



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

4APT-AEB

NOV 09 1995

RECEIVED

NOV 13 1995

BUREAU OF
AIR REGULATION

Mr. Clair H. Fancy, P.E.
Chief
Bureau of Air Regulation
Florida Department of Environmental
Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Florida Crushed Stone Company (FCSC), Brooksville,
Hernando County, Florida (PSD-FL-227)

Dear Mr. Fancy:

This is to acknowledge receipt of your preliminary determination and draft Prevention of Significant Deterioration (PSD) permit for the proposed major modification to the above referenced Portland cement manufacturing facility by your letter dated October 3, 1995. Detailed emission calculations, as well as the basis of the calculations, including references and a summary of the November 13-21, 1991, stack test results, were received by your letter dated July 11, 1995. Process flow diagrams, as well as detailed process descriptions and vehicular traffic emissions estimates, are also included in the above package. A chemical analysis of raw materials and additives likely to be used at the FCSC Brooksville facility, as well as control equipment vendor design specifications for the material handling system pulse jet baghouses, were also received by your letter dated August 22, 1995.

The proposed major modification consists of the addition of a second dry process cement kiln. Capacities of both existing and proposed cement kilns will be identical, 600,000 tons per year (TPY) of cement each. The daily production capacity of the proposed Portland cement manufacturing facility will be 1,992 tons per day (TPD) of clinker. The new kiln will be preheated with fuel oil, fired with coal as the primary fuel, and utilize tires as supplemental fuel. The kiln will utilize a direct-fired pulverized coal and oil burner designed specifically for cement kilns. The maximum utilization rate for tires as supplemental fuel will not exceed fifteen percent of the total heat input to the cement kiln. Both kilns will use the same existing storage and material handling equipment.

As discussed between Ms. Teresa Heron of your staff and Mr. Stan Kukier of my staff on October 19, 1995, we have reviewed the package as submitted and have no adverse comments.

Process control and good combustion practices may be considered representative of Best Available Control Technology (BACT) for control of nitrogen oxides (NO_x) and carbon monoxide (CO) emissions from the proposed FCSC cement kiln. Process design may also be considered BACT for control of kiln sulfur dioxide (SO₂) emissions. Inherent dry lime scrubbing of exhaust gases by both the Portland cement dry preheater process and alkaline baghouse filter cake will minimize cement kiln SO₂ emissions. Since no other more stringent control alternatives exist for control of point source cement kiln, clinker cooler, and material handling particulate emissions, fabric filtration may also be considered BACT.

Rotary cement kiln NO_x and SO₂ emission limits have been reduced approximately fifty percent from those originally proposed by the applicant. Permit conditions limit kiln particulate matter (PM) emissions to 0.20 pounds PM per ton of feed (dry basis). The 40 CFR Part 60, Subpart F - Standards of Performance for Portland Cement Plants kiln PM emission standard of 0.30 pounds PM per ton of feed (dry basis) was originally proposed as BACT by the applicant. The kiln NO_x emission rate limit of 2.5 pounds per ton (lbs/ton) of clinker is identical to the lowest NO_x emission rate limit determined BACT and achieved in practice for a United States portland cement plant kiln to date (Lone Star Industries, Davenport, California). The kiln SO₂ emission rate limit of 0.27 lbs/ton of clinker is based on a review of recent cement kiln BACT determinations for several other dry process manufacturing facilities located in Florida. Kiln SO₂ removal efficiency is primarily dependent upon the sulfur/alkali ratio in the kiln and the contact between raw material and exhaust gas. A kiln NO_x emission rate limit of 3.1 lbs/ton of clinker has recently been permitted as BACT for both Florida Mining and Materials (PSD-FL-188) and Great Star Cement facilities located in Hernando County, Florida, and Clark County, Nevada, respectively. Selective non-catalytic reduction (SNCR) technology is utilized for control of kiln NO_x emissions at the Nevada Great Star Cement facility. The kiln NO_x emission rate limit of 2.5 pounds per ton (lbs/ton) of clinker is also identical to the NO_x emission rate limit recently determined BACT for a new Florida Rock Industries, Inc., cement kiln (PSD-FL-228). The Florida Department of Environmental Protection (FDEP) will require the use of add-on control technology if the 2.5 lbs/ton of clinker NO_x emission rate limit is not met. Information provided by FCSC indicates that the concentration of particulate matter in all material handling, conveying, and storage system baghouse exhaust gas streams will not exceed 0.01 grains per dry standard cubic foot (gr/dscf). Cement kiln dust collected in the kiln/cooler baghouse will be recycled to the

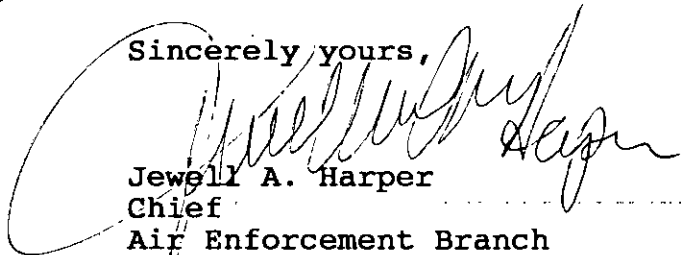
production process as a raw material supplement. Other permit requirements include the use of continuous emission monitoring (CEM) equipment to demonstrate source compliance with kiln NO_x and SO₂ emission limits.

Fugitive emissions from coal handling and bin activities will be minimized using covered conveying systems and baghouses. All dry raw materials, as well as intermediate and final products within the Brooksville cement plant will be transferred using enclosed mechanical or pneumatic conveyor systems, screw conveyors, or enclosed elevators. All enclosed conveying systems will be operated under negative pressure and vented to baghouses. A combination of wet suppression methods, sweeping, surfactant application, paving/washing of roads, and quarry mix moisture content will minimize fugitive particulate emissions from material handling and vehicle traffic. The sulfur content of the coal will be limited to 0.76 weight percent.

The new FCSC cement kiln will be subject to the requirements of 40 CFR Part 60, Subpart F - Standards of Performance for Portland Cement Plants.

Thank you for the opportunity to comment on this package. If you have any questions, please contact Mr. Stan Kukier of my staff at (404) 347-3555, voice mail box extension 4143.

Sincerely yours,



Jewell A. Harper
Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

cc: Teresa Heron
Buck Owen
Bill Thomas
Doug Beason
Lawrence Jennings
Don Elias
Lawrence Curtain
Tom Mountain
Cleve Holladay

Law Offices

HOLLAND & KNIGHT

315 South Calhoun Street
P.O. Drawer 810 (ZIP 32302-0810)
Tallahassee, Florida 32301

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904-224-7000
FAX 904-224-8832

FACSIMILE

TO: Clair Family - - DEP

922-6979
NAME COMPANY/FIRM

CITY STATE

FAX NUMBER TELEPHONE NUMBER

FROM:

LAWRENCE N. CURTIN 904/425-5678
NAME TELEPHONE NUMBER

TOTAL NUMBER OF PAGES

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If you did not receive all of the pages or find that they are illegible, please call

(904) 425-5045

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PAID BY: AMOUNT:

FILE #: CLIENT NAME:

CONFIRMED: YES NO NAME: TIME:

705-78500

FCS

PROPOSED PERMIT CONDITION LANGUAGE

If data from testing conducted within 24 months of the initiation of commercial operation of the facility indicates an inability to meet the nitrogen oxide emission limitation, the Permittee may request that the Department reevaluate the Best Available Control Technology determination for nitrogen oxide. If requested by Permittee, the Department will evaluate the appropriateness of the averaging time for this emission limit, and the appropriateness of the emission limit itself, in light of the testing information that has been obtained. Any determination may by the Department pursuant to this paragraph is subject to the provisions of Chapter 120, Florida Statutes. Upon the finalization of the Department's determination pursuant to this paragraph, permittee shall, to the extent required, submit a compliance schedule to the Department for approval. Such schedule shall contain sufficient detail, with appropriate milestones of progress, to demonstrate that the facility will be in compliance with the nitrogen oxide emission limitation not later than 18 months from the finalization of the determination.

TAL-73459

Clair -
What do you think about
this language?
Harry Carter

FIA. Crushed Stone

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TAL-73459

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FCs wanted a little
subter language in
their permit - if it hasn't
already been issued. If it has
just put this in
the file
Clair



FLORIDA CRUSHED STONE COMPANY
CEMENT PLANT

RECEIVED

OCT 23 1995

BUREAU OF
AIR REGULATION

October 13, 1995

D.E.R.

OCT 19 1995

SOUTHWEST DISTRICT
TAMPA

Mr. Clair Fancy
Florida Department of Environmental Protection
Southwest District Office
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347

Re: AC27-274892/PSD-FL-227

Mr. Fancy:

The "Notice of Intent to Issue Permit" for the above referenced permit was published on Friday, October 6, 1995. A copy of the affidavit is attached.

Please call me at your convenience if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Tom Mountain".

Tom Mountain
Environmental Manager

CC: EPA

NPS

B. O'Ven

B. Thomas, SWD

D. Beason, OGC

L. Jennings, Hernando Co.

D. Elias, RTP

L. Curtin, H&K

THE TAMPA TRIBUNE

Published Daily

Tampa, Hillsborough County, Florida

State of Florida
County of Hillsborough } 55.

Before the undersigned authority personally appeared R. Putney, who on oath says that he is Accounting Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE HERNANDO

in the matter of

STATE OF FLORIDA

was published in said newspaper in the issues of

OCTOBER 6, 1995

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement, and affiant further says that he has neither paid nor promised any person, firm, or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me, this 9 day of OCTOBER, A.D. 1995

Personally Known _____ or Produced Identification _____
Type of Identification Produced _____

(SEAL)

Ima Kennedy

D.E.R.

OCT 19 1995

SOUTHWEST DISTRICT
TAMPA

DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF INTENT TO ISSUE PERMIT

AC 27-274892

PSD-FL-227

The Department of Environmental Protection (Department) gives notice of its intent to issue a construction permit to Florida Crushed Stone Company (FCS), 10311 Cement Plant Road, Brooksville, Florida, for a second 83 ton per hour cement plant. The plant will be located at the site of the existing FCS Central Power and Lime facility, 3.5 miles northwest of Brooksville, Hernando County. The project includes a dry process kiln with a preheater, clinker cooler, crushers, raw mill, finish mill, material fuel handling equipment, silos, and shipping facilities. Pollution control equipment include a common fabric filter system (baghouse) for particulate emissions from the kiln and cooler; absorption of carbon compounds and metals into the product; combustion controls for volatile organic compounds (VOC), carbon monoxide (CO); combustion controls for nitrogen oxides (NO_x) with additional controls to specified as needed to meet permit limits; and baghouses for particulate emissions from other process emission units.

A Best Available Control Technology (BACT) determination was required for emissions of sulfur dioxide (SO₂), nitrogen oxides (NO_x), particulate matter (PM), and carbon monoxide (CO) pursuant to CRF 62.21, Prevention of Significant Deterioration (PSD).

Emissions of these pollutants will not exceed the following limits:

Pollutant	Maximum Emissions (Tons Per Year)
PM	250
SO ₂	98
NO _x	909
CO	727
VOC	39.8 TPA
Sulfuric Acid Mist	5.1
Lead	0.2
Mercury	0.009
Beryllium	0.00036

An air quality impact analysis was conducted. SO₂ and NO_x impacts from the project will not have a significant impact in the PSD Class II area; therefore, no Class II increment consumption was predicted for these two pollutants. The maximum PM₁₀ PSD Class II increment and maximum percent of allowable PSD Class II increment consumed due to this project will be as follows:

PSD Class II Increment Consumed (µg/m ³)	Allowable Increment (µg/m ³)	Percent Increment Consumed
PM ₁₀	30	90
24-hour	30	90
Annual	17	18

The project, as amended by the Department BACT Determination, will not have a significant impact on the Chassahowitzka PSD Class I area with respect to SO₂, PM₁₀ and visibility; therefore, no increment consumption was determined for SO₂ and PM₁₀. The maximum NO₂ Class I increment and maximum percent of allowable increment due to this project will be as follows:

PSD Class I Increment Consumed (µg/m ³)	Allowable Increment (µg/m ³)	Percent Increment Consumed
NO ₂ Annual	2.5	40

Coal and tires will be the primary fuels consumed. A blend of fuel oil and on-spec used oil will be burned during startup with occasional use of natural gas. No RCRA hazardous waste will be burned. Cement Kiln Dust (CKD) collected in the kiln/cooler baghouse will be returned to the process. Any CKD not returned to the process will be stored in silos for sale and ultimately handled in accordance with Subtitle C rules under development by EPA.

Any person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (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 2600 Blair Stone Road, Tallahassee, Florida 32309-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The petition shall contain the following information: (a) The name, address and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in the Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.

The application 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

Department of Environmental Protection
Southwest District Branch Office
3804 Coconut Palm Drive
Tampa, Florida 33619-6218

Hernando County Planning Department
20 North Main Street, Room 252
Brooksville, Florida 34601-2807

Any person may send written comments on the proposed action to Administrator, New Source Review Section, at the Department of Environmental Protection, Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32309-2400. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination.

Further, a public hearing can be requested by any person(s). Such requests must be submitted within 30 days of this notice.

BY: 1881

10-6-95