



Jeb Bush  
Governor

# Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

David B. Struhs  
Secretary

*Bruce Mitchell*

February 14, 2001

Mr. Dwayne Waters  
Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520-0328

Dear Mr. Waters:

RE: Guidance for Authorization to Conduct Potential Testing/Measurements for CAM

I have provided some excerpts of documents from some previous permitting activities where authorization to conduct some testing was pursued by Florida Crushed Stone Company. Included are the request, the Intent package, and the authorization letter. As for the request, it seems appropriate that you would provide a cover letter outlining your intent, referring to Section 403.061(18), Florida Statutes, as the suggested route that the Department might use to authorize some testing and/or measurements for CAM. Also, the request should contain the equipment [emissions unit(s)] involved, a finite timeframe (beginning and ending dates) needed to conduct any testing and/or measurements, the pollutants to be pursued, the parameters to be measured, and the specific test method(s) that you would like to perform and/or the equipment that will be used to make measurements. If we needed additional clarification or information, we would forward a request to you. Since you have already received your initial Title V Operation Permit, there would be no processing fee required.

Once we have received an acceptable request, an Intent package would be sent to you providing you with a Public Notice for publication in the newspaper of general circulation. Once through this activity satisfactorily, an authorization would be issued to you to allow you to conduct your testing and/or measurements. After conducting the testing and/or measurements, the data shall be made available to the Department.

I hope that the information provided will be helpful to you in preparing a request to us for authorization to conduct tests and/or measurements for CAM. If not, please give me a call at 850/921-9506.

Sincerely,

R. Bruce Mitchell  
Environmental Administrator  
Title V Section - Bureau of Air Regulation

RBM/m

Enclosures

cc: C. H. Fancy, BAR  
Scott Sheplak, BAR  
Sandra Veazey, NWD  
Andy Allen, NWD

"More Protection, Less Process"

Printed on recycled paper.



**FLORIDA CRUSHED STONE COMPANY**  
CEMENT / POWER / LIME PLANT

EST. 1954  
MAY 23 4 28

**RECEIVED**

May 22, 1991

MAY 23 1991

Mr. Clair H. Fancy  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400


Bureau of  
Air Regulation

Mr. Fancy:

Enclosed are four (4) copies of the construction application for the use of Tire Derived Fuel (TDF) to supplement coal in the Cement Plant in Brooksville. In addition, please find a check in the amount of \$200.00 as payment for the permit application fee.

If you have any questions, please do not hesitate to contact me.

Sincerely,

  
Tom Mountain  
Environmental Manager

TM:sf

Enclosures

FLORIDA CRUSHED STONE COMPANY  
CPL CASH ACCOUNT  
PHONE 904 799-7881  
P O BOX 1508  
BROOKSVILLE, FL 34605

1635

63-134/831  
BRANCH 134

PAY  
TO THE  
ORDER OF

MAY 21 1991  
ENVIRONMENTAL ~~OF~~

FLORIDA DEPARTMENT OF REGULATION

\$ 200.00

Two hundred & <sup>00</sup>/<sub>100</sub>

DOLLAR



Sun Bank and Trust Company  
Brooksville Office  
P.O. Box 15E  
Brooksville, FL 34605-0156

FOR

*C. Thomas Paulk*

⑈001635⑈ ⑆063101344⑆0134⑆00006979⑈

\$200 pd.  
5-23-91  
Expt. #15127

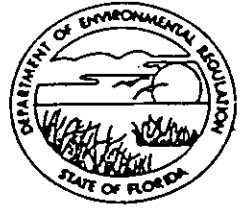
STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

RECEIVED

MAY 23 1991

Bureau of  
Air Regulation



AC 27-197356

APPLICATION TO ~~OPERATE~~/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Cement Plant [ ] New<sup>1</sup> [X] Existing<sup>1</sup>

APPLICATION TYPE: [ ] Construction [ ] Operation [X] Modification

COMPANY NAME: Florida Crushed Stone Company COUNTY: Hernando

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Cement plant

SOURCE LOCATION: Street 10311 Cement Plant Road City Brooksville

UTM: East (17) 360.008 km North 3162.392 km

Latitude 28° 34' 57" N Longitude 82° 25' 53" W

APPLICANT NAME AND TITLE: Thomas W. Mountain, Administrative Assistant

APPLICANT ADDRESS: P.O. Box 1508, Brooksville, FL 34605-1508

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Florida Crushed Stone Company

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: Thomas W. Mountain

Thomas W. Mountain, Administrative Assistant  
Name and Title (Please Type)

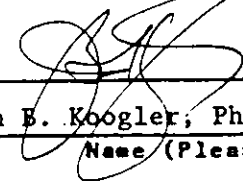
Date: 5/22/91 Telephone No. (904) 799-7881

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been ~~examined~~/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed 

John B. Koogler, Ph.D., P.E.

Name (Please Type)

Koogler & Associates, Environmental Services

Company Name (Please Type)

4014 N.W. 13th Street, Gainesville, FL 32609

Mailing Address (Please Type)

Florida Registration No. 12925 Date: 5/21/91 Telephone No. (904) 377-5822

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

See pages 2a-c of 12.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction May 1991 Completion of Construction June 1991

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

NA - existing baghouse will control emissions.

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AC27-61016 issued 11/10/83; expired 1986

AC27-118674 issued 8/26/86; expired 3/31/91

A027-183508 being processed (COCOC dated 7/3/90)

## IIA. GENERAL PROJECT INFORMATION

An existing dry-processed portland cement plant with a kiln feed rate of 123.75 tons per hour and a clinker production rate of 75.0 tons per hour will be modified to use tire derived fuel (TDF) to supplement coal which is the permitted fuel fired to the kiln. The cement kiln is permitted to be fired with coal containing 0.75 percent sulfur at a rate of 10.3 tons per hour. This is equivalent to a heat input of approximately 240 million BTU per hour.

It is proposed that TDF will be used to replace up to 15 percent of the total heat input to the kiln. This will be equivalent to a TDF firing rate of approximately 1.33 tons per hour at a nominal heating value of 14,000 BTU per pound.

The hot gases exhausted from the cement kiln pass through a pre-heater where the heat is recovered and transferred to the kiln feed material. The kiln gases are then passed through a baghouse for particulate matter control before being discharged to the atmosphere. The baghouse also controls particulate matter emissions from the power/lime plant and from a limestone dryer. The dust collected in the baghouse will continue to be incorporated in the kiln feed as is current practice. As a result, the baghouse dust becomes part of the clinker, and eventually, the finished product.

Aside from using TDF to supplement up to 15 percent of the heat normally supplied to the cement kiln by coal, there will be no changes in kiln operating conditions, kiln feed rates, clinker production rates, or the air pollution control system. The cement kiln will continue to operate in full compliance with all applicable regulations.

To support the request for using tire derived fuel, Florida Crushed Stone applied to the Department for an amendment to the existing air construction permit (AC27-118674 and PSD-FL-091) to conduct tests while burning TDF in the cement kiln. The request for a one-time test was granted by the Department by letter amendment dated June 6, 1990.

Baseline tests were conducted at the Florida Crushed Stone plant during the period of September 18-20, 1990, and tests while using TDF to supplement approximately 15 percent of the coal were conducted during the period of September 20-24, 1990. The tests included emission measurements for particulate matter, 18 metals, sulfur dioxide, volatile and semi-volatile organic compounds including dioxins and furans, stack gas flow and temperature, and an analysis of several of the feed streams to the plant. Reports of these tests have been submitted to the Department and results are summarized as part of this application.

The baseline and TDF test demonstrated that there is no significant change in emission rates of any pollutant as a result of using TDF to supplement coal. There were slight apparent increases in the emission rates of three metals (aluminum, magnesium and titanium); none of which are considered toxic. Total organic compounds (volatile plus semi-volatile compounds) showed an apparent emission rate decrease of about 75 percent when TDF was fired; however, volatile organic compounds showed an apparent emission rate increase from 0.2 to 0.5 pounds per hour. The emission rates of particulate matter, sulfur dioxide, semi-volatile organic compounds, dioxins and furans, and the 15 other metals showed apparent decreases in emissions when TDF was fired. The results of the Baseline and TDF tests are summarized in Attachment 1.

A recently published paper documenting the partitioning of metals in a cement kiln is included as Attachment 2. The paper is primarily related to the burning of waste derived fuels in cement kilns; however, the discussion of metals partitioning will apply to the firing of TDF. It is emphasized that FCS will not burn waste derived fuel to supplement coal, but only non-hazardous tire derived fuel.

To demonstrate that emissions from the CPL plant, under Baseline and TDF conditions, will not result in ambient concentrations that exceed FDER established No Threat Levels (NTL), air quality modeling has been conducted. The emission rates used in the modeling were the highest emission rates measured for metals or specific organic compounds during the Baseline and TDF tests. The emission rates resulted from the operation of the cement, power and lime plants and represent total emissions; not just the incremental emissions due to TDF firing in the cement plant. The modeling was conducted at a stack gas temperature and flow rate representative of cement plant only operations rather than at the higher temperature and flow rate representative of CPL plants operating.

The results of the modeling and a comparison of impacts with NTLs are summarized in Attachment 3. The results of this analysis show impacts are 20 to several million times lower than applicable NTLs.



E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: Present permit allows 8760 hours  
per year operations.

F. If this is a new source or major modification, answer the following questions.  
(Yes or No) NA - minor modification to existing major facility.

1. Is this source in a non-attainment area for a particular pollutant? \_\_\_\_\_  
a. If yes, has "offset" been applied? \_\_\_\_\_  
b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_  
c. If yes, list non-attainment pollutants. \_\_\_\_\_

2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. \_\_\_\_\_

3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. \_\_\_\_\_

4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? \_\_\_\_\_

5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? \_\_\_\_\_

H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? \_\_\_\_\_ NO

a. If yes, for what pollutants? \_\_\_\_\_ NA

b. If yes, in addition to the information required in this form,  
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-  
cation for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
See Page 4A of 12.				

**B. Process Rate, if applicable: (See Section V, Item 1)**

- Total Process Input Rate (lbs/hr): 247,500
- Product Weight (lbs/hr): 150,000

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission(3)		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Part. Matter	37.1(1)	162	(2)	37.1	46,066	175,511	
SO <sub>2</sub>	74.3(1)	325	(2)	74.3	305	1,162	
NO <sub>x</sub>	359.0(1)	1572	(2)	359.0	359	1,572	

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

- Cement kiln only; emissions are as presently permitted.
- Allowed by permits AC27-118674 and AC27-61016.
- From original permit applications.

Section III-A.

Raw Materials Used

<u>Material</u>	<u>Contaminant</u>	<u>Utilization Rate</u>	<u>Flow Diagram</u>
<u>Rotary Dryer (C-12)</u>			
Limestone Fines	Dust	205,400 lbs/hr	C03
Clay	Dust	19,800 lbs/hr	C03
<u>Raw Mill (E-03)</u>			
Limestone Fines	Dust	205,400 lbs/hr	E01
Clay	Dust	19,800 lbs/hr	E01
Lime Rock	Dust	5,000 lbs/hr	E01
Fly Ash	Dust	17,300 lbs/hr	E01
<u>Kiln (K-02)</u>			
Same as raw mill Coal (See fuel use)			K01
<u>Cooler (K-07)</u>			
Clinker	Dust	150,000 lbs/hr	K02 discharge

Section III-B.

The material input rate and output rate are the same for all operations except for the kiln. For the kiln 247,500 lbs/hr of material are input (see III,A) and 150,000 lbs/hr of clinker is produced.

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Baghouse	PM	99+	>1.0	See Test Data
Existing baghouse with 3192 teflon coated glass fiber bags in 28 compartments.				
Each bag is 12 in. diameter and 37 ft. long providing about 362,000 sq. ft. of filter area.				
Bags are cleaned by reverse air flow with cleaning cycle controlled by pressure drop.				
Air-to-cloth ratio is 2.9 to 1 with CPL plants operating and 1.6 when the cement plant operates alone.				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Coal	18,500	20,600 lbs/hr	248.0
Coal (1)	2,800	3,090 lbs/hr	210.8 (1)
Tire derived fuel (TDF)	2,400	2,657 lbs/hr	37.2
(1) When TDF is used to supplement coal.			

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: Coal / TDF

Percent Sulfur: 0.75 / 1.3 Percent Ash: 10 / 4

Density: - lbs/gal Typical Percent Nitrogen: 1.4 / 0.2

Heat Capacity: 12,400 / 14,000 BTU/lb - BTU/gal

Other Fuel Contaminants (which may cause air pollution): Trace metals - See attached test summary

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average NA Maximum                     

G. Indicate liquid or solid wastes generated and method of disposal.

Baghouse dust is incorporated in kiln feed material.

(Stack gas flow for cement plant only.)

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 320 ft. Stack Diameter: 18.65 ft.  
 Gas Flow Rate: 575,660 ACFM 385,000 DSCFM Gas Exit Temperature: 290 °F.  
 Water Vapor Content: 5.0 % Velocity: 35.1 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
UNCHANGED FROM ORIGINAL PERMIT APPLICATION; SEE SECTION IIIA.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made. UNCHANGED FROM ORIGINAL PERMIT APPLICATION.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).  
UNCHANGED FROM ORIGINAL PERMIT APPLICATION.
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)  
UNCHANGED FROM ORIGINAL PERMIT APPLICATION; SEE SECTION IIID.
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).  
UNCHANGED FROM ORIGINAL PERMIT APPLICATION.
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.  
AS SUBMITTED WITH ORIGINAL APPLICATION.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).  
AS SUBMITTED WITH ORIGINAL APPLICATION.
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.  
AS SUBMITTED WITH ORIGINAL APPLICATION.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

Yes  No

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

- |                           |                          |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:*           | 4. Capital Costs:        |

\*Explain method of determining

- 5. Useful Life:
- 7. Energy:
- 9. Emissions:

- 6. Operating Costs:
- 8. Maintenance Cost:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.      b. Diameter: ft.
- c. Flow Rate: ACFM      d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:<sup>1</sup> d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:<sup>2</sup> h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:<sup>1</sup> d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:<sup>2</sup> h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.



j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

**SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION**

NOT APPLICABLE

**A. Company Monitored Data**

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub>\* \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

\*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent?  Yes  No
- b. Was instrumentation calibrated in accordance with Department procedures?  
 Yes  No  Unknown

B. Meteorological Data Used for Air Quality Modeling

- 1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year
- 2. Surface data obtained from (location) \_\_\_\_\_
- 3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_
- 4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

- 1. \_\_\_\_\_ Modified? If yes, attach description.
- 2. \_\_\_\_\_ Modified? If yes, attach description.
- 3. \_\_\_\_\_ Modified? If yes, attach description.
- 4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

ATTACHMENT 1  
SUMMARY OF TEST RESULTS

SUMMARY OF EMISSIONS AND STACK GAS PARAMETERS  
DURING BASELINE AND TDF TESTS

FLORIDA CRUSHED STONE COMPANY  
HERNANDO COUNTY, FLORIDA

TEST	BASELINE	TDF
Date	9/18-20/90	9/20-24/90
PM, mass (lb/hr) conc (gr/dscf)	56.80 0.0104	52.21 0.0103
O <sub>2</sub> (%)	10.4	11.7
CO <sub>2</sub> (%)	9.3	9.9
CO (ppm)	323	197
SO <sub>2</sub> , mass (lb/hr) conc (ppm)	595 94.1	551 93.5
Organics (lb/hr)*	5.187	1.420
Volatile organics	(0.177)	(0.520)
(Semi-volatile organics)	(5.01)	(0.90)
PCDD/DF (lb/hr)	0.114 x 10 <sup>-6</sup>	0.008 x 10 <sup>-6</sup>
<u>Metals (lb/hr - Blank Corrected)</u>		
Al	0.030	0.948
As	<0.004	<0.004
Ba	0.005	0.004
Cd	<0.005	<0.005
Cr	0.010	0.004
Co	0.005	<0.002
Cu	0.003	<0.001
Fe	0.992	0.892
Pb	0.130	0.036
Mg	0.036	0.081
Hg	0.025	0.006
Mo	0.018	0.018
Ni	<0.018	<0.018
Se	<0.004	<0.004
Ag	<0.001	<0.001
Ti	<0.001	0.017
Va	<0.018	<0.018
Zn	3.094	1.643

SUMMARY OF EMISSIONS AND STACK GAS PARAMETERS  
DURING BASELINE AND TDF TESTS  
(continued)

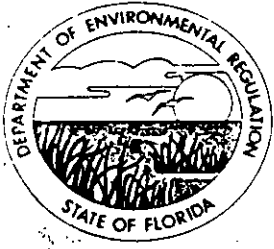
TEST	BASELINE	TDF
Date	9/18-20/90	9/20-24/90
<u>Stack Gas</u>		
Flow (dscfm)	637,713	599,633
Temp (°F)	385	372
Moisture (%)	7.2	7.4

\*See following supplemental table for specific organic compounds.

SUMMARY OF ORGANIC COMPOUND EMISSIONS  
DURING BASELINE AND TDF TESTS

FLORIDA CRUSHED STONE COMPANY  
HERNANDO COUNTY, FLORIDA

TEST	BASELINE	TDF
Date	9/18-20/90	9/20-24/90
<u>Volatile Organic Compounds</u>		
Acetone	0.0247	0.0203
Benzene	0.1005	0.1712
Toluene	0.0136	0.2457
Tetrachloroethylene	<0.0025	<0.0022
Chlorobenzene	0.0074	0.0093
Ethylbenzene	<0.0026	0.0041
Xylene	0.0078	0.0151
Chloromethane	<0.0095	0.0425
Bromo methane	<0.0027	<0.0022
Carbon disulfide	<0.0029	<0.0024
Styrene	<u>&lt;0.0024</u>	<u>&lt;0.0046</u>
TOTAL VOCs	<0.1766	<0.5196
<u>Semi-volatile Organic Compounds</u>		
C <sub>16</sub> - C <sub>18</sub> aliphatics	5.01	0.90
Total All Organic Compounds	5.187	1.420



*Florida's Copy*

# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

August 30, 1991

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Randy Thompson  
Environmental Department  
Florida Crushed Stone Company  
Post Office Box 490300  
Leesburg, Florida 34749-0300

Dear Mr. Thompson:

Re: Requests for Authorization to Conduct Pollutant Emissions Performance Tests While Utilizing/Firing Whole Tires in Florida Crushed Stones Company's Cement Kiln and to Utilize the Material Continuously After Evaluation of the Test Results

Attached is one copy of the proposed performance test authorization amendment to construction permit, No. AC 27-118674 (PSD-FL-091), for Florida Crushed Stone Company (FCSC) to conduct additional pollutant emissions tests on the facility's cement kiln. The proposed performance tests for pollutant emissions will be conducted at baseline conditions and while utilizing/firing whole tires at a maximum utilization/feed rate of 15.0% of the total Btu heat input (1.33 tons per hour). The cement kiln was permitted under the construction permit, No. AC 27-118674 (PSD-FL-091), and is not permitted to utilize/fire whole tires in accordance with the referenced permit.

The additional emissions tests are being proposed in order to gather data regarding pollutant emissions while utilizing/firing whole tires, since FCSC has already conducted pollutant emissions tests (September 18-24, 1990) while utilizing/firing shredded tire derived fuel. Screening for actual pollutant emission increases will be in accordance with 40 CFR 60, Appendix C. Screening for a modification and Prevention of Signification (PSD) will be in accordance with Chapter 403, Florida Statutes, Florida Administrative Code Chapters 17-2 and 17-4, and Title 40 Code of Federal Regulations (CFR; July, 1990 version).



Mr. Randy Thompson  
Page Two

Also, attached is one copy of the proposed amendment to the construction permit, No. AC 27-118674 (PSD-FL-091B), authorizing FCSC to utilize/fire whole tires on a continuous basis at a maximum utilization/firing rate of 15% of the total Btu heat input (1.33 tons per hour). If, after the performance test results are evaluated pursuant to 40 CFR 60, Appendix C, by the Department's Bureau of Air Regulation and involved parties (i.e., Department's Southwest District, U.S. EPA, National Park Service, Hernando County, etc.) and it is determined that actual pollutant emissions did not increase while utilizing/firing whole tires, then the Department will issue the proposed amendment to the construction permit, No. AC 27-118674 (PSD-FL-091B), authorizing continuous utilization/firing of whole tires in the facility's cement kiln. However, if there is an actual emissions increase in pollutant emissions, FCSC will not be permitted to utilize/fire whole tires in the source without further evaluation by the Department's Bureau of Air Regulation and involved parties.

If there are any questions, please call Mr. Bruce Mitchell at (904)488-1344 or submit any written comments you wish to have considered concerning the Department's proposed action to me.

Sincerely,



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

CHF/BM/rbm

Attachments

c: B. Thomas, SW District  
J. Koogler, Ph.D., P.E., K&A  
C. Shaver, NPS  
J. Harper, EPA  
C. Hetrick, HCBCC  
G. Smallridge, Esq., DER  
T. Mountain, FCSC  
L. Sellars, Esq., H&K

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of  
Application for Amendments by:

Florida Crushed Stone Company  
P. O. Box 490300  
Leesburg, Florida 34749-0300

DER File Nos. AC 27-118674  
PSD-FL-091  
PSD-FL-091B

---

INTENT TO ISSUE

The Department of Environmental Regulation (Department) hereby gives notice of its intent to issue to Florida Crushed Stone Company (FCSC) an amendment to the construction permit, No. AC 27-118674 (PSD-FL-091), authorizing performance tests for pollutant emissions while utilizing/firing whole tires in the facility's cement kiln, and an amendment to the construction permit, No. AC 27-118674 (PSD-FL-091B), for continuous utilization/firing of the material in the source, as detailed in the application package specified above. The Department is issuing this Intent to Issue for the reasons stated below and in the attached proposed amendments.

The applicant, FCSC, submitted a request on August 6, 1991, to the Department's Bureau of Air Regulation (BAR) for authorization to conduct additional pollutant emissions tests on the cement kiln while utilizing/firing whole tires in the facility's cement kiln and to utilize/fire the material on a continuous basis after evaluation of the test results. The performance tests for pollutant emissions will be conducted at baseline conditions and while utilizing/firing whole tires at a maximum utilization/firing rate of 15.0% of the total Btu heat input (1.33 tons per hour). The cement kiln was permitted under the construction permit, No. AC 27-118674 (PSD-FL-091), and is not permitted to utilize/fire whole tires in accordance with the referenced permit.

The additional emissions tests are being proposed in order to gather data regarding the pollutant emissions while utilizing/firing whole tires in the facility's cement kiln, since FCSC has already

conducted pollutant emissions tests (September 18-24, 1990) while utilizing/firing shredded tire derived fuel. Screening for actual pollutant emission increases will be in accordance with 40 CFR 60, Appendix C. Screening for a modification and Prevention of Signification (PSD) will be in accordance with Chapter 403, Florida Statutes, Florida Administrative Code Chapters 17-2 and 17-4, and Title 40 Code of Federal Regulations (CFR; July, 1990 version).

If, after the performance test results are evaluated by the Department's BAR and affected parties (i.e., Department's Southwest District, U.S. EPA, National Park Service, Hernando County, etc.) and it is determined that actual pollutant emissions did not increase pursuant to 40 CFR 60, Appendix C, while utilizing/firing whole tires, then an amendment to the construction permit, No. AC 27-118674 (PSD-FL-091B), will be issued with certain Specific Conditions authorizing continuous utilization/firing of whole tires in the source. However, if there is an actual emissions increase in pollutant emissions, FCSC will not be permitted to utilize/fire whole tires without further evaluation by the Department's BAR and involved parties.

The proposed project will occur at the applicant's facility located on U.S. Highway 98 NW of Brooksville, Hernando County, Florida.

The Department has permitting jurisdiction under Chapter 403, F.S., F.A.C. Chapters 17-2 and 17-4, and 40 CFR (July, 1990 version). The project is not exempt from permitting procedures. The Department has determined that permit amendments are required for the proposed activity.

Pursuant to Section 403.815, F.S., and Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit Amendments. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "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. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the amendments.

The Department will issue the permit amendments with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A 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, 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 32399-2400. Petitions filed by the permit amendment applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. 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 this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the requests/applications 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 in 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, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



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

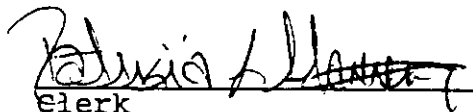
Copies furnished to:

B. Thomas, SW District	G. Smallridge, Esq., DER
J. Koogler, Ph.D., P.E., K&A	C. Hetrick, HCBCC
J. Harper, EPA	T. Mountain, FCSC
C. Shaver, NPS	L. Sellars, Esq., H&K

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 8-30-91.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to §120.52(9), Florida Statute, with the designated Department Clerk, receipt of which is hereby acknowledged.

  
Clerk

8-30-91  
Date

State of Florida  
Department of Environmental Regulation  
Notice of Intent to Issue

The Department of Environmental Regulation (Department) hereby gives notice of its intent to issue to Florida Crushed Stone Company (FCSC) an amendment to the construction permit, No. AC 27-118674 (PSD-FL-091), authorizing performance tests for pollutant emissions while utilizing/firing whole tires in the facility's cement kiln, and an amendment to the construction permit, No. AC 27-118674 (PSD-FL-091C), authorizing continuous utilization/firing of whole tires in the source, as detailed in the application package. The Department is issuing this Intent to Issue for the reasons stated below and in the proposed amendments.

The applicant, FCSC, Post Office Box 490300, Leesburg, Florida 34749-0300, submitted a request on August 6, 1991, to the Department's Bureau of Air Regulation (BAR) for authorization to conduct additional pollutant emissions tests on the facility's cement kiln while utilizing/firing whole tires in the facility's cement kiln and to utilize/fire whole tires in the source on a continuous basis after evaluation of the test results. The performance tests for pollutant emissions will be conducted at baseline conditions and while utilizing/firing whole tires at a maximum utilization/firing rate of 15.0% of the total Btu heat input (1.33 tons per hour). The cement kiln was permitted under the construction permit, No. AC 27-118674 (PSD-FL-091), and is not permitted to utilize/fire whole tires in accordance with the referenced permit.

The additional emissions tests are being proposed in order to gather data regarding the pollutant emissions while utilizing/firing whole tires in the facility's cement kiln, since FCSC has already conducted pollutant emissions tests (September 18-24, 1990) while utilizing/firing shredded tire derived fuel. Screening for actual pollutant emission increases will be in accordance with 40 CFR 60, Appendix C. Screening for a modification and Prevention of Signification (PSD) will be in accordance with Chapter 403, Florida Statutes, Florida Administrative Code Chapters 17-2 and 17-4, and Title 40 Code of Federal Regulations (CFR; July, 1990 version).

If, after the performance test results are evaluated by the Department's BAR and affected parties (i.e., Department's Southwest District, U.S. EPA, National Park Service, Hernando County, etc.) and it is determined that actual pollutant emissions did not increase pursuant to 40 CFR 60, Appendix C, while utilizing/firing whole tires, then an amendment to the construction permit, No. AC 27-118674 (PSD-FL-091B), will be issued with certain Specific Conditions authorizing continuous utilization/firing of whole tires in the source. However, if there is an actual emissions increase in pollutant emissions, FCSC will not be permitted to utilize/fire whole tires without further evaluation by the Department's BAR and involved parties.

The proposed project will occur at the applicant's facility located on U.S. Highway 98 NW of Brooksville, Hernando County, Florida.

The Department has permitting jurisdiction under Chapter 403, F.S., F.A.C. Chapters 17-2 and 17-4, and 40 CFR (July, 1990 version). The project is not exempt from permitting procedures. The Department has determined that permit amendments are required for the proposed activity.

A 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. 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 32399-2400, within fourteen (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, Florida Statutes.

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 this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the requests/applications 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, F.A.C.

The requests/applications are available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

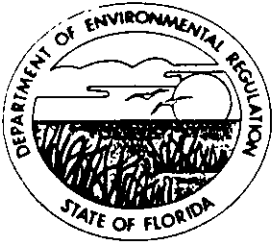
Department of Environmental Regulation  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Department of Environmental Regulation  
Southwest District Office  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347

Hernando County Board of County Commission  
20 North Main Street, Room 460  
Brooksville, Florida 34601

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.





# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

September xx, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

**DRAFT**

Mr. Randy Thompson  
Environmental Department  
Florida Crushed Stone Company  
Post Office Box 490300  
Leesburg, Florida 34749-0300

Dear Mr. Thompson:

Re: Amendment to the Construction Permit, No. AC 27-118674 (PSD-FL-091), to Conduct Performance Tests for Pollutant Emissions on the Facility's Cement Kiln While Utilizing/Firing Whole Tires

The Department has reviewed the request that you provided on August 6, 1991. We have also considered the Department's legal authority to allow Florida Crushed Stone Company (FCSC) to conduct the requested performance tests. Paragraph 403.061(15), Florida Statutes (F.S.) authorizes the Department to consult with any person proposing to construct, install, or otherwise acquire a pollution control device or system concerning the efficacy of such device or system, or the pollution problem which may be related to the source, device, or system. Paragraph 403.061(16), F.S., authorizes the Department to encourage voluntary cooperation by persons in order to achieve the purposes of the state environmental control act. Paragraph 403.061(18), F.S., authorizes the Department to encourage and conduct studies, investigations, and research relating to the causes and control of pollution. Florida Administrative Code (F.A.C.) Rule 17-2.250(5) authorizes the Department to consider variation in industrial equipment and make allowances for excess emissions that provide practical regulatory controls consistent with the public interest.

In accordance with the provisions of Paragraphs 403.061(15), (16), and (18), F.S., and F.A.C. Rule 17-2.250(5), you are hereby authorized to conduct performance tests for pollutant emissions on FCSC's cement kiln while utilizing/firing whole tires at a maximum utilization/firing rate of 15.0% of the total Btu heat input (1.33 tons per hour). The cement kiln was permitted under the construction permit, No. AC 27-118674 (PSD-FL-091), and is not permitted to utilize/fire whole tires in accordance with the referenced permit.

DRAFT

Mr. Randy Thompson  
Page Two

The additional emissions tests are being proposed in order to gather data regarding pollutant emissions while utilizing/firing whole tires, since FCSC has already conducted pollutant emissions tests (September 18-24, 1990) while utilizing/firing shredded tire derived fuel. Screening for actual pollutant emissions increases shall be in accordance with 40 CFR 60, Appendix C. Screening for a modification and Prevention of Significant Deterioration (PSD) shall be in accordance with Chapter 403, Florida Statutes (F.S.), Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4, and Title 40 Code of Federal Regulations (CFR; July, 1990 version). The performance test results will be evaluated by the Department's BAR and involved parties (i.e., Department's Southwest District, U.S. EPA, National Park Service, Hernando County, etc.).

The performance tests shall be subject to the following conditions:

1. The permittee shall notify, in writing, the Department's Southwest District and Bureau of Air Regulation (BAR) offices at least 15 days prior to commencement of the performance tests. A written report shall be submitted to these offices within 45 days upon completion of the last test run.
2. Prior to or after conducting performance tests for pollutant emissions while utilizing/firing whole tires in the facility's cement kiln (Post-tests), performance tests (Pre-tests/baseline) for pollutant emissions shall be conducted while operating under normal operating conditions with the presently permitted kiln fuels and feed material. The pollutant emissions results of the "Pre-tests" shall be compared to the pollutant emissions results of the "Post-tests" to determine if:
  - a) actual pollutant emissions increased pursuant to 40 CFR 60, Appendix C (July, 1990 version); and, ~~see also applicable PSD (Prevention of Significant Deterioration) review required, which includes the submittal of a permit application and the appropriate processing fee, at a minimum; or,~~
  - b) the construction permit, No. AC 27-118674 (PSD-FL-091), can be amended to allow the utilization/firing of whole tires in the facility's cement kiln on a continuous basis.
3. All "Post-test" emissions results shall be compared to "actual emissions" for PSD review purposes (see Region IV, U.S. EPA's letter dated April 4, 1990).

DRAFT

Mr. Randy Thompson  
Page Three

4. The contents of Dr. John B. Koogler's letter received August 6, 1991, are adopted by reference, with the following exceptions (each will be identified with the corresponding numbering in the letter and starting on page 2):

#3. From the initial date of utilizing/firing whole tires in the facility's cement kiln, which shall be documented in writing to the Department, the permittee shall be limited to a maximum of 14 days, ~~to conduct 7 days of performance tests on the source, which gives consideration to inclement weather and unforeseen interruptions.~~ If additional time is needed, the permittee shall provide the Department with documentation of the progress accomplished to date and shall identify what is left to be done to complete the performance tests.

#4. A Department Type I audit is required and shall be coordinated with the Department.

#5. Documentation of the utilization/firing rates of whole tires (i.e., actual utilization/firing rate by weight) shall be required.

#6. Emissions measurements shall also be required for the following pollutants using the following test methods:

<u>Pollutants/Pollutant Category</u>	<u>Test Method</u>
o Particulate Matter	EPA Method 5
o PCDDs (dioxins) and PCDFs (furans)	EPA Method 23

Note: Tests for PCDDs and PCDFs will only be required if there is an increase in actual emissions of carbon dioxide or total hydrocarbons, pursuant to ~~40 CFR 60, Appendix C,~~ ~~when~~ comparing the tests of the baseline conditions (Pre-Tests) and while utilizing/firing whole tires (Post-Tests).

#7. The same as #6 above.

#9. The Department will take the responsibility of providing a cover letter to and mailing the performance test results to the reviewing parties (i.e., Department's Southwest District, U.S. EPA, National Park Service, Hernando County, etc.).

5. These authorized performance tests shall not result in the release of objectionable odors pursuant to F.A.C. Rule 17-2.620(2).

Mr. Randy Thompson  
Page Four

6. Performance testing shall immediately cease upon the occurrence of a valid environmental complaint by a citizen or other party, or a nuisance or danger to public health or welfare. Performance testing shall not resume until appropriate measures to correct the problem have been implemented.
7. The performance tests for pollutant emissions shall be conducted under the direct supervision and responsible charge of a professional engineer registered in Florida.
8. This Department action is just to authorize the performance tests for pollutant emissions on the facility's cement kiln while utilizing/firing whole tires. Any utilization/firing of whole tires after the last performance test run is completed will be deemed a violation of the current construction permit, No. AC 27-118674 (PSD-FL-091).
9. Complete documentation (recording) of any utilization/firing of whole tires in the facility's cement kiln shall be required (i.e., testing results; materials utilized, by weight; etc.) and kept on file for a minimum of two years.
10. The Department shall be notified in writing on the date of the last test run completion.
11. Attachments (See Attachment Section) are incorporated.

The Department has relied on the information referenced in the attachments and conversations with representatives of the FCSC, U.S. EPA-Region IV, Department of Interior's National Park Service, and Hernando County in authorizing this permit amendment, No. AC 27-118674 (PSD-FL-091).

Sincerely,

~~Carol M. Browner~~  
Secretary

CB/BM/rbm

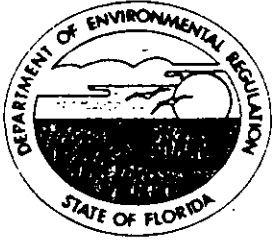
Attachments

c: B. Thomas, SW District  
J. Koogler, Ph.D., P.E., K&A  
C. Shaver, NPS  
J. Harper, EPA  
C. Hetrick, HCBCC  
T. Mountain, FCSC  
G. Smallridge, Esq., DER  
L. Sellars, Esq., H&K

Attachments Available Upon Request

Attachment Section

1. Dr. John B. Koogler's letter with enclosures received August 9, 1991, via FAX.
2. Dr. John B. Koogler's letter with enclosures received August 12, 1991 (hard copy).
3. 40 CFR (July, 1990 version).
4. Ms. Jewell A. Harper's letter dated April 4, 1990.
5. Ms. Jewell A. Harper's letter dated August 20, 1990.
6. Mr. Daniel S. Davis's letter received May 21, 1990.
7. Intent to Issue package dated August 27, 1991.



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

October 25, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Randy Thompson  
Environmental Department  
Florida Crushed Stone Company  
Post Office Box 490300  
Leesburg, Florida 34749-0300

Dear Mr. Thompson:

Re: Amendment to the Construction Permit, No. AC 27-118674 (PSD-FL-091), to Conduct Performance Tests for Pollutant Emissions on the Facility's Cement Kiln While Utilizing/Firing Whole Tires

This agency action supercedes the terms and conditions contained in the Department's Intent to Issue dated August 30, 1991. The Department has reviewed the request that you provided on August 6, 1991. We have also considered the Department's legal authority to allow Florida Crushed Stone Company (FCSC) to conduct the requested performance tests. Paragraph 403.061(15), Florida Statutes (F.S.) authorizes the Department to consult with any person proposing to construct, install, or otherwise acquire a pollution control device or system concerning the efficacy of such device or system, or the pollution problem which may be related to the source, device, or system. Paragraph 403.061(16), F.S., authorizes the Department to encourage voluntary cooperation by persons in order to achieve the purposes of the state environmental control act. Paragraph 403.061(18), F.S., authorizes the Department to encourage and conduct studies, investigations, and research relating to the causes and control of pollution. Florida Administrative Code (F.A.C.) Rule 17-2.250(5) authorizes the Department to consider variation in industrial equipment and make allowances for excess emissions that provide practical regulatory controls consistent with the public interest.

In accordance with the provisions of Paragraphs 403.061(15), (16), and (18), F.S., and F.A.C. Rule 17-2.250(5), you are hereby authorized to conduct performance tests for pollutant emissions on FCSC's cement kiln while utilizing/firing whole tires at a maximum utilization/firing rate of 15.0% of the total Btu heat input (1.33 tons per hour). The cement kiln was permitted under the construction permit, No. AC 27-118674 (PSD-FL-091), and is not permitted to utilize/fire whole tires in accordance with the referenced permit.

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The additional emissions tests are being proposed in order to gather data regarding pollutant emissions while utilizing/firing whole tires, since FCSC has already conducted pollutant emissions tests (September 18-24, 1990) while utilizing/firing shredded tire derived fuel. Screening for actual pollutant emissions increases for New Source Performance Standards (NSPS) applicability shall be in accordance with 40 CFR 60, Appendix C. Screening for a modification and Prevention of Significant Deterioration (PSD) shall be in accordance with Chapter 403, Florida Statutes (F.S.), Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4, and Title 40 Code of Federal Regulations (CFR; July, 1990 version), which will compare the actual pollutant emissions of the baseline tests to the actual pollutant emissions of the performance tests while utilizing whole tires. The performance test results will be evaluated by the Department's BAR and involved parties (i.e., Department's Southwest District, U.S. EPA, National Park Service, Hernando County, etc.).

The performance tests shall be subject to the following conditions:

1. The permittee shall notify, in writing, the Department's Southwest District and Bureau of Air Regulation (BAR) offices at least 15 days prior to commencement of the performance tests. A written report shall be submitted to these offices within 45 days upon completion of the last test run.
2. Prior to or after conducting performance tests for pollutant emissions while utilizing/firing whole tires in the facility's cement kiln (Post-tests), performance tests (Pre-tests/baseline) for pollutant emissions shall be conducted while operating under normal operating conditions with the presently permitted kiln fuels and feed material. The pollutant emissions results of the "Pre-tests" shall be compared to the pollutant emissions results of the "Post-tests" to determine if:
  - a) actual pollutant emissions increased pursuant to 40 CFR 60, Appendix C (July, 1990 version), for NSPS applicability; and,  
  
actual pollutant emissions increased (baseline versus whole tires) for PSD (Prevention of Significant Deterioration) applicability, which, if required, includes the submittal of a permit application and the appropriate processing fee, at a minimum; or,
  - b) the construction permit, No. AC 27-118674 (PSD-FL-091), can be amended to allow the utilization/firing of whole tires in the facility's cement kiln on a continuous basis.



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3. All "Post-test" emissions results shall be compared to "actual emissions" for PSD review purposes (see Region IV, U.S. EPA's letter dated April 4, 1990).
4. The contents of Dr. John B. Koogler's letter received August 6, 1991, are adopted by reference, with the following exceptions (each will be identified with the corresponding numbering in the letter and starting on page 2):

#3. From the initial date of utilizing/firing whole tires in the facility's cement kiln, which shall be documented in writing to the Department, the permittee shall be limited to a maximum of 14 days, which is to include 7 days of continuous firing of tires to establish steady-state operation and conduct performance tests. If additional time is needed, the permittee shall provide the Department with documentation of the progress accomplished to date and shall identify what is left to be done to complete the performance tests.

#4. A Department Type I audit is required and shall be coordinated with the Department.

#5. Documentation of the utilization/firing rates of whole tires (i.e., actual utilization/firing rate by weight) shall be required.

#6. Emissions measurements shall also be required for the following pollutants using the following test methods:

<u>Pollutants/Pollutant Category</u>	<u>Test Method</u>
o Particulate Matter	EPA Method 5
o PCDDs (dioxins) and PCDFs (furans)	EPA Method 23

Note: Tests for PCDDs and PCDFs will only be required if there is an increase in actual emissions of carbon monoxide or total hydrocarbons, while comparing the tests of the baseline conditions (Pre-Tests) and while utilizing/firing whole tires (Post-Tests).

#7. The same as #6 above.

#9. The Department will take the responsibility of providing a cover letter to and mailing the performance test results to the reviewing parties (i.e., Department's Southwest District, U.S. EPA, National Park Service, Hernando County, etc.).

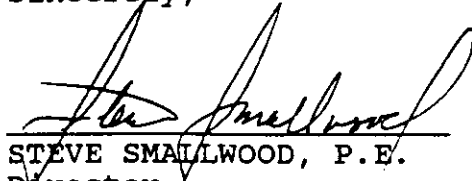
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5. These authorized performance tests shall not result in the release of objectionable odors pursuant to F.A.C. Rule 17-2.620(2).
6. Performance testing shall immediately cease upon the occurrence of a valid environmental complaint by a citizen or other party, or a nuisance or danger to public health or welfare. Performance testing shall not resume until appropriate measures to correct the problem have been implemented.
7. The performance tests for pollutant emissions shall be conducted under the direct supervision and responsible charge of a professional engineer registered in Florida.
8. This Department action is just to authorize the performance tests for pollutant emissions on the facility's cement kiln while utilizing/firing whole tires. Any utilization/firing of whole tires after the last performance test run is completed will be deemed a violation of the current construction permit, No. AC 27-118674 (PSD-FL-091).
9. Complete documentation (recording) of any utilization/firing of whole tires in the facility's cement kiln shall be required (i.e., testing results; materials utilized, by weight; etc.) and kept on file for a minimum of two years.
10. The Department shall be notified in writing on the date of the last test run completion.
11. Attachments (See Attachment Section) are incorporated.

The Department has relied on the information referenced in the attachments and conversations with representatives of the FCSC, U.S. EPA-Region IV, Department of Interior's National Park Service, and Hernando County in authorizing this permit amendment, No. AC 27-118674 (PSD-FL-091). Any continuous burning of whole tires, if permitted subsequent to this test burn, will be allowed pursuant to the terms set forth in Attachment A (draft letter authorizing continuous utilization of whole tires), incorporated herein. Any such authorization of continuous burning will be subject to third party challenge and provide a clear point of entry for challenge pursuant to Section 120.57, Florida Statutes.

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Sincerely,



STEVE SMALLWOOD, P.E.  
Director  
Division of Air Resources  
Management

SS/BM/rbm

Attachments

c: B. Thomas, SW District  
J. Harper, EPA  
C. Shaver, NPS  
C. Hetrick, HCBCC  
J. Koogler, Ph.D., P.E., K&A  
T. Mountain, FCSC  
G. Smallridge, Esq., DER  
L. Sellars, Esq., H&K  
T. Cleveland, Esq., OHF&C

## Final Determination

The Department's Intent to Issue an Amendment package was mailed on August 30, 1991. The Public Notice was published in The Tampa Tribune on September 5, 1991. Comments were received from representatives for Hernando County and Florida Crushed Stone Company (FCSC). The following agreements were made and are as follows:

1. Draft letter dated September xx, 1991

FCSC will be required to establish a steady state continuous utilization of whole tires for a minimum of 7 days;

2. Draft letter dated October xx, 1991

Hernando County and its representatives will be allowed "point of entry" on the Department's authorization to continuously utilize whole tires after the post-test evaluation.

3. Draft letters dated September xx and October xx, 1991

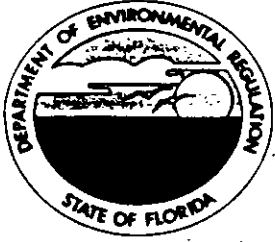
The pollutant emissions will be evaluated for PSD and NSPS applicability using the following methodology:

- a. PSD - comparison of the actual emissions of the baseline test and while utilizing whole tires; and,
- b. NSPS - Use of Appendix C of the 40 CFR 60 to establish whether or not there is an actual emission rate change;

4. Attachment to be Incorporated

- a. Mr. C. Anthony Cleveland's comments received October 25, 1991.

It is recommended that the authorization to conduct performance tests while utilizing whole tires be issued as drafted, with the above changes incorporated in the appropriate documents.



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

November xx, 1991

# DRAFT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Randy Thompson  
Environmental Department  
Florida Crushed Stone Company  
Post Office Box 490300  
Leesburg, Florida 34749-0300

Dear Mr. Thompson:

Re: Proposed Amendment to the Construction Permit, No. AC 27-118674  
(PSD-FL-091B), Authorizing Continuous Utilization/Firing of  
Whole Tires in the Facility's Cement Kiln

The Department has reviewed the request for a construction permit amendment that you provided in a letter received on August 6, 1991. The request was for authorization to continuously utilize/fire whole tires in the facility's cement kiln only after the pollutant emissions results of the performance tests have been reviewed by the Department's Bureau of Air Regulation and involved parties (i.e., Department's Southwest District, U.S. EPA, National Park Service, Hernando County, etc.). Based on the test results and pursuant to Florida Administrative Code Chapters 17-2 and 17-4, and 40 CFR 60, Appendix C, there was not an actual emissions increases of any pollutant. Therefore, the request to utilize/fire whole tires in the facility's cement kiln is acceptable and the following Specific Conditions and Attachments are changed and/or added:

Specific Conditions:

- o The cement kiln's maximum utilization/firing rate of whole tires shall not exceed 15.0% of the total Btu heat input (1.33 tons per hour).
- o The utilization/firing rate of whole tires shall be quantified (weighed) and recorded and the records shall be kept on file for a minimum of two years.
- o The quantity of all deliveries of whole tires shall be documented and kept on record/file for a minimum of two years.

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- o Objectionable odors shall not be allowed off the facility's property in accordance with Florida Administrative Code Rule 17-2.620(2).
- o All references to the Title 40 Code of Federal Regulations shall be of the July, 1990 version.

Attachments to be Incorporated:

- o Dr. John B. Koogler's letter received August 6, 1991.
- o 40 CFR (July, 1990 version).
- o Ms. Jewell A. Harper's letter dated April 4, 1990.
- o Intent to Issue package dated August 30, 1991.
- o Public Notice of the Intent to Issue received September 12, 1991.
- o Mr. Steve Smallwood's letter (amendment) dated November xx, 1991.
- o Dr. John B. Koogler's letter with enclosures (performance test results of pollutant emissions) received November xx, 1991.
- o Mr. C. H. Fancy's letter transmitting the performance test results of the pollutant emissions to the involved parties dated November xx, 1991.
- o The Department's Final Determination and Amendment dated November xx, 1991.

This letter constitutes proposed agency action. A person whose substantial interests are affected by the Department's proposed permitting decision to permit continuous utilization/firing of whole tires at the source may petition for an administrative proceeding (hearing) in accordance with Section 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 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit amendment applicant and the parties listed below must be filed within 14 days of receipt of this letter. The appropriateness of screening the test burn data for actual emission increases in accordance with 40 CFR Part 60, Appendix C, as opposed to any other methodology, may be raised in any petition for administrative proceedings filed challenging the Department's determination to authorize continuous utilization/firing of whole tires at the source. 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.

# DRAFT

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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 this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the requests/applications 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 in General Counsel at the above address of the Department.

This letter must be attached to the construction permit, No. AC 27-118674 (PSD-FL-091B), and shall become a part of the permit.

Sincerely,

---

Carol M. Browner  
Secretary

CB/SS/rbm

Attachments

cc: B. Thomas, SW District  
T. Mountain, FCSC  
L. Sellars, Esq., H&K  
T. Cleveland, Esq., OHF&C  
G. Smallridge, Esq., DER

C. Hetrick, HCBCC  
J. Harper, EPA  
C. Shaver, NPS  
J. Koogler, Ph.D., K&A