

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF FINAL PERMIT

In the Matter of an  
Application for Permit by:

Mr. Chris Horner  
Plant Manager  
Florida Rock, Inc.  
4000 NW CR 235  
Newberry, Florida 32008

DEP File No. 0010087-012-AC  
Thompson S. Baker Cement Manufacturing Facility  
Alachua County

Enclosed is Final Permit Number 0010087-012-AC. This permit authorizes Florida Rock, Inc. to conduct testing and parameter measurements for the evaluation of flyash and petroleum coke fired with coal at the Florida Rock Industries' Thompson S. Baker Cement Manufacturing Facility, located at 4000 NW County Road 235 in Alachua County, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief  
Bureau of Air Regulation

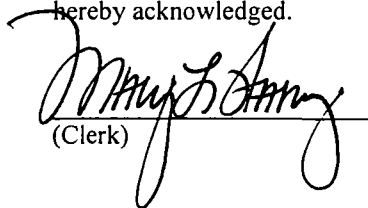
**CERTIFICATE OF SERVICE**

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 mailed by U.S. Mail before the close of business on 12/28/04 to the person(s) listed:

Chris Horner, Plant Manager, Thompson S. Baker Cement Manufacturing Plant  
Henry Gotsch, Environmental Manager, Thompson S. Baker Cement Manufacturing Plant  
John B. Koogler, PhD., P.E., Koogler and Associates  
Christopher Kirts, FDEP- NED  
U.S. EPA, Region 4

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)

12/28/04  
\_\_\_\_\_  
(Date)

## FINAL DETERMINATION

Florida Rock Industries  
Thompson S. Baker Cement Plant  
DEP File No. 0010087-012-AC

The Department distributed a public notice package on November 24, 2004 to allow the applicant to conduct testing and parameter measurements for the evaluation of flyash and petroleum coke fired with coal at the Florida Rock Industries' Thompson S. Baker Cement Manufacturing Facility, located at 4000 NW County Road 235 in Alachua County, Florida. The Public Notice of Intent to Issue was published in The Gainesville Sun on December 6, 2004.

### COMMENTS/CHANGES

Comments were received from the applicant's Consultant, Dr. John Koogler, by letter received on December 6, 2004. Dr. Koogler commented only on the draft permit and not on the Technical Evaluation and Preliminary Determination. The Department determined that minor corrections or changes must be made to the draft permit text to clarify the original requirements. The corrections or changes are summarized below. All corrections and changes are referenced to Section III - Emissions Unit Specific Conditions of the permit.

#### Specific Condition 8a:

##### **From:**

a. The permittee shall conduct stack tests (one for each pollutant) to determine compliance with the existing emissions standards for carbon monoxide and particulate matter. The tests shall be conducted at the maximum production rate during the performance tests.

##### **To:**

a. The permittee shall conduct stack tests (one for each pollutant) to determine compliance with the existing emissions standards for carbon monoxide and particulate matter when 11% flyash and 30% petroleum coke injection rate is reached. The tests shall be conducted at the maximum production rate during the performance tests. If the 11% flyash or 30% petroleum coke firing rate cannot be reached, the carbon monoxide and particulate matter emission measurements shall be conducted at the maximum achievable rates for both the flyash and petroleum coke firing.

In addition to Dr. Koogler's comments, the Department will change the dates for testing from December 15, 2004 through February 15, 2005 to January 3, 2005 through March 3, 2005 to accommodate the 60 day testing timeframe.

### CONCLUSION

The final action of the Department is to issue the permit with the changes described above.



Jeb Bush  
Governor

# Department of Environmental Protection

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

Colleen M. Castille  
Secretary

## FINAL PERMIT

### PERMITTEE

Florida Rock, Inc.  
4000 NW CR 235  
Newberry, Florida 32008

Permit No. 0010087-012-AC  
Cement Plant (SIC No. 3241)  
Flyash and Petroleum Coke  
Testing as Fuels  
Expires: March 3, 2005

*Authorized Representative:*  
Chris Horner, Plant Manager

### PROJECT AND LOCATION

This permit authorizes Florida Rock, Inc. to conduct testing and parameter measurements for the evaluation of flyash and petroleum coke fired with coal at the Florida Rock Industries' Thompson S. Baker Cement Manufacturing Facility, located at 4000 NW County Road 235 in Alachua County, Florida. The UTM coordinates are: Zone 17; 346.9 km E and 3285.0 km N.

### STATEMENT OF BASIS:

This air 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 fuel tests for fly ash and petroleum coke injection capacities in accordance with the conditions of this permit and as described in the application. The permittee shall operate the facility in accordance with the previously approved permits, drawings, plans, and other documents on file with the Florida Department of Environmental Protection ("DEP" or "the Department").

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- Section 1. General Information
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- Section 4. Appendices

Michael G. Cooke, Director  
Division of Air Resource Management

12/27/04  
(Date)

"More Protection, Less Process"

Printed on recycled paper.

## SECTION 1. GENERAL INFORMATION

### **FACILITY AND PROJECT DESCRIPTION**

The plant employs the modern dry process technology including a preheater and calciner along with indirect firing. The dry process preheater/calciner (PH/C) kiln is the most fuel-efficient cement pyroprocessing technology currently in use in the United States. The major equipment at the plant includes the PH/C kiln, a clinker cooler, raw mill, finish mill, silos, conveyers, and particulate control/dust collection and recycling equipment. The cement product is stored in silos and is shipped in bags or in bulk by rail or truck.

FRI has requested an air construction permit for authorization of tests to evaluate the addition of flyash and petroleum coke to the coal fired at the Thompson S. Baker Cement plant in Newberry. This project will allow FRI to evaluate the feasibility of adding flyash and petroleum coke to the coal in the calciner and the kiln. FRI believes that optimization of the rates of addition of flyash and petroleum coke to the coal fired in the kiln and calciner will expand the selection of fuel while improving emissions of THC and CO associated with carbonaceous materials in the feed and allow better NO<sub>x</sub> control by improving reducing-condition controls.

During the test period, flyash, and later, petroleum coke will be added to raw coal for processing in the coal mill and combustion in the kiln burner and calciner. Flyash and petroleum coke will be stored in the existing coal bunker and fed into the coal-feed hopper; coal will be transported on the coal conveyer from the railcar. The blended and crushed materials will be burned in the kiln and calciner. No additional equipment will be required. The test will consist of several phases for each proposed material.

Flyash- Flyash Phase One will be based on 5% flyash (95% coal) for a test run of 72 hours. At the end of the first phase, the flyash addition to the coal will be discontinued. After an evaluation of the results of process, quality and data, Flyash Phase Two will begin. The flyash proportion will be stepped up incrementally to 11% over several hours, and run will last for 72 hours.

Petroleum Coke- Petroleum Coke Phase One will be based on 5% petroleum coke (95% coal). Petroleum Coke Phase Two and Three will be based on 10% petroleum coke (90% coal) and 30% petroleum coke (70% coal), respectively. Periods for step-up, testing, and evaluation, as described for the flyash phases, will be used.

### **EMISSION UNITS**

This permit addresses the following emission units.

<b>EU No.</b>	<b>Emission Unit Description</b>
-003	Kiln System
-xxx	Temporary fly ash and petroleum coke injection into the calciner and kiln

### **REGULATORY CLASSIFICATION**

Title III: Florida Rock Industries, Inc.—Thompson S. Baker Cement Plant is classified as a “Major Source” per 40 CFR 63.2, Definitions (adopted and incorporated by reference by the Department at Paragraph 62-204.800(11)(d)) because it consists of a group of stationary sources located within a contiguous area and under common control that emit or have the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The facility is subject to

## SECTION 1. GENERAL INFORMATION

the Major Existing Source requirements of National Emission Standards for Hazardous Air Pollutants (NESHAP) from the Portland Cement Manufacturing Industry, Code of Federal Regulations (CFR) Title 40, Part 63, Subpart LLL.

Title V: Because potential emissions of at least one regulated pollutant exceed 100 tons per year, the existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOC).

Prevention of Significant Deterioration (PSD): This facility is located in an area (Alachua County) designated as "attainment" for all criteria pollutants. The facility is considered a "Portland Cement Plant," which is one of the 28 PSD source categories with the lower PSD applicability threshold of 100 tons per year (see Table 212.400-1, Rule 62-212.400, F.A.C.). Potential emissions of at least one regulated pollutant exceed 100 tons per year. Therefore, the facility is classified as a Major Facility with respect to Rule 62-212.400, F.A.C.

New Source Performance Standards (NSPS): The facility is subject to: 40 CFR 60 Subpart F, Standards of Performance for Portland Cement Plants; 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants; and 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.

State Rule: Some emissions units are subject to Rule 62-296.701, F.A.C., Portland Cement Plants.

### **RELEVANT DOCUMENTS**

The documents listed below are the basis of this permit. The permit application and additional information referenced are not a part of this permit, but the information is specifically related to this permitting action and the following documents are on file with the Department.

- 0010087-001: AC/PSD 228 issued on 12/23/1996. Initial PSD/Construction Permit for the Newberry Plant.
- 0010087-002-AV: Initial Title V Permit, issued 1/11/2002
- 0010087-003-AC: Issued on 7/17/2000, Incorporated into Project 002-AV; Amended permit to add EPA Test Method 25A to test for VOC Emissions
- 0010087-006-AC: Incorporates project 0-005-AC; Incorporated into 002-AV; Amended permit to increase clinker production rate, preheater feed rate, and emissions limitations modification.
- 0010087-007-AV: Incorporates, National Emission Standards for Hazardous Air Pollutants for Portland Cement Plants, 40 CFR 63, Subpart LLL.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. **Permitting Authority:** All applications for permits to construct or modify an emission unit subject to the Prevention of Significant Deterioration or Nonattainment review requirements should be submitted to the Bureau of Air Regulation, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 (phone number: 850/488-0114). All documents related to applications for permits to operate and minor modifications shall be submitted to the Air Resource Section of the Department's Northeast District Office at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590 (phone number: 904/807-3300).

2. **Compliance Authority:** All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resource Section of the Department's Northeast District Office at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590 (phone number: 904/807-3300).

3. **Appendices:** The following Appendices are attached as part of this permit: Appendix GC (General Conditions). [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 the subject emissions units shall be in accordance with the capacities and specifications stated in the applicable permits and applications. The facility is subject to all applicable provisions of Chapter 403, F.S., Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.; 40 CFR 60 (Subparts A, F, Y, and OOO); and 40 CFR 63 (Subparts A and LLL). The terms used in this permit have specific meanings as defined in the applicable chapters of the 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 permittee 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. **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.]

6. **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.]

### SECTION 3. EMISSION UNIT SPECIFIC REQUIREMENTS

This section of the permit addresses the following existing emissions units.

<b>EU No.</b>	<b>Emission Unit Description</b>
-003	Kiln System
-xxx	Temporary fly ash and petroleum coke injection into the calciner and kiln

#### **FUEL TEST EVALUATION PROGRAM**

1. Relation to Other Permits: The conditions of this permit will supplement and comply with conditions of all existing, valid, Department permits.  
[Rules 62-4.210, 62-4.030, and 62-210.300(1)(b), F.A.C.]

2. Schedule: At least 14 days before beginning the fuel test evaluation, the permittee shall submit to the Permitting and Compliance Authorities a preliminary schedule detailing the program phases, operating scenarios, operational data collection, emissions data collection, and emissions testing protocol. The permittee shall update the schedule as necessary. This includes scenarios listed and not listed in the permittee's application and preliminary determination.

Flyash- Flyash Phase One will be based on 5% flyash (95% coal) for a test run of 72 hours. At the end of the first phase, the flyash addition to the coal will be discontinued. After an evaluation of the results of process, quality and data, Flyash Phase Two will begin. The flyash proportion will be stepped up incrementally to 11% over several hours, and the run will last for 72 hours.

Petroleum Coke- Petroleum Coke Phase One will be based on 5% petroleum coke (95% coal). Petroleum Coke Phase Two and Three will be based on 10% petroleum coke (90% coal) and 30% petroleum coke (70% coal), respectively. Periods for step-up, testing, and evaluation, as described for the flyash phases, will be used.

[Rule 62-4.070(3), F.A.C., Applicable Permit, Applicant Request]

3. Duration: The temporary fuel test evaluation is permitted from December 15, 2004 to February 15, 2005. The temporary fuel test evaluation is limited to no more than 60 operating days and shall end no later than March 3, 2005.

[Applicable Permit, Applicant Request]

4. Operating Scenarios: The permittee shall evaluate the following operating scenarios.

- a. *Case 1*: Inject 5% flyash (95% coal) for a test run of 72 hours
- b. *Case 2*: Incrementally increase the percent of flyash to 11% (89% coal) over several hours, and the run will last for 72 hours.
- c. *Case 3*: Inject 5% petroleum coke (95% coal) for a test run of 72 hours
- d. *Case 4*: Incrementally increase the percent of petroleum coke to 10% (90% coal) over several hours, and the run will last for 72 hours.
- e. *Case 5*: Incrementally increase the percent of petroleum coke to 30% (70% coal) over several hours, and the run will last for 72 hours.

The permittee may evaluate other operating scenarios within the limits of all valid permits. All operation shall be within the electrical, structural, process, and mechanical capabilities of the kiln. If the above specified fly ash injection or petroleum coke rates are not possible, the permittee shall document this with the suspected reason. Whenever injecting flyash or petroleum coke into the kiln or calciner, the permittee shall continuously monitor and record the following information: dry feed material to the preheater (TPH); fuel flow and proportions (coal, flyash and petroleum coke) to the calciner (TPH); heat input rates (MMBtu/hour) to the kiln from each fuel in use; all required CEMS data; and all required COMS data.



### SECTION 3. EMISSION UNIT SPECIFIC REQUIREMENTS

[Rule 62-4.070(3), F.A.C.]

#### **EMISSIONS**

5. Emissions Standards: This permit does not change any emission standards or establish any new emissions standards for the in line kiln system. During the temporary evaluation program, the in line kiln system shall comply with the requirements of all existing, valid Department permits. At no time will there be an increase in production or capacity rates during the test evaluation.

[Rules 62-4.030, 62-4.070(3), 62-210.300(1)(b), F.A.C.; General Conditions, Attachment GC]

6. Unconfined Particulate Emissions: During the evaluation program, unconfined particulate matter emissions shall be minimized by taking the reasonable precautions specified in the current air construction permit, as necessary.

[Rule 62-296.320(4)(c), F.A.C.]

#### **EMISSIONS TESTING AND MONITORING REQUIREMENTS**

7. Test Notification: The permittee shall provide at least a 15-day advance notice of any scheduled stack tests to afford the Compliance Authority the opportunity to witness the tests. If unavoidable circumstances occur that would delay the stack tests, the permittee shall keep the Compliance Authority informed of the delays and the new schedule. At its discretion, the Compliance Authority may allow a shorter advance notice.

[Rule 62-297.310(7)(a)9, F.A.C.]

8. Stack Tests – Within the electrical, structural, process, and mechanical capabilities of the in-line kiln system, the permittee shall conduct the stack tests in accordance with the following provisions.

a. The permittee shall conduct stack tests (one for each pollutant) to determine compliance with the existing emissions standards for carbon monoxide and particulate matter when 11% flyash and 30% petroleum coke injection rate is reached. The tests shall be conducted at the maximum production rate during the performance tests. If the 11% flyash or 30% petroleum coke firing rate cannot be reached, the carbon monoxide and particulate matter emission measurements shall be conducted at the maximum achievable rates for both the flyash and petroleum coke firing.

b. The permittee shall conduct dioxin/furan tests when the 11% flyash and 30% petroleum coke test limits have reached each run for each of the two scenarios performance tests. In addition, the permittee shall conduct dioxin/furan tests if there is a significant change in the feed that was used in the most recent performance test. A change in Loss on Ignition (LOI) value of 30 percent or more shall be considered a significant change in the feed.

c. For mercury, the permittee shall calculate and report mercury emissions in accordance with the procedure specified in the current air construction permit.

d. The permittee shall conduct each required stack test using the methods approved in the current air construction permit. Each required stack test shall consist of at least three test runs.

e. For each required stack test, the permittee shall report the following continuous monitoring data: nitrogen oxides, sulfur dioxide, volatile organic compounds (total hydrocarbons), and opacity.

f. For each required stack test, the permittee shall report the following information: dry feed material to the preheater (TPH); fuel flow and proportions (coal, flyash and petroleum coke) to the calciner (TPH); and heat input rates (MMBtu/hour) to the kiln from each fuel in use.

g. During each day that stack tests are conducted on the kiln and calciner, a representative sample of each fuel used shall be taken and analyzed for the following fuel properties: heating value

### SECTION 3. EMISSION UNIT SPECIFIC REQUIREMENTS

(Btu/lb), moisture (% by weight), nitrogen (% by weight), sulfur (% by weight), chlorides (% by weight), ash (% by weight), and mercury (ppm by weight).

h. During each day that stack tests are conducted on the kiln and calciner, a representative sample of the flyash and petroleum coke injected into the calciner shall be taken and analyzed for the same constituents as preheater feed. In addition, the flyash shall be tested for ammonia, chloride, carbon, loss on ignition (LOI), and mercury.

[Rules 62-4.070(3) and 62-297.310, F.A.C.]

9. Test Procedures: General stack test procedures are summarized in Appendix GT of this permit. [Rule 62-297.310, F.A.C.]

10. Monitoring: During the fuel test evaluation program, the permittee shall continuously monitor and record all information specified by the existing air construction permit including operational parameters, CEMS data, and COMS data. The permittee shall continuously monitor and record all information to verify compliance with the current and valid permit conditions including operational parameters, CEMS data, and COMS data.

[Rule 62-4.070(3), F.A.C.]

### **RECORDS AND REPORTS**

11. Stack Test Reports: The permittee shall prepare and submit reports for all required stack tests in accordance with the requirements in Rule 62-297.310(8), F.A.C. The permittee shall submit a written report that summarizes the results within 45 days of completing each required stack test. All stack test data collected during the temporary testing program shall be submitted for review. For each test run, the report shall also indicate the following information: dry material feed to the preheater (TPH); fuel flow and proportions (coal, flyash and petroleum coke) to the calciner (TPH); clinker production (TPH); heat input rates (MMBtu/hour) from each fuel in use; CEMS and COMS data; and ambient conditions.

12. Fuel, Flyash, and Petroleum Coke Analyses: Within 45 days of taking a fuel, flyash, or petroleum coke sample required by this permit, the permittee shall submit a report detailing the results of the analyses.

[Rule 62-4.070(3), F.A.C.]

13. CEMS Data: The permittee shall provide the Department with data disks containing all CEMS data and production data for the duration of the fuel test. The permittee shall provide a description to decipher and review the data. The data should indicate when the raw mill is on (compound operation) and when it is off.

[Rule 62-4.070(3), F.A.C.]

14. Final Report on the Fuel Test Evaluation Program: Within 90 days of completing the fuel test evaluation program and no later than June 1, 2005, the permittee shall submit a technical report detailing the fuel test evaluation program and its findings. The report shall be comprehensive and include, but not be limited to, the following:

- For each day the plant directly injected flyash and/or petroleum coke into the calciner, an hour-by-hour summary of the following information: dry material feed to the preheater (TPH); fuel flow and proportions (coal, flyash and petroleum coke) to the calciner (TPH); clinker production (TPH); portland cement production (TPH); heat input rates (MMBtu/hour) from each fuel in use; CEMS data; and COMS data.

### SECTION 3. EMISSION UNIT SPECIFIC REQUIREMENTS

- A discussion of any operational problems encountered at the higher authorized rates.
- Details of any mechanical, electrical, structural, and process limitations that were identified during the course of the fuel test evaluation program.

[Rule 62-4.070(3), F.A.C.]

15. Engineering Report on Kiln: Any future applications for permanent production modifications shall include an engineering report describing the full capability of the kiln to use flyash and petroleum coke as fuel while not exceeding current emission rates. The report shall be sealed by professional engineers or other experts as appropriate in structural, mechanical, electrical, process, and environmental disciplines. A single report from the kiln manufacturer would suffice to fulfill this requirement.

[Rule 62-4.070(3), F.A.C.]

**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,

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

(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.

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 noncompliance 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).

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

**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 1- Opacity Limits**

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: tires		10
	Tires (30 % 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

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

K-15	Clinker Cooler (ESP)		10
L-08	Clinker into clinker silos	0.01 gr/dscf	5
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 loadout	0.01 gr/dscf	5
Q-17	Cement silo loadout	0.01 gr/dscf	5
Q-21	Cement silo loadout	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			
S-17	Coal Mill	0.01 gr/dscf	5
S-21	Pulverized coal storage bin	0.01 gr/dscf	5
Fugitive	Coal Handling and Storage		5/20

**Table 2- 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.

## MEMORANDUM

TO: Michael G. Cooke

THRU: Trina Vielhauer

FROM: James K. Pennington 

DATE: December 28, 2004

SUBJECT: FINAL Permit No. 0010087-012-AC  
Florida Rock Industries  
**Thompson S. Baker Cement Plant**

Attached for approval and signature is a final air construction permit for the Thompson S. Baker Cement Plant. This permit authorizes the testing and evaluation of the addition of Flyash and Petroleum Coke to the Coal fired at the Thompson S. Baker Cement Plant.

This project is not subject to PSD because there will be no emissions changes associated with the modification. The facility will be subject to all current emissions limits when firing petroleum coke and flyash as permitted by current Title V Operation Permit.

Comments were received concerning the DRAFT Permit that was clerked on December 6, 2004. Comments were received during the public comment period from the facility's consultant, and incorporated into the specific conditions of the construction permit 0010087-012-AC.

I recommend your approval and signature.

Attachment

TV/jkp/rlb



**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**  
**Plant Manager**  
**Florida Rock, Inc.**  
**4000 NW CR 235**  
**Newberry, Florida 32008**

2. Article Number **7000 1670 0013 3110 2097**  
*(Transfer from service label)*

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  
**X** *Jose M. K...* **NEWBERRY Agent**  
 Addressee

B. Received by (Printed Name) **Angel Hornt** C. Date of Delivery: **JAN 03 2005**

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

PS Form 3811, August 2001

Domestic Return Receipt

102595-02-M-1540

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

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Return Receipt Fee (Endorsement Required)	
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<b>Total Postage &amp; Fees</b>	<b>\$</b>

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Sent To **Mr. Chris Horner**  
 Plant Manager  
 Florida Rock, Inc.  
 4000 NW CR 235  
 Newberry, Florida 32008

PS Form 3800, May 2000 See Reverse for Instructions