitoring systems are functioning properly, and with all process units operating at their permitted capacity. Permitted capacity is defined as 90-100 % of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the units may be tested at less than 90% of the maximum operating rate allowed by the permit. In this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the units are so limited, then operation at higher capacities (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.310(2)(b), F.A.C.]

If the kiln is tested while firing less than 30% tires, subsequent operation is limited to 110% the percentage of tires burned during the test, not to exceed 30%, of the total heat input. Once the kiln is so limited, then operation at greater tire burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

[AC01-267311/PSD-FL-228; Rule 62-297.310(2)(b), F.A.C.; and, 0010087-003-AC/PSD-FL-228A]

If the kiln is tested while firing less than 40% petroleum coke, subsequent operation is limited to 110% the percentage of petroleum coke burned during the test, not to exceed 40%, of the total, kiln heat input. Once the kiln is so limited, then operation at greater petroleum coke burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

If the kiln is tested while firing less than 5% flyash, subsequent operation is limited to 110% the percentage of flyash burned during the test, not to exceed 5%, of the total, kiln heat input. Once the kiln is so limited, then operation at greater flyash burning rate (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

FROM: C.39. Coal, Tires, Raw Materials and Fuel Oil. An operating log shall be established and maintained for the weight of tires fired. The log shall include the daily tire usage, a monthly running total of the tire usage, and a cumulative annual running total to ensure that the annual limit is not exceeded. The log shall be maintained on file for at least five (5) years and shall be made available to the Department upon request. Records of the quantity and analysis of coal and fuel oil consumed and invoices for all fuel purchases along with logs for all raw materials and products shall be kept for a minimum of 5 years. Periods of startup, shutdown, and process malfunctions shall be noted on the same logs used for tires.
[AC01-267311/PSD-FL-228]

TO: C.39. Coal, Tires, Raw Materials and Fuel Oil. An operating log shall be established and maintained for the weight of tires fired. The log shall include the daily tire usage, a monthly running total of the tire usage, and a cumulative annual running total to ensure that the annual limit is not exceeded. The log shall be maintained on file for at least five (5) years and shall be made available to the Department upon request. Records of the quantity and analysis of coal, **petroleum coke, flyash,** and fuel oil consumed and invoices for all fuel purchases along with logs for all raw materials and products shall be kept for a minimum of 5 years. Periods of startup, shutdown, and process malfunctions shall be noted on the same logs used for tires.
[AC01-267311/PSD-FL-228]

FROM: Mercury Compounds (as Hg). Monthly sampling and analysis shall be conducted of the raw mill feed, coal and tires to demonstrate compliance with specific condition C.5. SW-846 Method 7471 or an approved EPA, DEP or ASTM test methods shall be used and records shall be maintained for inspection.
[AC01-267311/PSD-FL-228]

TO: Mercury Compounds (as Hg). Monthly sampling and analysis shall be conducted of the raw mill feed, coal, tires, **petroleum coke, and flyash** to demonstrate compliance with specific condition C.5. SW-846 Method 7471 or an approved EPA, DEP or ASTM test methods shall be used and records shall be maintained for inspection.
[AC01-267311/PSD-FL-228]

Addition of petroleum coke would make use of a high-Btu fuel that is a byproduct of the region's oil-refining industry. Reduction in the use of coal would reduce the environmental costs associated with coal mining and delivery from more distant coal fields.

PERMIT MODIFICATION

Based upon results of this project, some modifications of the Title V permit would be necessary. In particular:

- The allowable fuels would be expanded to include coal blended with up to 11% flyash and/or 30% or more petroleum coke.
- Fueling limit would be based upon total heat input, not a maximum coal feed rate.
- The ratio of dry preheater feedrate to clinker production rate might increase slightly as the flyash fraction of the dry preheater feedrate is reduced.
- The percent of coal sulfur would be raised from 1.25% to 2.00%.

CONCLUSION

Optimization of the rates of addition of flyash and petroleum coke to the coal fired in the kiln and calciner is expected to expand the selection of fuel while improving emissions of THC and CO associated with carbonaceous materials in the feed and allow better NO_x control by improving reducing-condition controls.