


Memorandum

Florida Department of Environmental Protection

TO: Trina Vielhauer
THROUGH: Al Linero 
FROM: Robert Hodges
DATE: September 11, 2006
SUBJECT: Florida Rock Industries (FRI) - Newberry
Selective Non-Catalytic Reduction (SNCR) – Kiln 1
DEP File No. 0010087-021-AC

Attached is the Intent to Issue package for the installation of a selective non-catalytic reduction (SNCR) system for the control of NO_x on Kiln No. 1 at the existing Florida Rock Industries Cement Plant in Newberry. The project as proposed requests no change in either production rates or emission limits. The key production limit is 110.2 TPH of clinker on a daily basis. On an annual basis, this equates to 963,600 TPY.

The plant has an annual production cap of 800,000 TPY, therefore they operate and will continue to operate at annual production rates that are significantly less than what they could theoretically produce if they did not have this cap.

According to the company they do not expect to realize NO_x emission increases or increases in collateral emissions. This will allow them run the calciner in an oxidizing environment and without burning tires if they wish while meeting the same relatively recent (2002) BACT determination. It will allow them to operate more smoothly and with less startups and shutdowns from flushing of blockages presently caused by the maintenance of a reducing environment in the calciner.

The more oxygen used to support combustion in the calciner, the less CO formation. On the other hand, the SNCR system may tend to create some CO. The reasonable expectation is that CO and NO_x emissions will remain unchanged. However a permit is still required in accordance with our most recent rules at Paragraph 62-210.300, F.A.C (Permits Required).

“Unless exempted from permitting pursuant to paragraph 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., or unless specifically authorized by provision of Rule 62-210.300(4), F.A.C., or Rule 62-213.300, F.A.C., the owner or operator of any facility or emissions unit which emits or can reasonably be expected to emit any air pollutant shall obtain an appropriate permit from the Department prior to beginning construction, reconstruction pursuant to 40 CFR 60.15 or 63.2, modification, or the addition of pollution control equipment; etc.”

The NO_x reduction systems (SNCR or Staged Combustion or Tire Burning or combinations) will be used at all times to comply with the 2002 BACT of 2.45 lb NO_x/ton of clinker. The purpose of the SNCR system is not, e.g., to intermittently lower emissions for the purpose of generating or avoiding the purchase of NO_x allowances.

We recommend your approval of the attached Intent to Issue.

AAL/rh

Attachments



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: (850) 488-0114 FAX: (850) 922-6979

Colleen M. Castille
Secretary

September 14, 2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Chris Horner, Plant Manager
Florida Rock Industries, Inc.
4000 NW CR 235
Post Office Box 45
Newberry, Florida 32399

RE: DEP File No.: 0010087-021-AC
Selective Non-Catalytic Reduction (SNCR)
Thompson S. Baker Cement Plant Kiln 1

Dear Mr. Horner:

Enclosed is one copy of the Draft Air Construction Permit to install a selective non-catalytic reduction (SNCR) system at 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.

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 Robert Hodges at 850/414-7268 or Mr. Linero at 850/921-9523.

Sincerely,

Trina L. Vielhauer, Chief
Bureau of Air Regulation

TLV/aal/rh

Enclosures

In the Matter of:

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

DEP File No. 0010087-021-AC
Selective Non-Catalytic Reduction System
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 enclosed) for the proposed action, detailed in the referenced application and the enclosed Technical Evaluation and Preliminary Determination, for the reasons stated below.

The permittee, Florida Rock Industries, Inc. (FRI), applied on May 24, 2006, to install a Selective Non-Catalytic Reduction system for the purpose of controlling nitrogen oxides emissions at the Thompson S. Baker Cement Plant in Newberry, Alachua County.

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 proposed changes are not exempt from permitting procedures. The Department has determined that an air construction permit is necessary for the described project.

The Department intends to issue this air construction permit based on the belief that the permittee has provided reasonable assurances to indicate that operation of these emission units as indicated herein 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 permittee) 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 permittee 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 permittee 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 850/921-9533). 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. 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 permittee 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 permittee 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.

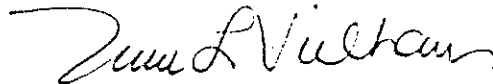
A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the 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.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

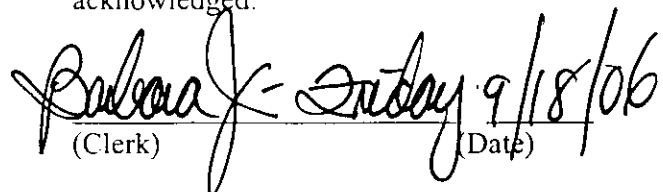
The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction permit (including the Public Notice, Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by certified mail (*) and copies were mailed by electronic mail before the close of business on 9/18/06 to the person(s) listed:

Chris Horner, FRI*
Chair, Alachua County BCC*
Mayor, Newberry*
Director, Alachua County EMD*
Rob Brinkman, Suwannee-St. John's Sierra Club

Lowell Garret, City of Newberry*
Henry Gotsch, FRI (e-mail)
John Koogler, P.E. (e-mail)
Jim Little, EPA Region 4 (e-mail)
Chris Kirts, DEP NED (e-mail)

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) Sunday 9/18/06 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

Florida Department of Environmental Protection

Florida Rock Industries, Inc.
Selective Non-Catalytic Reduction System
Thompson S. Baker Cement Plant - Newberry
Alachua County

DEP File No.: 0010087-021-AC

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit to Florida Rock Industries, Inc. (FRI) to install a selective non-catalytic reduction (SNCR) system to control nitrogen oxides (NO_x) emissions at the Thompson S. Baker Cement Plant located on 4000 NW CR 235 in Newberry, Florida. The permittee's name and address are: Florida Rock Industries, Inc., 4000 NW CR 235, Newberry, Florida 32669.

FRI controls NO_x emissions through staged fuel combustion in the calciner in a reducing atmosphere and by introduction of tires at the kiln inlet. FRI will add an SNCR system to inject aqueous ammonia solutions (9-19 percent NH₃) between the calciner and the lowest preheater cyclone when operating the calciner in an oxidizing atmosphere or when tires are not introduced. The SNCR system may also be used in combination with the existing controls.

The plant complies with a NO_x emission limit of 2.45 pounds per ton clinker that was determined to be best available control technology (BACT) in 2002. FRI tested the SNCR technology at the plant in December 2004 under a permit issued by the Department and was able to meet the permitted limits. No changes in emissions are expected due to the new installation.

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 fourteen (14) days from the date of publication of this 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. 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.

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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) 921-9533

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 Draft Air Construction Permit, Technical Evaluation and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Program Administrator for the South Permitting Section, Bureau of Air Regulation, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call Rob Hodges at 850/414-7268 for additional information. The draft permit as well as original permit and BACT determinations and any other permitting actions to-date can be viewed at: www.dep.state.fl.us/Air/permitting/construction/flock.htm

**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

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

Portland Cement Manufacturing Facility
Selective Non-Catalytic Reduction Installation on Kiln 1

Alachua County

DEP File No. 0010087-021-AC



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

September 14, 2006

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 Application on May 24, 2006
- Received letter waiving 90 day permit processing clock on August 14, 2006
- Intent to Issue Air Construction Permit distributed September 13, 2006

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 on Kiln 1. 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.

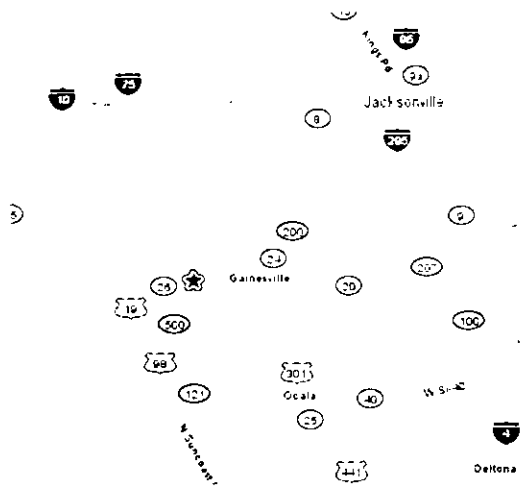
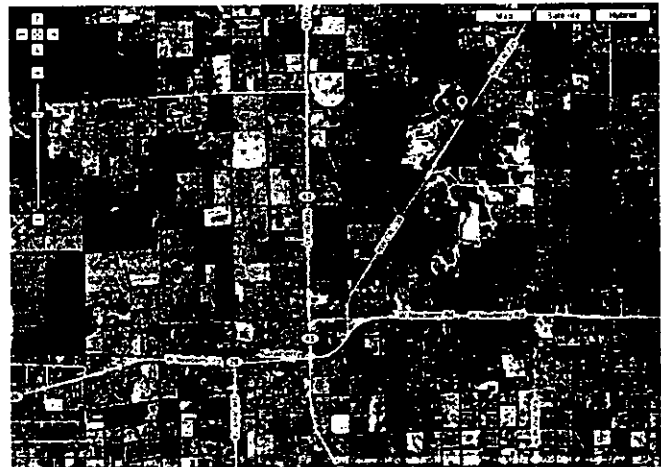


Figure 1. Location of Newberry



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

The following regulatory classifications apply to the subject facility:

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Title I, Section 111, Clean Air Act (CAA): This facility is subject to certain Standards of Performance for New Stationary Sources. They are adopted and incorporated by reference in Rule 62-204.800, F.A.C. These include:

- 40 CFR 60, Subpart A - General Provisions.
- 40 CFR 60, Subpart F - Standards of Performance for Portland Cement Plants. Certain requirements from Subpart F are replaced by requirements from 40 CFR 63, Subpart LLL listed below.
- 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation Plants.
- 40 CFR 60, Subpart OOO - New Source Performance Standards For Nonmetallic Mineral Processing Plants.

Title I, Section 112 CAA: The facility has the potential to emit 10 tons per year or more of any one hazardous air pollutant (HAP) or 25 tons per year or more of any combination of HAPs. This facility is subject to the Major Source provisions of:

- 40 CFR 63 Subparts A - National Emission Standards for Hazardous Air Pollutants – General Provisions.
- 40 CFR, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry.

Title I, Part 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., Prevention of Significant Deterioration.

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

Title V, CAA: 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).

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

II. EXISTING FACILITY

The Florida Department of Environmental Protection ("Department") issued a permit to FRI in December 1996 to construct a Portland cement plant. 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 110.2 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.

The following Figure is of a PH/C kiln that, with the exception of the calciner, approximates the one installed at FRI. The calciner arrangement at Florida Rock is shown separately as a diagram within the large diagram. Tires (mechanism not shown) are also introduced at the kiln inlet.

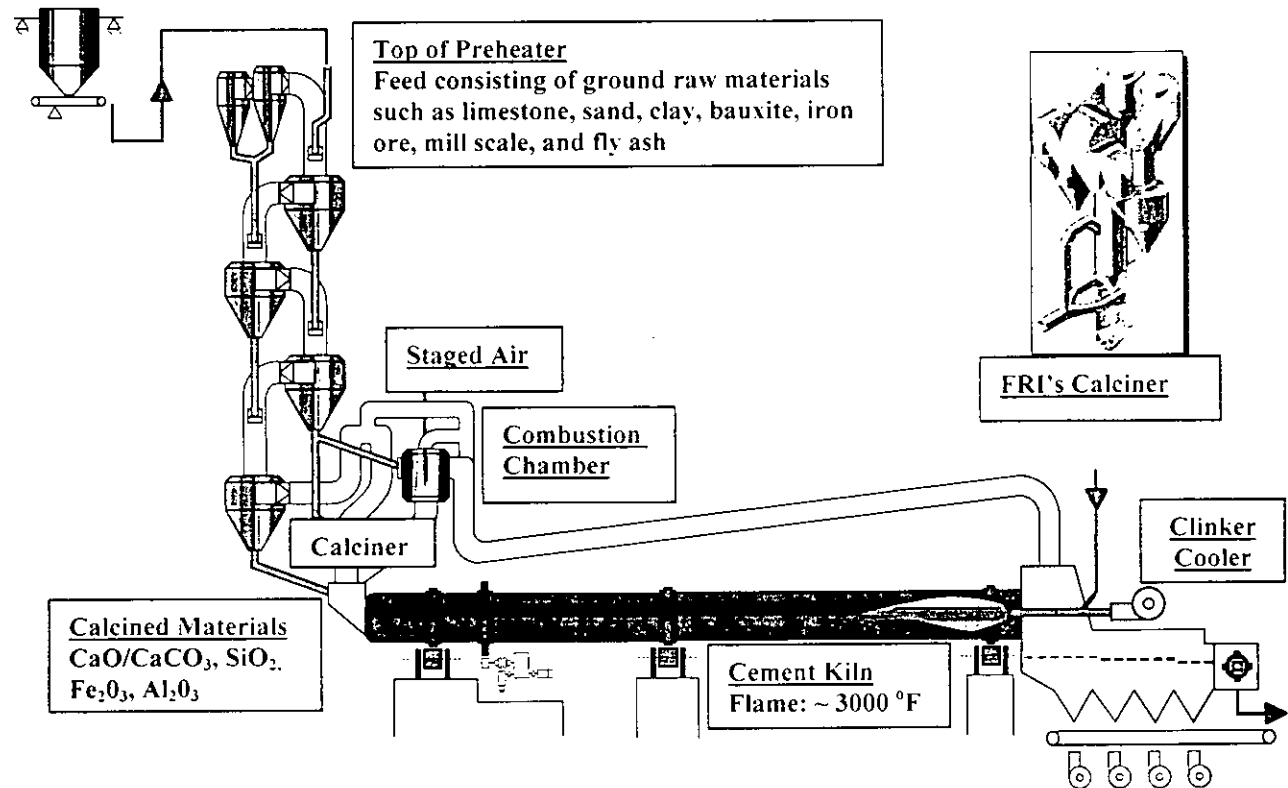


Figure 2. Diagram of Dry Process Cement Kiln with Preheater and Staged Air Calciner

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Raw meal is finely divided dried material that includes sources of calcium, silica, iron and aluminum. These sources can include limestone, sand, clay, bauxite, iron ore, mill scale, and fly ash. It is continuously weighed on feed scales and introduced at the top of the preheater tower as shown in the diagram. As it falls through the preheater it is contacted and progressively heated by exhaust gases from the calciner and kiln.

The calciner has a separate horizontally mounted burner that provides the necessary heat to drive off carbon dioxide from the limestone converting it to free lime ($\text{CaCO}_3 = \text{CaO} + \text{CO}_2$). The calciner operates at a temperature in the range of 900 to 1000 degrees Celsius ($^{\circ}\text{C}$) and burns coal. Tires are burned near the kiln inlet and reduce the load on the kiln and calciner burners.

The calcined materials enter the kiln where they are further heated and transformed into nodules of clinker. These exit the kiln near the main kiln coal burner that operates at the temperature necessary to make good clinker. This could be on the order of approximately $1,650^{\circ}\text{C}$. The clinker falls into the cooler where it is cooled by ambient air.

The heated air from the clinker cooler is used as secondary air to support combustion at the kiln burner and is also conveyed along a tertiary air duct to support combustion in the calciner.

Cooled exhaust gases leaving the preheater go through the raw mill (not shown) where the remaining heat is used to dry incoming coarse raw materials. As the raw materials are ground they are lifted by the exhaust gas flow and conveyed to the main electrostatic precipitator (ESP - not shown) that also serves the purpose of a particulate control device. The finely divided dry material in the baghouse is conveyed to storage silos and then weighed and introduced into the process at the top of the preheater as discussed above.

Following is a photograph of the constructed plant taken in 2001.

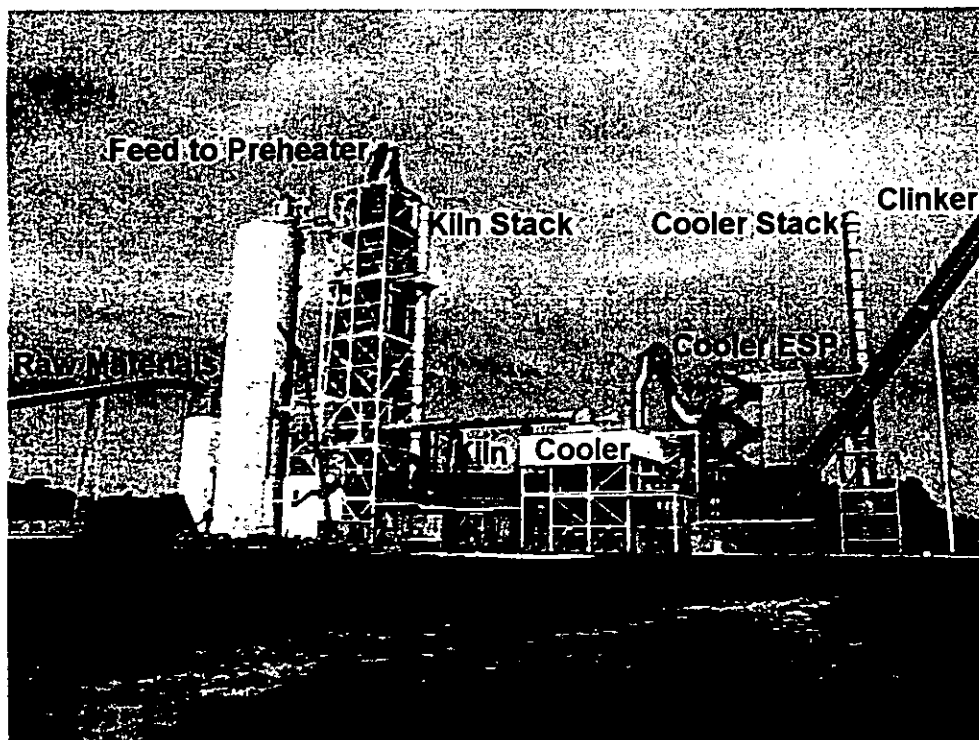


Figure 3. Florida Rock Industries' Cement Plant in Newberry, Florida

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

III. APPLICATION PROPOSAL

FRI requested an air construction permit to install a Selective Non-Catalytic Reduction (SNCR) system on Kiln 1 as a means to provide greater control in kiln NO_x formation and emissions and flexibility in kiln operating parameters. The process utilizes injection of ammonia near the lowest preheater cyclone. The equipment consists of a storage tank, piping, pumps, compressed air and one or more injectors.

The following diagram illustrates the typical equipment needed for permanent ammonia (NH₃) solution storage and piping at a power plant. The cement plant requirements are similar. Initially, FRI will use tanker trucks for storage.

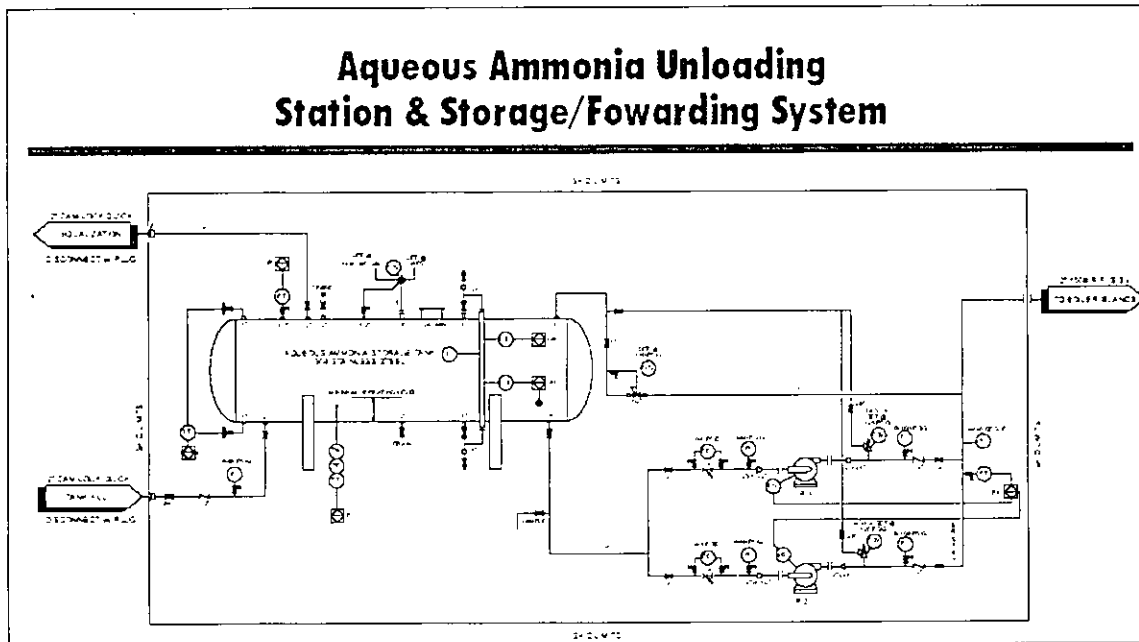


Figure 4. Diagram of Typical SNCR Ammonia Storage and Piping/Pumping System

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

IV. SELECTIVE NON-CATALYTIC REDUCTION PROJECT

The selective non-catalytic reduction (SNCR) project is for the purpose of providing greater control in kiln NO_x formation and emissions as well as flexibility in kiln operating parameters. The system is an alternate control strategy for meeting the applicable BACT determination made by the Department in December 2002.

Although there is a lot of recent experience with application of SNCR to cement plants in Europe, there is little experience with this technology at cement plants in the United States. Since March 2005, the nearby Suwannee American Cement has operated using SNCR, adhering to permitted emissions with regards to NO_x and Ammonia slip. Prior to reviewing the technology, it is useful to describe the original NO_x control strategy at FRI.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

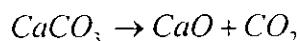
Present Staged Combustion NO_x Technology at FRI

Florida Rock has a staged air and fuel calciner as shown in the small diagram within previous Figure 2 on Page 4. The calciner burner is horizontally mounted approximately halfway up the calciner vessel. Instead of using a kiln inlet burner as shown in the diagram, FRI introduces tires at the kiln inlet.

The principle of operation of staged combustion calciner at FRI is as follows:

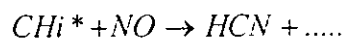
NO_x-containing exhaust gas leaving the kiln is characterized by excess air and high temperature that is less than required to sinter cement but greater than required to calcine raw meal.

Equation 1. Calcination of limestone occurs at approximately 900 degrees Celsius (°C) and liberates carbon dioxide to produce lime according to the following endothermic reaction:



This reaction tends to rapidly cool the kiln exhaust gas. The additional heat supplied by the calciner burner and tires and tertiary air sustains the reaction. This tends to limit the temperature of exhaust gases in and leaving the calciner to temperatures less than 900 °C. Combustion in the calciner proceeds as follows.

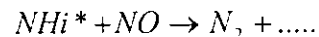
Equation 2. Fuel, such as a volatile coal, is heated and pyrolyzed releasing hydrocarbon radicals. These, in turn, *catalytically* react with NO to form hydrogen cyanide according to:



Where:

$$i = 1, 2, 3$$

Equation 3. Ammonia-like radicals are also released during pyrolysis and, under reducing conditions in the presence of raw meal, destroy NO according to:



This reaction suppresses formation of NO by the pyrolyzed fuel nitrogen and reduces NO_x in a manner that looks similar to the mechanisms of SNCR and SCR.

Other reactions involving carbon monoxide (CO) or hydrogen (H₂) are also *catalytically* driven and destroy NO_x in a reducing atmosphere. In the subsequent burning of soot and char, the NO_x reducing reactions proceed much more slowly and some of the remaining fuel nitrogen can form additional NO_x.

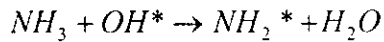
This technique (staged fuel and air combustion in the calciner) is used to meet the requirements of the December 2002 BACT determination.

Mechanisms of Selective Non-Catalytic Reduction (SNCR)

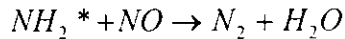
NH₃ in the form of ammonia water or urea is injected at a point in the process characterized by a suitable temperature window between 850 and 1050 °C depending on residence time, turbulence, oxygen content, and a number of other factors specific to the given gas stream. SNCR destroys NO_x by a two-step process as follows:

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

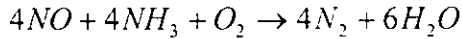
Equation 4. Ammonia reacts with available hydroxyl radicals to form amine radicals and water per the following theoretical equation:



Equation 5. Amine radicals combine with nitrogen oxides to form nitrogen and water.



Equation 6. The two steps are typically expressed as a single "global reaction".



The simplified equation does not convey the kinetics. But it suggests that, theoretically, SNCR will function best in an oxidizing atmosphere.

Equation 7. In a reducing atmosphere, CO competes with ammonia for available OH radicals

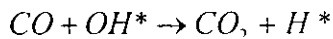


Figure 5 shows that the necessary temperature window exists at least between the kiln inlet and the bottom cyclone that receives the exhaust from the calcination section. The physical extent of the window for oxidizing conditions depends on the damper positions for the tertiary air branches for the shown calciner design. In selecting a level (or levels) for ammonia injection there must be some optimization of temperature and oxygen.

Based on the foregoing, ammonia should be injected after introduction of tertiary air. There may also be favorable injection points closer to the kiln inlet if oxidizing conditions exist in the calciner. However if fuel nitrogen oxidation is not complete, then additional NO_x may be formed and avoid treatment by ammonia.

The following figure shows the range of temperature and oxidizing/reducing conditions prevalent in a calciner such as used at FRI. Theory and practice suggest that the best overall injection point should occur in the ductwork between the tubular section and the cyclones shown in the following diagram.

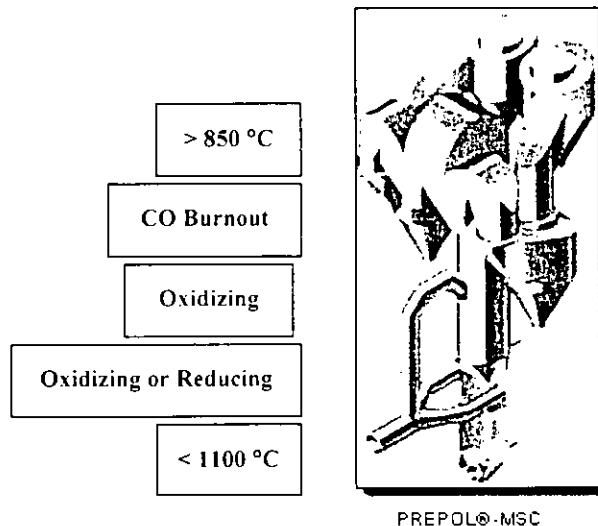


Figure 5. Temperature and Oxidizing Windows for SNCR in a Staged Combustion Calciner.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

SNCR Testing at FRI

On November 8, 2004 the Florida Department of Environmental Protection (FDEP) issued Air Construction Permit 0010087-011-AC to FRI, authorizing tests to assess the viability of SNCR in controlling NO_x emissions produced in the main kiln. These tests were conducted during the period December 6-11, 2004.

The Polysius Corporation designed the tests, supplied the equipment for the injection of ammonia, and provided personnel to operate the equipment. Additionally, Polysius monitored and reported the ammonia injection rates and the stack gas concentrations of NO_x and oxygen.

The following diagram shows some of the equipment and test points for a very similar test program conducted program also designed by Polysius at the nearby Suwannee American Cement Plant. Not shown is the metering system or the additional continuous emission monitoring equipment.

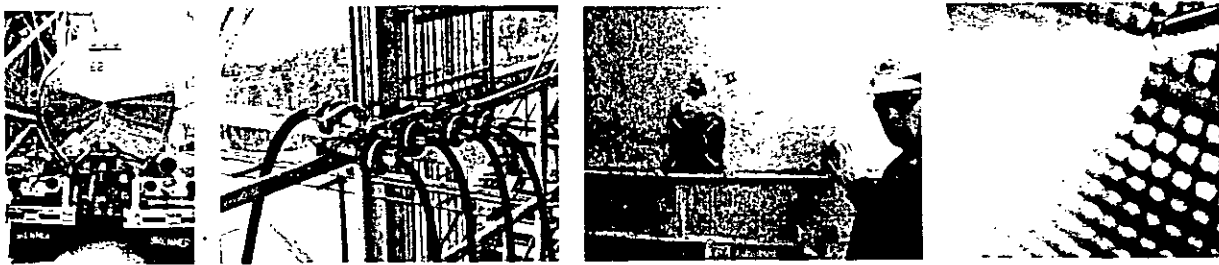


Figure 6. Aqueous Ammonia Supply Truck, Compressed Air, One of Four Ports, an Injector

At the FRI tests, plant personnel were responsible for operating the plant, reporting plant operating data and operating continuous emissions monitors for NO_x, SO₂, total hydrocarbons, and stack gas flow located in the kiln/raw mill stack. The consultant, Koogler & Associates, provided an engineer to oversee the tests and to monitor NH₃ and CO in the kiln/raw mill stack. The summary report is available at: www.dep.state.fl.us/Air/permitting/construction/flock.htm

The Department reviewed the report and summarized the performance of the SNCR system in the graphs shown in the figure below. The graph on the left hand side represent the performance of the SNCR system while burning tires and maintaining mildly reducing or mildly oxidizing conditions in the calciner.

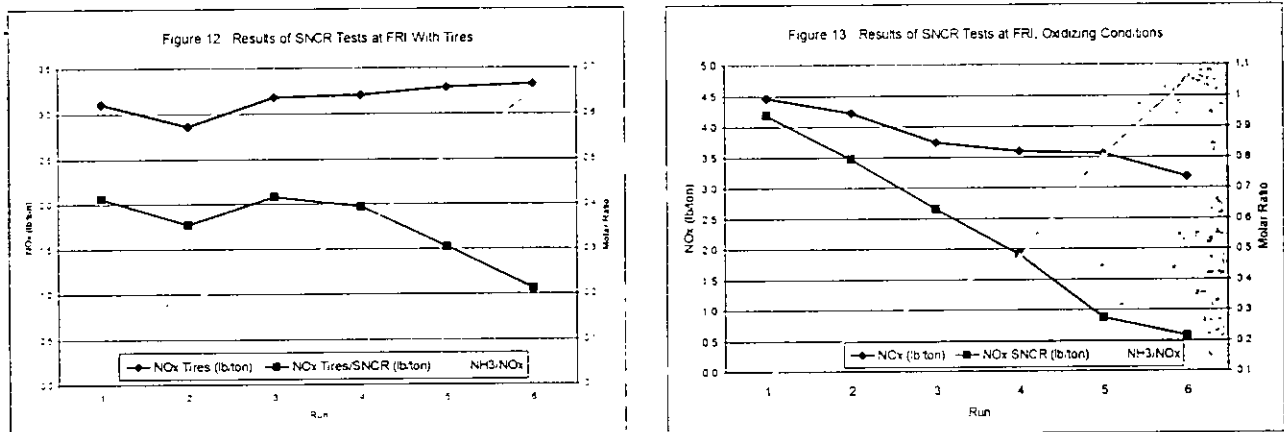


Figure 5. NO_x Emissions (middle lines) vs. Molar Ratio (lower lines) during Testing at FRI.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

NO_x emissions prior to NH₃ injection are the values represented by the top (blue) line and range from 2.9 to 3.3 lb/ton clinker reference to the axis on the left. The middle (reddish) line represents NO_x emissions after injection of NH₃ at varying molar ratios (i.e. NH₃/NO_x). The bottom (yellow) line represents the molar ratio for the given trial. Emissions ranged from 1 to 2 lb/ton clinker for molar ratios between 0.65 and 0.11. The target emission limit of 2.45 can be met with minimal NH₃ usage. This is convenient because there should be very low NH₃ emissions (slip).

Separate tests were conducted for the case when no tires were combusted and the calciner was maintained in an oxidizing atmosphere. These are summarized in the graphs on the right hand side. NO_x emissions prior to NH₃ injection range from approximately 3.2 to 4.5 lb/ton clinker.

After NH₃ injection, emissions ranged from approximately 0.6 to 3.5 lb/ton clinker for molar ratios between 1 and 0.2. In this case, the target limit of 2.45 can be met at a molar ratio of approximately 0.4.

The key point is that the target emission rate can be met with relatively low NH₃ usage. This insures minimal CO increase or NH₃ slip. Any small CO increases will likely be offset by reductions caused by maintaining less aggressive reducing conditions (and possibly even oxidizing conditions) in the calciner.

The Department concludes that there is no reason to expect emission increases at the injection rates needed to comply with the present permit limits. The SNCR system is capable of reducing emissions to values less than the present tire introduction and staged combustion system. The SNCR can be used in conjunction with or in lieu of the present system to insure compliance with the permitted limit. It is an additional control strategy to the existing staged combustion system and will allow additional flexibility in achieving BACT.

V. APPLICABLE RULES

The Department has determined that the project is not a pollution control project to control one pollutant with collateral emission increases of other pollutants. Also it is not a pollution control project to control emissions where little or no controls presently exist. In fact at the present time the tire introduction and staged combustion in the calciner (with an aggressive reducing atmosphere) achieve good emission reductions to approximately 2 lb/ton of clinker. The SNCR system is expected to perform as well.

The Department does not expect actual emission increases of any pollutant, therefore the project is not a modification as described in 62-210.200 (Definitions). However a permit is still required in accordance with paragraph 62-210.300 that states:

"Unless exempted from permitting pursuant to paragraph 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., or unless specifically authorized by provision of Rule 62-210.300(4), F.A.C., or Rule 62-213.300, F.A.C., the owner or operator of any facility or emissions unit which emits or can reasonably be expected to emit any air pollutant shall obtain an appropriate permit from the Department prior to beginning construction, reconstruction pursuant to 40 CFR 60.15 or 63.2, modification, or the addition of pollution control equipment: etc."

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

VI. SPECIAL CONDITIONS FOR SNCR

Because SO₂ emissions are minimal from cement kilns in Florida, very little particulate matter can be formed by reaction with excess NH₃ emissions (slip). Although there is no reason to inject as much NH₃ as it takes to react with all NO_x, the Department will limit the maximum NH₃ injection rate to that level, at a molar ratio of 1.0. This equates to approximately 150 pounds per hour of ammonia (as 100% ammonia) assuming pretreatment emissions of 4 lb/ton of clinker. The actual delivered aqueous ammonia solutions will be in the range of 9 to 19 percent ammonia.

FRI will use the SNCR system at its option and is still required to retain the staged combustion calciner and the capability of operating the calciner in a reducing atmosphere in accordance with their previous construction permits and present Title V Operation Permit.

VII. ADDITIONAL COMMENTS

The Department's preliminary determination is based only on the facts presented by FRI and the Department rules sufficient to evaluate the proposed project.

Furthermore the Department's determination is strictly limited to this specific case and should not be used as a precedent for other cases, or lead to unintended consequences construed from the language contained in this determination. Ultimately, it is the Department that interprets its own regulations and opinions.

PERMITTEE

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

DEP File No. 0010087-021-AC
Expires: June 30, 2007
Thompson S. Baker Cement Plant
Selective Non-Catalytic Reduction System

PROJECT AND LOCATION

This permit authorizes Florida Rock Industries, Inc. to install a Selective Non-Catalytic Reduction (SNCR) system on Kiln No. 1 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

Joseph Kahn, Acting Director
Division of Air Resource 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.

Kiln No. 1 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 115.2 tons per hour (0010087-006-AC). A second line (Kiln No. 2) is presently under construction.

PROJECT

The project is to install a Selective Non-Catalytic Reduction (SNCR) system on Kiln No. 1. SNCR is a nitrogen oxides control technology. The purpose of the project is to provide an alternate/backup/additional control technology at the facility to achieve compliance with the best available control technology (BACT). This can be used in conjunction with or in lieu of the strategy of staged combustion in the calciner and tire introduction at the kiln inlet.

The process utilizes injection of ammonia solutions near the lowest preheater cyclone. The equipment consists of a storage tank, piping, pumps, compressed air and one or more injectors. No increases in previously-permitted production rates or emissions limitations are requested with this application.

REGULATORY CLASSIFICATION

Title I, Section 111, Clean Air Act (CAA): This facility is subject to certain Standards of Performance for New Stationary Sources. They are adopted and incorporated by reference in Rule 62-204.800, F.A.C. These include:

- 40 CFR 60, Subpart A - Standards of Performance for New Stationary Sources – General Provisions.
- 40 CFR 60, Subpart F - Standards of Performance for Portland Cement Plants. Certain requirements from Subpart F are replaced by requirements from 40 CFR 63, Subpart LLL listed below.
- 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation Plants.
- 40 CFR 60, Subpart OOO - New Source Performance Standards For Nonmetallic Mineral Processing Plants.

Title I, Section 112 CAA: The facility has the potential to emit 10 tons per year or more of any one hazardous air pollutant (HAP) or 25 tons per year or more of any combination of HAPs. This facility is subject to the Major Source provisions of:

- 40 CFR 63, Subpart A - National Emission Standards for Hazardous Air Pollutants – General Provisions.
- 40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry.

Title I, Part 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., Prevention of Significant Deterioration.

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

SECTION I. FACILITY INFORMATION

Title V, CAA: 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).

RELEVANT DOCUMENTS

- Original Air Construction Permit AC01-267311 (renumbered 0010087-001-AC) issued in December 1996 (as amended in August 2001). Also known as PSD-FL-228.
- Construction permit modification (PSD-FL-228B and 0010087-004-AC) issued on August 20, 2001, to extend the permit expiration date to December 31, 2001, install VOC monitor, and install multi-stage combustion (MSC) calciner.
- Current Title V Operation Permit 0010087-002-AV issued January 11, 2002.
- Construction Permit modification (PSD -FL-228C and 0010087-006-AC) issued on December 11, 2002.
- Selective Non-Catalytic Reduction Test Report dated February 2, 2005.
- Application submitted by Florida Rock and received by the Department on May 24, 2006.
- Technical Evaluation and Preliminary Determination issued on September 14, 2006.

DRAFT

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
003	Kiln system. The kiln system (or pyroprocessing system) includes the 156.5 foot kiln (Kiln No. 1), a four-stage preheater tower, a 25,300 cubic foot multi-stage combustion (MSC) calciner, a tire feed system, a selective non-catalytic reduction (SNCR) system, two coal burners and ancillary equipment. Particulate emissions are controlled by an electrostatic precipitator.

ADMINISTRATIVE REQUIREMENTS

Previous Permit Conditions: The following conditions are in addition to those of the previous air construction permits and the facility Title V Operation Permit. 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.]

SPECIFIC CONDITIONS

1. The owner or operator may install and operate a selective non-catalytic reduction (SNCR) system, including an aqueous ammonia tank, pumps, piping, compressed air delivery, injectors, control system, and other ancillary equipment. Aqueous ammonia solution will be injected at a location(s) in the preheater/calciner with an appropriate temperature profile to support the SNCR process. [Applicant Design]
2. The SNCR system shall be designed, constructed and capable of achieving the previously permitted limit of for NO_x emissions from the pyroprocessing system. [62-4.070, F.A.C.]
3. The SNCR system may be operated in conjunction with or in lieu of operation of the existing MSC calciner in a reducing atmosphere or tire injection system for the purposes of meeting the applicable NO_x limit. [Applicant Request, Rule 62-210.650, F.A.C.]
4. Upon malfunction or unavailability of the SNCR system, the operator shall, as soon as practicable, effect a reducing atmosphere in the calciner or inject tires as needed to maintain NO_x control. [Rule 62-210.650, F.A.C.]
5. The concentration of stored ammonia solutions shall be between 9 and 19 percent (%) by weight. [Applicant Request]

{Note: The limitation to 19% avoids the requirement to prepare a Risk Management Plan pursuant to Section 112r of the Clean Air Act for this activity}

6. The ammonia injection rate shall not exceed 150 pounds per hour (1-hour block as 100% ammonia) in order to minimize ammonia emissions (slip). To demonstrate compliance, the owner or operator shall continuously monitor and record the ammonia injection rate. The injection rate of ammonia solution measured in terms of volumetric flow rate shall be converted to pounds per hour as 100% ammonia.

{Note: the maximum ammonia injection rate is equivalent to an NH₃/NO_x molar ratio of 1.0 presuming baseline uncontrolled NO_x emissions of 4 lb/ton of clinker.}

SECTION IV. GENERAL CONDITIONS

- 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.

SECTION IV. GENERAL CONDITIONS

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)
 - (c) Compliance with National Emission Standards for Hazardous Air Pollutants (not applicable to this project); and
 - (d) 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.

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 7000 1670 0013 3110 1113
 (Transfer from service label)

COMPLETE THIS SECTION ON DELIVERY

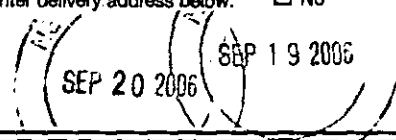
A. Signature Agent Addressee
[Handwritten Signature]

B. Received by (Printed Name) *Chris Horner* C. Date of Delivery *SEP 19 2006*

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

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

4. Restricted Delivery? (Extra Fee) Yes



U.S. Postal Service
CERTIFIED MAIL RECEIPT
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7000 1670 0013 3110 0991

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total P _c		
Sent To	Mr. Chris Horner	
Street, Ap	Florida Rock Industries, Inc.	
City, State	4000 NW CR 235	
	Post Office Box 459	
	Newberry, Florida 32669	

PS Form 3800, May 2000 See Reverse for Instructions

COMPLETE THIS SECTION ON DELIVERY

A. Signature *[Signature]*
 B. Received by (Printed Name) *Joy Garrett*
 C. Date of Delivery
 D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

SENDER: COMPLETE THIS SECTION

1. Article Addressed to:
 Mr. Lowell Garrett
 City of Newberry
 Post Office Box 369
 Newberry, Florida 32669

2. Article Number (Transfer from service label) *0601 011E C100 0291 000L*

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

4. Restricted Delivery? (Extra Fee) Yes

102595-02-M-1540

Domestic Return Receipt

PS Form 3811, February 2004

2. Article Number (Transfer from service label) *7000 1670 0013 3110 0918*

Domestic Return Receipt

102595-02-M-1540

3. Service Type

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

4. Restricted Delivery? (Extra Fee) Yes

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:

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature *[Signature]*
 Agent
 Addressee
 B. Received by (Printed Name) *[Signature]*
 C. Date of Delivery *9-20-06*
 D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

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

OFFICIAL USE

Postage	\$	
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

Postmark Here

Total P

Sent To
 Street, A
 City, Sta

Mr. Lowell Garrett
 City of Newberry
 Post Office Box 369
 Newberry, Florida 32669

0601 011E C100 0291 000L

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

OFFICIAL USE

Postage	\$	
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

Postmark Here

Total P

Sent To
 Street, Ap
 City, State

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

7160 011E C100 0291 000L

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addressee *Rob Brinkman*

B. Received by (Printed Name) *Rob Brinkman*

C. Date of Delivery *02/11/04* Yes No

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

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:

Chris Bird
 Director of Alachua Co. Department
 Of Environmental Regulation
 201 SE 2nd Ave., Ste. 201
 Gainesville, FL 32601

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addressee *Kay Prozo*

B. Received by (Printed Name) *Kay Prozo*

C. Date of Delivery *2/11/04*

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

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

4. Restricted Delivery? (Extra Fee) Yes No

2. Article Number *7000 1670 0013 3110 0925*
 (Transfer from service label)
 PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

2. Article Number *5480 0113 3100 0791 0006*
 (Transfer from service label)
 PS Form 3811, February 2004 Domestic Return Receipt

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. Rob Brinkman
 915 NE 29th Avenue
 Gainesville, Florida 32609

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

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	

Postmark Here

Total Postage: *0291 0006*

Sent To: *Mr. Rob Brinkman*
 Street, Apt: *915 NE 29th Avenue*
 City, State: *Gainesville, Florida 32609*

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

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	

Postmark Here

Total Postage: *0291 0006*

Sent To: *Chris Bird*
 Street: *Director of Alachua Co. Department*
 City, S: *Of Environmental Regulation*
201 SE 2nd Ave., Ste. 201
Gainesville, FL 32601

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:

Mayor John Glanzer
 City of Newberry
 Post Office Box 369
 Newberry, Florida 32669

2. Article Number 7000 1670 0013 3110 1106
 (Transfer from service label)

COMPLETE THIS SECTION ON DELIVERY

A. Signature  Agent
 Addressee

B. Received by (Printed Name) Jay Glanzer C. Date of Delivery

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

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

4. Restricted Delivery? (Extra Fee) Yes

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

7000 1670 0013 3110 1106

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	

Postmark
 Here

Total P
 Sent To Mayor John Glanzer
 City of Newberry
 Post Office Box 369
 Street, # Newberry, Florida 32669
 City, Sta