

Florida Department of  
Environmental Protection

Memorandum

TO: Michael G. Cooke, Director DARM  
Through: Trina L. Vielhauer, Chief BAR  
Through: A.A. Linero, P.E., Program Administrator, South Permitting Section  
From: Cindy Mulkey  
DATE: September 27, 2005  
SUBJECT: Florida Rock Industries, Inc. – Fuel and Fly Ash Project  
DEP File No. 0010087-015-AC

Attached is the Final Permit for Florida Rock Industries authorizing the replacement of the main kiln burner and use of natural gas, petroleum coke, fly ash, and coal with a maximum sulfur content of 1.75 % by weight at the existing Thompson S. Baker Cement Plant near Newberry in Alachua County.

Neither a Determination of Best Available Control Technology (BACT) nor an air quality analysis was required for this project.

We issued the draft permit September 7th and a public notice was made on September 10, 2005 in the Gainesville Sun. No comments were received from EPA or the public. Those received from FRI were discussed and are addressed in the attached Final Determination to Issue a PSD Permit.

Accordingly, I recommend your approval.

AAL/cem

Attachments

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF PERMIT

In the Matter of an  
Application for Permit by:

Mr. Chris Horner, Plant Manager  
Florida Rock Industries, Inc.  
4000 NW CR 235  
Post Office Box 459  
Newberry, Florida 32669

DEP File No. 0010087-015-AC  
Thompson S. Baker Cement Plant  
Alachua County

Enclosed is the Final Permit Number 0010087-015-AC authorizing the replacement of the main kiln burner and use of natural gas, petroleum coke, fly ash, and coal with a maximum sulfur content of 1.75 % by weight at the existing Thompson S. Baker Cement Plant near Newberry in Alachua County. This permit is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief  
Bureau of Air Regulation

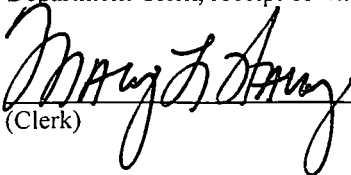
**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (\*) and copies were sent by U.S. Mail or electronic mail before the close of business on 10/7/05 to the person(s) listed:

Chris Horner, FRI\*  
Henry Gotsch, FRI  
William Proses, P.E. Koogler & Associates  
Chair, Alachua County Commission\*  
Chris Bird, Alachua County EMD  
Jim Little, EPA  
Chris Kirts, DEP NED

**Clerk Stamp**

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



(Clerk)

10/7/05  
(Date)

## FINAL DETERMINATION

Florida Rock Industries (FRI), Inc.

Fuel and Fly Ash Project

DEP File No. 0010087-015-AC

On September 7, 2005 the Florida Department of Environmental Protection (Department) distributed an "Intent to Issue Air Construction Permit" authorizing the replacement of the main kiln burner and use of natural gas, petroleum coke, fly ash, and coal with a maximum sulfur content of 1.75 % by weight at the Thompson S. Baker Cement Plant located 2.5 miles Northeast of Newberry on County Road 235 in Alachua County. The applicant's name and address are: Florida Rock Industries, Inc., 4000 NW County Road 235, Post Office Box 45, Newberry, Florida 32699.

The package included the Department's Draft Air Construction Permit, the "Intent to Issue Air Construction Permit," the "Technical Evaluation and Preliminary Determination," and the "Public Notice of Intent to Issue Air Construction Permit." The Department sent copies of the package to various persons, agencies, and municipalities. FRI published the Public Notice in The Gainesville Sun on September 10, 2005 and provided to the Department the required proof of publication.

The Department's initial decision, or "Intent to Issue Air Construction Permit", followed:

- A request by the company in October 2004 to conduct tests while temporarily using petroleum coke and fly ash as additional fuels in the kiln and calciner;
- Issuance by the Department of a construction permit in December 2004 to conduct the described tests;
- Petcoke and fly ash fuel substitution trials conducted between February 15 and April 16, 2005;
- Submittal on May 24, 2005 by FRI of the test report on particulate, carbon monoxide, and dioxin/furan emissions while firing coal, waste tire derived fuel, petroleum coke and fly ash;
- Submittal on May 9, 2005 by FRI of an application requesting the permanent use of petroleum coke (up to 100%) and fly ash as additional fuels to the kiln and calciner.
- Submittal by FRI and review by the Department of the continuous emission monitoring record for the periods before, during, and after the test period;
- Various requests for additional information by the Department and responses thereto by FRI;
- Submittal on July 29, 2005 of an application to change the indirect-fired kiln burner with a different indirect-fired kiln burner and add natural gas capability; and
- A thorough analysis of the projects, supporting information, and a rule review as documented in the Technical Evaluation and Preliminary Determination distributed with the "Intent to Issue Air Construction Permit" on September 7, 2005.

The thorough understanding of the documented and projected effects of the changes allowed the Department to presume that the federally-enforceable unit-specific allowable emissions are equivalent to the actual emissions of the emissions unit. The Department concluded that the project will not cause a significant net emission increase requiring PSD review and a BACT determination pursuant to Paragraph 62-212.400, F.A.C. The Department limited petcoke use to 25% versus 100% and added additional testing requirements for reasonable assurance that PSD will not be triggered.

The Department received no comments from agencies or the public regarding the Draft Air Construction Permit. By letter dated September 21 FRI submitted comments which the Department received on September 23.

The comments by FRI are listed below (*italics*) followed by the Department’s response. Any additions to permit conditions are underlined and deletions are indicated by strike-through notation.

*Request is to amend page 2 so that the final version of the permit shows that EU 002 (the Raw Mill System) is also affected by this modification. At present, our Title V permit allows only no. 2 fuel oil to be burned in the raw-mill air heater. Most of the natural gas we will use will be burned in the raw-mill air heater; and the remainder in the main burner. The public notice does refer to this use, so I don’t believe any re-publication would be necessary.*

The use of natural gas in the raw mill air heater is addressed in the Technical Evaluation and Preliminary Determination and included in the Public Notice of Intent to Issue Air Construction Permit distributed with the Draft Air Construction Permit. The Department agrees that the final air construction permit should reflect the changes in the fuel requirements for the raw mill system. The Department will make the following modifications:

Emission Unit Description: The Raw Mill System will be added to the Emissions Unit Description on Pages 2 and 5 of the permit as follows:

ID No.	Emission Unit Description
002	<u>Raw Mill System. The raw mill system includes the recycle dust and raw material to homogenization silo, the recycle dust airlift, the recycle dust and raw meal to homogenization silo, and the raw meal and recycle dust to preheater, all controlled by fabric filters.</u>

Section III CONDITION 1 will be modified as follows:

1. Fuels fired in the pyroprocessing system (kiln and calciner) shall not exceed a total maximum heat input of 364 MMBtu/hr and shall consist only of coal, (usage rate shall not exceed 14.0 TPH), whole tires, propane, ~~natural gas, petroleum coke, and fly ash,~~ and natural gas and unused No. 2 fuel oil which may also be fired in the Raw Mill Air Heater. All fuel usage shall be in compliance with the following limits and conditions: [Rule 62-210.200, F.A.C. (Definition. Potential to Emit)]
  - (g) Natural gas fired shall not exceed 364 MMBtu/hr in the kiln and shall not exceed 40 MMBtu/hr in the raw mill air heater.

*{Permitting Note: New Condition}*

The final decision by the Department is to issue the permit with the changes noted.



# Department of Environmental Protection

Jeb Bush  
Governor

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

Colleen M. Castille  
Secretary

## PERMITTEE

Florida Rock Industries  
4000 NW CR 235  
Post Office Box 459  
Newberry, Florida 32669

Permit No. 0010087-015-AC  
Expires: December 31, 2006  
Fuel and Fly Ash Projects

## PROJECT AND LOCATION

This permit authorizes the replacement of the main kiln burner and use of natural gas, petroleum coke, fly ash, and coal with a maximum sulfur content of 1.75 % by weight at the existing Thompson S. Baker Cement Plant in Alachua County. The facility is on County Road 235 approximately 2.5 miles northeast of Newberry, Florida. The map coordinates are: UTM Zone 17, 346.8 km East and 3287.0 km North.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the work specified in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department. This permit supplements all other air construction and operation permits for the subject emissions unit and does not alter any requirements from such previously issued air permits.

## APPENDICES

The following appendices are attached as part of this permit.

Appendix GC - Construction Permit General Conditions

---

Michael G. Cooke, Director  
Division of Air Resources Management

## SECTION I. FACILITY INFORMATION

### FACILITY DESCRIPTION

Florida Rock Industries, Inc. (FRI) owns and operates the Thompson S. Baker Cement Plant in Newberry, Alachua County. The facility consists of raw material handling and storage, a raw mill system, kiln system, clinker handling, finish grinding operations, cement handling, loading, and bagging operations, and coal handling and grinding operations.

The kiln is presently permitted to produce 2,650 tons per day of clinker, 800,000 tons per year, with a peak hourly clinker production limit of 115 tons per hour (0010087-006-AC).

Fuels fired in the pyroprocessing system (kiln and precalciner) are presently limited to coal, whole tires, "unused No. 2" fuel oil, and propane with a total maximum heat input of 364 MMBtu/hr. The sulfur content of the coal is currently limited to 1.25 percent by weight.

### PROJECT

The project as requested is to replace the main kiln burner and allow the use of natural gas, petroleum coke (up to 40 percent of the total kiln heat input) and fly ash (up to 5 percent of the total kiln heat input) as fuel. The project is also to raise the coal sulfur limit of 1.25 percent to 1.75 percent. Following is the description of the emission units affected by the modification:

ID No.	Emission Unit Description
002	Raw Mill System. The raw mill system includes the recycle dust and raw material to homogenization silo, the recycle dust airlift, the recycle dust and raw meal to homogenization silo, and the raw meal and recycle dust to preheater, all controlled by fabric filters.
003	Kiln system. The kiln system (or pyroprocessing system) includes the 156.5 foot kiln, a four-stage preheater tower, a 25,300 cubic foot multi-stage combustion (MSC) calciner, a tire feed system, two coal burners and ancillary equipment. Particulate emissions are controlled by an electrostatic precipitator.
007	Coal handling and Grinding. The coal handling and grinding operation includes the coal and <b>petroleum coke mill (S-17)</b> , and the pulverized coal, <b>petroleum coke, and fly ash</b> storage bin (S-21). Fugitive emissions from the mill and storage bin are controlled by fabric filters <i>{Description changed to reflect additional authorized solid fuels.}</i>

### REGULATORY CLASSIFICATION

Regulatory classification and applicable requirements are listed in the applicable Title V Operation Permit and the previously-issued construction permit.

Title III HAPS: This facility has the potential to emit 10 tons per year or more of any one hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, and is therefore considered a major source of hazardous air pollutants.

Title V: This facility emits or has the potential to emit more than 100 tons per year of carbon monoxide (CO), and nitrogen oxides (NO<sub>x</sub>) and is therefore a Title V major source of air pollutants.

PSD: The project is located in an area designated as "attainment", "maintenance", or "unclassifiable" for each pollutant subject to a National Ambient Air Quality Standard. The facility is considered a "portland cement plant", which is one of the 28 Prevention of Significant Deterioration (PSD) source categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed

## SECTION I. FACILITY INFORMATION

---

100 tons per year. Therefore, the facility is classified as a PSD-major source of air pollution with respect to Rule 62-212.400 F.A.C., PSD.

NSPS: This facility is subject to 40 CFR 60, Subpart OOO (New Source Performance Standards For Nonmetallic Mineral Processing Plants) adopted and incorporated by reference in Rule 62-204.800, F.A.C.

This facility is subject to 40 CFR 60, Subparts A, F and Y (Standards of Performance for New Stationary Sources – General Provisions, Standards of Performance for Portland Cement Plants and Standards of Performance for Coal Preparation Plants) adopted and incorporated by reference in Rule 62-204.800, F.A.C. Certain requirements from Subpart F are replaced by requirements from 40 CFR 63, Subpart LLL.

NESHAP: This facility is subject to the “Existing Major Source” provisions of 40 CFR 63 Subparts A and LLL (National Emission Standards for Hazardous Air Pollutants – General Provisions; and National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

### RELEVANT DOCUMENTS

- Original Air Construction Permit AC01-267311 (renumbered 0010087-001-AC) issued in December 1996 (as amended in August 2001). Also known as PSD-FL-228.
- Construction permit modification (PSD-FL-228B and 0010087-004-AC) issued on August 20, 2001, to extend the permit expiration date to December 31, 2001, install VOC monitor, and install multi-stage combustion (MSC) calciner.
- Current Title V Operation Permit 0010087-002-AV issued January 11, 2002.
- Construction Permit modification (PSD –FL-228C and 0010087-006-AC) issued on December 11, 2002.
- Application submitted by Florida Rock, received May 9, 2005.
- Report of Emission Tests submitted by Florida Rock, received on May 24, 2005.
- Revised application submitted by Florida Rock, received June 20, 2005.
- Application submitted by Florida Rock, received July 29, 2005.
- Technical Evaluation and Preliminary Determination issued on September 7, 2005.

## SECTION II. ADMINISTRATIVE REQUIREMENTS

---

### GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, modify or operate this emissions unit shall be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection ("Department"), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114. Copies of these documents shall be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the Northeast District Office at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590. The phone number is 904/807-3300 and the fax number is 904/448-4363.
3. General Conditions: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403, F.S. [Rule 62-4.160, F.A.C.]
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of this project shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Permit Expiration: For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, and 62-210.300(1), F.A.C.]
6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Title V Permit: This permit authorizes construction of the proposed project and initial operation to determine compliance with Department rules. Upon completion of construction of this project, a Title V operation permit revision is required for regular operation of the new equipment. The permittee shall apply for a revised Title V operation permit prior to expiration of this permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]



**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

**EU 002 AND EU 003. RAW MILL SYSTEM AND KILN SYSTEM**

This section of the permit addresses the following emissions unit:

ID No.	Emission Unit Description
002	Raw Mill System. The raw mill system includes the recycle dust and raw material to homogenization silo, the recycle dust airlift, the recycle dust and raw meal to homogenization silo, and the raw meal and recycle dust to preheater, all controlled by fabric filters.
003	Kiln system. The kiln system (or pyroprocessing system) includes the 156.5 foot kiln, a four-stage preheater tower, a 25,300 cubic foot multi-stage combustion (MSC) calciner, a tire feed system, two coal burners and ancillary equipment. Particulate emissions are controlled by an electrostatic precipitator.

**ADMINISTRATIVE REQUIREMENTS**

Previous Permit Conditions: This permit authorizes the replacement of the main kiln burner and the use of natural gas, petroleum coke and fly ash as fuel. This permit also authorizes the use of up to 1.75 percent sulfur coal. The following conditions are in addition to or replace those of the previous air construction permits. Unless otherwise specified, the emissions unit remains subject to all applicable conditions from previous air construction permits. [Rule 62-4.070(3), F.A.C.]

**CONSTRUCTION ACTIVITIES**

Fly Ash and Petroleum Coke Use in Kiln and Calciner: The permittee is authorized to upgrade and install equipment necessary to store, convey, grind, combine, and introduce petroleum coke and fly ash together with coal into the kiln and calciner. [Application]

Coal Sulfur Increase: No physical construction activities will be conducted in association with an increase in coal sulfur content. [Application]

Natural Gas: The permittee is authorized to construct the on-site portion of a nominal 6-inch natural gas pipeline and to connect natural gas to various process points. On-site construction will be conducted from the Northwest corner of the site and will be buried until it reaches the raw mill building. [Application]

**SPECIFIC CONDITIONS**

1. Fuels fired in the pyroprocessing system (kiln and calciner) shall not exceed a total maximum heat input of 364 MMBtu/hr and shall consist only of coal, (usage rate shall not exceed 14.0 TPH), whole tires, propane, **petroleum coke, and fly ash, and natural gas** and unused No. 2 fuel oil which may also be fired in the Raw Mill Air Heater. All fuel usage shall be in compliance with the following limits and conditions: [Rule 62-210.200, F.A.C. (Definition. Potential to Emit)]

*{Permitting Note: The above condition authorizes fuels (bolded) in addition to the fuel slate previously authorized in Condition 4 of Permit 0010087-001-AC as amended by Permit 0010087-004-AC.}*

- a. The maximum sulfur content of the coal fired in the pyroprocessing system shall not exceed **1.75%** sulfur, by weight. The coal usage rate shall be determined using ASTM Method D-2234, D-3173, D-3176, D-3177 or D-4239.

*{Permitting Note: The above condition authorizes use of coal with a greater maximum allowable sulfur content than previously authorized (1.25 % sulfur by weight) by Condition 4.a. of Permit 0010087-001-AC.}*

- b. Whole tires may be used as an alternate fuel. Such 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

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

#### EU 002 AND EU 003. RAW MILL SYSTEM AND KILN SYSTEM

feeder mechanism shall have a double airlock, vertical and horizontal guillotine gates, and a ram. The permitted feed rate shall not exceed 109.2 MMBtu/hr (30% of total kiln fuel input) or 4.2 TPH (approximately 400 tires per hour) and 36,792 TPY. Before initiating tire firing, the gases exiting the kiln ahead of the calciner burner shall be maintained at a minimum of 1,440 degrees F for at least one hour.

*{Permitting Note: No change. Repetition of Condition 4.b. of Permit 0010087-001-AC}*

- c. No. 2 fuel oil fired shall not exceed a maximum sulfur content of 0.05% by weight (certified by fuel supplier) and usage shall not exceed 2,486,000 gallons per year for the Raw Mill Air Heater and 125,000 gallons per year for kiln startup.

*{Permitting Note: No change. Repetition of Condition 4.c. of Permit 0010087-001-AC}*

- d. The total of mercury compounds (as Hg) in all materials and fuel kiln system may not exceed 200 pounds per year. FRI will demonstrate compliance with this condition through monthly sampling and analysis of the raw mill feed, coal, **petroleum coke, fly ash**, and tires.

*{Permitting Note: The above condition adds the additional authorized fuels (bolded) to the monthly sampling and analysis requirement. Mercury in Natural gas is approximately nil.}*

- e. Petroleum coke may be used as a fuel. The permitted petroleum coke feed rate shall exceed neither 91 MMBtu/hr nor 25% percent of total kiln heat input.

*{Permitting Note: New Condition}*

- f. Fly ash may be used as a fuel. The permitted fly ash feed rate shall exceed neither 19 MMBtu nor 5% of total kiln heat input.

*{Permitting Note: New Condition}*

- g. Natural gas fired shall not exceed 364 MMBtu/hr in the kiln and shall not exceed 40 MMBtu/hr in the raw mill air heater.

*{Permitting Note: New Condition}*

2. CO in-stack emission compliance testing shall be performed on a quarterly basis using EPA Method 10. The quarterly CO test reports shall be filed with the Department in accordance with Rule 62-297.310(8), F.A.C.

*{Permitting Note: The above new condition increases the frequency of the manual stack testing required for determination of compliance with the CO emission limits, and specifies method and reporting requirements.}*

3. The manual stack tests required by Condition 2 above and by Permit AC01-267311 (renumbered 0010087-AC) and by the current Title V Operation Permit 0010087-009-AV shall be conducted while firing **both primary a representative mixture of fuels (0 to 100% coal, 0 to 25% petroleum coke, 0 to 30% tires, and 0 to 5% fly ash) at permitted capacity (70% coal and 30% tires)**, and while all continuous monitoring systems are functioning properly, and with all process units are 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.]

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

#### EU 002 AND EU 003. RAW MILL SYSTEM AND KILN SYSTEM

If the kiln is tested while firing less than 25% petroleum coke, subsequent operation is limited to 110% the percentage of petroleum coke fired during the test, not to exceed 25% of the total kiln heat input. Once the kiln is so limited, then operation at a greater petroleum coke firing rate, with prior notification provided to the Department, is allowed for not 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% fly ash, subsequent operation is limited to 110% the percentage of fly ash fired during the test, not to exceed 5% of the total kiln heat input. Once the kiln is so limited, then operation at a greater fly ash firing rate, with prior notification provided to the Department, is allowed for not more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit.

*{Permitting Note: The above condition (requirements bolded) adds the manual stack testing requirements and maximum firing rates for the additional fuels. For comparison, refer to the last paragraph of Condition 6 of Permit 0010087-001-AC.}*

4. 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, fly ash, natural gas, propane** 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.  
[Rule 62-210.200 F.A.C.(Definitions, Potential-to-Emit)]

*{Permitting Note: The above condition adds the additional authorized fuels (bolded) to the fuel quantity and quality record keeping requirements required by Condition 7 of Permit 0010087-001-AC as amended by Permit 0010087-004-AC.}*

SECTION IV. EMISSIONS UNIT SPECIFIC CONDITIONS

EU 007. COAL HANDLING AND GRINDING

This section of the permit addresses the following emissions unit:

ID No.	Emission Unit Description
007	Coal handling and Grinding. The coal handling and grinding operation includes the coal and <b>petroleum coke (S-17)</b> , and the pulverized coal, <b>petroleum coke, and fly ash</b> storage bin (S-21). Fugitive emissions from the mill and storage bin are controlled by fabric filters.  <i>{Description reflects additional authorized solid fuels.}</i>

1. The provisions of Rule 62-296.320(4)(c) F.A.C., shall apply to all sources of unconfined particulate emissions, including but not limited to vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or related activities such as loading, unloading, storing and handling.

FRI shall follow the following protocol for the unconfined particulate matter (UPM, Fugitive Emissions):

The material handling activities at the plant covered by this protocol include loading and unloading, storage, and conveying of:

- Limestone and overburden
- Iron oxide source (coal ash, iron ore, or other)
- Gypsum
- Coal
- **Petroleum Coke**
- **Fly Ash**

*{Permitting Note: The above condition adds the additional authorized solid fuels (bolded) to the material handling activities covered by the fugitive emissions protocol requirements of Condition 10 of Permit 0010087-001-AC.}*

2. Particulate emissions from coal, **petroleum coke, and fly ash** handling facilities shall be minimized by following the procedures listed in specific condition No. 10 and below: [Rule 62-296.320(4)(c), F.A.C.]
  - a. All conveyers and transfer points shall be enclosed to preclude particulate emissions (except those directly associated with coal/**petroleum coke/fly ash** stacking/reclaiming).
  - b. Coal, **petroleum coke, and fly ash** storage piles shall be shaped, compacted and oriented to minimize wind erosion.

*{Permitting Note: The above condition includes the petroleum coke and fly ash (bolded) handling facilities in the fugitive emissions control requirements of Condition 11 of Permit 0010087-001-AC.}*

## APPENDIX GC

### CONSTRUCTION PERMIT GENERAL CONDITIONS [RULE 62-4.160, F.A.C.]

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

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

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

APPENDIX GC

CONSTRUCTION PERMIT GENERAL CONDITIONS [RULE 62-4.160, F.A.C.]

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

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology (not applicable to project);
  - (b) Determination of Prevention of Significant Deterioration (not applicable to project); and
  - (c) Compliance with New Source Performance Standards (not applicable to project).
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - (c) Records of monitoring information shall include:
    - 1. The date, exact place, and time of sampling or measurements;
    - 2. The person responsible for performing the sampling or measurements;
    - 3. The dates analyses were performed;
    - 4. The person responsible for performing the analyses;
    - 5. The analytical techniques or methods used; and
    - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

TABLE I

## ALLOWABLE OPACITY LIMITATIONS

Stack #	Description	Grain Loading	OPACITY
Emission Unit 1: Raw Material Process Rate = 1,331,000 TPY Dry Feed			
Fugitive	Material Processing		10
Fugitive	Handling and Storage		10
Fugitive	Crusher		15
Emission Unit 2: Raw Mill System Process Rate = 255 TPH Recycle Dust plus Raw Meal (peak)			
E-28	Recycle dust + raw meal to homogenization silo	0.01 gr/dscf	5
G-07	Recycle dust + raw meal to homogenization silo	0.01 gr/dscf	5
H-08	Raw meal + recycle dust to preheater	0.01 gr/dscf	5
Emission Unit 3: Kiln System Process Rate = 364 MMBTU/hr heat input			
E-21	Kiln Operations (ESP)		10
E-21	In-process fuel: coal		10
E-21	In-process fuel: petroleum coke		10
E-21	In-process fuel: fly ash		10
E-21	In-process fuel: natural gas		
E-21	In-process fuel: tires		10
	Petroleum coke (25% of total heat input), tires (30 % of total heat input), fly ash (5% of total heat input).		
Emission Unit 4: Clinker Handling 115 TPH Clinker (peak)			
L-03	Clinker Cooler Discharge and Breaker	0.01 gr/dscf	5
L-06	Clinker into Clinker Silos	0.01 gr/dscf	5
K-15	Clinker Cooler (ESP)		10
Emission Unit 5: Finish Grinding Operations Process Rate = 136 TPH Clinker			
M-08	Clinker to Finish Mill	0.01 gr/dscf	5
N-09	Finish Mill Air Separator	0.01 gr/dscf	5
N-12	Finish Mill	0.01 gr/dscf	5
N-19	Cement Handling in Finish Mill	0.01 gr/dscf	5
Q-25	Cement Storage Silos	0.01 gr/dscf	5
Q-26	Cement Storage Silos	0.01 gr/dscf	5
Emission Unit 6: Cement Handling Process Rate = 500 TPH Cement Unloading			
Q-14	Cement Silo Load-out	0.01 gr/dscf	5
Q-17	Cement Silo Load-out	0.01 gr/dscf	5
Q-21	Cement Silo Load-out	0.01 gr/dscf	5
R-12	Cement Bagging Operation	0.01 gr/dscf	5
Emission Unit 7: Coal Handling and Grinding Process Rate = 14 TPH Pulverized Coal, Petroleum Coke, and Fly Ash			
S-17	Coal and Petroleum Coke Mill	0.01 gr/dscf	5
S-21	Pulverized Coal and Petroleum Coke, and Fly Ash Storage Bin	0.01 gr/dscf	5
Fugitive	Coal, Petroleum Coke, Fly Ash Handling and Storage		5/20

**TABLE II**  
**ALLOWABLE EMISSIONS**

Pollutant	BACT Emission Limit		Emission Rate*		Basis <sup>++</sup>
	lb/ton clinker	lb/ton dry feed	lb/hr	ton/yr	
PM (kiln)	0.23	0.14	25.9	94	BACT
PM <sub>10</sub> (kiln)	0.20	0.12	22.1	80	BACT
PM (cooler)	0.14	0.08	15.4	56	BACT
PM <sub>10</sub> (cooler)	0.12	0.07	13.0	47	BACT
SO <sub>2</sub> (kiln) <sup>+</sup>	0.16	0.10	17.7	64	BACT
NO <sub>x</sub> (kiln)**	2.45	1.50	271	980	BACT
H <sub>2</sub> SO <sub>4</sub> (kiln)	0.0025	0.0016	0.25	1	BACT
CO (kiln)	2.50	1.55	276	1000	BACT
VOC (kiln)	0.11	0.075	11.8	43	BACT

Notes:

- \* The kiln emission rate includes fuel oil combustion emissions from the raw mill air heater.
- \*\* Represents revised NO<sub>x</sub> limit (30-day rolling average) based on continuous monitoring data.
- + Represents revised SO<sub>2</sub> limit (24-hour rolling average) based on compliance tests and continuous monitoring data.
- ++ BACT values are representative of kiln permitted in 1996 and reflective of as-built configuration and not as a new kiln.



SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>X <i>[Signature]</i></p>
<p>1. Article Addressed to:</p> <p>Ms. Cynthia Moore Chestnut Alachua County Board of County Commissioners Post Office Box 2877 Gainesville, Florida 32602</p>	<p>B. Received by (Printed Name) <i>[Signature]</i> C. Date of Delivery <i>10-2-05</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:</p>
<p>2. Article Number (Transfer from service label) <i>7001 0320 0001 3692 1957</i></p>	<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-15-

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

GAINESVILLE FL 32602

Postage	\$ 1.06
Certified Fee	\$2.30
Return Receipt Fee (Endorsement Required)	\$1.75
Restricted Delivery Fee (Endorsement Required)	\$0.00
	\$5.11

Ms. Cynthia Moore Chestnut  
Alachua County Board of County Commissioners  
Post Office Box 2877  
Gainesville, Florida 32602

See Reverse for Instructions

7001 0320 0001 3692 1957

10/2/2005

**SENDER: COMPLETE THIS SECTION**

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

1. Article Addressed to:

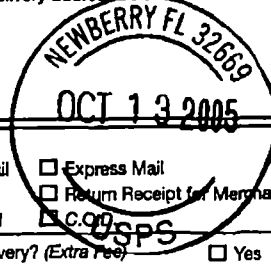
Mr. Chris Horner  
 Florida Rock Industries, Inc.  
 4000 NW CR 235  
 Newberry, Florida 32669

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 *Angel Hunt*  Addressee

B. Received by (Printed Name) *Angel Hunt* C. Date of Delivery

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



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

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number (Transfer from service label) **7001 0320 0001 3692 1964**

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

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

7001 0320 0001 3692 1964

Postage	5
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	

Postmark Here

5 Mr. Chris Horner  
 Florida Rock Industries, Inc.  
 4000 NW CR 235  
 Newberry, Florida 32669

PS Form 3800, January 2001

See Reverse for Instructions