



# Department of Environmental Protection

Jeb Bush  
Governor

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

David B. Struhs  
Secretary

July 2, 2001 (Replaces Letter of June 8, 2001)

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John D. Baker, President  
Florida Rock Industries, Inc.  
155 East 21st Street  
Jacksonville, Florida 32206

RE: DEP File No.: 0010087-003-AC/PSD-FL-228A  
Thompson S. Baker (Newberry) Cement Plant

Dear Mr. Baker:

We received a letter dated June 1, 2001 from Oertel, Hoffman, Fernandez & Cole, P.A. requesting a letter from the Department modifying the Draft Air Construction Permit Modification that we sent you on January 26. On June 8, 2001, we enclosed one copy of the revised Draft Air Construction Permit Modification for the Thompson S. Baker Cement plant on County Road 235, in Newberry, Alachua County.

Enclosed is a further revision of the Draft Air Construction Permit Modification. We have corrected the second footnote to Table II, Allowable Emissions, to reflect that the compliance demonstration with the 2.8 lb/ton limit for NO<sub>x</sub> shall be submitted by Florida Rock by February 15, 2002 (rather than 2001). We also corrected page 3 of the draft permit modification to reflect Specific Condition 5 (rather than Specific Condition 6), Table II (Revised). We now show an expiration date of July 31, 2001 instead of June 30, 2001.

We understand that the changes in the enclosed Draft Air Construction Permit Modification were reviewed by Florida Rock and are acceptable to Florida Rock. The changes reflected in the enclosed Draft Permit Modification will represent our Intent to Issue upon your withdrawal of your requests for extension of time to file a petition. No additional public notice is required.

If you have any questions regarding this matter, please call Al Linero at 850/921-9523.

Sincerely,

C.H. Fancy, P.E., Chief  
Bureau of Air Regulation

CHF/al

Enclosure

"More Protection, Less Process"

Printed on recycled paper.



**DRAFT**

Date

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John D. Baker, President  
Florida Rock Industries, Inc.  
155 East 21st Street  
Jacksonville, Florida 32206

RE: DEP File No. 0010087-003-AC (PSD-FL-228A)  
Newberry Cement Plant – Permit Modification

Dear Mr. Baker:

The Department reviewed your July 17, 2000 request and the additional information subsequently submitted to extend and modify the referenced construction permit.

The existing permit also requires that the Department set certain emission limits based on test data. The Department has received sufficient data to set the final sulfuric acid mist limit, but does not yet have sufficient data to set final sulfur dioxide and beryllium limits.

The existing permit is hereby modified as follows:

**EXPIRATION DATE**

The expiration date is hereby extended until July 31, 2001. All physical construction required to make cement and to conduct initial testing is complete. This permit modification authorizes further work only for replacement or addition of continuous emission monitoring equipment and conversion of the precombustor to a Low NO<sub>x</sub> Multi-Stage Combustion (MSC) calciner to meet the lower nitrogen oxides emission limit as described in Table II of the original permit. All additional construction related to installation of the MSC shall be completed by December 31, 2001 under the compliance plan of the Title V Permit.

**SPECIFIC CONDITION 4 (First Paragraph)**

Fuels fired in the pyroprocessing system (kiln and combustor) shall not exceed a total maximum heat input of 364 MMBtu/hr and shall consist only of coal, (usage rate shall not exceed 14.0 TPH), whole tires, propane, and unused No. 2 fuel oil which may also be fired in the Raw Mill Air Heater. Propane usage is limited to startup and in lieu of tires in the first stage of the MSC. All fuel usage shall be in compliance with the following limits and conditions: [Rule 62-210.200(225), F.A.C.]

**SPECIFIC CONDITION 4.b. (Revised)**

Whole tires may be used as an alternate fuel. Such tires shall be fed into the kiln system at the transition section between the base of the precalciner and the point where gases exit the kiln. The tire feeder mechanism shall ~~have a double airlock, vertical and horizontal guillotine gates, and a ram~~ consist of a rotary feeder, which seals the tire entry point from the atmosphere. The permitted feed rate shall not exceed 109.2 MMBtu/hr (30% of total kiln fuel input) or 4.2 TPH (approximately 400 tires per hour) and 36,792 TPY. Before initiating tire firing, the gases exiting the kiln ahead of the calciner burner shall be maintained at a minimum of 1,440 degrees F for at least one hour.

SPECIFIC CONDITION 5, TABLE I (Revised)

Attached Table I is hereby modified to reflect the following as-constructed details:

- Dust Collector E- 29 is eliminated as the dust from that transfer point and is now vented back into the kiln/raw mill ESP (collector E-19 and Emission Point E-21).
- Dust Collector M-07 is eliminated because of the redesign of the discharge system of the clinker storage silos.
- Dust Collector N-14 is renamed N-19, and still serves the same function in the finish mill.
- Dust Collector Q-27 is eliminated by inter-venting the four Portland cement silos through a single dust collector. A separate baghouse still exists on the cement silo used for masonry cement.

SPECIFIC CONDITION 5, TABLE II (Revised)

The final H<sub>2</sub>SO<sub>4</sub> emission limit and the compliance details for the lower NO<sub>x</sub> limit of 2.8 pounds per ton of clinker are shown in Revised Table II.

SPECIFIC CONDITION 6 (Revised)

With respect to conducting manual stack tests, the relevant language in Specific Condition 6 is modified as follows:

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

[Rule 62-297.310(2)(b), F.A.C.]

If the kiln is tested while firing less than 30% tires, subsequent operation is limited to 110% of the percentage of tires burned during the test, not to exceed 30% of the total heat input. Once the kiln is so limited, then operation at greater tire burning rates (with prior notification provided to the Department) is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. Operation at greater tire burning rates (with prior notification provided to the Department) is also allowed for no more than 45 consecutive days in conjunction with installation and testing of the MSC. [Rule 62-297.310(2)(b), F.A.C.]

SPECIFIC CONDITION 6.a. (New)

Permittee shall install, calibrate, maintain and operate a continuous emission monitoring system (CEMS) in the kiln/raw mill stack to measure and record the emissions of total hydrocarbons (THC as propane) to provide reasonable assurance that the facility will continue to meet the VOC emission limit established by permit. The CEMS shall be installed, certified, operated and maintained in accordance with Performance Specification 8A of Appendix B, 40 CFR 60. The CEMS shall be used in conjunction with a flow rate sensor certified in accordance with Performance Specification 6 of Appendix B, 40 CFR 60 to calculate THC emission rates. The owner or operator shall report no later than the 15th day following each calendar quarter a summary of the 30-day rolling average THC emission rates reported by the CEMS for the days of that calendar quarter to the Department's Northeast District Office. The daily averages used to compute the 30-day rolling averages shall also be provided in the summary. These results should be reported as pounds per hour of THC, and pounds of THC per ton of clinker. [Rule 62-4.070, F.A.C.]

**SPECIFIC CONDITION 6.b. (New)**

Permittee shall conduct quarterly beryllium tests on emissions from the kiln/raw mill stack by June 30, September 30, and December 31, 2001 using the methods described in Specific Condition 6. Test reports shall be submitted to the Department's Northeast District Office and the Bureau of Air Regulation in Tallahassee within 45 days after conducting the tests.  
[Rules 62-212.400 and 62-4.070, F.A.C.]

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

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

Executed in Tallahassee, Florida.

\_\_\_\_\_  
Howard L. Rhodes, Director  
Division of Air Resources  
Management

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this order was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on \_\_\_\_\_ to the person(s) listed:

John D. Baker, FRI\*  
Fred W. Cohrs, FRI  
Chris Kirts, DEP NED  
Pat Reynolds, DEP NED, Gainesville  
Chair, Alachua County Commission\*  
Chris Bird, Alachua County EPD

Segundo J. Fernandez, Esq., OHF&C\*  
W. Douglas Beason, Esq., DEP OGC  
David Schwartz, Esq., Alachua County\*  
James J. Konish, Esq., FPLW\*  
Arthur Saarinen\*  
Rob Luna, NCFGP\*

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)

\_\_\_\_\_  
(Date)

Table I Allowable Opacity Limitations  
Florida Rock Industries

Stack #	Description	Grain Loading	OPACITY
Emission Unit 1: Raw Material Process Rate = 1,211,250 TPY Processed			
Fugitive	Material Processing		10
Fugitive	Handling and Storage		10
Fugitive	Crusher		15
Emission Unit 2: Raw Mill System Process Rate = 212 TPH Raw Materials			
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/heat input			
E-21	Kiln Operations (ESP)		10
E-21	In-process fuel: coal		10
E-21	In-process fuel: tires		10
	Tires (30 % of total heat input)		
Emission Unit 4: Clinker Handling Process Rate = 95.83 TPH Clinker			
L-03	Clinker cooler discharge and breaker	0.01 gr/dscf	5
L-06	Clinker into clinker silos	0.01 gr/dscf	5
K-15	Clinker Cooler (ESP)		10
Emission Unit 5: Finish Grinding Operations Process Rate = 136 TPH Cement Output			
M-08	Clinker to finish mill	0.01 gr/dscf	5
N-09	Finish mill air separator	0.01 gr/dscf	5
N-12	Finish mill	0.01 gr/dscf	5
N-19	Cement handling in finish mill	0.01 gr/dscf	5
Q-25	Cement storage silos	0.01 gr/dscf	5
Q-26	Cement storage silos	0.01 gr/dscf	5
Emission Unit 6: Cement Handling Process Rate = 500 TPH Cement Unloading			
Q-14	Cement silo loadout	0.01 gr/dscf	5
Q-17	Cement silo loadout	0.01 gr/dscf	5
Q-21	Cement silo loadout	0.01 gr/dscf	5
R-12	Cement bagging operation	0.01 gr/dscf	5
Emission Unit 7: Coal Handling and Grinding Process Rate = 14 TPH Pulverized Coal			
S-17	Coal Mill	0.01 gr/dscf	5
S-21	Pulverized coal storage bin	0.01 gr/dscf	5
Fugitive	Coal Handling and Storage		5/20

**Table II**  
**Allowable Emissions**  
**Florida Rock Industries**

Pollutant	Bact Emission Limit		Emission Rate *		Basis
	lb/ton clinker	lb/ton dry feed	lb/hr	ton/yr	
PM (kiln)	0.31	0.20	30.00	110.50	BACT
PM <sub>10</sub> (kiln)	0.26	0.17	25.50	93.93	BACT
PM (cooler)	0.16	0.10	14.99	55.70	BACT-NSPS
PM <sub>10</sub> (cooler)	0.13	0.09	12.71	47.34	BACT
SO <sub>2</sub> (kiln) <sup>+</sup>	0.28	0.18	28.82	108.55	BACT
NO <sub>x</sub> (kiln)**	2.80	1.80	268.30	1018.00	BACT
H <sub>2</sub> SO <sub>4</sub> (kiln)	<u>0.0025</u>	<u>0.0016</u>	<u>0.25</u>	<u>1</u>	BACT
CO (kiln)	3.60	2.30	346.38	1288.60	BACT
VOC (kiln)	0.12	0.08	11.55	42.90	BACT
Beryllium	TO BE DETERMINED BY FUTURE STACK TESTS				BACT

Notes:

- \* The kiln emission rate includes fuel oil combustion emissions from the raw mill air heater.
- \*\* After startup and until December 31, 2001, the kiln shall not exceed a NO<sub>x</sub> limit of 3.8 lb/ton clinker and 2.8 lb/ton clinker thereafter (30-day rolling average). A compliance demonstration with the 2.8 lb/ton limit for the first 30-day period following December 31 (January 1-30, 2002) shall be submitted by Florida Rock to the Northeast District Office by February 15, 2002. The Department may revise the limit to less than 2.8 lb/ton clinker (30-day rolling average) based on continuous emission monitoring data covering the period January 1-March 31, 2002 to be submitted by Florida Rock to the Department's Northeast District by April 15, 2002.
- + The Department may revise the SO<sub>2</sub> limit to less than 0.28 lb/ton clinker based on compliance test and continuous monitoring data.