

Florida Department of
Environmental Protection

Memorandum

TO: Trina Vielhauer
THRU: Al Linero *aal*
FROM: Cindy Mulkey *CEM*
DATE: November 9, 2005
SUBJECT: Florida Rock Industries (FRI) - Newberry
Finish Mill Throughput Rate Increase
DEP File No. 0010087-0018-AC

Attached is the public notice package for the finish mill throughput rate increase at the existing Florida Rock Industries Cement Plant in Newberry. The project as proposed includes an increase in finish mill throughput from 136 tons per hour cement to 150 tons per hour cement.

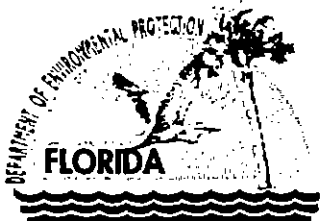
Historically FRI has produced AASHTO and masonry types of cement. Recently FRI has added ASTM type cement to its product line. ASTM allows a limestone content of up to 5 %, as opposed to the 1% limestone allowed by AASHTO. Limestone is easier to grind in the mill; therefore cement containing additional limestone (therefore lower clinker content) is ground more quickly. This, along with kiln operation that minimizes the calcium-silicate crystal size which makes the clinker easier to grind, allows for a faster grinding process, therefore more product through the finish mill system.

No emissions limit or production increases were requested by FRI due to this project. No production equipment or control devices will be changed or affected. Particulate emissions from the baghouses will remain unchanged, and fugitive emissions due to increased truck traffic from the limestone quarry to the limestone/gypsum storage area are estimated to be less than 1 ton per year.

We recommend your approval of the attached Intent to Issue.

AAL/cem

Attachments



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

November 14, 2005

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Chris Horner, Plant Manager
Florida Rock Industries, Inc.
4000 NW CR 235
Post Office Box 457
Newberry, Florida 32399

RE: DEP File No.: 0010087-018-AC
Finish Mill Throughput Rate Increase
Thompson S. Baker Cement Plant

Dear Mr. Horner:

Enclosed is one copy of the Draft Air Construction Permit for the Thompson S. Baker Cement Plant on County Road 235, in Newberry, Alachua County. The Department's Intent to Issue Air Construction Permit, the "Public Notice of Intent to Issue Air Construction Permit", and the Technical Evaluation and Preliminary Determination are also included.

The "Public Notice" must be published one time only as soon as possible in a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of Publication, i.e. newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in denial of the permit modification. The Department reserves the right to publish the Public Notice at anytime. If the Department publishes the Public Notice, the applicant is relieved of this responsibility.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A.A. Linero, Program Administrator, at the letterhead address. If you have any questions regarding this matter, please call Cindy Mulkey at 850/921-8968 or Mr. Linero at 850/921-9523.

Sincerely,

Trina L. Vielhauer, Chief
Bureau of Air Regulation

TLV/cm

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of a
Permit Application by:

Florida Rock Industries, Inc.
4000 N.W. CR 235
Post Office Box 459
Newberry, Florida 32669

DEP File No. 0010087-018-AC
Finish Mill Throughput Rate Increase
Thompson S. Baker Cement Plant
Alachua County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit attached) for the proposed action, detailed in the Technical Evaluation and Preliminary Determination, for the reasons stated below.

The permittee, Florida Rock Industries (FRI), owns and operates the Thompson S. Baker Cement in Newberry, Alachua County. On July 28, 2005 the Department received an application from FRI for a construction permit to allow an increase in the finish mill throughput rate. On September 2, 2005 the Department received a response to a Request for Additional Information.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to allow the described throughput increase.

The Department intends to issue this air construction permit modification based on the belief that the applicant has provided reasonable assurances to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published as soon as possible one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

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 action for a period of 14 (fourteen) days from the date of publication of Public Notice of Intent to Issue Air Construction Permit.

Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit 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.

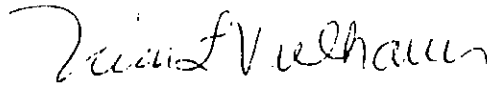
A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. 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. Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief
Bureau of Air Regulation

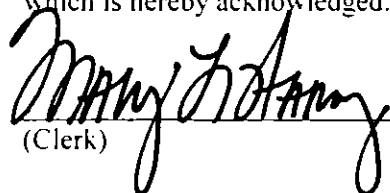
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, and the DRAFT permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 11/14/05 to the person(s) listed:

Chris Homer, FRI*
Henry Gotsch, FRI
William Proses, P.E. Koogler & Associates
Chair, Alachua County Commission
Chris Bird, Alachua County EMD
John Glanzer, Mayor, City of Newberry
Lowell Garrett, City of Newberry
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.

 11/14/05
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

Florida Department of Environmental Protection
DEP File No.: 0010087-018-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 Florida Rock Industries, Inc. (FRI) to allow an increase in the finish mill throughput rate at the Thompson S. Baker Cement Plant located 2.5 miles Northeast of Newberry on County Road 235 in Alachua County. The previously issued Best Available Control Technology (BACT) determination applies to the facility. The applicant's name and address are: Florida Rock Industries, Inc., 4000 NW County Road 235, Post Office Box 457 Newberry, Florida 32699.

Historically FRI has produced AASHTO and masonry types of cement. Recently FRI has added ASTM type cement to its line of available products. ASTM allows a limestone content of up to 5 %, as opposed to the 1% limestone allowed by AASHTO. Cement with higher limestone content (therefore lower clinker content) is easier to grind in the mill. This, along with kiln operation that minimizes the calcium-silicate crystal size which makes the clinker easier to grind, allows for a faster grinding process, therefore more product through the finish mill system. Although a slight increase in cement production could be realized due to this project, a cement process rate increase was not requested.

No emissions limit or production increases were requested by FRI due to this project. No production equipment or control devices will be changed or affected. No changes are requested in the amount of fuel use or raw materials subjected to pyroprocessing in the preheater/calcliner, kiln, or clinker cooler. Particulate emissions from the baghouses will remain unchanged and fugitive emissions due to increased truck traffic from the limestone quarry to the limestone/gypsum storage area are estimated to be less than 1 ton per year.

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.

PERMITTEE

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

Permit No. 0010087-018-AC
Expires: December 31, 2006
Finish Mill Throughput Rate Increase

PROJECT AND LOCATION

This permit authorizes an increase in the finish mill throughput rate from 136 tons per hour to 150 tons per hour of cement 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. The finish mill is presently permitted at an hourly process rate of 136 tons per hour of cement. (0010087-006-AC).

PROJECT

The project as requested is to increase the finish mill process rate from 136 tons per hour to 150 tons per hour of cement. The following emissions units are affected by this permit.

ID No.	Emission Unit Description
005	Finish Grinding Operations. Emissions Unit 005 identifies the Finish Grinding Operations. Fabric filters control particulate matter emissions. Emission Points are identified as follows: (EP02) – Clinker to Finish Mill – M-08, (EP03) – Finish Mill Air Separator – N-09, (EP04) – Finish Mill – N-12, (EP05) – Cement Handling in Finish Mill – N-19, (EP06) – Cement Storage Silos – Q-25, (EP07) – Cement Storage Silos – Q-26.

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_x) 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 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

SECTION I. FACILITY INFORMATION

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;
- 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 July 29, 2005;
- Department's Request for Additional Information, dated August 26, 2005;
- Response to Request for Additional Information submitted by Koogler & Associates, received September 2, 2005; and
- Department's Technical Evaluation and Final Determination dated November 14, 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 003. KILN SYSTEM

This section of the permit addresses the following emissions unit:

ID No.	Emission Unit Description
005	Finish Grinding Operations. Emissions Unit 005 identifies the Finish Grinding Operations. Fabric filters control particulate matter emissions. Emission Points are identified as follows: (EP02) – Clinker to Finish Mill – M-08, (EP03) - Finish Mill Air Separator – N-09, (EP04) – Finish Mill – N-12, (EP05) – Cement Handling in Finish Mill – N-19, (EP06) – Cement Storage Silos – Q-25, (EP07) – Cement Storage Silos – Q-26.

ADMINISTRATIVE REQUIREMENTS

Previous Permit Conditions: This permit authorizes an increase in the finish mill process rate from 136 tons per hour to 150 tons per hour of cement. 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

Finish Mill Process Rate Increase: No physical construction activities will be conducted in association with an increase in the finish mill process rate. [Application]

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 II

ALLOWABLE EMISSIONS

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 = 150 TPH Cement			
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

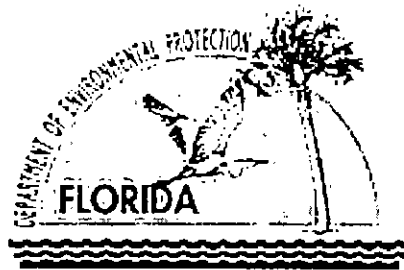
**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

Florida Rock Industries, Inc.
Thompson S. Baker Cement Plant

Portland Cement Manufacturing Facility
Finish Mill Throughput Rate Increase

Alachua County

DEP File No. 0010087-018-AC



Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation

November 14, 2005

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

I. APPLICATION INFORMATION

APPLICANT NAME AND ADDRESS

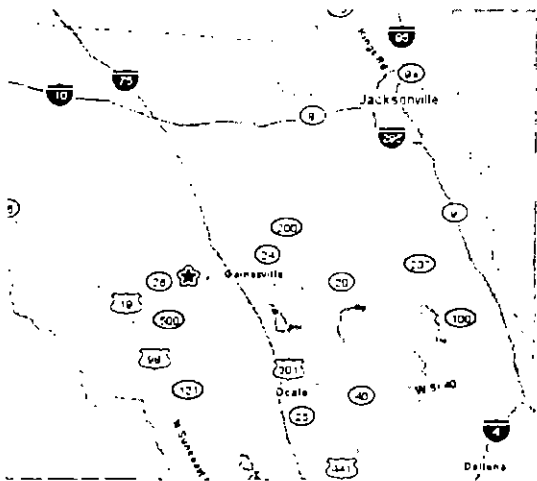
Florida Rock Industries, Inc
4000 NW CR 235
Newberry, Florida 32669
Authorized Representative: Chris Horner, Plant Manager

PROCESSING SCHEDULE

- Received Air Construction Permit Applications July 29, 2005;
- Additional information requested August 26, 2005;
- Received additional information September 2, 2005;
- Intent to Issue Air Construction Permit distributed November 14, 2005.

FACILITY DESCRIPTION AND LOCATION

Florida Rock Industries, Inc. (FRI) owns and operates the Thompson S. Baker Cement Plant on Alachua County Road 235, 2.5 miles northeast of Newberry, Alachua County. The plant has a current capacity of 2,650 tons of clinker per day. A second kiln was approved in June 2005. The location of the Thompson S. Baker Cement Plant is shown in the figures below. The UTM coordinates of the Florida Rock facility are Zone 17, 346.8 km East and 3287.0 km North.



Location of Newberry



Location of Thompson S. Baker Cement Plant

FACILITY CLASSIFICATION CODE (SIC)

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

REGULATORY CATEGORIES

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

Title III HAPS: The 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.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

and is therefore considered a major source of hazardous air pollutants.

Title IV: The facility does not operate any units subject to the Acid Rain provisions of the Clean Air Act.

Title V: The facility is a Title V or "Major Source" of air pollution because the potential emissions of at least one regulated pollutant exceed 100 tons per year or because it is a major source of HAPS. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), and volatile organic compounds (VOC). Rule 62-212.200, Florida Administrative Code (F.A.C.).

PSD: The facility 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 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. Per Table 212.400-2, "Regulated Air Pollutants – Significant Emission Rates", any further modifications at the facility resulting in emissions increases greater than 40 TPY of NO_x or SO₂, 7 TPY of sulfuric acid mist (SAM), 25/15 TPY of PM/PM₁₀, 3 TPY of fluorides, 1200 pounds per year (lb/yr) of lead or 200 lb/yr of mercury require review per the PSD rules and a determination for Best Available Control Technology (BACT) per Rule 62-212.400, F.A.C.

NSPS: This facility is subject to 40 CFR 60, Subparts A, F, Y, and OOO (Standards of Performance for New Stationary Sources – General Provisions, Standards of Performance for Portland Cement Plants, and Standards of Performance for Coal Preparation Plants, and New Source Performance Standards For Nonmetallic Mineral Processing 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).

FRI must submit an application to revise the present Title V operation permit to incorporate the conditions of the proposed air construction permit prior to its expiration.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

II. EXISTING FACILITY

ORIGINAL PROJECT

The Florida Department of Environmental Protection ("Department") issued a permit to FRI in December 1996 to construct the existing facility. 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.

FRI completed construction of the basic plant in late Fall of 1999. The permit was modified in 2001 and 2002 to incorporate the final NO_x control plan, a VOC continuous emission monitoring system (CEMS), final emission limits and final production limits. The plant is presently permitted to make 2650 tons per day (TPD) of clinker with an hourly production rate of 110 TPH (115 TPH peak) and an annual production limit of 800,000 TPY.

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.

Following is a photograph of the constructed plant taken in 2001. Some additional components, visible on the ground, are related to a subsequent project to convert the calciner to a multi-stage combustion (MSC) calciner to facilitate NO_x control and tire introduction.



Florida Rock Industries' Cement Plant in Newberry, Florida

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

PRESENT EMISSION LIMITS

The following table lists the present emission limits for the Finish Grinding Operations.

Emissions – Florida Rock Industries, Newberry, Alachua County

Emission Unit 5: Finish Grinding Operations Process Rate = 136 TPH Cement Output			
Stack #	Description	Grain Loading	Opacity
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

III. APPLICANT REQUEST

No increases in permitted production rates or emissions limitations are requested with this application.

The Department received an application from FRI on July 29, 2005 requesting an increase in the finish mill throughput rate. Additional information in support of the application was received on September 2, 2005. The finish mill currently operates with a maximum hourly throughput rate of 136 tons per hour of cement. The request is to increase this rate to 150 tons per hour of cement. Particulate emissions from each of the emissions points in the FRI finish grinding operation described above are controlled by baghouses. No changes are requested in the amount of fuel use or raw materials subjected to pyroprocessing in the preheater/calcliner, kiln, or clinker cooler.

During the finish grinding process clinker, limestone, and gypsum are ground and mixed together in predetermined amounts to produce different "types" of Portland cement. According to FRI, changes in the types of cement being produced, along with better overall kiln operation have resulted in mixtures that are more readily ground as described in more detail below. This translates into less grinding which means more product can be fed through the finish mill system in an equal amount of time.

The Newberry plant has historically produced AASHTO type cement which allows up to 1 % limestone in the finished product, and masonry type cement which contains up to 20 % limestone. The plant is now also producing ASTM type cement which allows up to 5 % limestone. Because limestone is considerably easier to grind than clinker, the slight decrease in the clinker fraction (due to the increase in limestone) results in a mixture that is more readily ground by the mill.

Kiln operation has an impact on certain clinker properties which in turn, can also have an affect on the grinding process. According to an article by Smart et.al. "Clinker with small crystals and sharp boundaries is easy to grind and gives the cement higher early strength. Crystal growth is influenced strongly by the heat transfer from the flame, favorable conditions being rapid heating from calcining to sintering temperature and sudden quench in the cooler to freeze the crystal structure."¹ Optimization of kiln operation at FRI due to experience gained over time and better burner technology has apparently increased the grindability of the clinker produced by this kiln.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

As stated earlier, no increases in permitted production rates or emissions limitations are requested with this application. The plant is operated with hourly, daily, and annual clinker production limitations. The cement handling operation is limited by a process rate of 500 TPH cement unloading. The increase in the finish mill throughput rate alone could effectively increase cement production over short periods, but overall cement production would still be limited by clinker production. The increase in the limestone fraction of the cement could result in an overall increase in cement production, however the facility is not requesting an increase in the cement handling process rate.

This throughput rate increase gives the facility flexibility in managing their stored materials and improves the efficiency of the grinding process. The facility may also realize an increase in capital gains due to the cheaper limestone fraction entering some of the cement and less energy spent on grinding.

IV. POTENTIAL EFFECTS OF PROJECT ON EMISSIONS

PARTICULATE MATTER

Particulate Emissions from the Baghouses: An increase in the finish mill throughput rate could mean an increase in the amount of particulates created within the finish mill system due to the increased amount of materials being ground.

Particulate emissions from the baghouses controlling the finish mill are based on an outlet grain loading of 0.01 grains per dry standard cubic foot and the air flow through the baghouses. As outlined in the information supplied by Koogler & Associates for FRI, outlet grain loading should remain unchanged assuming that the characteristics of the particulate matter in the gas stream remain unchanged, and that the baghouses' air-to-cloth ratios are in an acceptable range, and they are properly maintained². An increase in the inlet grain loading does not mean an increase in outlet grain loading.

Also included in the submittal by Koogler & Associates is a letter from GE confirming the filter bags at the FRI, Newberry plant will achieve 0.01 gr/dscf based on good maintenance, control and operating practices, regardless of an inlet grain loading increase.³

There is no reason to expect PM emissions increases from the baghouses caused by an increase in the finish mill throughput rate.

Fugitive Particulate Emissions: Greater amounts of limestone being added to the cement will result in increased truck traffic from the quarry to the gypsum/limestone storage area. Fugitive particulate matter emissions, due to the extra truck traffic at the facility, are estimated to be well below one ton per year.

Limestone mined at the quarry contains approximately 10 % moisture when received at the plant storage area. As a result, almost no fugitive emissions will be realized from the handling of the additional limestone.

The project will result in negligible amounts of fugitive particulate emissions and will not cause a significant net emissions increase requiring PSD review and a BACT determination.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

V. CONCLUSION

An increase in FRI's finish mill throughput rate will result in increased efficiency of the grinding process, while allowing FRI more flexibility in the final handling and management of their stored materials used for the final cement mixture.

No production or emissions increases of any consequence will result in this throughput rate change.

The Department concludes that the proposed projects will not cause or contribute to a violation of ambient air quality standards or allowable increases.

Conditions incorporating the proposed changes are shown in the attached draft permit for this modification.

Cindy Mulkey, Permit Engineering Specialist

A. A. Linero P.E., Program Administrator

VI. REFERENCES

- ¹ Article. Smart, F.P., P.J. Mullinger, and Barrie Jenkins. "A Perfect Model?: The correct modeling of the combustion process in rotary kilns can help lower costs, increase profits, and reduce the environmental impact", *Cement Americas*, 1998.
- ² Response to Additional Information. Koogler, J., Koogler & Associates to Al Linero, FDEP. *Florida Rock Industries, Inc., Finish Mill Throughput Increase*, September 1, 2005.
- ³ Letter, Winston, A., GE to Henry Gotsch, FRI. *Filter Bag Efficiency*, August 31, 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
 Post Office Box 459
 Newberry, Florida 32669

2. Article Number
 (Transfer from service label)

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COMPLETE THIS SECTION ON DELIVERY

A. Signature
 X *Angel Hunt* Agent Addressee

B. Received by (Printed Name)
Angel Hunt

C. Date of Delivery

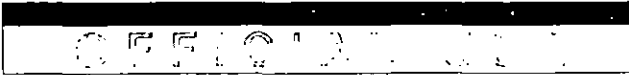
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