AC27-61016

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT
BRANCH OFFICE
825 NORTHWEST 23rd AVENUE
SUITE G
GAINESVILLE, FLORIDA 32601

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

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

SOURCE TYPE: Cement Kiln [x] New[1] [ ] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] 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 Kiln-Power Plant Baghouse (E-20)

SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville

UTM: East 360.008 km (Zone 17) North 3162.392 km

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

APPLICANT NAME AND TITLE: R. Fred Crabill, Environmental Manager

APPLICANT ADDRESS: Post Office Box 300, Leesburg, Florida 32749

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Florida Crushed Stone Co.

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: Fred Crabill

R. Fred Crabill, Environmental Manager
Name and Title (Please Type)

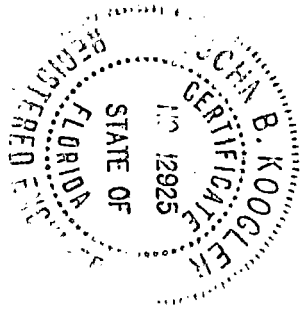
Date: 3/7/86 Telephone No. (904) 787-0608

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 ~~designed~~/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

[1] 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)

Sholtes & Koogler, Environmental Consultants
Company Name (Please Type)

1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)

Florida Registration No. 12925 Date: 3/7/86 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.

A baghouse is proposed to control particulate matter emissions from the cement kiln, the clinker cooler, the raw mill and a rotary materials dryer associated with the cement plant and to control emissions from the associated power plant. The emissions from the baghouse will meet applicable emissions standards.

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

Start of Construction March 1983 Completion of Construction June 1987

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.)

$10,200,000 installed cost of baghouse

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

Permit No. AC27-61016 issued 11/10/83; expired 12/31/85.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr ____; if seasonal, describe: the cement plant will operate 7,620 hours per year.

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO

   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. YES

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

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

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

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

   a. If yes, for what pollutants? ____

   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 justification 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				

B. Process Rate, if applicable: (See Section V, Item 1) See Page 4a

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
See Page 4b							

[1]See Section V, Item 2.

[2]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)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

Section III-A.

Raw Materials Used

Material	Contaminant	Utilization Rate	Flow Diagram
Rotary Dryer (C-12)			
Limestone Fines	Dust	205,400 lbs/hr	C03
Clay	Dust	19,800 lbs/hr	C03
Raw Mill (E-03)			
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
Kiln (K-02)			
Same as raw mill			
Coal (See fuel use)			K01
Cooler (K-07)			
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.

Section III-C.

Air Pollutants Emitted (Flow Diagram E20)

Contaminant	Emissions (lbs/hr)	Emissions (tpy)	Emission Standard	Uncontrolled Emissions[1] (lbs/hr)	Uncontrolled Emissions[1] (tpy)
Power Plant/Cement Plant					
See Attachment 2 for emissions for cement/power/lime plant combinations.					
Cement Plant					
Part. Matter	49.5	189	NSPS	46,066	175,511
Sulfur Dioxide	50.0	190	BACT	305	1,162
Nitrogen Oxides	359.0	1,368	BACT	359	1,368

(1) Uncontrolled emissions based on 99 percent control efficiency for particulate matter and 84 percent sulfur dioxide sorption in the cement kiln.

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	Part. Matter	See Attachment Package	> 0.5	Estimated

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Kiln - Coal	18,500	20,600	248.0

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

Fuel Analysis: Coal

Percent Sulfur: 0.75 Percent Ash: 10

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

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

Other Fuel Contaminants (which may cause air pollution): None

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

Annual Average Not Applicable Maximum

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

Ash generated in the power plant will be used in the cement plant. All material collected in the bag collector will be recovered and reused.

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

Stack Height: 300 ft. Stack Diameter: 16 ft.

Gas Flow Rate: 577,700/ 335,400 ACFM _____ DSCFM Gas Exit Temperature: 226/220 °F.

Water Vapor Content: 16/16 % Velocity: 47.9/27.8 FPS

Power plant and cement plant/ cement plant only

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 $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ 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)]
   Section III,A
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. Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
   Section III, C
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.) Attachment 1
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). See Attachment Package
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. See Attachment Package
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).
   See Attachment Package
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.
   See Attachment Package

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

(See Florida Crushed Stone PSD Application for BACT Review)

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

Kiln & Cooler Emissions

Particulate Matter

Kiln: Clinker production rate = 75.0 ton/hr

Kiln feed rate = 75 tons/hr x 1.65 tons feed/ton Clinker

= 123.8 tons feed/hr

P.M. = 123.8 tons/hr x 0.3 lb P.M./ton feed

= 37.1 lb/hr

Cooler:

P.M. = 123.8 tons/hr x 0.1 lb P.M./ton feed

= 12.4 lb/hr.

Sulfur Dioxide

Kiln: Coal consumption is 10.3 tons/hour with 0.74% Sulfur

Potential SO_2 emissions

= 10.3 tph x 2000 lb/ton x (0.0074 x 2) lb SO_2/lb coal

= 304.9 lb/hr

Actual SO_2 emissions (0.4 lb/ton kiln feed - BACT is 0.6 lb/ton of feed)

= 50.0 lb/hr

or

= 6.3 g/sec

SO_2 sorption = (304.9 - 50.0) x 100 / 304.9

= 83.6 %

Cooler: SO_2 emissions = 0.0

Nitrogen Oxides

Kiln: NO_x = 359.0 lb/hr (2.9 lb/ton kiln feed-BACT)

Carbon Monoxide

All Sources = 0.0 lb/hr

Hydrocarbons

All Sources = 0.0 lb/hr

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

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:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

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:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]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:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

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:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

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:[1]

3. Capital Coat:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]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

(See Florida Crushed Stone PSD Application for Air Quality Review)

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ ( ) SO^2* _____ 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^2	_____	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

BEST AVAILABLE COPY

E - 360.008
N - 3162.392

FORM PI-2 (72-9)

See Attached sheet for emission Calculations (pgg 7a & 7b)

Ht = 300'
dia = 16'
Vel = 47.9 fps - includes power plant gases

TABLE II
FABRIC FILTERS

Point Number (from Flow Diagram)	Manufacturer & Model No. (if available)
E20	
Name of Abatement Device POWER PLANT - KILN MILL BAGHOUSE	**Type of Particulate Controlled** LIMESTONE / FLYASH

GAS STREAM CHARACTERISTICS

Flow Rate (acfm)		Gas Stream Temperature (°F)	Particulate Grain Loading (grain/scf)	
Design Maximum	Average Expected		Inlet	Outlet
578,800	550,000	230	25	

Pressure Drop (in. H_2O)	Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements (hp)	Fan Requirements (ft^3/min)
6	0.0408	2250	580,000

PARTICULATE DISTRIBUTION (By Weight)

Micron Range	Inlet	Outlet
0.0-0.5	20 %	%
0.5-1.0	20 %	%
1.0-5.0	50 %	%
5-10	%	%
10-20	10 %	%
over 20	%	%

FILTER CHARACTERISTICS

Filtering Velocity (acfm/ft^2 of Cloth)	Bag Diameter (in.)	Bag Length (ft)	Number of Bags	Number of Compartments in Baghouse
1.6	12	37	3192	28

Bag rows will be:		Walkways will be provided between banks of bags:	
Staggered	(Straight)	(Yes)	No

Filtering Material: Fiber Glass - TEFLON COATED

Describe Bag Cleaning Method and Cycle: Reverse Air - Variable cycle

ADDITIONAL INFORMATION

On separate sheets attach the following:

A. Details regarding principle of operation

B. An assembly drawing (Front and Top View) of the abatement device dimensioned and to scale clearly showing the design, size and shape.

If the device has bypasses, safety valves, etc., include in drawing and specify when such bypasses are to be used and under what conditions.

ATTACHMENT 2

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS
1213 N.W. 6th Street Gainesville, Florida 32601 (904) 377-5822

SKEC 307-84-02

December 6, 1984

Mr. Hamilton S. Oven
Power Plant Siting Administrator
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Subject: Florida Crushed Stone Company
Brooksville, Florida
Modification to Proposed Cement Plant/Power Plant

Dear Mr. Oven:

This letter will replace my letter of August 8 regarding the referenced subject matter and further, incorporates modifications to the proposed facility addressed in my letter of October 25, 1984 to Mr. C. H. Fancy, Bureau of Air Quality Management, Florida Department of Environmental Regulation.

The modifications presented in this correspondence affect the construction permit for the cement plant (AC27-61016) and power plant (PA-8217) and add an air pollution source construction permit application for a 50 ton per hour fluid-bed lime kiln plus air pollution source construction permit applications for six materials handling sources. The modifications to the power plant affect only the emission rates of some of the pollutants and the flue gas flow rates under various operating conditions. There will be no change in the proposed generating capacity of the power plant nor in the hours of operation. Modifications to the cement plant permit affect only the gas flow rates reported in the original construction permit application. There will be no change in the pollutant emission rates from the cement plant, no changes in the production rate of the plant and no changes in the hours of operation.

The fluid-bed lime kiln that will be added to the facility is an integral part of the system that Florida Crushed Stone will use to achieve the proposed reduction in the sulfur dioxide emissions. The lime plant will be constructed in conjunction

with the power plant, with the off-gases from the lime plant being used as secondary combustion air in the power plant. In addition to providing heated secondary combustion air, the gas stream will also provide approximately four tons per hour of finely divided calcined lime particles. The injection of this lime into the power boiler will function as a lime-injection system for sulfur dioxide emission control. The sulfur dioxide generated by the combustion of fuel in the lime plant will be 95 percent absorbed in the fluidized lime bed.

Another internal modification to the cement plant/power plant/lime plant complex is a modification in the limestone dryer which was previously used to dry limestone fines for use in the cement plant. With the addition of the lime plant, the capacity of this dryer had to be increased to dry limestone for the lime plant as well as for the cement plant. The dryer now proposed for the facility is a 140 tons per hour fluid-bed limestone dryer. All of the heat required to dry the limestone will be provided by off-gases from the power plant and lime plant. In addition to drying the limestone, the fluid-bed limestone dryer will absorb at least 15 percent of the sulfur dioxide in the gas stream passing through the dryer.

The materials handling sources that must be added to handle the limestone and product lime associated with the new lime plant include:

1. A limestone storage silo to store dried limestone for the lime plant,

2. A limestone screening system to size the dried limestone,

3. A limestone fines storage bin to store dried limestone fines for the cement plant,

4. Two lime storage silos for product lime from the lime plant, and

5. A lime silo discharge system for lime load-out and shipping.

Emissions from these sources will consist entirely of particulate matter. Emissions from all of the sources will be controlled with fabric filter collectors to a particulate matter concentration in the discharged gas stream of 0.015 grains per actual cubic foot.

A flow diagram showing the interconnections between the cement plant, power plant, lime plant and limestone dryer is shown in Figure 1. In Table 1, the nine operating alternatives for the system are presented along with internal gas flow rates, stack gas flow rates and a summary of sulfur dioxide, nitrogen oxides and particulate matter emission rates. The criteria which were used to establish the pollutant emission rates are presented in Table 2.

The equivalent particulate matter emission rate from the proposed lime plant, based on a limit of 0.03 pounds of particulate matter per million BTU heat input, is 14.3 pounds per hour. This emission rate is much more stringent than the emission rate of 62.4 pounds per hour that would have been arrived at on the basis of federal New Source Performance Standards; or 0.6 pounds of particulate matter per ton of kiln feed.

The criteria that were used to develop the emission rates of sulfur dioxide, particulate matter and nitrogen oxides from the power plant and lime plant are based on venders guarantees and information developed by Florida Crushed Stone. The sulfur dioxide emission limit from the power plant and lime plant is proposed as 0.65 pounds per million BTU heat input but not to exceed 770 pounds per hour. With the power plant operating alone at a capacity of 125 megawatts, the 770 pound per hour sulfur dioxide emission rate results in an emission limit of 0.62 pounds of sulfur dioxide per million BTU heat input. This emission limit will be achieved through the absorption of sulfur dioxide by lime or limestone injection.

When both the power plant and lime plant are operating at full capacities (125 megawatts and 50 tons per hour, respectively), the sulfur dioxide emission rate of 770 pounds per hour results in a sulfur dioxide emission limit of 0.50 pounds per million BTU of heat input. This emission limit is achieved through the absorption of 95 percent of the sulfur dioxide generated in the fluid-bed lime plant and additional sulfur dioxide absorption in the power boiler resulting from the injection of lime with the heated secondary combustion air provided by the lime plant.

The nitrogen oxides emission limit for the power plant and lime plant is 0.7 pounds per million BTU heat input but not to exceed 846 pounds per hour. When the power plant is operating alone and at capacity, the 846 pound per hour nitrogen oxides emission rate results in a nitrogen oxides emission limit of 0.69 pounds per million BTU heat input. When both the power plant and lime plant are operating at capacity, the 846 pounds per hour emission rate results in a nitrogen oxides emission limit 0.56

pounds per million BTU heat input. This emission limit will be achieved through combustion modifications guaranteed by Babcock & Wilcox.

The particulate matter emission limit for the power plant and lime plant is 0.03 pounds per million BTU heat input but not to exceed 46.1 pounds per hour with both the power plant and lime plant operating at capacity and not to exceed 86.5 pounds per hour with the power plant, lime plant and cement plant operating at capacity. These particulate matter emission rates, when combined with the stack gas flow rates for the various operating conditions listed in Table 1 result in particulate matter concentrations in the stack gas that range from 0.010 to 0.020 grains per actual cubic foot. Since the manfuacturer of the baghouse will guarantee a particulate matter concentration in the discharged stack gas of 0.01 grains per actual cubic foot, all of the state particulate matter emission limits can be achieved.

The annual emission rates of the major criteria pollutants from the power plant, cement plant and lime plant complex are presented in Table 3. The data in this table show that there will be an emission rate increase for nitrogen oxides, carbon monoxide and volatile organic compounds; but increases that are less than the de minimus emission rate increases for these pollutants. The data further show that there will be a significant reduction in the annual emission rates of sulfur dioxide and particulate matter. The increase in annual nitrogen oxides emissions result even though maximum hourly emissions will decrease (from 1223 to 1205 pounds per hour). This is a result of the method used by FDER to calculate the annual nitrogen oxides emission rate during the initial permitting process. Similarly, the annual particulate matter levels show a significant decrease, while maximum hourly emissions remain unchanged (86.5 pounds per hour), and annual sulfur dioxide emissions show a much greater decrease than would be associated with the proposed reduction in hourly emissions (965 to 781 pounds per hour); both as a result of how FDER calculated annual emissions during the initial permitting.

Emission rates of particulate matter from the new materials handling sources are summarized in Table 4. Also addressed in Table 4 are particulate matter emissions that will result from the added truck traffic required to transport the lime that will be produced in the proposed lime plant. The increase in fugutive particulate matter emissions generated by the additional truck traffic will be more than offset by the reduction in traffic generated fugitive particulate matter omissions resulting from the construction of a new paved access road to the cement plant/power plant/lime plant and to the existing limerock facilities. The

reduction in fugitive particulate matter emissions achieved by the construction of this road are discussed in detail in the Sholtes & Koogler, Environmental Consultants letter to Mr. Cleve Holladay of the Florida Department of Environmental Regulation dated April 14, 1983. A reduction in the fugitive emissions resulting from the paved road are also summarized in Table 4.

From the annual emission rate data reported in Tables 3 and 4, it can be noted that the emission rate of none of the criteria pollutants will increase by an amount greater than the de minimus emission rate increase and, in two cases, there will be significant reductions in pollutant emission rates. Since there will be no pollutant emission rate increases greater than the de minimus emission rate increases established in Chapter 17-2.500, Table 500-2, FAC, the modifications proposed by Florida Crushed Stone will not be subject to a PSD review. The air pollution source construction permits submitted with this letter plus the information contained herein should provide the FDER with the information necessary to modify the affected existing construction permits and to process the permit applications for the additional air pollution sources.

The emission rates of the trace criteria pollutants resulting from the operation of the power plant, cement plant and lime plant are summarized in Table 5. From this table, it will be noted that there will be increases in the annual emission rates of mercury and beryllium. The sulfuric acid mist and fluoride emission rates will remain at approximately the same level as a result of absorption in the lime plant, absorption by the injected lime in the power boiler and absorption by the raw materials in the cement plant. Even though the emission rates of mercury and beryllium from the entire cement plant, power plant, and lime plant complex exceed the de minimus emission rates for these pollutants, the impacts of the pollutants on ambient air quality are less than the de minimus impacts for the pollutants by a factor of approximately a 1000 or more. This indicates that even though the de minimus emission rates are exceeded, there is no health hazard associated with these emissions and further discussion is warranted.

A detailed discussion of the trace pollutants, the method of calculating the emission rates and the mechanisms inherent in the Florida Crushed Stone system that reduce the emissions of these pollutants is presented in a letter from SKEC to Mr. C. H. Fancy of the FDER, dated October 28, 1983.

Since the modifications proposed by Florida Crushed Stone are not subject ot a PSD review, an air quality review was not

conducted. Similarly, a review of impacts of emissions on soils, vegetation and visibility is not required.

After reviewing this letter and the attached permits and documentation, if you have any questions or require further information to modify the construction permits for the power plant and cement plant or to process the construction permit applications for the proposed new sources, please contact me.

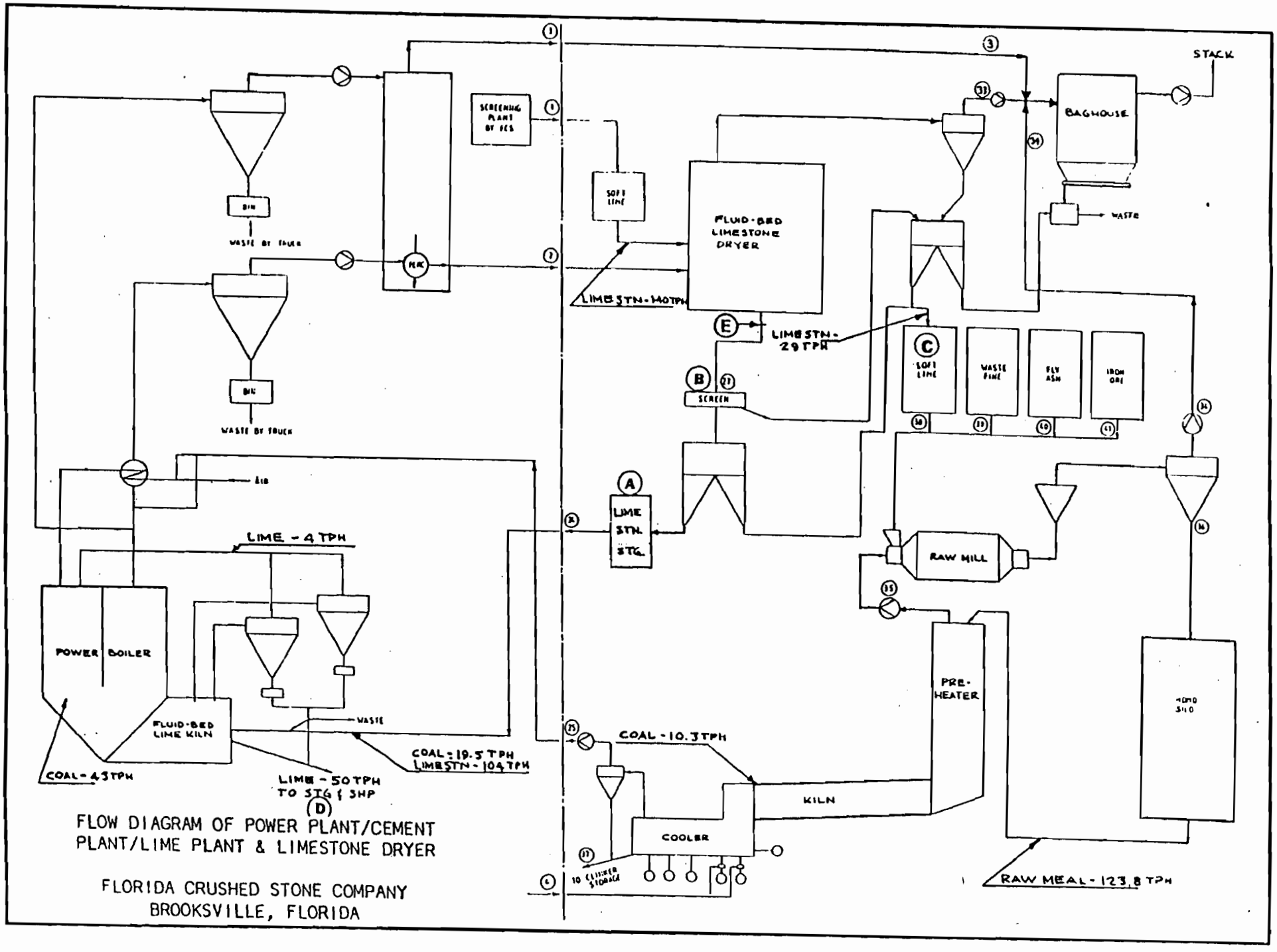
Very truly yours,

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS

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

JBK/jrh
Enclosures

cc: Mr. C. H. Fancy
Mr. Browne Gregg
Mr. Dick Entorf
Mr. Larry Curtin



FLOW DIAGRAM OF POWER PLANT/CEMENT PLANT/LIME PLANT & LIMESTONE DRYER

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

TABLE 1

INTERNAL AND STACK GAS FLOW RATES AND TEMPERATURES AND AIR POLLUTANT EMISSION RATES FOR VARIOUS OPERATING CONDITIONS

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

Case	Operating Units[1]	Gas Stream[2] (3) Flow (ACFM)	(3) Temp (°F)	(33) Flow (ACFM)	(33) Temp (°F)	(34) Flow (ACFM)	(34) Temp (°F)	Stack Gas Flow (ACFM)	Stack Gas Temp (°F)	Stack Gas SO_2 (lb/hr)	Stack Gas NOx (lb/hr)	Stack Gas P.M. (lb/hr)
1	Power	420,000	330	0	-	0	-	420,000	330	770	846	37.0
2	Power/lime	471,290	355	0	-	0	-	471,290	355	770	846	46.1
3	Power/lime/cement	532,459	403	0	-	159,637	250	692,096	362	781[3]	1205[4]	86.5[5]
4	Power/lime/cement/dryer	110,380	516	371,704	220	159,637	250	641,721	265	691	1205	86.5
5	Power/lime/dryer	107,710	300	324,198	220	0	-	431,908	238	681	846	46.1
6	Power/cement/dryer	137,508	303	342,020	361	159,637	250	639,243	318	705	1205	86.5
7	Power/cement	489,520	240	0	-	159,637	250	648,757	242	781	1205	86.5
8	Power/dryer	106,289	290	289,255	220	0	-	395,544	237	683	846	37.0
9	Cement	119,000	350	0	-	159,637	250	278,637	290	50	359	49.5

(1) Power - Power plant @ 125 mw
Lime - Fluid-bed lime kiln @ 50 tph lime
Dryer - Fluid-bed limestone dryer @ 140 tph
Cement - Cement plant @ 75 tph clinker.

(2) See attached Flow Diagram for identification of gas streams.

(3) Maximum hourly sulfur dioxide emission rate of 781 lb/hour represents a reduction of 184 lb/hr from presently permitted maximum emission rate.

(4) Maximum hourly nitric oxides emission rate of 1205 lb/hour represents a reduction of 18 lb/hr from presently permitted maximum emission rate.

(5) Maximum hourly particulate matter emission rate of 86.5 lb/hour represents no change from presently permitted maximum emission rate.

TABLE 2

EMISSION LIMITING CRITERIA FOR
POWER PLANT/LIME PLANT/CEMENT PLANT

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

NITRIC OXIDES -

Cement Plant	-	359 lb/hr (as permitted)
Power/Lime Plant	-	0.7 lb/10^6 BTU not to exceed 846 lb/hr
TOTAL		1205 lb/hr maximum or 4630 tpy

PARTICULATE MATTER -

Cement Plant	-	0.1 lb/ton of feed; clinker cooler and 0.3 lb/ton of feed; kiln not to exceed 49.5 lb/hr (as permitted)
Power/Lime Plant	-	0.03 lb/10^6 BTU not to exceed 46.1 lb/hr
Power/Lime/Cement	-	0.1 lb/ton of feed; clinker cooler, 0.3 lb/ton of feed; kiln and 0.03 lb/10^6 BTU Power and Lime Not to exceed 86.5 lb/hr or 336 tpy

SULFUR DIOXIDE -

Cement Plant	-	50.0 lb/hr (as permitted)
Power/Lime Plant	-	0.65 lb/10^6 BTU not to exceed 770 lb/hr
MAX	-	781 lb/hr or 3077 tpy

CARBON MONOXIDE -

Cement Plant	-	0
Power/Lime Plant	=	1.0 lb/ton coal x 62.4 tph = 62.4 lb/hr or 286 tpy

TABLE 3

EMISSION SUMMARY OF MAJOR CRITERIA POLLUTANTS
FROM POWER PLANT/LIME PLANT/CEMENT PLANT COMPLEX

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

	Annual Emission Rate (tons/year)			
Pollutant	Proposed[1]	Permitted[2]	Increase (Decrease)	De Minimus Emission Rate Increase
Sulfur Dioxide	3077	5475	(2398)	40
Nitrogen Oxides	4630	4598	32	40
Particulate Matter	336	595	(259)	25
Carbon Monoxide	286[3]	197	89	100
VOC	86[4]	71	15	40

(1) Proposed Florida Crushed Stone facility with 125 megawatt power plant, a 50 tph lime kiln and a 75 tph (clinker) cement plant. The maximum annual emission rates were calculated assuming Case 3 operated 7620 hours per year and Case 2 operated an additional 264 hours per year.

(2) Proposed Florida Crushed Stone facility as permitted with a 125 megawatt power plant and a 75 tph (clinker) cement plant.

(3) Based on 1.0 lb CO per ton of coal and a proposed coal use rate of 572,000 tons per year.

(4) Based on 0.3 lb VOC per ton of coal and a proposed coal use rate of 572,000 tons per year.

TABLE 4

PARTICULATE MATTER EMISSIONS FROM NEW MATERIALS
HANDLING SOURCES AND ADDITIONAL TRUCK TRAFFIC

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

Sources[1]	Particulate Matter Emission Rates (lbs/hr)	Particulate Matter Emission Rates (tons/year)
Screens Following Limestone Dryer	0.8	3.0
Limestone Storage for Lime Plant	1.2	4.6
Limestone Fines Storage for Cement Plant	0.8	3.0
Lime Storage Silo	0.6	2.4
Lime Storage Silo	0.6	2.4
Lime Shipping	0.6	2.4
SUB-TOTAL	---	17.8
Traffic[2]	---	(-818)

(1) See construction permit applications for derivation of emission rates except for traffic related emissions.

(2) Traffic related fugitive particulate emissions were derived by modifying the information provided to FDER in the SKEC letter dated April 14, 1983 to account for the additional 5100 trucks per year needed to ship lime from the new lime plant (half the lime will be shipped by rail):

Travel by additional trucks = 10,200 miles/year
Travel by trucks to cement plant = 41,600 miles/year (a)
Emissions from trucks to cement plant = 50 tons/year (a)
Emissions from additional trucks = (10,200/41,600) x 50
= 12.3 tons/year

Total Proposed Traffic Emissions from FCS facility = 731 tpy
(= 719 tpy (a) + 12.3 tpy)

Total Existing Traffic Emissions from FCS facility = 1549 tpy (a)
Net Change = Decrease of 818 tpy
(a) from SKEC letter to Cleve Holladay dated April 14, 1983.

TABLE 5

EMISSIONS OF TRACE CRITERIA POLLUTANTS[1]

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

Pollutant	Emission Factor[2] (lb/10^{12} BTU)	Emission Rate (pounds/year) Uncontrolled[3]	Controlled Proposed[1]	Controlled Permitted	De Minimus[2]	Control Efficiency[1] (%)
Mercury	18.2	254	254[4]	236	200	0
Beryllium	316.8	4,419	4.4[5]	3.9	0.8	99.9
Fluoride	9320.0	130,014	5520	5520	6,000	95.8 min.
H_2SO_4 Mist	0.74% of S in coal	194,443	13,400	13,400	14,000	93.1 min.

(1) Calculated by method outlined in Sholtes & Koogler, Environmental Consultants (SKEC) letter to C. H. Fancy and dated October 28, 1983.

(2) From Health Impacts, Emissions, and Emission Factors for Non-Criteria Pollutants Subject to De Minimus Guidelines and Emitted from Stationary Combustion Processes, EPA 450/2-80-074, June 1980.

(3) Based on the following heat input rates:

Power Plant = 43.0 tons coal/hr x 2000 lbs/ton x 12,200 BTU/lb x 7884 hrs/year
= 8.27×10^{12} BTU/year

Lime Plant = 19.5 tons coal/hr x 2000 x 12,200 x 7884
= 3.75×10^{12} BTU/year

Cement Plant = 10.4 tons coal/hr x 2000 x 12,200 x 7620
= 1.93×10^{12} BTU/year

TOTAL = 13.95×10^{12} BTU/year

(4) Exceeds de minimus emission rate, however the maximum 24-hour average impact will be in the range of 0.0005 ug/m^3 compared with the de minimus 24-hour average impact for mercury of 0.1 ug/m^3.

(5) Exceeds de minimus emission rate, however the maximum 24-hour average impact will be in the range of 0.000007 ug/m^3 compared with a de minimus 24-hour average impact for beryllium of 0.005 ug/m^3.

TABLE 6

CLASS I AREA SULFUR DIOXIDE IMPACTS
NEW AND PROPOSED SOURCES IN BROOKSVILLE, FLORIDA AREA

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

	Class I Area Sulfur Dioxide Impact (ug/m^3)								
	Annual			3-Hour			24-Hour		
Year	FCS[1]	FMM[2]	All[3]	FCS	FMM	All	FCS	FMM	All
1973	0.2	0.3	0.6	8.5	11.1	16.4	2.1	2.7	4.1
1974	0.2	0.3	0.5	8.3	10.5	15.3	2.1	2.5	3.6
1975	0.2	0.4	0.6	10.1	11.9	13.8	2.4	2.8	3.8
1978	0.2	0.3	0.5	8.7	9.1	13.7	2.1	2.5	3.1
1979	0.2	0.4	0.6	8.0	11.1	14.0	2.3	3.0	3.7
Std		1.0			25.0			5.0	

(1) Florida Crushed Stone with 125 mw power plant, 50 tph lime plant, 75 tph (clinker) cement plant and 140 tph limestone dryer.

(2) Florida Mining and Materials with existing cement plant plus a 125 mw power plant.

(3) Sources (1) and (2) plus other new sulfur dioxide sources.

SULFUR DIOXIDE
EMISSION RATE CALCULATIONS
FOR ALL OPERATING CONDITIONS
(As Presented Ir Table 1)

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

Case 1 - Power Plant at 125 MW

Power Plant

Coal firing rate - 50.0 tph @ 0.75% sulfur

SO_2 = 50.0 tph x 39(0.75) lb SO_2/ton*
= 1,462.5 lb/hr generated.

SO_2 adsorption by limestone injection (guaranteed by B&W)
= 47.4%

SO_2 from economizer to baghouse
= 1,462.5 (1 - 0.474)
= 770 lb/hr.

To Stack

Baghouse will adsorb 0% of the SO_2 when the cement plant is not operating

SO_2 = 770 (1 - 0)
= 770 lb/hr to the stack.

* AP-42, Supplement 13 emission factor.

Case 2 - Power Plant at 125 MW and Lime Plant at 50 tph

Lime Plant

Coal firing rate - 19.89 tph @ 0.75% sulfur

SO_2 = 19.89 x 39 (0.75) lb SO_2/ton
= 581.8 lb/hr from coal.

Limestone feed rate - 103.44 tph @ 0.04% sulfur

SO_2 = 103.44 tph x 2000 lb/ton x (0.0004 x 2) lb SO_2/lb.
= 165.5 lb/hr from limestone.

Total SO_2 to Lime Plant
= 747.3 lb/hr.

SO_2 adsorption by fluid-bed = 95%*

SO_2 to Power Plant
= 747.3 (1 - 0.95)
= 37.4 lb/hr.

Power Plant

Coal firing rate - 42.13 tph @ 0.75% sulfur

SO_2 = 42.13 x 39(0.75) lb SO_2/ton
= 1,232.3 lb/hr from coal.

Lime Plant SO_2
= 37.4 lb/hr

Total SO_2 to Power Plant
= 1,269.7 lb/hr.

SO_2 adsorption by limestone injection (guaranteed by B&W)
= 39.4%.

SO_2 from economizer to baghouse
= 1,269.7 (1 - 0.394)
= 770 lb/hr

To Stack

Baghouse will absorb 0% of the SO_2 when the cement plant is not operating

SO_2 = 770 (1 - 0)
= 770 lb/hr to the stack

---

* See FDER letter dated October 11, 1984

Case 3 - Power Plant/Lime Plant/Cement Plant @ 75 tph clinker

Lime Plant/Power Plant

SO_2 from economizer to baghouse
= 770 lb/hr (from Case 2)

Cement Plant

SO_2 = 52.6 lb/hr to the baghouse

To Stack

Baghouse will adsorb 5% of the SO_2 with the cement plant operating.

SO_2 = (770 + 52.6)(1 - 0.05)
= 781 lb/hr* to the stack.

---

* Includes 50.0 lb SO_2/hour from the cement plant as presently permitted.

Case 4 - Power Plant/Lime Plant/Cement Plant/Dryer

Lime Plant/Power Plant

SO_2 from economizer to baghouse
= 770 lb/hr (from Case 2)

Dryer

82.9% of the gases from economizer pass through the fluid-bed rock dryer where 15% of the SO_2 is adsorbed and then to the baghouse.

17.1% of the gases from economizer by-pass the dryer and go directly to the baghouse.

SO_2 = 770 (0.171)(1) + 770 (0.829)(1 - 0.15)
= 674.3 lb/hr to baghouse.

Cement Plant

SO_2 = 52.6 lb/hr to the baghouse.

To Stack

Baghouse will adsorb 5% of SO_2 with the cement plant operating.

SO_2 = (674.3 + 52.6)(1 - 0.05)
= 691 lb/hr* to the stack

---

* Includes 50.0 lb SO_2/hr from the cement plant as presently permitted.

Case 5 - Power Plant/Lime Plant/Dryer

Lime Plant/Power Plant

SO_2 from the economizer to the baghouse
= 770 lb/hr (from Case 2).

Dryer

77.1% of the gases from economizer pass through the fluid-bed rock dryer where 15% of the SO_2 is adsorbed.

22.9% of the bases from the economizer by-pass the dryer and to directly to the baghouse.

SO_2 = 770 (0.229)(1) + 770 (0.771)(1 - 0.15)
= 681.0 lb/hr to baghouse.

To Stack

Baghouse will adsorb 0% of SO_2 when the cement plant is not operating.

SO_2 = (681.0)(1 - 0)
= 681 lb/hr to the stack

Case 6 - Power Plant/Cement Plant/Dryer

Power Plant

SO_2 from economizer to dryer
= 770 lb/hr (from Case 1)

Dryer

69.8% of the gases from the economizer pass through the fluid-bed rock dryer where 15% of the SO_2 is adsorbed.

30.2% of the gases from the economizer by-pass the dryer and go directly to the baghouse.

SO_2 = 770(0.302)(1) + 770(0.698)(1 - 0.15)
= 689.4 lb/hr to the baghouse.

Cement Plant

SO_2 = 52.6 lb/hr to the baghouse.

To Stack

Baghouse will adsorb 5% of the SO_2

SO_2 = (689.4 + 52.6)(1 - 0.05)
= 705 lb/hr to the stack.

Case 7 - Power Plant/Cement Plant

Power Plant

SO_2 from the economizer to the baghouse
= 770 lb/hr (from Case 1)

Cement Plant

SO_2 = 52.6 lb/hr to the baghouse.

To Stack

Baghouse will adsorb 5% of the SO_2 when the cement plant is operating.

SO_2 = (770 + 52.6)(1 - 0.05)
= 781 lb/hr* to the stack.

---

* Includes 50.0 lb SO_2/hr from the cement plant as permitted.

Case 8 - Power Plant/Dryer

Power Plant

SO_2 from economizer to the dryer
= 770 lb/hr (from Case 1).

Dryer

75.0% of the gases from the economizer pass through the fluid-bed rock dryer where 15% of the SO_2 is adsorbed.

25.0% of the gases from the economizer by-pass the dryer and go directly to the baghouse.

$$SO_2 = 770\ (0.25)(1) + 770(0.75)(1 - 0.5)$$
$$= 683 \text{ lb/hr.}$$

To Stack

Baghouse will adsorb 0% of the SO_2 when the cement plant is not operating.

$$SO_2 = 683(1 - 0)$$
$$= 683 \text{ lb/hr.}$$

Case 9 - Cement Plant

Cement Plant

SO_2 = 52.6 lb/hr to baghouse.

To Stack

Baghouse will adsorb 5% of the SO_2 when the cement plant is operating.

SO_2 = 52.6(1 - 0.05)
= 50.0 lb/hr to the stack as permitted.

NO_x, CO AND PARTICULATE MATTER EMISSION RATE CALCULATIONS FOR ALL OPERATING CONDITIONS (As Presented In Table 1)

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

EMISSION RATE CALCULATIONS
POWER / LIME / CEMENT PLANT
FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA

CASE 1

Power Plant Only @ 125 MW

NO_x @ 0.7 lb / 10^6 BTU, not to exceed 846 lb/hr

= 1234.0 x 10^6 x 0.7
= 864 lb/hr > 846 lb/hr
∴ Set at limit of
= 846 lb NO_x / hr

P.M. @ 0.03 lb / 10^6 BTU

= 1234.0 x 10^6 x 0.03
= 37.0 lb P.M. / hr

CO @ 1.0 lb / ton Coal

= 50.0 tph coal x 1.0 lb/ton
= 50.0 lb / hr

CASE 2

Power Plant @ 125 M.W
Lime Plant @ 50 tph

NO_x

$= 1538 \times 10^6$ BTU/hr $\times$ 0.7

> 846 lb/hr

$\therefore$ set at limit of

$= 846$ lb NO_x/hr

P.M.

$= 1538 \times 10^6$ BTU/hr $\times$ 0.03

$= 46.1$ lb P.M./hr

CO

$= 62.4$ tph coal $\times$ 1.0

$= 62.4$ lb CO/hr

CASE 3

Power Plant @ 125 MW
Lime Plant @ 50 tph
Cement Plant @ 75 tph clinker

NO_x

Power/Lime plants = 846 lb/hr (limit)
Cement plant = 359 lb/hr (as permitted)

Total NO_x = 1205 lb NO_x/hr

P.M.

Power/Lime plants = 46.1 lb/hr
Cement plant = 49.5 lb/hr (as permitted)

Total PM = 95.6 lb PM/hr
> 86.5 lb/hr
∴ Set at limit of
86.5 lb PM/hr (limit)

CO

Power/Lime plants = 62.4 lb/hr
Cement plant = 0

Total CO = 62.4 lb CO/hr

CASE 4

Power Plant @ 125 mw
Lime Plant @ 50 tph
Cement Plant @ 75 tph clinker
Dryer @ 140 tph

NO_x

Power / Lime plants	=	846 lb/hr (limit)
Cement plant	=	359 lb/hr (as permitted)
Dryer	=	0 lb/hr
Total NO_x	=	1205 lb/hr

P.M.

Power / Lime plants	=	46.1 lb/hr
Cement plant	=	49.5 lb/hr
Dryer	=	0 lb/hr (included in Power/Lime plant
		95.6 lb/hr
		set at limit of
Total PM	=	86.5 lb PM/hr (limit)

CO

Power / Lime plants	=	62.4 lb/hr
Cement plant	=	0
Dryer	=	0
Total CO	=	62.4 lb CO/hr

CASE 5

Power Plant @ 125 tph
Lime Plant @ 50 tph
Dryer @ 140 tph

NOx

Power / Lime Plants	=	846 lb/hr (limit)
Dryer	=	0
Total NO_x	=	846 lb/hr

PM

Power / Lime Plants	=	46.1 lb/hr
Dryer	=	0
Total P.M.	=	46.1 lb/hr

CO

Power / Lime Plant	=	62.4 lb/hr
Dryer	=	0
Total CO	=	62.4 lb/hr

CASE 6

Power Plant @ 25 Mw
Dryer @ 140 tph
Cement Plant @ ~5 tph clinker

NO_x

Power Plant	= 846 lb/hr (limit)
Dryer	= 0
Cement Plant	= 359 lb/hr (as permitted)
Total NO_x	= 1205 lb/hr

PM

Power Plant	= 37.0 lb/hr
Dryer	= 0
Cement Plant	= 49.5 lb/hr (as permitted)
Total PM	= 86.5 lb/hr

CO

Power Plant	= 50.0 lb/hr
Dryer	= 0
Cement Plant	= 0
Total CO	= 50.0 lb/hr

CASE 7

Power Plant @ 125 ~ w
Cement Plant @ 75 tph clinker

NO_x

Power Plant	=	846 lb/hr (limit)
Cement Plant	=	359 lb/hr (as permitted)
Total NO_x	=	1205 lb/hr

P.M.

Power Plant	=	37.0 lb/hr
Cement Plant	=	49.5 lb/hr (as permitted)
Total PM	=	86.5 lb/hr

CO

Power Plant	=	50.0 lb/hr
Cement Plant	=	0
Total CO	=	50.0 lb/hr

CASE 8

Power Plant @ 125 MW
Dryer @ 90 tph

NO_x

Power Plant	= 846 lb/hr (limit)
Dryer	= 0
Total NO_x	= 846 lb/hr

PM

Power Plant	= 37.0 lb/hr
Dryer	= 0
Total PM	= 37.0 lb/hr

CO

Power Plant	= 50.0 lb/hr
Dryer	= 0
Total CO	= 50.0 lb/hr

CASE ⇒

Cement Plant @ 75 tph clinker

NO_x Cement Plant = 355 lb/hr (as permitted)

DM Cement Plant = 47.5 lb/hr (as permitted)

CO Cement Plant = 0 (as permitted)

BEST AVAILABLE CONTROL TECHNOLOGY (BACT) DETERMINATION
Florida Crushed Stone Company
Hernando County
(Amended April 6, 1982)

(This amended BACT determination supersedes the determination dated January 12, 1983. The applicant added one additional baghouse to Table 1 and reduced the expected amount of pollutants to be discharged in the kiln exhaust gases.)

The applicant plans to construct a Portland cement production facility two miles northwest of Brooksville, Florida. The manufacturing processes will use the latest innovations in dry cement technology and recirculation of hot exhaust gas streams to conserve energy. Baghouses will be used to limit the amount of particulate matter discharged into the atmosphere. The facility is designed to produce 600,000 tons of Portland cement per year. The operating schedule will be between 7620 and 8760 hours per year.

The maximum heat input to the cement kiln is 248 million Btu per hour and the design production rate is 75 tons of clinker per hour. The cement kiln when fired at maximum heat input will consume 10.3 tons of coal per hour and 9.25 tons per hour at the average firing rate. The coal used will have a sulfur content of 0.75 percent and a heating value of approximately 12,000 Btu per pound. The hot exhaust gases from the cement kiln are cooled in the kiln feed preheater and a rotary dryer before discharging through a baghouse into the atmosphere. Clinker from the kiln is reduced in temperature in a clinker cooler. The heated air discharge from the clinker cooler is used as pre-heated combustion air for the kiln and the power plant boiler.

The power plant boiler is designed to produce steam in excess of the cement plant requirements. The excess steam will be used to produce up to 125 megawatts of electrical power. The power plant will be reviewed by the Electrical Power Plant Siting Section as set forth in Chapter 17-17 of the Florida Administrative Code. This information is included in this determination because one large baghouse will control particulate emissions from gas streams ducted from both the power plant and portions of the cement plant.

The movement of raw materials, recycled materials, and product will be through enclosed transfer systems. All gas streams from the various transfer systems will vent through a baghouse into the ambient air. Table 1 lists the various point sources.

TABLE 1

BAGHOUSE INVENTORY

AC-27 Permit	SOURCE	LB.PM/HR	TPY	IDENT.**
61021	Kiln Feed	0.8	2.9	H-15***
61019	Cement Kiln*			
51019	Raw Materials Bin	0.8	3.0	D-18
61012	Pre Mix Bins	0.6	2.3	D-12
61013	Fly Ash Bin	0.6	2.4	D-23
61017	Raw Meal Transfer	0.3	1.0	F-14
61020	Blending Silo	3.3	12.7	G-12
61030	Clinker Silo	0.6	2.4	L-06
61032	Clinker Silo	0.6	2.4	L-08
61027	Cooler Discharge	0.8	2.9	L-16
61033	Silo Discharges	1.8	6.9	M-08
61037	Finish Mill	6.4	24.5	N-13
61038	Cement Silo Discharge	0.6	2.4	Q-17
61040	Cement Silo	0.6	2.4	Q-15A
61042	Cement Silo	0.6	2.4	Q-15C
61041	Cement Silo	0.6	2.4	Q-15B
61026	Coal Handling	0.8	2.9	S-04
	Particulate Totals	19.8	75.9	

* The cement kiln exhaust gases discharge into the ambient air through the power plant baghouse.

Pollutant	Amended	Previous	Amended
Particulates	49.5 lb/hr	50 lb/hr	189 TPY
SO_2	80 lb/hr	100 lb/hr	305 TPY
NO_x	416 lb/hr	422 lb/hr	1585 TPY

** Plant equipment number
*** Baghouse source added

A Portland cement plant is one of the major facilities listed in Table 500-1 of 17-2.500, FAC, Prevention of Significant Deterioration (PSD). A BACT determination is required for each pollutant exceeding the significant emission rates in Table 500-2, which in this case are particulates, sulfur dioxide and nitrogen oxides. This facility is also subject to New Source Performance Standards (NSPS), 40 CFR 60.60, Subpart F.

BACT Determination Requested by the applicant:

Pollutant	Emission Limit
Particulates (kiln)	0.3 lbs/ton of dry kiln feed
Particultes (cooler)	0.1 lbs/ton of dry kiln feed
Sulfur dioxide (kiln)	Coal containing 0.75% sulfur
Nitrogen Oxides (kiln)	1.7 lbs/million Btu heat input
Nitrogen Oxides (rotary dryer)	0.2 lbs/million Btu heat input

Fabric filter baghouses will be used to limit particulate emissions from all other sources. Particulate matter discharged to the atmosphere will be in the range between 0.012 and 0.015 grains per actual cubic feet. (Table 1)

Date of Receipt of a BACT Application:

October 1, 1982

Date of Publication in the Florida Administrative Weekly:

October 15, 1982

Review Group Members:

Comments were obtained from the New Source Review Engineering Section, the Air Modeling Section, and the DER Southwest District Office.

BACT Determined by DER:

Source	Pollutant Emission Limit
Kiln	0.30 pound particulate matter per ton of feed (dry basis).
Kiln	Visible emissions not to exceed 10 percent opacity.
Kiln	0.60 pound SO_2 per ton of feed (dry basis). Fossil fuels must be the only fuels fired.
Kiln	2.9 pounds NO_x per ton of feed (dry basis).
Clinker Cooler	0.10 pound particulate matter per ton of kiln feed (dry basis).
Clinker Cooler	Visible emissions not to exceed 10 percent opacity.
Dryer	Visible emissions not to exceed 10 percent opacity.
Raw Mill	Visible emissions not to exceed 10 percent opacity.

BACT for the sources (except the cement kiln) as listed in Table 1 is that visible emissions must not exceed 5 percent opacity.

Compliance with the particulate emission limitations will be in accordance with the EPA Reference Methods in Appendix A, 40 CFR 60, as set forth in Subsection 60.64 of the NSPS for Portland Cement Plants, 40 CFR 60.60.

Compliance with opacity standards will be determined by conducting observations in accordance with DER Method 9 (17-2.700(6)(a)9. FAC).

Compliance with the SO_2 and NO_x emission limitations will be in accordance with 40 CFR 60, Appendix A; Method 6 and 7.

The performance test for the cement kiln must be conducted with the dryer feed shut off. The performance test for the clinker cooler must be conducted with the feed to the raw mill shut off. Since the kiln and clinker cooler have one common control device, their emission rates may be combined. The power plant boiler must be down during these performance tests.

BACT Determination Rationale

The NSPS visible emission limitation for the clinker cooler, dryer and raw mill exhaust gases are not to exceed 10 percent opacity, and the cement kiln exhaust gases must not exceed 20 percent opacity. Exhaust gases from all four sources pass through a common baghouse and only one VE limitation would be practical. The visible emission BACT for these four sources and the baghouse was determined to be the 10 percent.

BACT for particulate emissions was determined to be equivalent to NSPS for Portland Cement Plants, 40 CFR 60.60, Subpart F.

BACT for SO_2 emissions from the cement kiln was determined to be equal to 25 percent of the rate calculated from the emission factor in AP-42, Table 1.1-2. The 75 percent reduction in SO_2 emissions is due to the alkaline nature and affinity for SO_2 of the material being processed.

BACT for the sources listed in Table 1, other than the cement kiln, is that the exhaust gases must not exhibit greater than 5 percent opacity. The department feels the 5 percent opacity determined as BACT, which is more stringent than the NSPS standard of 10 percent, is attainable with a baghouse.

BACT for NO_x emissions from the cement kiln was determined to be equal to 360 pounds per hour. This rate was obtained from the EPA-BACT clearinghouse report.

This BACT determination was based upon the firing of coal. The firing of non-fossil fuels is not allowed.

Details of the Analysis May be Obtained by Contacting:

Edward Palagyi, BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended By:

C. H. Fancy, Deputy Chief, BAQM

Date: 11/10/83

Approved:

Victoria J. Tschinkel, Secretary

Date: 10/11/83

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

August 8, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Joseph J. Piermatteo
Senior Vice President
Central Power & Lime, Inc.
10311 Cement Plant Road
Brooksville, Florida 34601

Dear Mr. Piermatteo:

Re: Amendments to PSD-FL-090
Boiler Heat Input Increase From 1000 to 1,850 MMBTU/hr

The Department received your application on March 15, 1995, for amendment of the subject air construction permit allowing an increase to 1,850 MMBTU/hr in the boiler firing rate. The permit is amended as shown:

Specific Condition A.1.c.:

FROM: c. Particulates - 0.03 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

TO: **c. PM/PM10 - 0.0135 lb per MMBTU (25.0 lbs per hour at 1,850 MMBTU/hr), averaging time per 40 CFR 60.46.**

Specific Condition A.1.d.:

FROM: d. Visible emissions - 20% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

TO: **d. Visible emissions - 10% opacity, 6-minute average, except for one 6-minute period per hour of not more than 17% opacity.**

Specific Condition A.2.c.:

FROM: c. Particulates - 0.03 lb. per million Btu heat input plus 0.3 lb from the cement kiln and 0.1 lb from the clinker cooler per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.

TO: **c. PM/PM10 - 0.0135 lb per MMBTU (25.0 lbs per hour at 1,850 MMBTU/hr) plus 0.3 lb from the cement kiln and 0.1 lb from the clinker cooler per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.**

Specific Condition C.6.:

FROM: 6. Instruments shall be installed, calibrated, and maintained to continuously measure the amounts of coal used, material fed to the kiln, and clinker produced. The records of fuel usage with the fuel analysis, daily kiln feed and clinker produced shall be reported quarterly to the Florida Department of Environmental Regulation Southwest District office.

TO: **6. Instruments shall be installed, calibrated, and maintained to continuously measure the amounts of coal and limestone used in the boiler, material fed to the kiln, and clinker produced. The records of coal and limestone used in the boiler, fuel analysis, daily kiln feed and clinker produced shall be reported quarterly to the Department's Southwest District office.**

Specific Condition G.1.:

FROM: 1. When the power plant boiler is operating alone and the cement plant is not in operation, the maximum heat input rate of the boiler shall not exceed the site specific limit of 1,000 million Btu per hour, maximum three-hour average.

TO: **1. The heat input rate of the boiler, with or without the cement plant operating, shall not exceed the maximum necessary to produce 150 MW of power and shall in no case exceed 1,850 MMBTU/hr, maximum three-hour average.**

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 (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 applicant of the amendment request/application and the parties listed below must be filed within 14 days of receipt of this amendment. Petitions filed by other persons must be filed within 14 days of the amendment issuance or within 14 days of their receipt of this amendment, whichever occurs first. 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 the 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 amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the amendment request/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 receipt of this amendment 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.

A copy of this amendment letter shall be attached to and shall become a part of Air Construction Permit PSD-FL-090.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

For Virginia B. Wetherell, Secretary

CERTIFICATE OF SERVICE

This is to certify that this Permit Amendment and all copies were mailed to the listed persons before the close of business on 8-15-95.

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

Kim Tober 8-15-95
(Clerk) (Date)

cc: B. Thomas, SWD
J. Harper, EPA
J. Bunyak, NPS
H. Oven, PPS
C. Hetrick, HCBCC

TO: Virginia B. Wetherell

THRU: Dan Thompson

FROM: Howard L. Rhodes

DATE: August 15, 1995

SUBJECT: Permit Amendment - Central Power & Lime (PSD-FL-090)

Attached is a permit amendment requested by Central Power & Lime, Inc., in Hernando County allowing them to increase the maximum heat input to their power boiler. The amendment was processed as a new PSD permit application and was public-noticed without comments being received. Pursuant to special testing that was approved in advance, the Department reduced the allowable emissions for particulate matter even though the capacity has been increased. We recommend that this permit amendment be approved. The final order modifying these same conditions in the power plant certification (PA 82-17) was signed on August 1, 1995.

HLR/aal/t

2/3 John Reynolds
This really doesn't trigger any remembrances of the clarification hearings or the 11/29/93 meeting. Be careful on this one
Clair
Aren't we always careful?

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

KA 307-93-12

January 25, 1994

Mr. C. H. Fancy
Mr. Hamilton S. Oven
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Request for Modification of
Permit Conditions
Florida Crushed Stone Company
Hernando County, Florida
File No. PA 82-17 and PSD-FL-90

Gentlemen:

This letter is to follow-up the meeting that Larry Curtin and I had with Mr. Fancy on November 29, 1993, regarding the generating capacity of the Florida Crushed Stone Company (now operating as Central Power and Lime - CPL) power plant. To allow CPL to fully satisfy the terms of their electric power sales contract (See Attachment 1), it is requested that the following Conditions of Certification in PA 82-17, and Specific Conditions in PSD-FL-90, be modified as follows:

1. Modify Condition of Certification No. I.A.3, in PA 82-17, and the identical Specific Condition No. G.1, in PSD-FL-90, as follows (see Attachment 2 for background information):

FROM: When the power plant boiler is operating alone and the cement plant is not in operation, the maximum heat input rate of the boiler shall not exceed the site specific limit of 1,000 million Btu per hour, maximum three-hour average.

TO: The power plant boiler is permitted for the following net delivered power production in accordance with the following schedule:

Maximum Allowable Net Delivered Power Production Rate	Effective Date
110 MW	Present
121 MW	1/1/94
133 MW	1/1/95
146 MW	1/1/96
150 MW	1/1/97

Note that the proposed condition eliminates the necessity to reduce the electric power generating capacity when the cement plant is not operating. See Attachment 2 for background information. Also, as the increased generating rates will be achieved with no increase in emissions, the existing emission limits (for particulate matter, SO_2 and NOx) stated in terms of heat input rate, become meaningless and have been deleted from the proposed permit condition.

2. Modify Condition of Certification No. I.C.1, in PA 82-17, and the parallel Specific Condition No. B.1 in PSD-FL-90, as follows:

FROM: Within 60 calendar days after achieving the maximum capacity at which each unit will be operated (but no later than 180 operating days after initial startup) and annually thereafter, the permittee shall conduct performance tests for particulates, SO_2, NOx, and visible emissions during normal operations near (± 3%) 1,234 million Btu per hour heat input when the power plant and cement plant are operating in combination, and 1,000 million Btu per hour when the power plant is operating alone, and visible emission tests on all coal handling and flyash baghouses. The Department shall be furnished a written report of the results of such performance tests within 45 days of completion of the tests. The performance tests will be conducted in accordance with the provisions of 40 CFR 60.46.

TO: Within 60 calendar days after achieving the maximum capacity at which the power plant will be operated (but no later than 180 operating days after initial startup at the maximum allowable capacity) and annually thereafter, the permittee shall conduct performance tests for particulate matter, SO_2, NOx, and visible emissions while operating at 90-100% of the maximum allowable net deliverable power production rate and shall conduct visible emission tests on all coal handling and flyash baghouses. The Department shall be furnished a written report of the results of such performance tests within 45 days of completion of the tests. The performance tests will be conducted in accordance with the provisions of 40 CFR 60.46.

It is anticipated that FDEP will grant the modification to the specific conditions concerning the power plant operation given the following facts:

A. No Increase in Hours of Operation

The power plant is currently permitted to operate at all times (8760 hours per year); either with or without the cement plant operating. No increase to these operating hours is being requested.

B. No Increase in Allowable Emissions

No increase in the allowable emissions from the power plant are being requested. Emissions will be maintained within the permitted emission limits by increasing lime injection and improving process operations, as necessary.

C. No Increase in Allowable Air Quality Impacts

The emissions and the impacts on air quality from the operation of the power plant boiler by itself are less than the facility maximums which result from the simultaneous operation of the power plant boiler and the cement plant (as evaluated in the original project review). As a result, the requested modification (to allow the power plant to operate above 1000 MMBTU per hour heat input when the cement plant is not operating) will result in lower impacts than those allowed when the two plants are operating together.

D. Consistency with PSC Approval

The requested modification will allow consistency of permitted power production rates with the Public Service Commission approved power sales contract (copy of the PSC correspondence is presented in Attachment 1).

E. Operating Flexibility

The requested modification will enable unhindered operation of the power plant and the cement plant regardless of the any individual plant ownership changes.

F. Rule Applicability

As the requested change will result in no physical changes to the facility, no increase in the hours of operation, and no increase in allowable emissions or air quality impacts, no source modification is involved (as defined in Chapter 17-210, Florida Administrative Code), and no modification review is required.

Copies of the existing Conditions of Certification for PA 82-17 and Specific Conditions of Permit PSD-FL-090 are presented in Attachments 3 and 4, respectively.

It is anticipated that the fee for the permit modification will be $250.00 (a Minor Modification). Once this is confirmed, a check will be forwarded.

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

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:PAR:wa
Enc.

c: Mr. Fred Salzmann, FCS, Brooksville
Mr. Tom Mountain, FCS, Brooksville
Mr. Larry Curtin, Holland & Knight

KOOGLER & ASSOCIATES

I N T E R O F F I C E M E M O R A N D U M

Date: 14-Feb-1994 11:46am ES
From: John Reynolds TAL
REYNOLDS_J
Dept: Air Resources Manageme
Tel No: (904)488-1344
SUNCOM: 278-1344

TO: Clair Fancy TAL (FANCY_C)

Subject: FCS Meeting - 2/11/94

Preston assigned the FCS modification request to me two weeks ago. This morning I learned from Bruce that you met with FCS on Friday to discuss this project. I presume this comes under the category of miscommunication or no communication.

Without any knowledge of what was discussed at that meeting other than what Bruce related to me, it appears that a modification permit should have been required because they will be installing or making physical changes to the pollution control equipment. Also, I find it hard to accept that they could be allowed to increase output to that degree without going through the review required by a modification permit.

Florida Department of
Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

February 24, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Dr. John B. Koogler
Koogler & Associates
4014 NW Thirteenth Street
Gainesville, Florida 32609

Dear Dr. Koogler:

Additional information will be required to evaluate the permit modification requested in your letter dated January 25, 1994 (Central Power and Lime - formerly Florida Crushed Stone - PSD-FL-090). Proposed changes to the permit include increasing boiler heat input when the cement plant is down, providing for physical and operational changes to the pollution control equipment, modifying operating rates during compliance testing, and basing emission limits on the amount of power produced rather than the amount of heat supplied to the boiler. The additional information required is listed below:

1. All changes to the air pollution control system and other equipment must be described in sufficient detail for the Department to confirm that the actual emissions will not increase. Provide schematic drawings showing all physical changes and flow quantities and provide emission calculations for each pollutant.

2. Provide the maximum hourly heat input requested for delivering the maximum hourly power production called for under the current power contract.

If there are questions on the above, please contact John Reynolds at 904-488-1344.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Air Permitting and Standards

JCB/JR/bb

cc: W. Thomas, SWD
B. Oven, DEP
J. Bunyak, NPS
C. Hetrick, Hernando Cty
J. Harper, EPA
R. Donelan, DEP

Copy for JR & Copy & Circulate to Sub Section
Return to PRL

Florida Department of

Memorandum **Environmental Protection**

John, see me
Preston 2/28/94

TO: Preston Lewis

FROM: John Brown

DATE: February 25, 1994

SUBJECT: Late Incompleteness Letter

On February 25th, I received a copy of an incompleteness letter in response to a letter from John Koogler that was received on January 26, 1994.

The day I received the letter, dated February 24, 1994, was Day 30. It was also on Friday when there was no secretarial help.

I had a question of John Reynolds that needed to be answered before I could sign the letter. It appears that this does not meet the requirements that I asked you (in writing) to comply with at a meeting on November 9, 1993. Specifically, you did not get the letter to me by Day 20, nor did you give me any clue that it was more than 5 days later than Day 20.

I would like to see you and John Reynolds and do a review of the tracking form that you kept. Without adherence to the schedule I gave to you, we will, sooner or later, have a default permit. That cannot be allowed to happen.

JB:cjh

Copy for JR & FH ; Copy & Circulate to Sub Section with Return to GAL

Memorandum

Florida Department of
Environmental Protection

TO: Preston Lewis

FROM: John Brown

DATE: February 25, 1994

SUBJECT: Late Incompleteness Letter

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JB:cjh

I N T E R O F F I C E M E M O R A N D U M

Date: 08-Mar-1994 08:34am ES
From: John Reynolds TAL
REYNOLDS_J
Dept: Air Resources Manageme
Tel No: (904)488-1344
SUNCOM: 278-1344

TO: Preston Lewis TAL (LEWIS_P)

CC: John Brown TAL (BROWN_J)
CC: Clair Fancy TAL (FANCY_C)

Subject: Tracking of Site Certification Permit Amendments

I understand that several staff members are being interviewed concerning their understanding of tracking requirements for amendment letters such as the Florida Crushed Stone incompleteness letter (site certification permit amendment) that went out on February 25 after being received by the Department on January 26.

In the case of Florida Crushed Stone, the task was assigned to me on February 3, whereupon I immediately asked Patty Adams about the clock status. Patty said that there is no fee required since it is a site certification amendment and that it is not on a 90-day clock. I immediately faxed a copy of the amendment request to EPA for comment. After waiting two weeks for EPA comments and receiving no reply from them, I completed the draft incompleteness letter and submitted it for review on February 22 (within 9 working days after the task was assigned). As I recall, Clair Fancy and John Brown were both out of town and did not return until February 25 when the letter was signed.

Even if this amendment letter had been on a 90-day clock, I was not aware that BAR management wanted such letters to be tracked on the permit tracking form that was introduced on November 9, 1993, nor was anyone else that I have spoken with about this. It would be helpful if we received some feedback on this subject.

I N T E R O F F I C E M E M O R A N D U M

Date: 23-Mar-1994 09:58am EST
From: Hamilton Buck Oven TAL
OVEN_H
Dept: Office of Secretary
Tel No: 904/487-0472
SUNCOM: Room 953-A

TO: See Below

Subject: Power Plant Siting Modifications

On 3/22/94 we received requests to modify the Florida Crushed Stone and Gainesville Regional Utilities Board Deerhaven site certifications. Copies of the requested changes are on their way to you. Please have your staff review the requests for completeness and report to me by 4/20/94.

Distribution:

TO:	Clair Fancy TAL	(FANCY_C)
TO:	Preston Lewis TAL	(LEWIS_P)
TO:	Cleve Holladay TAL	(HOLLADAY_C)
TO:	Bob Leetch JAX	(LEETCH_B @ A1 @ JAX1)
TO:	Bill Thomas TPA	(THOMAS_B @ A1 @ TPA1)
TO:	Michael Hickey TPA	(HICKEY_M @ A1 @ TPA1)
TO:	Al Rushanan TAL	(RUSHANAN_A)
CC:	Richard Donelan TAL	(DONELAN_R)

I N T E R O F F I C E M E M O R A N D U M

Date: 23-Mar-1994 11:03am EST
From: Preston Lewis TAL
LEWIS_P
Dept: Air Resources Management
Tel No: 904/488-1344
SUNCOM:

TO: See Below

Subject: FYI

I think that these projects are assigned already. I am in Ft Myers, if they are not assigned please decide which of you will work on them. If you cannot decide, see John Reynolds so he can assign. Get the input from Oven and follow permit scheduling form (PPS) to complete task. Thanks.

Distribution:

TO:	Syed Arif TAL	(ARIF_S)
TO:	Teresa Heron TAL	(HERON_T)
TO:	John Reynolds TAL	(REYNOLDS_J)
TO:	Willard Hanks TAL	(HANKS_W)
TO:	Charles Logan TAL	(LOGAN_C)
TO:	Douglas Outlaw TAL	(OUTLAW_D)
TO:	Cleve Holladay TAL	(HOLLADAY_C)

I N T E R O F F I C E M E M O R A N D U M

Date: 23-Mar-1994 02:22pm ES
From: John Reynolds TAL
REYNOLDS_J
Dept: Air Resources Manageme
Tel No: (904)488-1344
SUNCOM: 278-1344

TO: Hamilton Buck Oven TAL (OVEN_H)

CC: Preston Lewis TAL (LEWIS_P)

Subject: Florida Crushed Stone Modification

The letter from Koogler & Associates dated March 18, 1994, concerning Florida Crushed Stone, is the same as the previous letter dated January 25, 1994. An incompleteness letter was mailed on February 25, so we may not have anything to report on by 4/20/94.

I N T E R O F F I C E M E M O R A N D U M

Date: 01-Mar-1994 07:02am EST
From: Preston Lewis TAL
LEWIS_P
Dept: Air Resources Management
Tel No: 904/488-1344
SUNCOM:

TO: See Below

Subject: Meeting on Permit Scheduling

I am requesting that you host a meeting with our Sub Section and John Brown to discuss permit scheduling. John Brown issued me a 2/25/94 memo on failure on failure to meet the schedule on a permitting activity which John Reynolds was responsible.

Several months ago John Brown instituted the scheduling system and we thought it covered major PSD permitting activities. He has stretched it a bit to include the site certification permitting that is not very well structured. Now everything from an amendment to a new Major Source is included (as we find out). This is a major change in permitting and I am not necessarily trying to kill it but it needs to have Patty and you involved and be clearly something the Bureau wants and needs. I can not be used as a whip which keeps the permitting staff upset continually.

The Sub Section as you recall is made up of "seasoned professionals" and we are being jerked around like school kids. If something is not done I expect that bad morale and attrition will increase dramatically. I am appealing to you to inject some realism in this activity. I am in supervisory training but I believe this important enough to schedule right away.

Distribution:

TO:	Clair Fancy TAL	(FANCY_C)
CC:	John Reynolds TAL	(REYNOLDS_J)
CC:	Willard Hanks TAL	(HANKS_W)
CC:	Douglas Outlaw TAL	(OUTLAW_D)
CC:	Teresa Heron TAL	(HERON_T)
CC:	Charles Logan TAL	(LOGAN_C)
CC:	Syed Arif TAL	(ARIF_S)
CC:	Cleve Holladay TAL	(HOLLADAY_C)
CC:	Barbara Boutwell TAL	(BOUTWELL_B)
CC:	Patty Adams TAL	(ADAMS_P)

Florida Department of
Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

February 17, 1994

Ms. Jewell A. Harper, Chief
Air Enforcement Branch
U.S. EPA, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Dear Ms. Harper:

RE: Florida Crushed Stone Company
Power Boiler Modification: PSD-FL-090A
Hernando County

The Department has received the above referenced site certification modification request package. The Department's Bureau of Air Regulation (Bureau) will be processing the request as an amendment (PSD-FL-090A) to the original PSD project (PSD-FL-090). As additional data is received, we will forward it to you for review. We will notify you as to the due date for comments once the Bureau has received some requested information regarding the proposed project.

If you have any questions, please contact John Reynolds or Cleve Holladay at (904)488-1344 or write to me at the above address. The Bureau's FAX number is (904)922-6979.

Sincerely,

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

CHF/pa

Enclosure

cc: B. Thomas, SWD
J. Koogler, Ph.D., P.E., K&A
J. Reynolds, DEP ✓
B. Oven, DEP
D. Beason, Esq., DEP

Also copies to: Bunyak
Hetrick (Hernando Cty)

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

KA 307-93-12

March 18, 1994

RECEIVED
MAR 23 1994
Bureau of
Air Regulation

Mr. Hamilton S. Oven
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Request for Modification of
Permit Conditions
Florida Crushed Stone Company
Hernando County, Florida
File No. PA 82-17 and PSD-FL-90

Dear Mr. Oven:

This letter is to follow-up the meeting that we had in the FDEP Division of Air Resources Management offices on February 11, 1994, regarding the generating capacity of the Florida Crushed Stone Company (now operating as Central Power and Lime - CPL) power plant. Also, to assure that you have all of the information and the attachments included with my original letter (dated January 25, 1994) to you and Clair Fancy, I am repeating the information contained in that letter.

To allow CPL to fully satisfy the terms of their electric power sales contract (See Attachment 1), it is requested that the following Conditions of Certification in PA 82-17, and Specific Conditions in PSD-FL-90, be modified as follows:

1. Modify Condition of Certification No. I.A.3, in PA 82-17, and the identical Specific Condition No. G.1, in PSD-FL-90, as follows (see Attachment 2 for background information):

   FROM: When the power plant boiler is operating alone and the cement plant is not in operation, the maximum heat input rate of the boiler shall not exceed the site specific limit of 1,000 million Btu per hour, maximum three-hour average.

   TO: The power plant boiler is permitted for the following net delivered power production in accordance with the following schedule:

Maximum Allowable Net Delivered Power Production Rate	Effective Date
110 MW	Present
121 MW	1/1/94
133 MW	1/1/95
146 MW	1/1/96
150 MW	1/1/97

Note that the proposed condition eliminates the necessity to reduce the electric power generating capacity when the cement plant is not operating. See Attachment 2 for background information. Also, as the increased generating rates will be achieved with no increase in emissions, the existing emission limits (for particulate matter, SO_2 and NOx) stated in terms of heat input rate, are now unnecessary and have been deleted from the proposed permit condition.

2. Modify Condition of Certification No. I.C.1, in PA 82-17, and the parallel Specific Condition No. B.1 in PSD-FL-90, as follows:

FROM: Within 60 calendar days after achieving the maximum capacity at which each unit will be operated (but no later than 180 operating days after initial startup) and annually thereafter, the permittee shall conduct performance tests for particulates, SO_2, NOx, and visible emissions during normal operations near (± 3%) 1,234 million Btu per hour heat input when the power plant and cement plant are operating in combination, and 1,000 million Btu per hour when the power plant is operating alone, and visible emission tests on all coal handling and flyash baghouses. The Department shall be furnished a written report of the results of such performance tests within 45 days of completion of the tests. The performance tests will be conducted in accordance with the provisions of 40 CFR 60.46.

TO: Within 60 calendar days after achieving the maximum capacity at which the power plant will be operated (but no later than 180 operating days after initial startup at the maximum allowable capacity) and annually thereafter, the permittee shall conduct performance tests for particulate matter, SO_2, NOx, and visible emissions while operating at 90-100% of the maximum allowable net deliverable power production rate and shall conduct visible emission tests on all coal handling and flyash baghouses. The Department shall be furnished a written report of the results of such performance tests within 45 days of completion of the tests. The performance tests will be conducted in

accordance with the provisions of 40 CFR 60.46.

It is anticipated that FDEP will grant the modification to the specific conditions concerning the power plant operation given the following facts:

A. No Increase in Hours of Operation

The power plant is currently permitted to operate at all times (8760 hours per year); either with or without the cement plant operating. No increase to these operating hours is being requested.

B. No Increase in Allowable Emissions

No increase in the allowable emissions from the power plant are being requested. Emissions will be maintained within the permitted emission limits by increasing lime injection and improving process operations, as necessary.

C. No Increase in Allowable Air Quality Impacts

The emissions and the impacts on air quality from the operation of the power plant boiler by itself are less than the facility maximums which result from the simultaneous operation of the power plant boiler and the cement plant (as evaluated in the original project review). As a result, the requested modification (to allow the power plant to operate above 1000 MMBTU per hour heat input when the cement plant is not operating) will result in lower impacts than those allowed when the two plants are operating together.

As discussed during our February 11, 1994, meeting, we are conducting screening modeling to demonstrate that the expected impacts of regulated air pollutants will not increase as a result of increasing the generating capacity of the plant without increasing allowable emissions.

D. Consistency with PSC Approval

The requested modification will allow consistency of permitted power production rates with the Public Service Commission approved power sales contract (copy of the PSC correspondence is presented in Attachment 1).

E. Operating Flexibility

The requested modification will enable unhindered operation of the power plant and the cement plant regardless of the any individual plant ownership changes.

F. Rule Applicability

As the requested change will result in no physical changes to the facility, no increase in the hours of operation, and no increase in allowable emissions or air quality impacts, no source modification is involved (as defined in Chapter 17-210, Florida Administrative Code), and no modification review is required. These matters are being addressed in detail as requested in John Brown's letter to me dated February 25, 1994 (copy attached - Attachment 3).

Copies of the existing Conditions of Certification for PA 82-17 and Specific Conditions of Permit PSD-FL-090 are presented in Attachments 4 and 5, respectively.

As discussed during our meeting on February 11, 1994, and as required by the Power Plant Siting Act, Florida Crushed Stone will submit (under separate cover), a check in the amount of $10,000. It is our understanding that any of these funds not used by the Department in reviewing this request will be returned to Florida Crushed Stone.

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

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:PAR:wa
Enc.

c: Mr. C. H. Fancy, FDEP, Tallahassee
Mr. Fred Salzmann, FCS, Brooksville
Mr. Tom Mountain, FCS, Brooksville
Mr. Larry Curtin, Holland & Knight

Florida Department of
Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

March 24, 1994

Mr. Tom Mountain
Florida Crushed Stone Company
Post Office Box 1508
Brooksville, Florida 34605-1508

Re: Modification Request PA 82-17

Dear Mr. Mountain:

Initial review of the material received from Dr. Koogler on March 22, 1994, in support of your site certification/PSD modification request indicates that he has not responded to Mr. Clair Fancy's letter of February 25, 1994. Mr. Fancy's letter outlines additional information neede for the department to complete our review. A copy of Mr. Fancy's letter is attached for your information.

Sincerely,

Hamilton S. Oven

Hamilton S. Oven, P.E.
Administrator, Siting
Coordination Office

Attach:

cc: Richard Donelan
John Reynolds
Tony Cleveland
John Koogler

Florida Department of
Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2490

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

February 25, 1994

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

John B. Koogler, Ph.D., P.E.
Koogler & Associates
4014 N.W. Thirteenth Street
Gainesville, Florida 32609

Dear Dr. Koogler:

Additional information will be required to evaluate the permit modification requested in your letter dated January 25, 1994 (Central Power and Lime - formerly Florida Crushed Stone Company, PSD-FL-090). Proposed changes to the permit include increasing boiler heat input when the cement plant is down, providing for physical and operational changes to the pollution control equipment and modifying operating rates during compliance testing. Equipment must be described in sufficient detail for the Department to confirm that the actual emissions will not increase. Provide schematic drawings showing all physical changes and flow quantities and provide emission calculations for each pollutant.

1. All changes to the air pollution control system and other equipment must be described in sufficient detail for the Department to confirm that the actual emissions will not increase. Provide schematic drawings showing all physical changes and flow quantities and provide emission calculations for each pollutant.

2. Provide the maximum hourly heat input requested for delivering the maximum hourly power production called for under the current contract.

3. Please address the comments in KBN Engineering's February 25, 1994, letter to Tony Cleveland of Oertel Hoffman, Fernandez and Cole, who represent Hernando County.

If there are questions on the above, please contact John Reynolds at 904/488-1344.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Permitting and Standards

JCB/JR/pa

cc: W. Thomas, SWD
B. Oven, DEP
R. Donelan, DEP
J. Harper, EPA
J. Bunyak, NPS
T. Cleveland, OHF&C
C. Hetrick, Hernando County

OERTEL, HOFFMAN, FERNANDEZ & COLE, P.A.

ATTORNEYS AT LAW

TIMOTHY P. ATKINSON
M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
ROBERT C. DOWNIE, II
SEGUNDO J. FERNANDEZ
KENNETH F. HOFFMAN
KENNETH G. OERTEL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
THOMAS G. TOMASELLO
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

MAILING ADDRESS:
POST OFFICE BOX 6507
TALLAHASSEE, FLORIDA 32314-6507

TELEPHONE (904) 877-0099
FACSIMILE (904) 877-0981

NORMAN H. HORTON, JR.
OF COUNSEL

JOHN H. MILLICAN
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

J. P. SUBRAMANI, PH. D., P. E.
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

February 25, 1994

HAND DELIVERY

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
111 South Magnolia Avenue
Tallahassee, FL 32301

Re: Florida Crushed Stone Request for Modifications

Dear Clair:

Enclosed please find comments by Hernando County's consultants regarding the above-referenced matter. Hernando County requests that these comments be included in the Department's request for additional information being directed to Florida Crushed Stone.

Please call me if you have any questions in this matter.

Sincerely,

C. Anthony Cleveland

CAC:cjb/

Enclosure

KBN

BEST AVAILABLE COPY

February 25, 1994

Mr. Tony Cleveland
Oertel, Hoffman, Fernandez and Cole, P.A.
2700 Blair Stone Road, Suite C
Tallahassee, FL 32301

RE: Review of Florida Crushed Stone (FCS) Request For Modification

Dear Mr. Cleveland:

I have reviewed the materials sent by fax to me this morning regarding the FCS proposal to modify their site certification conditions and PSD permit. Based upon my review, I have the following questions and comments which the FDEP may consider in their incompleteness letter to FCS:

1. FDEP PSD rules define a modification as "any physical change in, change in the method of operation of, or addition to a stationary source or facility which increases the actual emissions of any air pollutant regulated under...". An increase in the production rate is excluded from this definition unless the change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975. Therefore, information should be requested to factually determine if:

   a. There are any physical modifications to the source (power plant boiler) to achieve the requested increase in power production rate.

   b. The requested changes would constitute a "change in the method of operation" of the facility (it appears this may be the case).

   c. The change is for a change in the "production rate" of the facility (i.e., 1,000 MMBtu/hr), which is prohibited under a federally enforceable permit condition (i.e., PSD permit).

   d. If either a., b. or c. above are affirmative, it must be determined if there is an increase in actual emissions of any regulated pollutant. Existing actual emissions are defined as the actual average emissions from the last two years of operation. These must be compared to the requested future maximum emissions. If the increase in any pollutant is significant, then PSD review would be required.

13076A1/11

2…0 Centrepark West Drive, Suite …, West Palm Beach, Florida 3340…
6821 Southpoint Drive North, Suite 216
One Church Street, Suite 801, Rockville, Maryland 2085…

2. The original air quality impact analysis for this facility was performed in the early 1980's. Since that time, the air dispersion models have changed significantly, meteorological data bases have changed, and the inventory of other sources has changed significantly. FCS is now requesting changes in their operation, which may affect emissions and/or stack parameters. Due to these developments, and the proximity and sensitivity of the Chassahowitzka Class I area, the FDEP should consider requesting an updated air dispersion modeling analysis.

Please call if you have any questions concerning this matter.

Sincerely,

David A. Buff

David A. Buff, P.E.
Principal Engineer

cc: Larry Jennings

I N T E R O F F I C E M E M O R A N D U M

Date: 30-Jun-1994 04:17pm EST
From: Preston Lewis TAL
LEWIS_P
Dept: Air Resources Management
Tel No: 904/488-1344
SUNCOM:

TO: John Reynolds TAL (REYNOLDS_J)

CC: Cleve Holladay TAL (HOLLADAY_C)

Subject: Florida Crushed Stone Mtg 6/30/94

In the 6/30/94 mtg the source above agreed to answer several questions:

1. The heating value of coal used in the original application - the plant has had at least 3 days (see table 1 in 6/17/94 ltr Koogler to Brown) in which they could have exceeded the 1000 lbs/MMBtu heat input limit for the power plant.

2. The actual TPY emissions of all pollutants during the past 5 years. Mountain seems to think it trends upward without a ready explaination.

3. The PSD limits SO2 to 0.9 lbs/MMBtu and the siting report hs 1.2 lbs/MMBtu - why?

4. The transcript of the hearing on the permit and Palagyi's statement on the BACT rational.

In the meantime John B. has asked that you prepare a letter ASAP requesting that all the information required in the 2/25/94 ltr Brown to Koogler be provided along with the actual emissions during the past 5 years.

See me if you have questions.

Florida Department of
Environmental Protection

Memorandum

TO: John Brown

FROM: Buck Oven BTO

DATE: July 12, 1994

SUBJECT: Florida Crushed Stone, PA 82-17
Module 8025

Attached please find the coal analysis as included the original Florida Crushed Stone application. As time permits, we will try to locate the hearing transcripts. The emission limits may have been set more by the intervention of Florida Mining & Materials and Florida Rock than by the BACT process. The competing lime companies were trying to preserve some air quality increment in the Chassahowitzka in case they wanted to build a cogeneration power plant.

cc: John Reynolds

3.2 FUEL

This is a coal fired facility. Coal with a sulfur content of 0.75 percent will be purchased in Kentucky and shipped to the Brooksville unloading site at an average rate of approximately one unit train every five or six days. Unloading time is expected to be one hour -- not to exceed four hours -- per train. The coal will be bottom dumped from a raised railroad trestle to the stockpile area. A water spraying system will be used when necessary to control dust. The coal will be transported to the cement and power plants by a belt conveyor system. The stockpile area will be designed in such a way as to allow run-off to be contained in a lined pond. Typical coal analysis is shown on Table 3.2-1.

469,000 Tons/yr.

Amend 1

From: Interstate Coal Company, Inc.
Route 9, Box 15
London, Kentucky 40741

GALBRAITH LABORATORIES, INC.
P. O. BOX 4187, 2323 SYCAMORE DR., KNOXVILLE, TENNESSEE 37921 / 615 546-1335

CERTIFICATE OF ANALYSIS

Mr. Darryl Moreland
Page 4
October 8, 1980

Your Sample No. Hazard #7 seam Our No. M-8443 gave the following results:

Ultimate Analysis,	As Received,	Dry Basis,
% Moisture	4.38	
% Carbon	68.29	71.42
% Hydrogen	4.44	4.64
% Nitrogen	1.48	1.55
% Chlorine	0.09	0.09
% Sulfur	0.78	0.82
% Ash	12.27	12.83
% Oxygen (by diff.)		

Proximate Analysis,	As Received,	Dry Basis,
% Moisture	4.38	
% Ash	12.27	12.83
% Volatile Matter	30.71	32.12
% Fixed Carbon	52.64	55.05

Sulfur Forms,	As Received,	Dry Basis,
% Pyritic Sulfur	0.14	0.15
% Sulfate Sulfur	0.01	0.01
% Organic Sulfur	0.63	0.66
% Total Sulfur	0.78	0.82

Mineral Analysis,	Ignited Basis,
% Phos. pentoxide, P_2O_5	0.14
% Silica, SiO_2	58.24
% Ferric Oxide, Fe_2O_3	4.98
% Alumina, Al_2O_3	27.41
% Titania, TiO_2	1.36
% Lime, CaO	1.35
% Magnesia, MgO	0.83
% Sulfur Trioxide, SO_3	0.45
% Potassium Oxide, K_2O	1.80
% Sodium Oxide, Na_2O	0.48
% Undetermined	

	As Received	Dry Basis,
BTU/lb.	12,329	12,894

Table 3.2-1

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

November 9, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Tom Mountain
Environmental Manager
Central Power & Lime, Inc.
P. O. Box 1508
Brooksville, Florida 34605-1508

Dear Mr. Mountain:

This is in response to the November 1, 1994, letter from Koogler & Associates regarding the October 6-14 emission test results and Central Power & Lime, Inc.'s, request for a letter amendment of PSD-FL-090A that would increase the net power plant output from 100 MW to 150 MW while eliminating heat-based emission limits.

Since the test results showed a slight increase in actual particulate matter emissions at the higher production rate, a modification permit application and fee will be required pursuant to Rules 62-210.200(39) and 62-210.300(1), Florida Administrative Code, to increase the net power plant output to 150 MW.

Regarding the request to remove the heat input restrictions, this would be counter to the EPA's historical practice of limiting a fuel-burning source's potential emissions by limiting the fuel consumed. For this reason, fuel consumption limits and heat-based emission limits must be included in all construction permits issued by the Department for fuel-burning sources.

Sincerely,

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

CHF/JR/bjb

cc: W. Thomas, SWD
B. Oven, DEP
J. Pennington, DEP
D. Beason, DEP
C. Hetrick, Hernando County
J. Koogler, K&A
L. Curtin, H&K

Florida Department of
Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

February 25, 1994

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

John B. Koogler, Ph.D., P.E.
Koogler & Associates
4014 N.W. Thirteenth Street
Gainesville, Florida 32609

Dear Dr. Koogler:

Additional information will be required to evaluate the permit modification requested in your letter dated January 25, 1994 (Central Power and Lime - formerly Florida Crushed Stone Company, PSD-FL-090). Proposed changes to the permit include increasing boiler heat input when the cement plant is down, providing for physical and operational changes to the pollution control equipment and modifying operating rates during compliance testing. Equipment must be described in sufficient detail for the Department to confirm that the actual emissions will not increase. Provide schematic drawings showing all physical changes and flow quantities and provide emission calculations for each pollutant.

1. All changes to the air pollution control system and other equipment must be described in sufficient detail for the Department to confirm that the actual emissions will not increase. Provide schematic drawings showing all physical changes and flow quantities and provide emission calculations for each pollutant.

2. Provide the maximum hourly heat input requested for delivering the maximum hourly power production called for under the current contract.

3. Please address the comments in KBN Engineering's February 25, 1994, letter to Tony Cleveland of Oertel, Hoffman, Fernandez and Cole, who represent Hernando County.

If there are questions on the above, please contact John Reynolds at 904/488-1344.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Permitting and Standards

JCB/JR/pa

cc: W. Thomas, SWD
B. Oven, DEP
R. Donelan, DEP
J. Harper, EPA
J. Bunyak, NPS
T. Cleveland, OHF&C
C. Hetrick, Hernando County

OERTEL, HOFFMAN, FERNANDEZ & COLE, P.A.

ATTORNEYS AT LAW

TIMOTHY P. ATKINSON
M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
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KENNETH F. HOFFMAN
KENNETH G. OERTEL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
THOMAS G. TOMASELLO
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

MAILING ADDRESS:
POST OFFICE BOX 6507
TALLAHASSEE, FLORIDA 32314-6507

TELEPHONE (904) 877-0099
FACSIMILE (904) 877-0981

NORMAN H. HORTON, JR.
OF COUNSEL

JOHN H. MILLICAN
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

J. P. SUBRAMANI, PH. D., P. E.
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

February 25, 1994

HAND DELIVERY

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
111 South Magnolia Avenue
Tallahassee, FL 32301

Re: Florida Crushed Stone Request for Modifications

Dear Clair:

Enclosed please find comments by Hernando County's consultants regarding the above-referenced matter. Hernando County requests that these comments be included in the Department's request for additional information being directed to Florida Crushed Stone.

Please call me if you have any questions in this matter.

Sincerely,

C. Anthony Cleveland

CAC:cjb/

Enclosure

KBN

February 25, 1994

Mr. Tony Cleveland
Oertel, Hoffman, Fernandez and Cole, P.A.
2700 Blair Stone Road, Suite C
Tallahassee, FL 32301

RE: Review of Florida Crushed Stone (FCS) Request For Modification

Dear Mr. Cleveland:

I have reviewed the materials sent by fax to me this morning regarding the FCS proposal to modify their site certification conditions and PSD permit. Based upon my review, I have the following questions and comments which the FDEP may consider in their incompleteness letter to FCS:

1. FDEP PSD rules define a modification as "any physical change in, change in the method of operation of, or addition to a stationary source or facility which increases the actual emissions of any air pollutant regulated under...". An increase in the production rate is excluded from this definition unless the change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975. Therefore, information should be requested to factually determine if:

   a. There are any physical modifications to the source (power plant boiler) to achieve the requested increase in power production rate.

   b. The requested changes would constitute a "change in the method of operation" of the facility (it appears this may be the case).

   c. The change is for a change in the "production rate" of the facility (i.e., 1,000 MMBtu/hr), which is prohibited under a federally enforceable permit condition (i.e., PSD permit).

   d. If either a., b. or c. above are affirmative, it must be determined if there is an increase in actual emissions of any regulated pollutant. Existing actual emissions are defined as the actual average emissions from the last two years of operation. These must be compared to the requested future maximum emissions. If the increase in any pollutant is significant, then PSD review would be required.

KBN ENGINEERING AND APPLIED SCIENCES, INC

One Church Street, Suite 801
Rockville, Maryland 20850
301 738 1100

2. The original air quality impact analysis for this facility was performed in the early 1980's. Since that time, the air dispersion models have changed significantly, meteorological data bases have changed, and the inventory of other sources has changed significantly. FCS is now requesting changes in their operation, which may affect emissions and/or stack parameters. Due to these developments, and the proximity and sensitivity of the Chassahowitzka Class I area, the FDEP should consider requesting an updated air dispersion modeling analysis.

Please call if you have any questions concerning this matter.

Sincerely,

David A. Buff

David A. Buff, P.E.
Principal Engineer

cc: Larry Jennings

Department of Environmental Protection

John R-

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

July 7, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

John B. Koogler, Ph.D., P.E.
Koogler & Associates
4014 N.W. Thirteenth Street
Gainesville, Florida 32609

Dear Dr. Koogler:

This is pursuant to the meeting held on June 30, 1994, regarding Florida Crushed Stone. It is requested that Florida Crushed Stone provide all additional information requested in our 2/25/94 letter and discussed in the above meeting. This would include the following specific requirements:

1. The actual tons per year of pollutant emissions for the past 5 years.

2. The heating value of the coal which was used in the original construction application.

3. Explanation of the variation of SO2 limits (PSD permit states 0.9 lbs/MMBtu vs. Site Certification limit of 1.2 lbs/MMBtu).

4. Transcripts of the Site Certification Hearing relating to the BACT rationale.

If you have any questions, please call John Reynolds at (904) 488-1344 or myself.

Sincerely,

John C. Brown, Jr.
Administrator
Permitting and Standards

JCB/JR/bjb

cc: W. Thomas, SWD
B. Oven, DEP
R. Donelan, DEP
J. Harper, EPA
J. Bunyak, NPS
T. Cleveland, OHF&C
C. Hetrick, Hernando County

2/9/94

John Piner, Preston Buck
John Brown

absorbent? cellulose material okay

2/9/94

Petroleum marketers

Emcon! bulk plants. who will need permits
77 sources - multiple tanks. Calculations
all but a few members of Florida Petroleum Marketers Assn
w 100 in whole state

2-11-94
FCS

contractual situation with FPL, FPC
mr Permannio, Tom's boss. Want to produce as much
power as they can staying within environmental rules & conditions
PAS originally based on design

2 issues: production limit of 100 MW when can't not
operating. 125 MW with power plant capacity
based on agreements with others
increase not allowable to 121 of 150 MW 1/97
no increase in hours or emissions.
SO_2 would be held constant with limestone injection
NOx would be held back with low NOx burners
all original parties have to be notified:
Had federal PSD permit 9/82 PSD-FL-90
-91
Party has 45 days to object
Public has 30 days.

Get Buck check: copy, dist, NPS, EPA
review engineer
60 day after modeling & PSC mtg

OERTEL, HOFFMAN, FERNANDEZ & COLE, P.A.

ATTORNEYS AT LAW

TIMOTHY P. ATKINSON
M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
ROBERT C. DOWNIE, II
SEGUNDO J. FERNANDEZ
KENNETH F. HOFFMAN
KENNETH G. OERTEL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
THOMAS G. TOMASELLO
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

MAILING ADDRESS:
POST OFFICE BOX 6507
TALLAHASSEE, FLORIDA 32314-6507

TELEPHONE (904) 877-0099
FACSIMILE (904) 877-0981

NORMAN H. HORTON, JR.
OF COUNSEL

JOHN H. MILLICAN
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

J. P. SUBRAMANI, PH. D., P. E.
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

HAND-DELIVERY

August 29, 1994

Mr. John M. Reynolds
Department of Environmental
Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Submittal of Additional Information
Central Power & Lime, Inc.
Modification of Permit Conditions
Permit No. PSD-FL-90

Dear Mr. Reynolds:

Please find enclosed Hernando County's comments with respect to the above-referenced permit application. Please call me if you have any questions.

Sincerely,

C. Anthony Cleveland

CAC/dg/1579
C:\Work1\Reynolds.CAC

Encl. a/s

August 29, 1994

Mr. Tony Cleveland
Oertel, Hoffman, Fernandez and Cole, P.A.
2700 Blair Stone Road, Suite C
Tallahassee, FL 32301

Re: Review of Florida Crushed Stone (FCS) (Central Power & Lime) Request for Modification

Dear Mr. Cleveland:

I have reviewed the materials sent to me last week regarding the FCS proposal to modify its site certification conditions and PSD permit. Based upon my review, I have the following questions and comments which FDEP may consider in evaluating the FCS request. These are presented in the same order as the questions/responses in the Koogler & Associates (K&A) letter dated August 4, 1994.

Letter of 2/25/94

1. The response refers to "currently permitted fuel usage" and does not address the question of actual emissions changes. It would still appear that an increase in actual emissions would occur during times when the heat input rate to the power plant is increased when the cement plant is down. Attachment 1 summarizes plant operating data when the cement plant is operating, but the 1,000 MMBtu/hr heat input limitation applies when the cement plant is not operating. What are the historic operating data for the power plant when the cement plant is down (i.e., actual emissions, heat input, etc.). What are the actual annual operating hours of the power plant when the cement plant is down?

2. The response states that there is no direct correlation between heat input and mass emissions from the cement/power plant system. However, it appears that mass emissions would be directly related to heat input whenever the power plant is operating alone. With respect to the request to retain limits only on mass emissions for the cement/power plant system and to delete any limits on heat input, a question arises as to periods when the continuous monitors are off-line or inoperable. A surrogate parameter (i.e., heat input rate) may be necessary during such periods to ensure continuous compliance.

3. It would appear that the project does involve a change in the method of operation, since the maximum heat input rate is increasing under the power plant only scenario, and a federally enforceable permit limit is being relaxed. Moreover, the response does not address the question of newer models, meteorological data, etc., which have been developed since the original certification (see KBN's correspondence dated February 25, 1994).

KBN ENGINEERING AND APPLIED SCIENCES, INC.

1034 Northwest 57th Street, Gainesville, Florida 32605, 904-331-9000, FAX 904-332-4189
5405 West Cypress Street, Suite 215, Tampa, Florida 33607, 813-287-1717 FAX 813-287-1716
1801 Clint Moore Road, Suite 105, Boca Raton, Florida 33487, 407-994-9910, FAX 407-994-9393
6821 Southpoint Drive North, Suite 216, Jacksonville, Florida 32216, 904-296-9683 FAX 904-296-0146
1616 'P' Street N.W., Suite 450, Washington, D.C. 20036, 202 462 1100, FAX 202-462-2270

Letter of 7/7/94

1. According to PSD rules, actual emission are to be calculated using the past 2 years of actual source operation, unless another 2-year period is deemed more representative. Review of Attachment 4 indicates that 1992-1993 would be the most representative period. Allowable emissions could only be used as the actual emissions, if, unlike FCS's situation, the source were operated for less than 2 years since the last construction permit was issued.

I have no comments at this time on the remaining information presented in K&A's August 4 letter. Please call if you have any questions concerning this matter.

Sincerely,

David A. Buff

David A. Buff, P.E.
Principal Engineer

DAB/ehj

cc: Larry Jennings
File (2)

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

KA 307-93-12

June 17, 1994

Mr. John C. Brown, Jr.
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Submittal of Additional Information
Florida Crushed Stone Company
Modification of Permit Conditions
Permit No. PSD-FL-90

Dear Mr. Brown:

This is in response to your letter dated February 25, 1994, requesting additional information on the above project.

1. All changes to the air pollution control system and other equipment must be described in sufficient detail for the Department to confirm that the actual emissions will not increase. Provide schematic drawings showing all physical changes and flow quantities and provide emission calculations for each pollutant.

RESPONSE:

No changes to the air pollution control or other equipment are proposed for this project. The existing equipment is capable of generating up to 150 MW (net delivered) with the currently permitted fuel usage, as indicated by the power plant operation information in Table 1 (attached). Power generation can be improved by various means which include increasing the frequency of boiler tube cleaning to maintain high heat transfer efficiency; utilizing, when possible, coal with a greater heating value; maintaining optimum operating conditions on the low and high pressure turbines; and, maintaining tight control on combustion air to the boiler so that less air can be heated to higher temperatures for improved heat recovery.

INCREASED LIME INJECTION

No schematic drawings are attached as no changes are proposed for any existing equipment or process. No changes to the currently permitted emissions are proposed.

2. **Provide the maximum hourly heat input requested for delivering the maximum hourly power production called for under the current contract.**

RESPONSE:

The current contract, approved by the Public Service Commission (PSC), calls for a maximum of 150 MW, net delivered. The heat input necessary to generate 150 MW, net delivered, can vary significantly depending on the system efficiency. The system efficiency, in turn varies with factors such as boiler efficiency, cooling water temperature, turbine efficiency, and cement plant operations. Accordingly, for the purposes of this project, specific conditions with limitation on the heat input should be replaced with limitations on maximum allowable mass emission rates (existing limits) and the maximum power generation rate (150 MW, net delivered). The amount of power generated is continuously monitored and so are visible emissions (opacity monitor) and mass emissions of sulfur dioxide, and nitrogen oxides (combining the signals from the CEMs for concentration and flow rate).

THIS IS EQUIVALENT TO INCREASE IN PRODUCTION RATE. THE ONLY WAY IT WOULD COME UNDER THE EXEMPTION IN 17-210.200(39)(b) IS FOR THOSE NOT TO HAVE BEEN A F.E. PERMIT CONDITION (PRIOR) LIMITING PROD. RATE.

3. **Please address the comments in KBN Engineering's February 25, 1994, letter to Tony Cleveland of Oertel, Hoffman, Fernandez and Cole, who represent Hernando County.**

RESPONSE:

KBN requested FDEP to determine if PSD review would be required for the proposed permit modification by evaluating any physical modification to the power plant boiler; change in the method of operation; current federally enforceable limitations; any significant increase in emissions; and, to conduct an ambient air impact analysis for the Class I and II areas.

A PSD review is triggered only if any physical changes or changes in the method of operation result in a significant increase in actual emissions, as defined in Rule 17-212, Florida Administrative Code (FAC). This project does not involve any physical changes or changes in the method of operation. Furthermore, the project will not result in any increase in actual emissions, as defined in Rule 17-212, Florida Administrative Code (FAC). In this case, the emission rates permitted under PSD-FL-90 and PA 82-17 are federally enforceable and are considered actual emissions, in accordance with Rule 17-212, FAC.

INCREASED LIME INJECTION

"may" be considered 17-212.200(2)(b) (not "are" considered)

As the proposed project will not result in changes in emissions or stack characteristics, an ambient air impacts analysis would simply indicate "no change" in air impacts.

KOOGLER & ASSOCIATES

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

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:PAR:wa

c: Mr. Tom Mountain, FCS
Mr. Fred Salzmann, FCS
Mr. Larry Curtin, Holland & Knight

TABLE 1

HIGH LOAD OPERATING DATA

CENTRAL POWER AND LIME, INC.
BROOKSVILLE, FLORIDA

PARAMETER	DATE OF OPERATION		
	1/6/94	6/4/93	5/6/93
NET MW DELIVERED	134	142	136
SULFUR DIOXIDE EMISSIONS	693	704	677
PERMIT LIMIT (lb/hr)	781	781	781
NITROGEN OXIDES EMISSIONS	855	578	502
PERMIT LIMIT (lb/hr)	1205	1205	1205
POWER PLANT COAL USE	58.0	55.3	52.4
PERMIT LIMIT (TPH)	68.8	68.8	68.8
POWER PLANT HEAT INPUT (MMBtu/hr)	1409.4	1406.3	1356.8
CEMENT PLANT COAL USE	8.8	8.3	8.6
PERMIT LIMIT (TPH)	10.3	10.3	10.3
CEMENT PLANT TIRE USE	1.06	0.95	0.80
PERMIT LIMIT (TPH)	1.33	1.33	1.33
LIME PLANT	NOT OPERATING	NOT OPERATING	NOT OPERATING

NOTE: (1) Net delivered MW is determined after taking into account the line loss. Typically the net MW at the plant would be about 3.5 MW higher.

(2) The maximum allowed coal use for the power plant is determined by multiplying the nominal use of 62.5 tons per hour (TPH) by 10 percent, or 68.8 TPH.

(3) It should be noted that the above documented operation rate is within 10% of the requested certification limit of 150 MW net delivered.

(4) Although there is no direct/simple correlation between the coal use, heat input, power generation rate, and emission rates, the demonstration of compliance with permit limits is possible with continuous monitors.

KOOGLER & ASSOCIATES

Department of Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

October 6, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Tom Mountain
Environmental Manager
Central Power & Lime, Inc.
Post Office Box 1508
Brooksville, Florida 34605-1508

Dear Mr. Mountain:

Re: Amendment to the Construction Permit, PSD-FL-090(A), to Allow Central Power & Lime, Inc.'s (CPLI) Power Plant to be Tested at 133 MW Net Output to Establish Actual Pollutant Emission Levels

The Department has reviewed the request that you provided on October 3, 1994 (enclosed). We have also considered the Department's legal authority to allow CPLI to conduct the 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. Rule 62-210.700(5), Florida Administrative Code (F.A.C.), authorizes the Department to consider variations 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), (18), and 403.516(1), F.S., you are hereby authorized to conduct performance tests for pollutant emissions on CPLI's Power Plant while operating at 133 MW (megawatts). The CPLI's Power Plant was permitted under Site Certification, No. PA 82-17 (PSD-FL-090), and was permitted for 100 MW net output to the grid.

The emissions tests are being proposed in order to gather data regarding actual pollutant emissions while firing coal and with only the Power Plant operating at the permitted net output of 100 MW and at a net output 133 MW. Screening to determine whether this change results in a modification or to determine Prevention of Significant Deterioration (PSD) applicability shall be in accordance with Chapter 403, F.S.; Chapters 62-210 thru 62-297 and 62-4, F.A.C.; and, Title 40 Code of Federal Regulations (CFR; July 1, 1993 version), which will compare the actual pollutant emissions of the permitted net output tests of 100 MW to the actual pollutant emissions of the performance tests while operating at 133 MW net output. The performance test results will be reviewed by the Department's Bureau of Air Regulation (BAR) and involved agencies/parties (i.e., Hernando County, U.S. EPA, National Park Service, etc.).

The performance tests shall be subject to the following conditions:

1. A written test result report shall be submitted to these offices within 45 days upon completion of the last test run.

2. The performance tests shall be conducted from October 6 thru 9, 1994, for the 100 MW net output level and October 10 thru 13, 1994, for the 133 MW net output level.

3. Sulfur dioxide, nitrogen oxides, and opacity emissions and stack gas flow rate data shall be recorded using continuous emissions monitors (CEMS) during all tests. If the plant CEMS are used for these tests, these systems shall be quality assured pursuant to 40 CFR 60, Appendix F requirements. The data assessment report from 40 CFR 60, Appendix F, for the most recent relative accuracy test audit (RATA) and most recent cylinder gas audit (CGA), shall be submitted with the test report. In addition, two sets of emission measurements (two sets of three one-hour runs) shall be conducted for the pollutants particulate matter (PM; assume that all of PM is PM10; EPA Method 5), sulfur dioxide (EPA Method 6 or 6C), and nitrogen oxides (EPA Method 7E).

4. Any performance tests shall be conducted using EPA Reference Methods, as contained in 40 CFR 60 (Standards of Performance for New Stationary Sources), or any other method approved by the Department, in writing, in accordance with Rule 62-297.620, F.A.C.

5. Daily records (i.e., heat input, steam production, pressure, temperature, total and net MW outputs, fuel input rates, etc.) of boiler operations during the tests shall be required. Also, daily record keeping of the control equipment parameters shall be required and any alteration of the control equipment operational parameters between the 100 MW and the 133 MW net output tests shall be documented and summarized in the final report.

6. A Type I or II stack audit may be conducted by the Department's Southwest District office.

7. During the tests, no permitted emission limitation shall be exceeded.

8. The authorized performance tests shall not result in the release of objectionable odors pursuant to Rule 62-296.320(2), F.A.C.

9. Performance testing shall immediately cease if operations are not in accordance with the conditions in the air section of Site Certification No. PA 82-17; PSD-FL-090; and, this authorization protocol. Performance testing shall not resume until appropriate measures to correct the problem(s) have been implemented.

10. The performance tests for pollutant emissions shall be conducted under the direct supervision and responsible charge of a professional engineer registered in Florida.

11. This Department action is only to authorize the performance tests described above and in the request letter. Any operation above the 100 MW net output level after the last performance test run or the consecutive 96-hours of CEMS data collection is completed will be deemed a violation of the Site Certification No. PA 82-17; and, PSD-FL-090.

12. The Department's Bureau of Air Regulation and Southwest District shall be notified, in writing, on the date of the last test run completion and the CEMS data collection.

13. The tests shall be conducted at 98-100% of the 100 MW and 133 MW net outputs. Any variation from these levels may invalidate the data for assessment purposes.

14. Any federally enforceable limitation contained in the permit will have to be addressed as a permitting action in accordance with the appropriate regulations if any of these limitations are to be changed.

15. Enclosures to be incorporated:
    - o Lawrence N. Curtin's October 3, 1994 letter.
    - o Conditions of Approval: PSD-FL-090 Emission Limitations.

This letter amendment must be attached to the federal construction permit, No. PSD-FL-090 (PSD-FL-090A), and shall become a part of the permit.

Sincerely,

Howard L. Rhodes
Director
Division of Air Resources Management

HLR/rbm

Enclosures

cc: B. Thomas, SWD
B. Proses, SWD
H. Oven, PPS
J. Harper, EPA
J. Bunyak, NPS
D. Beason, Esq., DEP
C. Hetrick, HCBCC
A. Cleveland, Esq., OHF&C

LAW OFFICES

HOLLAND & KNIGHT

315 SOUTH CALHOUN STREET
P.O. DRAWER 810 (ZIP 32302-0810)
TALLAHASSEE, FLORIDA 32301
(904) 224-7000
FAX (904) 224-8832

ATLANTA
FORT LAUDERDALE
JACKSONVILLE
LAKELAND
MIAMI
ORLANDO
ST. PETERSBURG
TALLAHASSEE
TAMPA
WEST PALM BEACH
WASHINGTON, D.C.

SPECIAL COUNSEL
MEHAW, LICITRA, PARENTE, SERNIO & SCHWARTZ, P.C.
GARDEN CITY, NY
NEW YORK, NY

October 3, 1994

VIA HAND DELIVERY

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

Re: Central Power & Lime, Inc.; Hernando County, Florida

Dear Mr. Fancy:

We appreciated the opportunity to meet with you and your staff today, to discuss a test program designed to demonstrate that there will be no increase in regulated emissions (particulate matter, sulfur dioxide and nitrogen oxides) from the Central Power & Lime, Inc. (CPL) power plant as the net generating rate is increased from 100 mega watts to 183 megawatts.

The purpose of this letter is to request approval to operate the power plant at a rate of up to 133 megawatts, net, for a four day period while these tests are conducted and to establish a protocol for the tests. During the test period, no permitted emission limitation (particulate matter, sulfur dioxide or nitrogen oxide) will be exceeded. The tests are scheduled during the period October 6-11, 1994, and, as we discussed, the Florida Crushed Stone cement plant will be taken off line for these tests as both the power plant and cement plant are exhausted through a common stack.

During the period of October 6-9, 1994, the power plant will operate at a nominal rate of 100 megawatts, net. Beginning at approximately 0800 on October 6, and continuing through approximately 2400 on October 9, 1994 (Thursday-Sunday), the sulfur dioxide and nitrogen oxide concentrations of the stack gas and the stack gas flow rate, as monitored by continuous monitors, will be recorded on an hourly basis. These data will be combined to calculate hourly average sulfur dioxide and nitrogen oxides mass emission rates. The opacity of emissions will also be reported hourly from continuous emission monitor records. Additionally, two

sets of emission measurements (two sets of three one-hour tests) will be conducted during the period for particulate matter (EPA Method 5), sulfur dioxide (EPA Method 6) and nitrogen oxides (EPA Method 7E). The emission measurements will be conducted on two separate days, tentatively October 7 and 9, 1994.

During the period October 7-13, 1994, the power plant will operate at a nominal rate of 133 megawatts, net. Sulfur dioxide and nitrogen oxides mass emissions rate (calculated from CEM data as at the 100 megawatt rate) will be reported hourly and the opacity of emissions will be reported hourly. Again, two sets of emission measurements will be conducted for particulate matter, sulfur dioxide and nitrogen oxides. These are tentatively set for October 10 and 11, 1994.

The purpose of the compliance testing is to confirm the data generated by the CEMs even though the monitors for sulfur dioxide, nitrogen oxides and flow have been certified. As we discussed, the data from the CEMs will be most heavily weighted.

The two sets of emission data (100 and 133 megawatts) will be compared by the standard statistical "t" test. The statistical procedure will be as described in 40 C.F.R., Part 60, Appendix C. If the statistical analyses demonstrate there is no increase in particulate matter, sulfur dioxide and nitrogen oxide emissions as the generating rate is increased from 100 to 133 megawatts, the Department will, through the required permitting process, amend the CPL power plant permit to authorize operation at 133 megawatts, net, with or without operation of the cement plant. The heat input rate to the power plant, will be monitored and reported for the test period but will not be a permit condition as the efficiency of the power plant varies with several factors. In other words, there is not a direct relationship between heat input and the net generating rate of the power plant.

As you requested, in accordance with Department rules, attached is a check in the amount of $250 for the permit amendment to allow the requested testing.

We certainly appreciate your cooperation in this matter and will keep your office informed of any changes in schedule. Please let us know if anything further is required at this time.

Sincerely,

HOLLAND & KNIGHT

Lawrence N. Curtin

Enclosure
cc: Mr. Joe Piermatteo
Mr. Tom Mountain
Dr. John Koogler

LNC/mrh
TAL-51034

Conditions of Approval
PSD-FL-090

The construction and operation of the Florida Crushed Stone Company (FCS) steam electric power plant shall be in accordance with the attached general conditions and all applicable provisions of 40 CFR 52.21. In addition to the foregoing, the permittee shall comply with the following specific conditions of approval:

A. Emission Limitations

1. Stack emissions from the power plant boiler only shall not exceed the following site specific limitations when burning coal:

a. SO_2 - the lesser of these: 1.2 lb. per million Btu heat input, maximum two-hour average; 0.9 lb. per million Btu heat input, maximum three-hour average; and 915 lb. per hour, maximum three-hour average.

b. NO_x - 0.7 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

c. Particulates - 0.03 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

d. Visible emissions - 20% opacity, 6-minute average, except for one 6-minute period per hour of not more than27% opacity.

Memorandum

Florida Department of
Environmental Protection

RECEIVED

APR 26 1994

Bureau of
Air Regulation

APR 18 1994

TO: Hamilton Oven, P.E.

FROM: Michael S. Hickey, P.E.

DATE: April 15, 1994

SUBJECT: Florida Crushed Stone - Modification Request

The subject request involves air regulation only. The Air Program of the Southwest District state the following:

Changes to Florida Crushed Stone PA 82-17 and PSD-FL-90 were requested by Koogler & Associates in their letter of January 25, 1994 (and subsequent letter of March 18, 1994). These changes are characterized as amendments to the above Site Certification and PSD permit which do not involve a source "modification" as defined in Rule 17-210, F.A.C. Based upon review of the January 25, 1994 package, the Southwest District Air Program questions this conclusion for the reasons discussed below.

In accordance with Rule 17-210.200(39), F.A.C., if there are any physical changes or changes in the method of operation that result in an increase in actual emissions then the change must be treated as a modification. The proposed removal of the 1,000 MMBtu/hour heat input rate cap and increase in the capacity of the power plant from 125 MW to an ultimate capacity (in 1997) of 150 MW may be associated with a physical change in the source/facility. Regardless there would definitely seem to be a change in the method of operation since the unit heat input capacity is limited by a federally enforceable permit condition in the PSD permit. It would also seem highly likely that operation at a higher capacity would involve increased fuel usage which would increase actual emissions. If the above is the case, then this proposed change is a modification and a construction permit application must be submitted.

For the purposes of determining whether the proposed changes trigger PSD applicability, it will be necessary to compare existing actual emissions (based on the average of the last two years of actual operation) to the requested allowable emissions. If this results in an increase in emissions that exceeds the PSD significant level for any of the regulated PSD pollutants, then PSD would be triggered and a PSD application required.

The information submitted with the request package does not allow for a complete analysis to be made as to whether this change constitutes a modification and triggers PSD.

(Note: A quick review of the March 18, 1994 Koogler & Associates submittal indicates that it is largely identical to the January 25, 1994 submittal with the addition of a February 25, 1994 additional information request letter from John Brown of DEP, and a February 25, 1994 letter from KBN on behalf of Hernando County. The comments from KBN for the most part mirror those given above. The March 18, 1994 cover letter from Koogler & Associates states that the items in John Brown's letter (which included the KBN comments) were being addressed. As of April 15, 1994, the SWD has not received such response.)

cc: Bill Thomas
Davis Zell

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 8, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Tom Mountain
Central Power & Lime, Inc.
P. O. Box 1508
Brooksville, Florida 34605-1508

Dear Mr. Mountain:

This is in reply to the August 4, 1994, letter from Koogler & Associates regarding a requested modification of permit conditions (PSD-FL-090 and -091 and Site Certification PA 82-17) to increase the net power plant output to 150 MW while eliminating emission limits based on heat input.

After reviewing the information submitted and considering the comments from the Department's Southwest District and Hernando County concerning PSD rule applicability, the Department requires a PSD construction permit application for this request. The reasons are discussed below.

The construction permit specified a 125 MW cogeneration power plant integrated with a 600,000 TPY Portland cement plant to be constructed on the site of an existing aggregate and lime plant. Although the maximum design output was 125 MW, the permitted net power output with the cement plant not operating was 100 MW by virtue of the 1,000 MMBTU/hr boiler heat input limit. Therefore, 100 MW must be considered as the "baseline" permitted output for evaluating PSD applicability for an increase in net power output. This means that actual boiler emissions at 100 MW net output must be compared with the future allowable emissions (no increase in allowables) to determine if a PSD-significant increase will occur.

From the data in Attachment 1, it appears that the power plant may have been operating above the "baseline" permitted net output. Assuming that "net MW delivered" means "before deducting internal consumption and after deducting line loss", if the net power delivered was 142 MW and the line loss was 3.5 MW with 25 MW consumed by the cement plant, then the power exported would be about 120.5 MW, or about 21% above the net output of 100 MW when the cement plant is not operating.

.07 x = 15
x ≅ 214 TPY vs. 201.3 (1998)

40 TPY × 2000/7353 hr/yr ≅ 10.88 lb/hr

781 (or 770) → 1% ≅ 8 lb/hr vs 10.88
−691
~90 (or 79)

Analysis of data in Attachment 1, 3 and 4, shows that a difference in actual vs. allowable emissions of slightly over 1% for NO_x and for SO_2 would exceed the PSD-significant level of 40 TPY, while a 7% increase over actual PM/PM_{10} emissions would exceed the significant level of 15 TPY. To conclude that a 21% increase in net power output would not carry with it an increase in actual emissions of at least these magnitudes would be unlikely. Viewed another way, if the three SO_2 stack test measurements are averaged and compared with the allowable (691 vs. 770 lbs/hr with the cement plant down) and the difference is then multiplied by the 1993 operating hours, the increase would be (770-691)(1/2000)(7353) = 290 TPY. The actual difference would be higher because the 691 lbs/hr average is based on operation at rates higher than the 100 MW "baseline" rate.

Regarding the issue of whether the increased rate constitutes a change in the method of operation, both the Department's Southwest District and Hernando County pointed out that a change in a federally enforceable permit limit on capacity (i.e., 1,000 MMBTU/hr), which also results in an increase in actual emissions, must be done by way of a construction permit application. The only way that this can be avoided is to revise the allowable emissions downward such that the allowable vs. actual emissions are less than significant, but this would leave very little margin for compliance.

Sincerely,

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

CHF/JB/bjb

cc: W. Thomas, SWD
B. Oven, DEP
J. Pennington, DEP
D. Beason, DEP
C. Cleveland, OHF&C
J. Koogler, K&A
D. Buff, KBN

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 307-93-12

August 4, 1994

Mr. John C. Brown, Jr.
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Submittal of Additional Information
Central Power & Lime, Inc.
Modification of Permit Conditions
Permit No. PSD-FL-90

Dear Mr. Brown:

This is in response to your letters dated February 25 and July 7, 1994, requesting additional information on the above project. Issues raised in your February letter are addressed first. The responses below will replace/update information submitted to FDEP on June 17, 1994.

Letter of 2/25/94:

1. **All changes to the air pollution control system and other equipment must be described in sufficient detail for the Department to confirm that the actual emissions will not increase. Provide schematic drawings showing all physical changes and flow quantities and provide emission calculations for each pollutant.**

RESPONSE:

No changes to the air pollution control or other equipment are proposed for this project. The existing equipment is capable of generating up to 150 MW (net delivered) with the currently permitted fuel usage, as indicated by the power plant operation information in Attachment 1. Power generation can be improved by various means, which include increasing the frequency of boiler tube cleaning to maintain high heat transfer efficiency; utilizing, when possible, coal with a greater heating value; maintaining optimum operating conditions on the low and high pressure turbines; and, maintaining tight control on combustion air to the boiler so that less air must be heated to higher temperatures for improved heat recovery. These and other measures have been, and will continue to be implemented to increase the process efficiency.

No schematic drawings are attached as no changes are proposed for any existing equipment or process. No changes to the currently permitted emissions are proposed.

Letter of 2/25/94:

2. **Provide the maximum hourly heat input requested for delivering the maximum hourly power production called for under the current contract.**

RESPONSE:

The current contract, approved by the Public Service Commission (PSC), calls for a maximum of 150 MW, net delivered. The heat input necessary to generate 150 MW, net delivered, can vary significantly depending on the power generating system efficiency and the line loss. The power generating system efficiency is dependent upon factors such as boiler efficiency, cooling water temperature, turbine efficiency, and cement plant operations.

BUT CURRENT PERMITTED RATE IS 100 MW (net) THIS IS AN ADDITION OF 25 MW! (after deducting 25mw for internal use)

After reviewing the information available in our Site Certification and permit files, we have come to the conclusion that the limitations on heat input were originally incorporated to limit the allowable mass emissions, as most of the emission limits were stated in terms of "lb/MMBtu". As there is no direct correlation between heat input and mass emission rate of the pollutants from the cement/power plant system, Central Power & Lime (CPL) requests that specific conditions with limitations on the heat input (surrogate parameter) be replaced with limitations on maximum allowable mass emission rates (key parameter).

THIS IS DECEPTIVE (BECAUSE THE PERMIT CONDITION LIMITS HEAT INPUT WHEN CEMENT PLANT IS DOWN).

To provide FDEP with reasonable assurance of compliance with the mass emission limits, CPL will operate continuous emission monitors for visible emissions (opacity monitor), sulfur dioxide, nitrogen oxides and stack gas flow. The signals from the CEMs for concentration and the CEM for stack gas flow rate can be combined to determine mass emissions.

Letter of 2/25/94:

3. **Please address the comments in KBN Engineering's February 25, 1994, letter to Tony Cleveland of Oertel, Hoffman, Fernandez and Cole, who represent Hernando County.**

RESPONSE:

KBN requested FDEP to determine if PSD review would be required for the proposed permit modification by evaluating any physical modification to the power plant boiler; change in the method of operation; current federally enforceable limitations; any significant increase in emissions; and, to conduct an ambient air impact analysis for the Class I and II areas.

A PSD review is triggered only if any physical changes or changes in the method of operation result in a significant increase in actual emissions as defined in Rule 17-212, Florida Administrative Code (FAC). This project does not involve any physical changes or changes in the method of operation. Furthermore, the project will not result in any increase in actual emissions, as defined in Rule 17-212.200(2)(b), FAC. Pursuant to this rule, the emission rates permitted under PSD-FL-90 and PA 82-17 are federally enforceable and can be considered as actual emissions by the Department. ONLY IF ACTUAL DATA NOT AVAILABLE.

As the proposed project will not result in changes in emissions or stack characteristics, an ambient air impacts analysis would simply indicate "no change" in air impacts.

Letter of 7/7/94:

1. **The actual tons per year of pollutant emissions for the past 5 years.**

RESPONSE:

The annual operating hours for the power plant are presented in Attachment 2. Summaries of the emission rates for the past five years are presented in Attachments 3 and 4. The learning curve associated with keeping the power plant complex on-line is evident in Attachment 2. It is also clear that none of the past annual operating hours can be considered representative of normal operations for the power plant. Consequently, the annual power plant emissions in Attachment 4 cannot be considered "representative" for review purposes. A typical power plant is on line at least 90 percent of the time. CPL is working towards that objective through a better understanding of the complex variables involved in the combined cement plant and power plant operation. Based on 1993 operating hours, it should be noted that CPL is within 10 percent of that objective. In this situation, the PSD provision for considering federally enforceable allowable emissions as actual emissions is appropriate. MAYBE SO FOR ANNUAL, BUT NOT HOURLY.

Letter of 7/7/94:

2. **The heating value of the coal which was used in the original construction application.**

RESPONSE:

In looking through our files, it has not been possible to locate the original construction application which was filed more than a decade ago (possibly in 1979). Also, the information submitted with the original construction application was subject to numerous revisions; some proposed by FCS, others imposed by FDEP or third parties.

The coal heating value, however, can be estimated based on the heat input limitation and the coal firing rate. In the modification of PA 82-17 in 1984, which involved the integration of the lime system with the power plant, the conditions were changed to allow input of up to 50 tons per hour (tph) of lime and to allow an increase in the coal input from 50 tph to 62.5 tons per hour (nominal input) with the lime injection in the power plant. Using the value of 50 tph coal to represent the original configuration, and the heat input value of 1,234 MMBtu/hr in the permit, the heat value of coal that would correspond to the original construction application can be estimated at 12,340 Btu/lb.

By comparison, CPL logs of the average heat content of coal received, indicate a value around 12,600 Btu/lb (1991-1993).

Letter of 7/7/94:

3. Explanation of the variation of SO2 limits (PSD permit states 0.9 lbs/MMBtu vs. Site Certification limit of 1.2 lbs/MMBtu).

RESPONSE:

As indicated earlier, the information submitted with the original construction application has been subject to numerous revisions. In reviewing some of the permit changes documented in our files, it seems likely that the sulfur dioxide emissions information relating to each revision was not incorporated into both the Conditions of Certification and PSD permit conditions in a consistent manner.

The current sulfur dioxide emission limits for the power plant can be traced through revisions of permit conditions. Initially, FCS proposed a sulfur dioxide emission limit for the power plant of 1.2 pounds per million Btu (lb/MMBtu) at a heat input rate of 1234 MMBtu/hr; or 1480 lbs/hr. To reduce the impact on Chassahowitzka National Wildlife Refuge (a PSD Class I area), FCS agreed to reduce sulfur dioxide emissions from the power plant to 1200 lbs/hr. This revised mass emission rate and the original heat input based emission rate (1.2 lb/MMBtu) were incorporated in the original Condition of Certification (PA 82-17, 1983 - See Attachment 5). Further along in the permitting process, FCS agreed to another reduction in sulfur dioxide emissions. The PSD permit (PSD-FL-90 & 91) issued in March of 1984 (see Attachment 6) reflected this reduction in an emission limit of 0.9 lb/MMBtu and 915 lbs/hr.

While the Conditions of Certification were revised to correspond to the PSD permit at a later time, only the mass emission limits from the PSD permit were incorporated into PA 82-17 leaving the "lb/MMBtu" limit unchanged. It is likely that FDEP did not revise the "lb/MMBtu" sulfur dioxide emission limits in view of the fact that the more stringent mass emission limitation would dictate allowable emissions anyway.

PA 82-17 conditions were revised again in 1986 (see Attachment 7) to incorporate the lime injection system in the power plant. The sulfur dioxide mass emission limit was further reduced to 770 lbs/hr and again the "lb/MMBtu" limit remained unchanged.

It should be noted that during the 1986 modification, the conditions addressing heat input to the power plant remained unchanged despite an increase in allowable coal input rate from 50 tph to 62.5 tph (nominal input). The maximum allowable power plant coal firing rate of 68.8 tph is determined by multiplying the nominal input rate by 10 percent.

Letter of 7/7/94:

4. Transcripts of the Site Certification Hearing relating to the BACT rationale.

RESPONSE:

The transcript of the proceedings on final approval of the cogeneration facility by the Governor and Cabinet sitting as the Siting Board, that took place on March 6, 1984, is enclosed. As can be seen from a review of the transcript, there was extensive discussion about the limits on sulfur dioxide emissions and the impacts of the construction and operation of the Florida Crushed Stone (FCS) facility on the future prospects of Florida Mining and Materials (FM&M) to construct and operate a similar cogeneration facility. The matter was resolved by inclusion in the final Conditions of Certification of a paragraph that recognized that FM&M may, in the future, request that the FCS emissions be reduced to accommodate a FM&M project. The Governor and Cabinet did not indicate that such a request for a reduction in emissions would either be granted or denied, but included the language only as recognition that such a claim could be made in the future and would be subject to appropriate proof at the time it was made. Of course, FM&M has not proposed a cogeneration facility in the Brooksville area and it is doubtful that the conditions imposed by the Governor and the Cabinet will ever be implemented.

The primary issue of concern in the site certification process, after FM&M and Florida Rock Industries intervened was the potential impact of the FCS facility on the Class I area and the effect that the FCS impact would have on future cogeneration projects in the area. This was addressed by a series of negotiations that resulted in reductions in sulfur dioxide emission limitations and the condition described in the attached transcript.

The 100 MW limitation that was proposed through a limitation on the heat input was not directly related to air quality. At the time the facility was certified, it was contemplated that approximately 100 MW would be available for sale when the cogeneration facility, with a nominal 125 MW output, was operating with the cement plant. This was because the ultimate internal FCS consumption was projected to be 25 MW. When the facility was operating without the cement plant, the limitation would enable FCS to deliver approximately the same net output to the power grid. Operating experience has indicated that there is no direct correlation between heat input and the mass emission rate of the pollutants from the cement/power plant system. Therefore, heat input limitations are not necessary for any purpose related to air quality or any other aspect of the cogeneration project.

If these responses adequately address the issues raised by you and your staff, it is requested that our compliance demonstration commitments stated in this letter be incorporated into the amended Conditions of Certification and into the amended PSD permit conditions. Suggested wording for the amended conditions is presented in Attachment 8.

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

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:PAR:wa

c: Mr. Tom Mountain, CPL
Mr. Fred Salzmann, CPL
Mr. Larry Curtin, Holland & Knight

ATTACHMENT 1

HIGH LOAD OPERATING DATA

CENTRAL POWER & LIME, INC.
BROOKSVILLE, FLORIDA

PARAMETER	DATE OF OPERATION 1/6/94		6/4/93		5/6/93	
NET MW DELIVERED	134	142/134 = 1.06 150/134 = 1.12	142	PROJECTED FOR 150 MW	136	AVG of 3 ↓
SULFUR DIOXIDE EMISSIONS	693	704/693 = 1.016	704	715 ?	677	− 691
PERMIT LIMIT (lb/hr)	781		781		781	−691 / 90
NITROGEN OXIDES EMISSIONS	855		578		502	− 645
PERMIT LIMIT (lb/hr)	1205		1205		1205	−645 / 560
POWER PLANT COAL USE	58.0		55.3		52.4	
PERMIT LIMIT (TPH)	68.8		68.8		68.8	
POWER PLANT HEAT INPUT (MMBtu/hr)	1409.4		1406.3		1356.8	
CEMENT PLANT COAL USE	8.8		8.3		8.6	
PERMIT LIMIT (TPH)	10.3		10.3		10.3	
CEMENT PLANT TIRE USE	1.06		0.95		0.80	
PERMIT LIMIT (TPH)	1.33		1.33		1.33	
LIME PLANT (Including Shipping/Storage Silos/Screening etc).	NOT OPERATING		NOT OPERATING		NOT OPERATING	

NOTE: (1) Net delivered MW is determined after taking into account the line loss. Typically the net MW at the plant would be about 3.5 MW higher.

(2) The maximum allowed coal use for the power plant is determined by multiplying the nominal use of 62.5 tons per hour (TPH) by 10 percent, or 68.8 TPH.

(3) It should be noted that the above documented operation rate is within 10% of the requested certification limit of 150 MW net delivered.

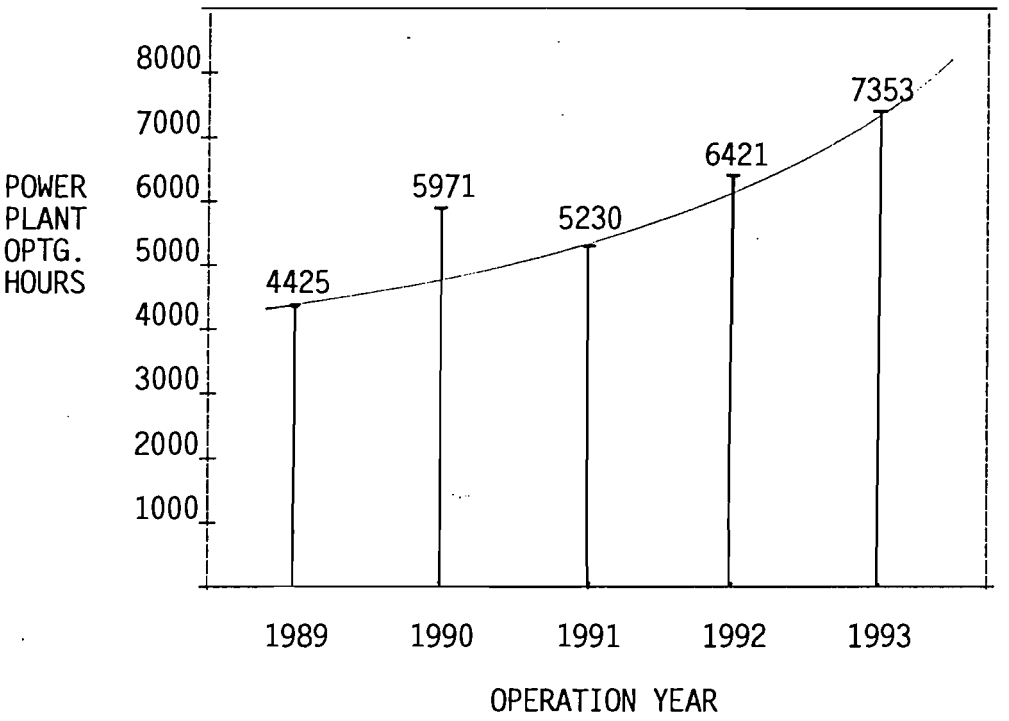
(4) Although there is no direct/simple correlation between the coal use, heat input, power generation rate, and emission rates, the demonstration of compliance with emission limits is possible with continuous monitors.

KOOGLER & ASSOCIATES

ATTACHMENT 2

POWER PLANT OPERATING HOURS

CENTRAL POWER AND LIME, INC.
BROOKSVILLE, FLORIDA



NOTES:

(1) In view of the above information, it can be seen how FCS has increased control over the complex variables involved in keeping the power plant on-line.

(2) It can be seen that none of the above years' operating hours can be considered representative of normal operations for the power plant (90+ percent on-line).

KOOGLER & ASSOCIATES

ATTACHMENT 3

POWER PLANT EMISSIONS DATA

CENTRAL POWER & LIME, INC.
BROOKSVILLE, FLORIDA

DATE	CEMENT & POWER PLANT STACK EMISSION RATE (lbs/hr) (1)		
	PART. MATTER	SULFUR DIOXIDE	NITROGEN OXIDES
11/22/89	53.4	750.3	296.5
09/18/90	56.8	595.0	(2)
02/28/91	54.5	757.8	969.8
07/28/92	62.7	615.3 (3)	696.0
08/24/93	7.6 (4)	684.0	848.0
01/06/94 (5)	(5)	693.0	855.0
PERMIT LIMIT	86.5	781.0	1205.0

NOTES:

(1) Both the cement plant and power plant exhaust through the same stack.

(2) NOx measurement not conducted.

(3) SO_2 measurements conducted on 12/08/92.

(4) This measurement is suspect.

(5) This entry represents information from Attachment 1. PM measurements have not been conducted yet in 1994.

KOOGLER & ASSOCIATES

ATTACHMENT 4

ESTIMATED ANNUAL EMISSIONS FOR POWER PLANT

CENTRAL POWER & LIME, INC.
BROOKSVILLE, FLORIDA

YEAR	Hours	ESTIMATED POWER PLANT ANNUAL EMISSION RATE (TPY) (1) PART. MATTER		SULFUR DIOXIDE		NITROGEN OXIDES	
		STACK TEST lb/hr →					
1989	4425	118.1	53.4	1660.0	750.3	656.0	296.5
1990	5971	169.6	56.8	1776.4	595.0	(2)	×
1991	5230	142.5	54.5	1981.6	757.8	2536.0	969.8
1992	6421	201.3	62.7	1975.4	615.3	2234.5	696.0
1993	7353	27.9 (3)	×	2514.7	684.0	3117.7	848.0
1994	(4) 8760	(5)	×	3035.3	693.0	3744.9	855.0

NOTES:

(1) Based on emission measurements presented in Attachment 2.

(2) NOx measurement not conducted.

(3) The emission measurement is suspect.

(4) This entry represents information from Attachment 1, and allowable annual operating hours of 8760.

(5) PM measurements have not been conducted yet in 1994.

KOOGLER & ASSOCIATES

ATTACHMENT 5

CONDITIONS OF CERTIFICATION
FOR POWER PLANT
SULFUR DIOXIDE EMISSION LIMITS
PA 82-17, 1983

CENTRAL POWER & LIME, INC.
BROOKSVILLE, FLORIDA

PA 82-17, 1983

State of Florida Department of Environmental Regulation
Florida Crushed Stone Company
Case No. PA 82-17
CONDITIONS OF CERTIFICATION

I. Air

The construction and operation of the Florida Crushed Stone Company (FCS) steam electric power plant site shall be in accordance with all applicable provisions of Chapters 17-2, 17-5 and 17-7, Florida Administrative Code (FAC). In addition to the foregoing, the permittee shall comply with the following specific conditions of certification:

A. Emission Limitations

1. Stack emissions from the power plant boiler only shall not exceed the following site specific limitations when burning coal:

a. SO_2 - 1.2 lb. per million Btu heat input, maximum daily average, and 1,200 lb. per hour, maximum three-hour average.

b. NO_x - 0.7 lb. per million Btu heat input, averaging time per Rule 17-2.700, FAC.

c. Particulates - 0.1 lb. per million Btu heat input, averaging time per Rule 17-2.700, FAC.

d. Visible emissions - 20% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

2. Stack emissions from the combined cement plant and power plant boiler shall not exceed the following site specific limits:

a. SO_2 - 1.2 lb. per million Btu heat input, maximum daily average, and 1,250 lb. per hour, maximum three-hour average.

b. NO_x - 0.7 lb. per million Btu heat input plus 2.9 lb. per ton of kiln feed (dry basis), averaging time per Rule 17-2.700, FAC.

ATTACHMENT 6

PSD PERMIT CONDITIONS
FOR POWER PLANT
SULFUR DIOXIDE EMISSION LIMITS
PSD-FL-90 & 91, 1984

CENTRAL POWER & LIME, INC.
BROOKSVILLE, FLORIDA

KOOGLER & ASSOCIATES

PART I

Specific Conditions

The construction and operation of the Florida Crushed Stone Company (FCS) steam electric power plant and cement plant shall be in accordance with the attached general conditions and all applicable provisions of 40 CFR 52.21. In addition to the foregoing, the permittee shall comply with the following specific conditions of approval:

A. Emission Limitations

1. Stack emissions from the power plant boiler only shall not exceed the following site specific limitations when burning coal:

   a. SO_2 - 0.9 lb. per million Btu heat input, maximum three-hour average (not to exceed 915 lb. per hour, maximum three-hour average).

   b. NO_x - 0.7 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

   c. Particulates - 0.03 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

   d. Visible emissions - 20% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

2. Stack emissions from the combined cement plant and power plant boiler shall not exceed the following site specific limits:

   a. SO_2 - 50 lb. per hour plus 0.74 lb. per million Btu boiler heat input, maximum three-hour average (not to exceed ~~965~~ lb/hr maximum three-hour average).

   b. NO_x - 0.7 lb. per million Btu heat input plus 2.9 lb. per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.

   c. Particulates - 0.03 lb. per million Btu heat input plus 0.3 lb. from the cement kiln and 0.1 lb from the clinker cooler per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.

ATTACHMENT 7

MODIFIED CONDITIONS OF CERTIFICATION
FOR POWER PLANT
SULFUR DIOXIDE EMISSION LIMITS
PA 82-17, 1986

CENTRAL POWER & LIME, INC.
BROOKSVILLE, FLORIDA

KOOGLER & ASSOCIATES

a. Condition I.A. shall be changed to read:

A. Emission Limitations

1. Stack emissions from the power plant boiler only or power boiler and lime plant shall not exceed the following site specific limitations when burning coal: 0.9 (PSD)

a. SO_2 - 1.2 lb. per million Btu heat input, maximum two-hour average, and ~~915~~ 770 lb. per hour, maximum three-hour average. three (")

b. NO_x - 0.7 lb. per million Btu heat input, averaging time per Rule 17-2.700, FAC, not to exceed 846 lb/hr.

c. Particulates - 0.03 lb. per million Btu heat input, averaging time per Rule 17-2.700, FAC.

d. Visible emissions - 20% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

2. Stack emission from the combined cement plant, lime plant and power plant boiler shall not exceed the following site specific limitations:

a. SO_2 - 1.2 lb. per million Btu heat input, maximum two-hour average, and 965 781 lb. per hour, maximum three-hour average.

b. NO_x - 0.7 lb. per million Btu heat input plus 2.9 lb. per ton of kiln feed (dry basis), averaging time per Rule 17-2.700, FAC, not to exceed 1205 lb/hr.

b. Condition I.A.5. shall be changed to read:

5. Particulate emissions from bag filter exhausts from the coal and fly ash handling systems (excluding those facilities covered by Condition I.A.4.c. above) shall be limited to 0.02 gr/acf. Emissions from lime and limestone handling and storage handling facilities shall not exceed 0.015 gr/acf. A visible

ATTACHMENT 8

SUGGESTED WORDING FOR POWER PLANT
CONDITIONS OF CERTIFICATION (PA 82-17)
AND PSD-FL-90 & 91

ITEM 1 - Replace conditions I.A.1.a., I.A.1.b., I.A.1.c., I.A.2.a., I.A.2.b., I.A.2.c. in both PA 82-17 and PSD-FL-90 & 91 with the following:

I.A. Emission Limitations

I.A.1. The stack emissions shall not exceed the following:

Pollutant	Emission Limitation (lb/hr, 3-hr avg)	
	Power & Lime Plants	Power & Lime & Cement Plants
Sulfur Dioxide	770	781
Nitrogen Oxides	846	1205
Particulate Matter	37	86

ITEM 2 - Replace condition I.A.3. in PA 82-17 and parallel condition I.G.1 in PSD-FL-090 & 091 with the following:

The power plant is permitted for a net delivered power production rate of 150 MW.

ITEM 3 - Replace condition I.B.1. in PA 82-17 and parallel condition I.C.1 in PSD-FL-90 & 91 with the following:

A flue gas oxygen meter shall be installed for the unit to continuously monitor a representative sample of the boiler flue gas. The oxygen monitor shall be used with automatic feedback or manual controls to continuously maintain air/fuel ratio parameters at an optimum. Performance tests shall be conducted and operating procedures established. The document "Use of Flue Gas Oxygen Meter as BACT for Combustion Controls" may be used as a guide. The permittee shall install and operate continuous monitoring devices for stack exhaust for sulfur dioxide, nitrogen oxides, gas flow rate and opacity to demonstrate compliance with the mass emission limits and the visible emission limits in Conditions I.A.1 and I.A.2. The monitoring devices shall meet the applicable requirements of Rule 17-297.500, FAC, and 40 CFR 60.45 and 40 CFR 60.13 including certification of each device. The Department shall be provided 30 days notice on each certification.

ITEM 4 - Replace I.C.1. in PA 82-17 and parallel condition I.B.1 in PSD-FL-90 & 91 with the following:

Within 60 calendar days after achieving the maximum capacity at which each unit will be operated (but no later than 180 operating days after initial startup) and annually thereafter, the permittee shall conduct performance tests for particulate matter, SO_2, NOx, and visible emissions while operating at 90-100% of the maximum allowable net deliverable power production rate and shall conduct visible emission tests on all coal handling and flyash baghouses. The Department shall be furnished a written report of the results of such performance tests within 45 days of completion of the tests. The performance tests will be conducted in accordance with the provisions of 40 CFR 60.46.

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

KA 308-94-05

November 1, 1994

Mr. C. 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

Mr. Hamilton Oven, P.E.
Administrator
Siting Coordination Office
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Central Power & Lime, Inc.
Hernando County, Florida

Dear Mr. Fancy and Mr. Oven:

Attached is a copy of the test report documenting particulate matter, sulfur dioxide and nitrogen oxides emissions and the opacity of emissions from the Central Power & Lime, Inc. (CPL) power plant in Hernando County, Florida, while the power plant was operating alone (without the cement plant) at net power generating rates of 106 and 137 megawatts. These tests were conducted during the period October 6-14, 1994, in accordance with approval granted by the Department by letter dated October 6, 1994.

The test results from both continuous monitors and reference test methods demonstrate that the net generating rate of the power plant can increase from 106 megawatts to 137 megawatts with no increase in sulfur dioxide and nitrogen oxides emissions, with no significant increase in particulate matter emissions and with only a slight increase in the opacity of emissions (from 4.8 percent to 5.0 percent). The test results also demonstrate that there is no relationship between the emission rates of particulate matter, sulfur dioxide or nitrogen oxides and the heat input rate to the power plant and demonstrate that the power plant can operate within 90 to 100 percent of 150 megawatts, net, without exceeding the present mass emission limits for the three regulated pollutants.

Based on the results of the tests conducted during the period October 6-14, 1994, and the fact that there is no consistent relationship between the heat input rate to the power plant and the electric power generating rate, Central Power & Lime, Inc. is requesting that the air permits and the power plant certification be amended to remove the heat input-based emission limits (pounds per MMBtu), to remove the heat input limits to the

power plant (MMBtu per hour), and to increase the maximum electric power generating rate to 150 megawatts, net. The 150 megawatt generating rate is to apply whether or not the cement plant operates.

We appreciate your consideration of this matter and will provide any additional information that may be required to expedite your review.

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:wa
Enc.

c: Mr. John Brown, FDEP
Mr. Bruce Mitchell, FDEP, w/report
Mr. Tom Mountain, FCS, w/reports
Mr. Larry Curtin, Holland & Knight, w/report

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

MEMORANDUM

January 3, 1995

TO: John Reynolds
Florida Department of Environmental Protection

FROM: John Koogler

SUBJECT: Florida Crushed Stone Company
Application to Construct (Modify) Air Pollution Sources
Coal Fired Power Plant - Brooksville, Florida

Enclosed is a copy of the application referenced above for your use as a working copy until the package of four original signed applications can be located. This copy does not show the applicant's authorized representive's signature, but is otherwise identical to the originals.

Please advise if I can be of further assistance.

JBK/sb
Enc.

Florida Department of Environmental Protection

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

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

SOURCE TYPE: Coal Fired Power Plant [ ] New[1] [x] Existing[1]

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

COMPANY NAME: Central Power & Lime, Inc. COUNTY: Hernando

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

SOURCE LOCATION: Street 10311 Cement Plant Road City Brooksville

UTM: East (17) 360.008 km North 3162.392 1 km

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

APPLICANT NAME AND TITLE: Mr. Joe Piermatteo, Senior Vice President

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

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Central Power & Lime, Inc. 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: _____

Joe Piermatteo, Senior Vice President
Name and Title (Please Type)

Date: _____ 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 xxxxxx/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

[1] 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: 12/8/94 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.

A permit application to increase the generating rate and the heat input rate to an existing coal fired power plant with no change in emissions. Also see page 2a of 12.

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

Start of Construction N/A Completion of Construction N/A

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.)

Baghouse - $12,220,000 - existing baghouse

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

PSD-FL-090

PA 82-17

SECTION IIA: PROJECT INFORMATION

The steam generator at the Central Power and Lime, Inc. (CPL) plant originally went into service in 1949 at the American Electric Power Corporation Twin Branch station in Mishawaka, Indiana. The generator was retired in 1980, relocated to the CPL site and reconfigured. The reconfiguration did not constitute a major modification.

During the permitting of the plant, emission limiting standards for sulfur dioxide were imposed and were reduced several times to respond to concerns of interested parties. The originally proposed limits represented BACT and the reductions in the limits represented improvements to BACT. Emission limiting standards were also imposed for particulate matter, nitrogen oxides and the opacity of emissions. The emission limiting standards in the Final Conditions of Certification (PA 82-17, June 29, 1986) are:

Power Plant Only

SO_2 - 1.2 lb/MMBtu boiler heat input, maximum 2-hour average and 770 lb/hr, 3-hour average.

NOx - 0.7 lb/MMBtu boiler heat input not to exceed 846 lb/hr.

PM - 0.03 lb/MMBtu boiler heat input.

VE - 20% opacity, 6-minute average except for one 6-minute period per hour of not more than 27% opacity.

Power and Cement Plants

SO_2 - 1.2 lb/MMBtu boiler heat input, maximum 2-hour average and 781 lb/hr, maximum 3-hour average.

NOx - 0.7 lb/MMBtu boiler heat input plus 2.9 lb/ton kiln feed, not to exceed 1205 lb/hr.

PM - 0.03 lb/MMBtu boiler heat input plus 0.4 lb/ton kiln feed (for kiln and cooler).

VE - 10% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

The emission limiting standards in PSD-FL-090 are:

Power Plant Only

SO_2 - the lesser of these: 1.2 lb/MMBtu boiler heat input, maximum 2-hour average; 0.9 lb/MMBtu boiler heat input, maximum 3-hour average; and 915 lb/hour, maximum 3-hour average.

NOx - 0.7 lb/MMBtu boiler heat input.

PM - 0.03 lb/MMBtu boiler heat input.

VE - 20% opacity, 6-minute average except for one 6-minute period per hour of not more than 27% opacity.

Heat Input Rate - When the power plant boiler is operating alone and the cement plant is not in operation, the maximum heat input rate of the boiler shall not exceed the site specific limit of 1,000 MMBtu per hour, maximum 3-hour average.

Power and Cement Plants

SO_2 - 50 lb/hr, maximum 3-hour average plus the lesser of these: 1.2 lb/MMBtu boiler heat input, maximum 2-hour average; 0.9 lb/MMBtu boiler heat input, up to 1000 MMBtu, then decreasing linearly to 0.74 lb/MMBtu boiler heat input at 1234 MMBtu/hr, maximum 3-hour average; and 915 lb/hr, 3-hour average.

NOx - 0.7 lb/MMBtu boiler heat input plus 2.9 lb/ton kiln feed.

PM - 0.03 lb/MMBtu boiler heat input plus 0.3 lb/ton of kiln feed from the cement kiln and 0.1 lb/ton of kiln feed from the clinker cooler.

VE - 10% opacity, 6-minute average, except for one 6-minute period per hour of not more than 17% opacity.

By letter dated October 3, 1994, CPL requested approval from the Department to conduct tests demonstrating there would be no increase in actual emissions as the power generating rate of the plant increased from nominally 100 mw, net (near the 1000 MMBtu/hr limit with the power plant operating alone, imposed by PSD-FL-090) to nominally 133 mw, net. The approval was granted by amendment to PSD-FL-090(A) on October 6, 1994, and the tests were conducted during the period October 6-14, 1994.

The tests demonstrated there is no correlation between the power generating rate (heat input rate) and emission rates and demonstrated the plant could operate at generating rates within 90 to 100 percent of 150 mw, net, without exceeding presently permitted emission limits. Furthermore, the tests showed there was no increase in sulfur dioxide and nitrogen oxides emissions as the generating rate increased and only a slight (but not significant) increase in particulate matter emissions. The test report has been submitted to the Department.

The plant was able to achieve the increased generating rate without a significant increase in emission rates by increasing the limestone injection rate to control sulfur dioxide, by modulating the combustion air to control nitrogen oxides and by baghouse design to control particulate matter.

As a result of the data developed during the October 6-14, 1994, test period and the contracted electric power commitment of CPL, CPL is requesting a permit modification to allow a maximum electric power

generating rate of 150 mw, net, whether the power plant is operating in conjunction with the cement plant or operating with the cement plant out of service. The test data demonstrate there is no increase in sulfur dioxide or nitrogen oxides emissions and less than a significant increase in particulate matter emissions as the generating rate is increased to 150 mw, net:

Target Emission Rate (mw, net)	Test Emission Rate (mw, net)	Measured Emission Rate SO2 (lb/hr)	SO2 (tpy)(1)	NOx (lb/hr)	NOx (tpy)	PM (lb/hr)	PM (tpy)
100	106	695.2	3045	757.1	3316	6.22	27.2
150	137	599.8	2627	706.7	3095	7.65	33.5
Increase in Actual Emissions		< 0		< 0		6.3	
Significant Increase		40		40		15(2)	

(1) Based on 8760 hours per year.
(2) PM10 significant level.

CPL is requesting that the most restrictive of the presently permitted emission limits remain in effect as these limits reflect BACT and satisfy the air quality review of the PSD permitting process. The proposed permit limits are:

Power Plant Only

SO_2 - 0.90 lb/MMBtu boiler heat input up to 850 MMBtu per hour boiler heat input, then decreasing linearly to 0.42 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input and 770 lb/hr, all 3-hour averages.

NOx - 0.70 lb/MMBtu boiler heat input up to 1200 MMBtu per hour boiler heat input, then decreasing linearly to 0.46 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input and 846 lb/hr, averaging time per 40 CFR 60.46.

PM - 0.03 lb/MMBtu boiler heat input up to 1200 MMBTU per hour boiler heat input, then decreasing linearly to 0.02 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input and 37.0 lb/hr, averaging time per 40 CFR 60.46.

VE - 20% opacity, 6-minute average except for one 6-minute period per hour of not more than 27% opacity.

Heat Input - When the power plant is operating alone and the cement plant is not in service, the maximum heat input rate to the boiler shall not exceed 1850 MMBtu per hour(1), maximum 3-hour average.

(1) The 1850 MMBtu per hour heat input rate is the maximum expected heat input rate necessary to generate 150 mw, net, with the power plant operating at the lowest efficiency.

Power and Cement Plants

SO_2 - 50 lb/hr plus 0.90 lb/MMBtu boiler heat input up to 850 MMBtu per hour boiler heat input, then decreasing linearly to 0.42 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input and 781 lb/hr, all 3-hour averages.

NOx - 0.70 lb/MMBtu boiler heat input up to 1200 MMBtu per hour boiler heat input, then decreasing linearly to 0.46 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input plus 2.9 lb/ton of kiln feed (dry basis) and 1205 lb/hr, averaging time per 40 CFR 60.46.

PM - 0.03 lb/MMBtu boiler heat input up to 1200 MMBTU per hour boiler heat input, then decreasing linearly to 0.02 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input plus 0.3 lb/ton of kiln feed (dry basis) from the cement kiln and 0.1 lb/ton of kiln feed (dry basis) from the clinker cooler and 86.5 lb/hr, averaging time per 40 CFR 60.46.

VE - 10% opacity, 6-minute average except for one 6-minute period per hour of not more than 17% opacity.

Heat Input - When the power plant and the cement plant are operating together, the maximum heat input rate to the boiler shall not exceed 1850 MMBtu per hour(1), maximum 3-hour average.

(1) The 1850 MMBtu per hour heat input rate is the maximum expected heat input rate necessary to generate 150 mw, net, with the power plant operating at the lowest efficiency.

It should be noted that the increase in the electric power generating rate and the demonstrated control of sulfur dioxide, nitrogen oxides and particulate matter can be achieved with no physical changes to the steam boiler or air pollution control systems. It should also be noted that the plant will continue to operate in compliance with all applicable regulations and permit conditions.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr 8760 ; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

Minor modification to an existing source.

1. Is this source in a non-attainment area for a particular pollutant? No

   a. If yes, has "offset" been applied? NA

   b. If yes, has "Lowest Achievable Emission Rate" been applied? NA

   c. If yes, list non-attainment pollutants. NA

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. Yes (1)

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. Yes (1)

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

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

   a. If yes, for what pollutants? N/A

   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 justification for any answer of "No" that might be considered questionable.

(1) The minor modifications proposed herein is a change in the permitted electric power generating rate and the corresponding heat input rate with no physical modification to the plant and no significant change in emissions. The modification does not affect the previously determined BACT nor does it trigger another PSD review.

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		
Not applicable				

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

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

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

Power Plant alone (emission rates for power/cement plant operations remain unchanged)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
P.M.	37.0	162	BACT	See proposed	6168	27016	
SO_2	770	3373	BACT	emission	2197	9623	
NOx	846	3706	BACT	limits in	1673	7328	
				Section IIA			
				(p. 2A of 12)			

[1]See Section V, Item 2.

[2]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)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency (1)	Range of Particle Sizes Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Baghouse	PM	99.4	>2μm	(2)
Limestone injection	SO_2	65.0	NA	(2)
B&W Low No_x Dual register burner	NO_x	49.4	NA	(2)

(1) These are required efficiencies at maximum generating rate for power plant operations only.

(2) Calculated efficiencies documented by testing.

E. Fuels - For Plant Only

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Coal	70.0 tph	77.1 tph	1850

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

Fuel Analysis: Coal

Percent Sulfur: 0.75 Percent Ash: 8.0

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

Heat Capacity: 12,000 BTU/lb --

Other Fuel Contaminants (which may cause air pollution): None

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

Annual Average NA Maximum NA

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

Fly ash and bottom ash generated in the power plant is used as a raw material in the cement plant.

Stack gas characteristics for power plant only:

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

Stack Height: 320 ft. Stack Diameter: 16 ft at top ft.

Gas Flow Rate: 840,000 ACFM 540,000 DSCFM Gas Exit Temperature: 300 °F.

Water Vapor Content: 7.5 % Velocity: 69.6 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 $(ft)^3$	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
See Attached Pages

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)].

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 per- mit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

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.)

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).

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.

7. An 8 1/2" 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).

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.

SECTION V. SUPPLEMENTAL INFORMATION

1. Operating Conditions

A. Generating Rate, net - 150 mw
Auxiliary Loads - 15 mw
Generating Rate, gross - 165 mw

B. Heat Input Rate - The heat input rate will vary with plant efficiency. The efficiency is a function of cooling water temperature and other operating factors. The heat input rate at the lowest expected plant efficiency is 1850 MMBtu/hour or 11,212 Btu/kw, gross.

C. Coal Use Rate - The coal feed rate will be a function of the heating value of the coal. During tests conducted over the period October 6-14, 1994, the heating value of coal ranged from 11,514 to 12,541 Btu/lb. For purposes of this application, a nominal heating value of 12,000 Btu/lb has been selected. The nominal maximum coal use rate at a heat input rate of 1850 MMBtu/hr is 77.1 tph.

2/3. Controlled and Uncontrolled Emissions

Particulate Matter (AP-42, Section 1.1)

Uncontrolled Emissions

= 10 A lb/ton of coal, where A is the ash content of the coal (A = 8.0%)

= 10 (8.0) x 77.1 tph coal

= 6168 lb/hr

x 8760/2000

= 27,016 tpy

Controlled Emissions

= 37.0 lb/hr (current permit limit)

x 8760/2000

= 162 tpy

Sulfur Dioxide (AP-42, Section 1.1)

Uncontrolled Emissions

= 38 S lb/ton of coal, where S is the sulfur content of the coal (S = 0.75%)

= 38 (0.75) x 77.1 tph coal

= 2197 lb/hr

x 8760/2000

= 9623 tpy

Controlled Emissions

= 770 lb/hr (current permit limit)

x 8760/2000

= 3373 tpy

Nitrogen Oxides (AP-42, Section 1.1)

Uncontrolled Emissions

= 21.7 lb/ton of coal for a dry-bottom wall fired furnace

= 21.7 lb/ton x 77.1 tph coal

= 1673 lb/hr

x 8760/2000

= 7328 tpy

Controlled Emissions

= 846 lb/hr (current permit limit)

x 8760/2000

= 3706 tpy

Other Emissions - will be at present permitted or actual emission rates. When both the power plant and cement plant operate, PSD-FL-090 and 091 imposes the following emission limits which will be complied with:

Total fluorides	-	0.7 lb/hr
Sulfuric acid mist	-	1.7 lb/hr
Beryllium	-	0.0005 lb/hr
Mercury	-	0.03 lb/hr

4/5. Control Equipment Specifications and Efficiencies

Particulate Matter

Baghouse E-20

Number of bags	-	3876
Bag Length	-	37 ft.
Bag Diameter	-	12 inches
Total Cloth Area	-	450,500 ft^2
Air/Cloth Ratio	-	2.3/1 with power and cement plants
Cleaning	-	Reverse air; variable cycle

Efficiency required with power plant only

$$E_p = (6168 - 37) \times 100/6168 = 99.4\%$$

Sulfur Dioxide

Limestone injection

Efficiency required with power plant at maximum rate

$$E_3 = (2197 - 770) \times 100/2197 = 65.0\%$$

Nitrogen Oxides

B & W Low NOx Dual Register Burners

Efficiency required with power plant at maximum rate.

$$E_n = (1673 - 846) \times 100/1673 = 49.4\%$$

6. Flow Diagram - See Attachment 1

7. Location Map - See Attachment 2

8. Site Map - See Attachment 3

9. Application Fee of $250 for minor modification to be deducted from $10,000 fee paid for Site Certification modification.

10. Not Applicable.

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: 6. Operating Costs:

7. Energy: 8. Maintenance Cost:

9. Emissions:

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:[1] d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy:[2] 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:[1] d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy:[2] h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]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:[1] d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy:[2] 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:[1] d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy:[2] 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:[1]

3. Capital Cost: 4. Useful Life:

5. Operating Cost: 6. Energy:[2]

7. Maintenance Cost: 8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]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^2* _____ 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_2	_____ grams/sec

E. Emission Data Used in Modeling

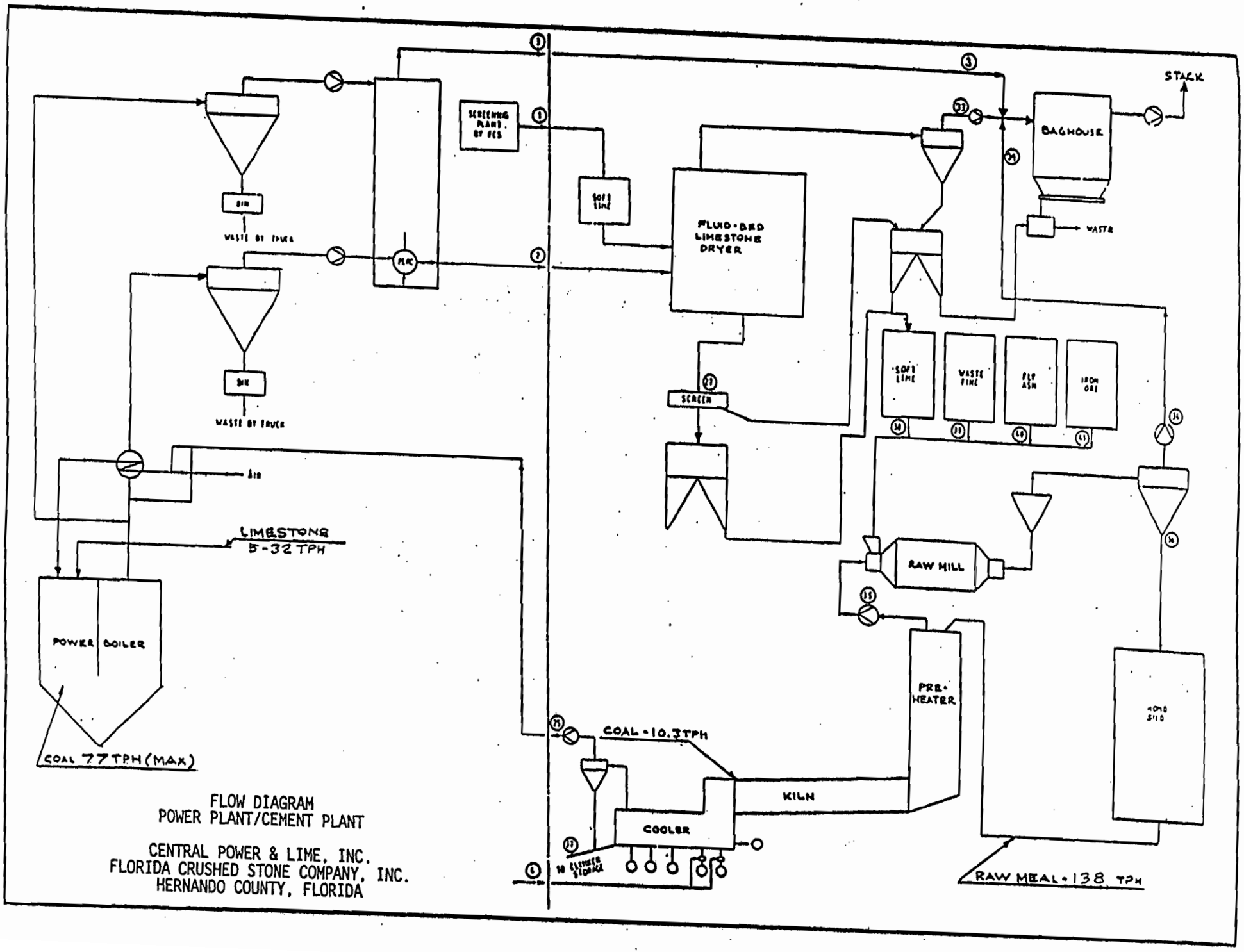
Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

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



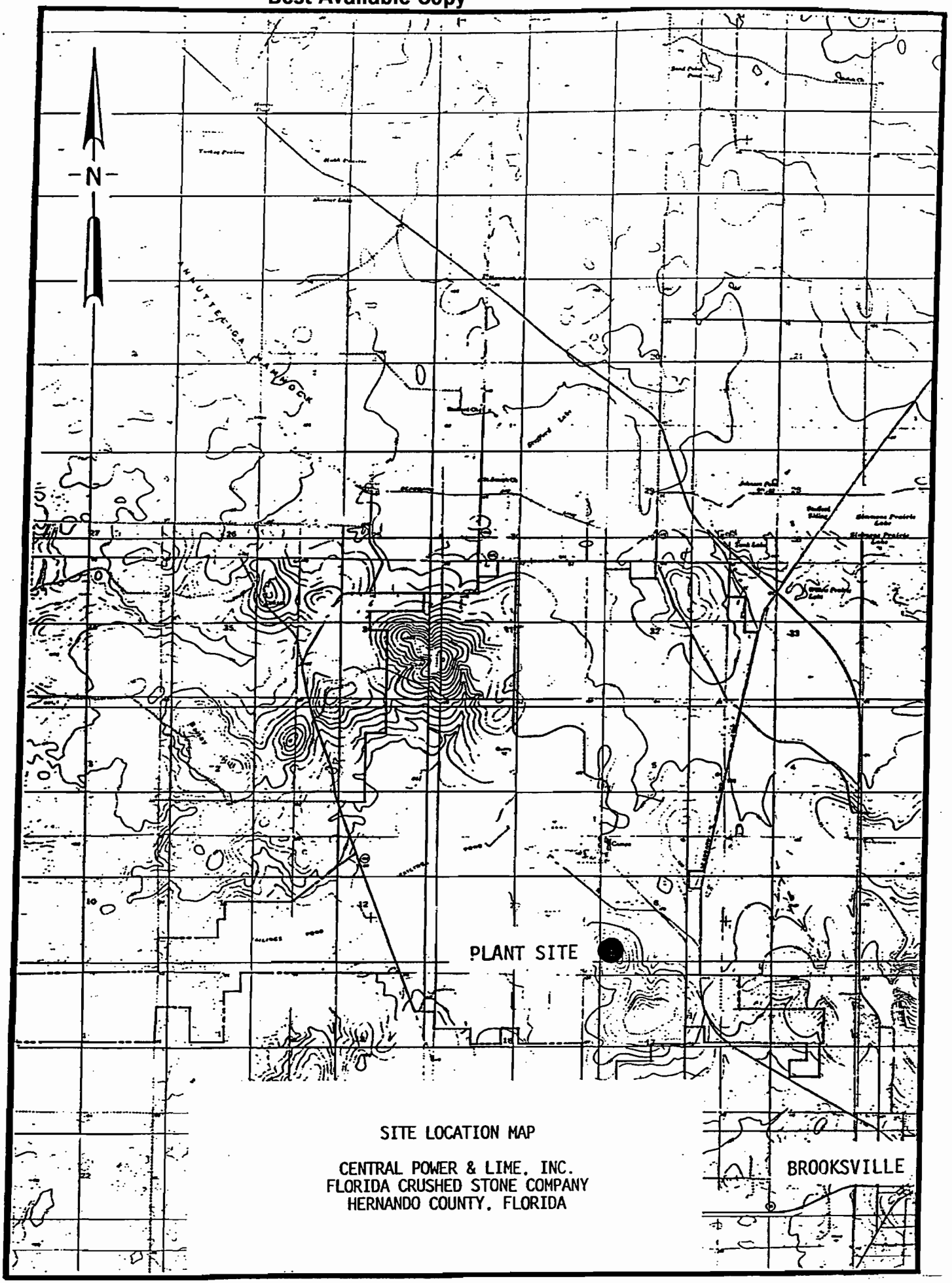
FLOW DIAGRAM
POWER PLANT/CEMENT PLANT

CENTRAL POWER & LIME, INC.
FLORIDA CRUSHED STONE COMPANY, INC.
HERNANDO COUNTY, FLORIDA

ATTACHMENT 2

KOOGLER & ASSOCIATES

Best Available Copy

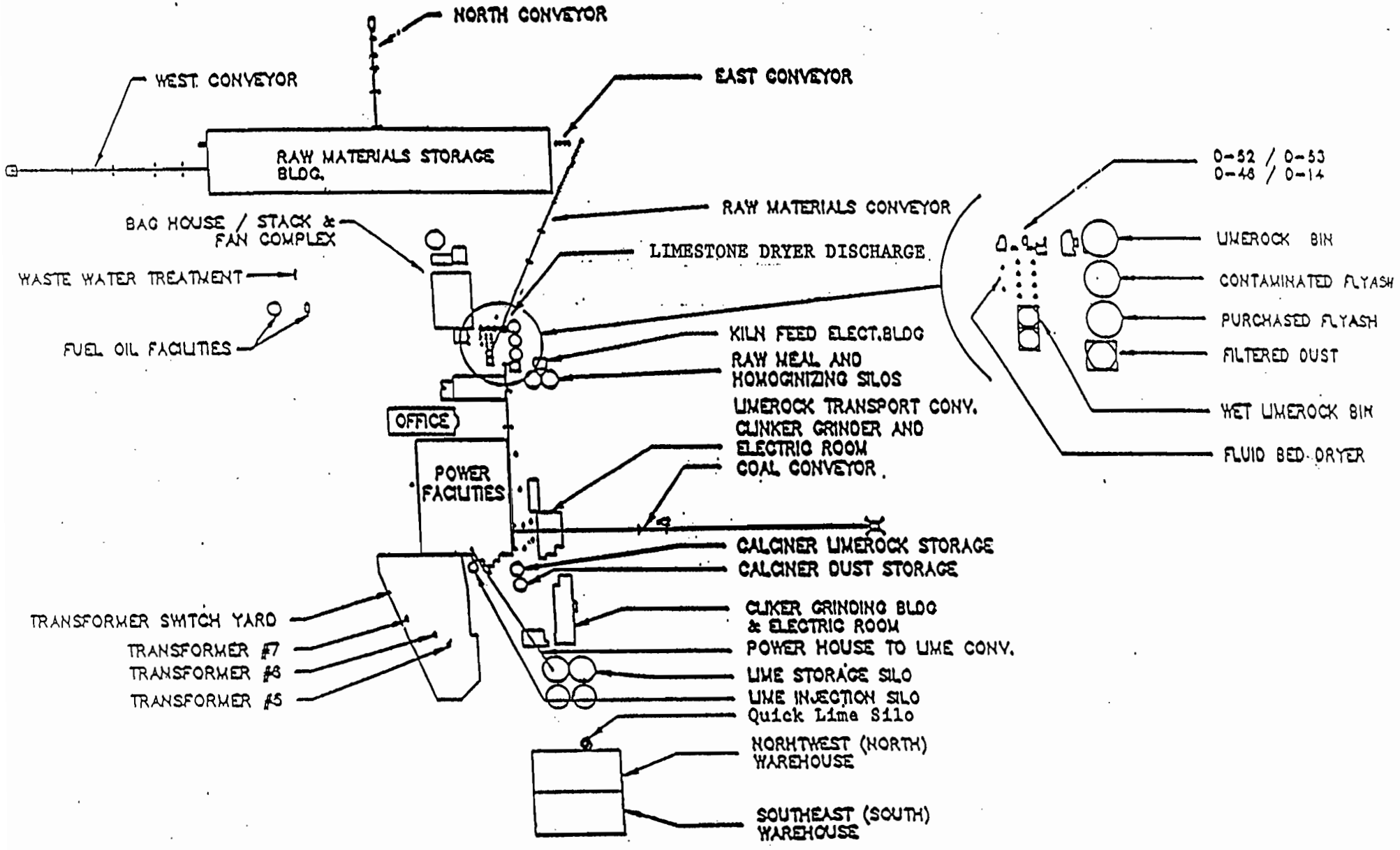


SITE LOCATION MAP

CENTRAL POWER & LIME, INC.
FLORIDA CRUSHED STONE COMPANY
HERNANDO COUNTY, FLORIDA

ATTACHMENT 3

KOOGLER & ASSOCIATES



SITE MAP

CENTRAL POWER & LIME, INC.
FLORIDA CRUSHED STONE COMPANY, INC.
HERNANDO COUNTY, FLORIDA

Law Offices
HOLLAND & KNIGHT

A Partnership Including Professional Corporations

315 South Calhoun Street
Suite 600
P.O. Drawer 810 (ZIP 32302-0810)
Tallahassee, Florida 32301

904-224-7000
FAX 904-224-8832

Atlanta
Fort Lauderdale
Jacksonville
Lakeland
Miami
Orlando
St. Petersburg
Tampa
Washington, D.C.
West Palm Beach

LAWRENCE N. CURTIN
904-425-5678

March 13, 1995

VIA FACSIMILE

Mr. Clair Fancy
Department of Environmental
Protection
Twin Towers Office Building
2600 Blair Stone Road

Re: Central Power & Lime, Inc.; Hernando County, Florida

Dear Clair:

As a follow up to our telephone conversation of February 24, 1995, regarding the application to modify the CP&L permit, this letter constitutes our request to withdraw data relating to sulfur dioxide and nitrogen oxide emissions that resulted from testing at the facility during October 6 through 14, 1994.

Based upon our discussions, we understand that as a result of the analyses of the particulate matter testing information from that same time period, the Department has determined there was a slight increase in actual emissions. The performance test results indicated that this increase is statistically insignificant. The increase is approximately 1.43 pounds per hour in the average emission rate at the higher generation rate. We understand that since this "increase" is less than the regulatory significance level for particulate matter emissions, no PSD review will be required. We request that the allowable emissions contained in the current permits not be modified and that the heat input limitation and the megawatt output be changed in accordance with our earlier requests in the application to modify the permit dated December 9, 1994.

As you are aware, we do not believe the change in the heat input or the output of the facility constitute a modification for purposes of PSD review. Nevertheless, since PSD review will not be required under the Department's interpretation, it is not necessary for us to pursue the question of whether a modification will occur.

Please let us know immediately if you disagree with this approach or if you need additional information. As always, we appreciate your cooperation and assistance.

Sincerely,

HOLLAND & KNIGHT

Lawrence N. Curtin (MRH)

Lawrence N. Curtin

cc: Mr. Tom Mountain
Dr. John Koogler

LNC/mrh
TAL-59528

Cleves

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

April 13, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Joseph J. Piermatteo
Senior Vice President
Central Power & Lime, Inc.
10311 Cement Plant Road
Brooksville, Florida 34601

Dear Mr. Piermatteo:

Re: CPL Permit Application for 1,850 MMBTU/HR Heat Input Rate
(PA 82-17/PSD-FL-090D)

On March 15, 1995, the Department received a permit application requesting a 46 percent increase in boiler fuel consumption over the originally permitted level of 1,000 MMBTU/HR. The Department requires additional information on the BACT analysis and modeling before the above permit application can be deemed complete:

1. Based upon our preliminary review, it appears that a BACT particulate emissions limit less than the presently-allowed value of 37 lbs/hr is feasible. This was demonstrated by the emissions ranging roughly between 6 and 10 lbs/hr during tests conducted in October, 1994. We plan to consider an emissions rate closer to 20 lbs/hr which reflects what has been demonstrated with an adequate margin of safety. Please provide any additional information you may have to support maintaining the present emission limit.

2. The October, 1994 testing showed that increased SO_2 generation from the higher fuel consumption can be controlled below the current allowable limit by tripling the limestone injection rate to about 19 tons per hour. A condition of the new permit will require a minimum verifiable rate of limestone injection at all times while operating at the increased heat input rate. Please explain how CPL proposes to measure and record the limestone injection rate.

3. An ambient impact analysis for PM_{10} was not done. This analysis is required. In addition, as stated above, the Department has reason to believe, based on test results, that 37.0 lbs/hr is not representative of the current actual PM/PM_{10} emission rate for input into the short term or long term significant impact analysis (SIA). The SIA is required in order to determine whether or not a full impact PM10 analysis including impacts of nearby sources is necessary. Based on test results, the Department has determined that 10.17 lbs/hr is a reasonable upper limit to the short-term emission rate representative of current actual emissions, and that 6.22 lbs/hr is a reasonable long term emission rate representative of current actual emissions. These emission rates should be used as input into the PM10 significant impact analysis and should represent the current emission rate of the power plant. If you do not believe these emission rates are representative of actual conditions, you must provide us with documentation reasonably substantiating higher values.

The Department will resume processing the application after receipt of the requested information. If you have any questions on this matter, please write to me or call John Reynolds or Cleve Holladay at (904) 488-1344.

Sincerely

A. A. Linero, P.E.
Administrator
New Source Review Section

CHF/CH/h

cc: W. Thomas, SWD
B. Proses, SWD
H. Oven, PPS
C. Hetrick, HCBCC
J. Harper, EPA
J. Bunyak, NPS
A. Cleveland, OHF&C
L. Curtin, H&K
J. Koogler, K&A

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1875 Century Boulevard
Atlanta, Georgia 30345

IN REPLY REFER TO:

April 20, 1995

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

Dear Mr. Fancy:

We have reviewed the information you provided us regarding Central Power and Lime Company's (CP&L - formerly Florida Crushed Stone) proposed power plant modification. The CP&L facility is located 20 km southeast of Chassahowitzka Wilderness Area (WA), a Class I air quality area, administered by the Fish and Wildlife Service. The modification would result in a significant increase over actual PM-10 emissions of 135 tons per year (TPY).

We understand that another PSD application has been submitted, by Florida Crushed Stone, for a new cement kiln at the same location. Both CP&L and Florida Crushed Stone are under common ownership/control, and constitute one industrial facility. Therefore emissions from both proposed projects should be considered together for PSD review.

The application is incomplete regarding the air quality modeling analysis for the reasons given below.

Air Quality Modeling Analysis

CP&L did not perform a Class I air quality impact analysis for the proposed project. We disagree with the applicant's assertion that no analyses are required because there will be no increase over allowable emissions. As your department has noted, the modification will result in an increase of 135 TPY of PM-10 over actual emissions. The applicant should perform an air quality analysis based on this 135 TPY increase to address Class I PM-10 increment impacts at Chassahowitzka WA. The analysis should apply the same meteorological data base and receptors used in the Florida Crushed Stone cement kiln #2 permit application, since they are at the same location.

A visibility analysis for coherent plume impact should also be performed using the Environmental Protection Agency (EPA) VISCREEN model. A background visual range of 65 km should be

used in the visibility analysis. The analysis should **not** use "wind speed profile" adjustments to the meteorological data. The EPA document on VISCREEN, Workbook for Plume Visual Impact Screening and Analysis EPA-450/4-88-015 September 1988, does not indicate that compensation to wind speeds, using wind speed profile adjustments calculations, should be applied.

Best Available Control Technology

The Best Available Control Technology analysis appears to be complete.

Air Quality Related Values Analysis

The applicant did not perform an Air Quality Related Values (AQRV) analysis, contending that the proposed project would result in no increases over allowable emissions. As we note above, increases should be based on actual emissions. In addition, for an AQRV analysis, we are concerned not only with impacts from the proposed source, but cumulative impacts from all area sources. In this case, we will not require CP&L to perform a detailed AQRV analysis. PM-10 is the only pollutant increasing in significant amounts because of this project, and we have limited information on the effects of PM-10 on AQRVs.

Thank you for giving us the opportunity to comment on this permit application. We appreciate your cooperation in notifying us of proposed projects with the potential to impact the air quality and related resources of our Class I air quality areas. If you have questions, please contact Ms. Ellen Porter of our Air Quality Branch in Denver at telephone number 303/969-2617.

Sincerely yours,

for Noreen K. Clough
Regional Director

cc's [illegible]

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 307-94-05

April 24, 1995

RECEIVED
APR 26 1995
Bureau of
Air Regulation

Mr. A. A. Linero
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: CPL Permit Application
PA 82-17, PSD-FL-090D

Dear Mr. Linero:

This is a follow up to your telephone conversation with Pradeep Raval on April 20, regarding FDEP's request for additional information dated April 13, 1995. The responses are in the same order as FDEP's questions.

1. **Based upon our preliminary review, it appears that a BACT particulate emissions limit less than the presently-allowed value of 37 lbs/hr is feasible. This was demonstrated by the emissions ranging roughly between 6 and 10 lbs/hr during tests conducted in October 1994. We plan to consider an emissions rate closer to 20 lbs/hr which reflects what has been demonstrated with an adequate margin of safety. Please provide any additional information you may have to support maintaining the present emission limit.**

RESPONSE:

Historical emission data reflects the simultaneous operation of the cement plant and the power plant. It was for this reason that Mr. Clair Fancy recommended the recent performance testing to obtain data for the power plant operating alone. It is recognized that there is very limited particulate matter emission data on the power plant, and that normal fluctuations in emissions should be accounted for in selecting emission limitations for the permit. We do feel that the current permit limit should remain unchanged. However, in order to expedite the permit application review, CPL is willing to accept the particulate matter emission limit, of 25 pounds per hour, as suggested by Mr. Fancy in a conversation last week with Mr. Tom Mountain. We agree with Mr. Fancy that this emission rate includes an adequate margin of safety, taking into consideration the normal deterioration in process and air pollution control equipment efficiency.

2. **The October 1994 testing showed that increased SO_2 generation from the higher fuel consumption can be controlled below the current allowable limit by tripling the limestone injection rate to about 19 tons per hour. A condition of the new permit will require a minimum verifiable rate of limestone injection at all times while operating at the increased heat input rate. Please explain how CPL proposes to measure and record the limestone injection rate.**

RESPONSE:

It is our understanding, based on Pradeep Raval's telephone conversation with Mr. Bruce Mitchell at the time of preparing the permit application, that only particulate matter emissions were to be addressed in the permit application and subsequent permit. This approach would be consistent with the approach used recently for permitting several major sources where "baseline" and "proposed" operation scenarios formed the basis of the project review. For the sake of consistency in FDEP's assessment of operation data, we request that the existing permitting protocol be followed for this project.

To answer FDEP's question, it should be noted that the limestone injection rate is not necessarily proportional to the power generation rate. The limestone injection rate is dependent upon many variables, some of which are fuel type; fuel heat content; sulfur content of fuel; relative materials alkalinity; temperature and quantity of combustion air; combustion air and fuel distribution; condition of boiler tubes for heat transfer efficiency; boiler feed water rate, quality and inlet temperature; ambient air temperature; steam quality; operating conditions on the low and high pressure turbines; turbine efficiency; etc. Due to the number of variables involved, it would be erroneous to assume a constant relationship between the lime injection rate and the power generation rate. An imposition of restrictions on the lime injection rate relative to the power generation rate would result in non-compliance with sulfur dioxide emission limits under certain circumstances, and, result in over use of limestone under other circumstances.

Given the complexity of the power plant system, CPL is able to maintain compliance with the permitted sulfur dioxide emission limit by continuous emission monitoring. The baseline test data submitted to FDEP indicate emissions of sulfur dioxide within 10 percent of the allowable emission rate. It is important to note that the power plant will seldom operate alone, given CPL's ongoing effort to keep both the cement and power plants on line for optimum operations. Also, from a practical aspect, CPL cannot allow significant increases in sulfur dioxide emission rates beyond those documented during baseline tests as that emission level would threaten operation out of compliance with permitted sulfur dioxide emission limits.

For the reasons discussed above, it is requested that the existing continuous emission monitoring system be considered a practical tool for demonstrating compliance with the current permit limitations and any other issue of concern to FDEP regarding sulfur dioxide emissions.

3. **An ambient impact analysis for PM10 was not done. This analysis is required. In addition, as stated above, the Department has reason to believe, based on test results, that 37.0 lbs/hr is not representative of the current actual PM/PM10 emission rate for input into the short term or long term significant impact analysis (SIA). The SIA is required in order to determine whether or not a full impact PM10 analysis including impacts of nearby sources is necessary. Based on test results, the Department has determined that 10.17 lbs/hr is a reasonable upper limit to the short-term emission rate representative of current actual emissions, and that 6.22 lbs/hr is a reasonable long term emission rate representative of current actual emissions. These emission rates should be used as input into the PM10 significant impact analysis and should represent the current emission rate of the power plant. If you do not believe these emission rates are representative of actual conditions, you must provide us with documentation reasonably substantiating higher values.**

RESPONSE:

As discussed with Mr. Cleve Holladay, the significant impact analysis (SIA) was conducted using the ISC2 model with a particulate matter emission rate of 25 pounds per hour, an emission rate suggested by Mr. Fancy. No emission rate (negative input) was used to represent actual emissions. Five years of Tampa meteorological data were used in the modeling. Discrete receptors were located at the property boundary and at the Class I Area (Chassahowitzka National Wildlife Refuge) boundary. Additional receptors were located in a polar grid at 10 degree intervals from 10 to 360 degrees, and downwind distances from the plant boundary to 10 kilometers. An additional modeling run was conducted at an emission rate of 37 pounds per hour (current permit limit), using the most recent meteorological data (1991). The resulting ambient air impacts, presented in Table 1, indicate that the predicted impacts are less than significant at both the Class I Area and the Class II Area.

Based on the modeling results, it can be concluded that even at a particulate matter emission rate of 37 pound per hour, the maximum predicted ambient air quality impacts are less than significant. The modeling output is provided on disk.

It is our understanding that the above responses will help complete the technical review of this application. We look forward to a prompt FDEP review and permit issuance.

If you have any further questions, please immediately call Pradeep Raval or me.

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:par
Enc.

c: C. Fancy, BAR
J. Reynolds, BAR
C. Holladay, BAR
T. Mountain, CPL
L. Curtin, Holland & Knight

TABLE 1

SUMMARY OF MODELING RESULTS
CPL PM10 EMISSIONS

MET DATA	PARTICULATE MATTER IMPACT ($\mu g/m^3$) (1)			
	CLASS II AREA		CLASS I AREA	
	24-HOUR	ANNUAL	24-HOUR	ANNUAL
@ PM emission rate of 25 lbs/hr				
1987	0.196	0.019	0.0007	0.00002
1988	0.173	0.012	0.0009	0.00003
1989	0.258	0.019	0.001	0.00005
1990	0.187	0.018	0.0009	0.00003
1991	0.211	0.016	0.0009	0.00002
@ PM emission rate of 37 lbs/hr				
1991	0.312	0.023	0.001	0.00003
SIGNIFICANT IMPACT (FDEP Rule for CII; NPS Guideline for CI)	5	1	0.27	0.08

NOTE:

(1) The predicted impacts represent the highest-high impact for the annual period and the highest second-high for the 24-hour period.

KOOGLER & ASSOCIATES

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 307-94-05

May 8, 1995

Mr. A. A. Linero
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: CPL Permit Application
PA 82-17, PSD-FL-090D

Dear Mr. Linero:

This is in response to the U.S. Department of the Interior's (NPS) letter to FDEP dated April 20, 1995, regarding the above referenced project. It is our understanding from conversations with FDEP staff that CPL may respond to the issues raised by the NPS even though the comments were submitted to FDEP. It is anticipated that by addressing these issues, CPL will be able to expedite the permit application review. The responses are in the same order as the NPS comments. Pertinent aspects of the comments are presented below.

1. **We understand that another PSD application has been submitted, by Florida Crushed Stone, for a new cement kiln at the same location. Both CP&L and Florida Crushed Stone are under common ownership/control, and constitute one industrial facility. Therefore emissions from both proposed projects should be considered together for PSD review.**

RESPONSE:

FCS and CPL are under different ownership and under different SIC codes. Therefore, in accordance with PSD review guidelines, the two projects can/should be evaluated separately. Also, the two projects are stand-alone and independent of each other. Although CPL does not feel that a PSD application is justified for the power plant permit modification request, such an application was submitted in accordance with FDEP's suggestion in an effort to expedite the permit modification request. It should be noted that there will be a net decrease in the allowable air emissions from the power plant as result of the permit modification request.

2. **The applicant should perform an air quality analysis based on this 135 TPY increase to address Class I PM-10 increment impacts at Chassahowitzka WA. The analysis should apply to same meteorological data base and receptors used in the Florida Crushed Stone cement kiln #2 permit application, since they are at the same location.**

RESPONSE:

An ambient air quality impact analysis was conducted for the project. Based on the results of the ambient air impact analysis for PM10 emissions from the power plant, submitted to the FDEP on April 24, 1995, the maximum predicted Class I area impacts are less than significant. The Class I area receptors used in the air dispersion modeling analysis were consistent with those identified by FDEP for use in numerous previous permit applications reviewed by FDEP, EPA and NPS.

3. **A visibility analysis for coherent plume impact should also be performed using the Environmental Protection Agency (EPA) VISCREEN model. A background visual range of 65 km should be used in the visibility analysis. The analysis should not use "wind speed profile" adjustments to the meteorological data. The EPA document on VISCREEN, Workbook for Plume Visual Impact Screening and Analysis EPA-450/4-88-015 September 1988, does not indicate that compensation to wind speeds, using wind speed profile adjustments calculations, should be applied.**

RESPONSE:

CPL is currently permitted, based on FDEP, EPA and the National Park Service approval, to emit 37 pounds per hour of particulate matter (PM) when the power plant is operating alone. Presently, CPL is proposing a more restrictive PM emission rate (suggested by FDEP staff) of 25 pounds per hour (see letter to FDEP dated 4-24-95). A lower PM emission rate, given unchanged stack characteristics, would result in a lower ambient air impact and, consequently, a lower visibility impact. Therefore, a visibility analysis (such as VISCREEN) is not justified for this project. The NPS is aware of the fact that CPL has a greater potential for visibility impacts at the currently permitted emission levels than at the proposed emission levels. Thus, we are certain that NPS will favor this project, which reduces the potential visibility impacts from current levels.

4. **The applicant did not perform an Air Quality Related Values (AQRV) analysis, contending that the proposed project would result in no increases over allowable emissions. As we note above, increases should be based on actual emissions. In addition, for an AQRV analysis, we are concerned not only with impacts from the proposed source, but cumulative impacts for all area sources. In this case, we will not require CP&L to perform a detailed AQRV analysis. PM-10 is the only pollutant increasing in significant amounts because of this project, and we have limited information on the effects of PM-10 on AQRVs.**

RESPONSE:

CPL concurs with the NPS comment that an AQRV analysis for PM10 is not warranted for this project. This approach is both reasonable and practical considering that the project will result in a decrease in the maximum allowable (potential) emission rate of PM10.

It is anticipated that the above responses will help expedite the technical review of this application. We look forward to a prompt FDEP review and permit issuance.

If you have any further questions, please immediately call Pradeep Raval or me.

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:par
Enc.

c: C. Fancy, BAR
J. Reynolds, BAR
C. Holladay, BAR
T. Mountain, CPL
L. Curtin, Holland & Knight

Florida Department of
Environmental Protection

Memorandum

TO: C. H. Fancy

FROM: A. A. Linero

DATE: May 23, 1995

SUBJ: Central Power & Lime, Inc. - Brooksville
Permit Amendment - PSD-FL-090D

Attached for your review and approval is a permit amendment providing for an increase in boiler heat input to 1,850 MMBTU/hr from the originally permitted level of 1,000 MMBTU/hr. As you recall, Tom Mountain agreed to our proposed PM/PM_{10} emission limit of 25 lb/hr, so we shouldn't get any static from them on that. However, they probably will complain about the limestone monitoring requirement. We believe this is needed to verify SO_2 absorption when the CEMS goes down. The equipment can be installed at reasonable cost.

If you have any questions, we will be glad to discuss the details.

AAL/jr/t

I N T E R O F F I C E M E M O R A N D U M

Date: 27-Jun-1995 02:20pm EST
From: Alvaro Linero TAL
LINERO_A
Dept: Air Resources Management
Tel No: 904/921-9532
SUNCOM: 291-9532

TO: John Reynolds TAL (REYNOLDS_J)

Subject: CPL Permit

John. I looked over the final PSD permit. I saw some things that I perhaps should have seen when I forwarded the drafts and Intent-to-Issue.

I'm trying to understand the meaning of "net" power production. Does it mean 150 MW available for export after deducting internal uses? Do the internal uses (if any) include the cement plant or just uses by the power plant?

When they asked for the disproportionate increase from 1000 mmBtu/hr to 1850 (versus 100 to 150 MW) I "bought" their explanation that they needed more heat input due to poor cooling in summer. Could it be that their increase is from 100 to 165?

In any case, I would like to put a limit on power production. It is at least addressed in Koogler's application. It ought to say something like that they will be limited to the lesser of 1850 mmBtu/hr or the heat input rate required to produce 150 MW (or possibly 165 MW once we determine what "net" means to them).

Let's talk about what PSD permit(s) Koogler really wants to revise. Did he need to change only the power plant permit (090) or the kiln permit as well (091)? As I mentioned, it looks like you made one change on 090 that was a revision of something in 091.

I have a call in to Koogler and Pradeep to see what they had in-mind. I'll wait until you get back to finalize the permit with you. If I get any inquiries from Tom Mountain, I will ask him to explain everything real slow.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In Re: Florida Crushed Stone Company Power Plant Certification Modification Request No. PA 82-17D Hernando County, Florida	)	OGC No. 94-1980

FINAL ORDER
MODIFYING CONDITIONS OF CERTIFICATION

The Department of Environmental Protection, after notice and opportunity for hearing, modifies the Conditions of Certification for the Florida Crushed Stone (FCS) power plant in Brooksville pursuant to the Florida Electrical Power Plant Siting Act, Section 403.516(1), Florida Statutes, and Condition XXV, Modification of Conditions, which delegates authority to modify conditions to the Department.

In January of 1994, the Department received a request for modification of the Conditions of Certification for the above referenced facility from the permittee to provide for an increase in the maximum boiler operation rate and changes in monitoring and testing provisions. In March 1995, an additional modification was filed to allow construction and operation of a second lime kiln on the site. Upon review of all submitted material, the Department recommends that the requests be approved.

Copies of the department's proposed action were distributed to all parties to the certification proceeding and made available for public review. On June 9, 1995, a

Notice of Proposed Modification of Power Plant Certification was published in the Florida Administrative Weekly. As of June 7, 1995, all of the parties to the original proceeding had received copies, sent by certified mail, of the intent to modify. The notice specified that a hearing would be held if a party to the original certification hearing objects within 45 days from receipt of the proposed notice of modification or if a person whose substantial interests will be affected by the proposed modification objects in writing within 30 days after issuance of the public notice. No written objection to the proposed modifications was received by the Department.

Accordingly, in the absence of any timely objection, IT IS ORDERED:

The proposed changes to the conditions of certification for the Florida Crushed Stone power plant are APPROVED. The Department hereby approves the modification, and, pursuant to section 403.516(1)(b), F.S., the Department hereby MODIFIES the conditions of certification for the Florida Crushed Stone facility as follows:

I.A.c. Particulates <u>(PM/PM10)</u> - <u>0.0135</u> ~~0.30~~ lb. per million BTU heat input, averaging time per <u>40 CFR 60.46</u> ~~Rule 17-2.700(2)(a)~~.

I.A.d. Visible emissions - <u>10%</u> ~~20%~~ opacity, 6 minute average, except for one 6-minute period per hour of not more than <u>17%</u> ~~27%~~ opacity.

I.A.2.c. PM/PM10 ~~Particulates~~ - 0.0135 ~~0.03~~ lb. per MMBTU (25.0 lbs per hour at 1,850 MMBTU/hr) ~~million-Btu heat input~~ plus 0.3 lb from the cement kiln and 0.1 lb form the clinker cooler per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.

C.6 Instruments shall be installed, calibrated, and maintained to continuously measure the amounts of coal and limestone used in the boiler, material fed to the kiln, and clinker produced. The records of coal and limestone used in the boiler, ~~fuel-usage-with-the~~ fuel analysis, daily kiln feed and clinker produced shall be reported quarterly to the Department's ~~Florida-Department-of-Environmental-Regulation~~ Southwest District office.

G. 1. The heat input rate of the boiler, with or without the cement plant operating, shall not exceed the maximum necessary to produce 150 MW of power and shall in no case exceed 1,850 MMBTU/hr, maximum three-hour average.

~~When-the-power-plant-boiler-is-operating-alone-and-the cement-plant-is-not-in-operation,-the-maximum-heat-input-rate of-the-boiler-shall-not-exceed-the-site-specific-limit-of 1,000-million-Btu-per-hour,-maximum-three-hour-average.~~

NOTICE OF RIGHTS

Any party to the this Order has a right to seek judicial review of this Order pursuant to Section 120.68, Florida Statutes, by the Filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 3900 Commonwealth Blvd., Tallahassee, Florida 32399-3000, and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Order is filed with the clerk of the Department.

DONE AND ORDERED this 1st day of August 1995, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell

VIRGINIA B. WETHERELL
Secretary
Majory Stoneman Douglas Bldg.
3900 Commonwealth Boulevard
Tallahassee, FL 32399-3000
(904) 488-4805

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Rebecca Powers 8-1-95
Clerk Date

Certificate of Service

I hereby certify that a true and correct copy of the following was sent to the following parties by United States mail on the 1st day of August, 1995.

Martin D. Hernandez, Esquire
Southwest Florida Water
Management District
2370 Broad Street
Brooksville, Florida 34609-6899

Karen Brodeen, Esquire
Department of Community Affairs
2740 Centerview Drive
Tallahassee, FL 32399-2100

Michael Palecki, Esquire
Florida Public Service Commission
Fletcher Building
101 East Gaines Street
Tallahassee, FL 32399-0863

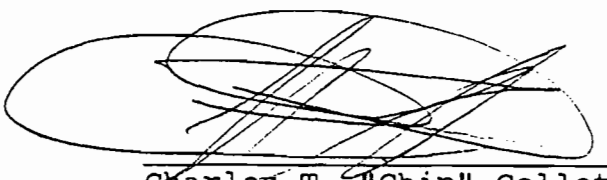
William H. Green, Esquire
Hopping Green Sams & Smith
123 S. Calhoun Street
Tallahassee, FL 32301

Lawrence N. Curtin, Esquire
Holland & Knight
P.O. Drawer 810
Tallahassee, FL 32302-0810

John R. Lawson, Esquire
Lawson, McWhirter &
Grandolph
P.O. Box 3350
Tampa, FL 33601

Robert Bruce Snow, Esquire
P.O. Box 2060
Brooksville, FL 33512

Lynn Capehart, Esquire
1601 NW 35th Way
Gainesville, FL 32605



Charles T. "Chip" Collette
Assistant General Counsel

Department of Environmental
Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400
(904) 488-9730

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 307-93-12

March 3, 1995

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

Subject: Application To Modify Permit
Coal Fired Power Plant
Central Power & Lime, Inc.
Hernando County, Florida
PSD-FL-090, PA 82-17

Dear Mr. Fancy:

This is a follow up to our telephone conversation on February 24, 1995, regarding the above referenced project wherein CPL proposes to increase the power generation rate to 150 MW, net delivered.

In accordance with FDEP approval and protocol, performance tests were conducted by CPL at the baseline rate and later within 90 percent of the requested rate (report submitted previously to FDEP). The performance test results indicated that while statistically there was no increase in particulate matter emissions, there was an increase of 1.43 pounds per hour in the average emission rate at the higher power generation rate.

Based on the results of the performance tests, FDEP has indicated that a PSD review is required for particulate matter. This conclusion was based on the fact that the testing indicated an increase in the average particulate matter emission rate; and, that the net emission increase based on the "actual" tested emissions (6.22 lbs/hr) and the "potential" allowable emissions (37.0 lbs/hr) would exceed the significant emission level pursuant to Rule 62-212, Florida Administrative Code (FAC). The "increase" when annualized, using 8760 hours per year, would be 134.8 tons per year. Although CPL does not agree with the Department's rationale concerning this issue, the information requested is provided in the enclosed permit application to expedite the modified permit issuance.

It is expected that the additional permit processing fee (corresponding to a PSD review) is covered by the fee submitted with the application for Modification of Conditions of Certification. Accordingly, no additional permit processing fees are warranted.

If you have any questions, please call Pradeep Raval or me.

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:par
Enc.

c: Tom Mountain, CPL
Larry Curtin, Holland & Knight

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 307-93-12

March 3, 1995

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

Subject: Application To Modify Permit
Coal Fired Power Plant
Central Power & Lime, Inc.
Hernando County, Florida
PSD-FL-090, PA 82-17

Dear Mr. Fancy:

This is a follow up to our telephone conversation on February 24, 1995, regarding the above referenced project.

Per our conversation, CPL hereby withdraws the December 1994 application.

If you have any questions, please call Pradeep Raval or me.

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:par

c: Tom Mountain, CPL
Larry Curtin, Holland & Knight

Law Offices
HOLLAND & KNIGHT

DISREGARD PER BM 3-21-95

A Partnership Including Professional Corporations

315 South Calhoun Street
Suite 600
P.O. Drawer 810 (ZIP 32302-0810)
Tallahassee, Florida 32301
904-224-7000
FAX 904-224-8832

March 13, 1995

Atlanta
Fort Lauderdale
Jacksonville
Lakeland
Miami
Orlando
St. Petersburg
Tampa
Washington, D.C.
West Palm Beach

LAWRENCE N. CURTIN
904-425-5678

RECEIVED
MAR 16 1995
Bureau of
Air Regulation

VIA FACSIMILE

Mr. Clair Fancy
Department of Environmental
Protection
Twin Towers Office Building
2600 Blair Stone Road

Re: Central Power & Lime, Inc.; Hernando County, Florida

Dear Clair:

As a follow up to our telephone conversation of February 24, 1995, regarding the application to modify the CP&L permit, this letter constitutes our request to withdraw data relating to sulfur dioxide and nitrogen oxide emissions that resulted from testing at the facility during October 6 through 14, 1994.

Based upon our discussions, we understand that as a result of the analyses of the particulate matter testing information from that same time period, the Department has determined there was a slight increase in actual emissions. The performance test results indicated that this increase is statistically insignificant. The increase is approximately 1.43 pounds per hour in the average emission rate at the higher generation rate. We understand that since this "increase" is less than the regulatory significance level for particulate matter emissions, no PSD review will be required. We request that the allowable emissions contained in the current permits not be modified and that the heat input limitation and the megawatt output be changed in accordance with our earlier requests in the application to modify the permit dated December 9, 1994.

As you are aware, we do not believe the change in the heat input or the output of the facility constitute a modification for purposes of PSD review. Nevertheless, since PSD review will not be required under the Department's interpretation, it is not necessary for us to pursue the question of whether a modification will occur.

Please let us know immediately if you disagree with this approach or if you need additional information. As always, we appreciate your cooperation and assistance.

Sincerely,

HOLLAND & KNIGHT

Lawrence N. Curtin (MRH)

Lawrence N. Curtin

cc: Mr. Tom Mountain
Dr. John Koogler

LNC/mrh
TAL-59528

Department of
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

This section of the Application for Air Permit form provides general information on the scope of this application, the purpose for which this application is being submitted, and the nature of any construction or modification activities proposed as a part of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department on diskette, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility name, if any; and a brief reference to the facility's physical location. If known, also enter the ARMS or AIRS facility identification number. This information is intended to give a quick reference, on the first page of the application form, to the facility addressed in this application. Elsewhere in the form, numbered data fields are provided for entry of the facility data in computer-input format.

Central Power & Lime, Inc.
Power Plant
10311 Cement Plant Road
Brooksville, Hernando County, Florida

APIS ID#: 40TPA27003214; ARMS Emissions Unit ID#: 014

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3-15-95
2. Permit Number:	
3. PSD Number (if applicable):	PSD-FL-090 D
4. Siting Number (if applicable):	PA 82-17

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   Joe Piermatteo, Senior Vice President

2. Owner/Authorized Representative or Responsible Official Mailing Address:

   Organization/Firm: **Central Power & Lime, Inc.**
   Street Address: **10311 Cement Plant Road**
   City: **Brooksville** State: **FL** Zip Code: **34601**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: **(904) 799-7881** Fax: **(904) 799-3508**

4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative of the facility (non-Title V source) addressed in this Application for Air Permit or the responsible official, as defined in Chapter 62-213, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described in this application so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. If the purpose of this application is to obtain an air operation permit or operation permit revision for one or more emissions units which have undergone construction or modification, I certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

Joseph J Piermatteo — Signature
3-7-95 — Date

* Attach letter of authorization if not currently on file.

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility (or Title V source). An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID	Description of Emissions Unit
014	Power Plant

Purpose of Application and Category

Check one (except as otherwise indicated):

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain:

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: _____

[ ] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: _____

[ ] Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit to be revised: _____

[ ] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: _____

[ ] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category II: All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain:

[ ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s): _____

[ ] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: _____

[ ] Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category III: All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain:

[X] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: **PSD-FL-090, and Site Certification PA 82-17**

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s): _____

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one:

[ ] Attached - Amount: $_____ [X] Not Applicable*

***Fee submitted with application for Modification of Conditions of Certification**

Construction/Modification Information

1. Description of Proposed Project or Alterations:

A permit application to increase the power generating rate of an existing coal fired power plant. Currently permitted allowable emission limits will remain unchanged.

Proposed power generation rate : 150 MW, net delivered

Proposed heat input rate : 1850 MMBtu/hr

2. Projected or Actual Date of Commencement of Construction (DD-MON-YYYY):
Upon FDEP approval

3. Projected Date of Completion of Construction (DD-MON-YYYY):
There are no changes to the plant associated with the requested modification

Professional Engineer Certification

1. Professional Engineer Name: **John B. Koogler, Ph.D., P.E.**
   Registration Number: **12925**

2. Professional Engineer Mailing Address:

   Organization/Firm: **Koogler & Associates**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **FL** Zip Code: **32609**

3. Professional Engineer Telephone Numbers:
   Telephone: **(904) 377-5822** Fax: **(904) 377-7158**

4. Professional Engineer Statement:

   I, the undersigned, hereby certify, except as particularly noted herein, that:*

   (1) To the best of my knowledge, there is reasonable assurance (a) that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; or (b) for any application for a Title V source air operation permit, that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application;

   (2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application; and

   (3) For any application for an air construction permit for one or more proposed new or modified emissions units, the engineering features of each such emissions unit described in this application have been designed or ***examined*** *by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

   Signature 3/3/95
   Date

   (seal)

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact: **Thomas W. Mountain, Environmental Manager**
2. Application Contact Mailing Address: Organization/Firm: **Central Power & Lime, Inc.** Street Address: **10311 Cement Plant Road** City: **Brooksville** State: **FL** Zip Code: **34601**
3. Application Contact Telephone Numbers: Telephone: **(904) 799-7881** Fax: **(904) 796-6281**

Application Comment

N/A

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Name, Location, and Type

1. Facility Owner or Operator: **Central Power & Lime, Inc.**			
2. Facility Name: **Power Plant**			
3. Facility Identification Number: **APIS ID#: 40TPA270032**			[X] Unknown
4. Facility Location Information: Facility Street Address: **10311 Cement Plant Road** City: **Brooksville**		County: **Hernando**	Zip Code: **34601**
5. Facility UTM Coordinates: Zone: **17**		East (km): **360.0**	North (km): **3162.4**
6. Facility Latitude/Longitude: **See Field 5** Latitude (DD/MM/SS):		Longitude (DD/MM/SS):	
7. Governmental Facility Code: **0**	8. Facility Status Code: **A**	9. Relocatable Facility? [ ] Yes [X] No	10. Facility Major Group SIC Code: **49**
11. Facility Comment: **N/A**			

Facility Contact

1. Name and Title of Facility Contact: **Thomas W. Mountain, Environmental Manager**			
2. Facility Contact Mailing Address: Organization/Firm: **Central Power & Lime, Inc.** Street Address: **10311 Cement Plant Road** City: **Brooksville**		State: **FL**	Zip Code: **34601**
3. Facility Contact Telephone Numbers: Telephone: **(904) 799-7881**		Fax: **(904) 796-6281**	

Facility Regulatory Classifications

1. Small Business Stationary Source?		
[ ] Yes	[ ] No	[X] Unknown
2. Title V Source?		
[X] Yes	[ ] No	
3. Synthetic Non-Title V Source?		
[ ] Yes	[X] No	
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?		
[X] Yes	[ ] No	
5. Synthetic Minor Source of Pollutants Other than HAPs?		
[ ] Yes	[X] No	
6. Major Source of Hazardous Air Pollutants (HAPs)?		
[ ] Yes	[ ] No	[X] Possible
7. Synthetic Minor Source of HAPs?		
[ ] Yes	[X] No	
8. One or More Emissions Units Subject to NSPS?		
[ ] Yes	[X] No	
9. One or More Emission Units Subject to NESHAP?		
[ ] Yes	[X] No	
10. Title V Source by EPA Designation?		
[ ] Yes	[X] No	
11. Facility Regulatory Classifications Comment: N/A		

B. FACILITY REGULATIONS

Depending on the application category, this subsection of the Application for Air Permit form provides either a brief analysis or detailed listing of federal, state, and local regulations applicable to the facility as a whole. (Regulations applicable to individual emissions units within the facility are addressed in Subsection III-B of the form.)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

N/A

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Title V Core List	

C. FACILITY POLLUTANT INFORMATION

This subsection of the Application for Air Permit form allows for the reporting of potential and estimated emissions of selected pollutants on a facility-wide basis. It must be completed for each pollutant for which the applicant proposes to establish a facility-wide emissions cap and for each pollutant for which emissions are not reported at the emissions-unit level.

Facility Pollutant Information: Pollutant _____ of _____ **(N/A)**

1. Pollutant Emitted: **N/A**		
2. Estimated Emissions: **N/A**		(tons/year)
3. Requested Emissions Cap: **N/A**	(lb/hour)	(tons/year)
4. Basis for Emissions Cap Code: **N/A**		
5. Facility Pollutant Comment: **See PM/PM10 information within Emissions Unit Information Section.**		

Facility Pollutant Information: Pollutant _____ of _____ **(N/A)**

1. Pollutant Emitted: **N/A**		
2. Estimated Emissions: **N/A**		(tons/year)
3. Requested Emissions Cap: **N/A**	(lb/hour)	(tons/year)
4. Basis for Emissions Cap Code: **N/A**		
5. Facility Pollutant Comment: **N/A**		

Facility Pollutant Information: Pollutant _____ of _____ **(N/A)**

1. Pollutant Emitted: **N/A**		
2. Estimated Emissions: **N/A**		(tons/year)
3. Requested Emissions Cap: **N/A**	(lb/hour)	(tons/year)
4. Basis for Emissions Cap Code: **N/A**		
5. Facility Pollutant Comment: **N/A**		

Facility Pollutant Information: Pollutant _____ of _____ **(N/A)**

1. Pollutant Emitted: **N/A**		
2. Estimated Emissions: **N/A**		(tons/year)
3. Requested Emissions Cap: **N/A**	(lb/hour)	(tons/year)
4. Basis for Emissions Cap Code: **N/A**		
5. Facility Pollutant Comment: **N/A**		

D. FACILITY SUPPLEMENTAL INFORMATION

This subsection of the Application for Air Permit form provides supplemental information related to the facility as a whole. (Supplemental information related to individual emissions units within the facility is provided in Subsection III-I of the form.) Supplemental information must be submitted as an attachment to each copy of the form, in hard-copy or computer-readable form.

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location: [ ] Attached, Document ID:_____ [ ] Not Applicable [**X**] Waiver Requested **Current information on file with FDEP**
2. Facility Plot Plan: [ ] Attached, Document ID:_____ [ ] Not Applicable [**X**] Waiver Requested **Current information on file with FDEP**
3. Process Flow Diagram(s): [ ] Attached, Document ID:_____ [ ] Not Applicable [**X**] Waiver Requested **Current information on file with FDEP**
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID:_____ [ ] Not Applicable [**X**] Waiver Requested **Current information on file with FDEP**
5. Fugitive Emissions Identification: [ ] Attached, Document ID:_____ [ ] Not Applicable [**X**] Waiver Requested **Current information on file with FDEP**
6. Supplemental Information for Construction Permit Application: [**X**] Attached, Document ID: **Attachment 1** [ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only (N/A)

7. List of Insignificant Activities: [ ] Attached, Document ID:_____ [**X**] Not Applicable
8. List of Equipment/Activities Regulated under Title VI: [ ] Attached, Document ID:_____ [ ] Equipment/Activities Onsite but Not Required to be Individually Listed [**X**] Not Applicable

9. Alternative Methods of Operation: [ ] Attached, Document ID:_____ [X] Not Applicable
10. Alternative Modes of Operation (Emissions Trading): [ ] Attached, Document ID:_____ [X] Not Applicable
11. Enhanced Monitoring Plan: [ ] Attached, Document ID:_____ [X] Not Applicable
12. Risk Management Plan Verification: [ ] Plan Submitted to Implementing Agency - Verification Attached, Document ID:_____ [ ] Plan to be Submitted to Implementing Agency by Required Date [X] Not Applicable
13. Compliance Report and Plan [ ] Attached, Document ID:_____ [X] Not Applicable
14. Compliance Statement (Hard-copy Required) [ ] Attached, Document ID:_____ [X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

This subsection of the Application for Air Permit form provides general information on the emissions unit addressed in this Emissions Unit Information Section, including information on the type, control equipment, operating capacity, and operating schedule of the emissions unit.

Type of Emissions Unit Addressed in This Section

Check one:

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, an individually-regulated emission point (stack or vent) serving a single process or production unit, or activity, which also has other individually-regulated emission points.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a collectively-regulated group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

Emissions Unit Information Section 1 of 1

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section: **Power Plant**		
2. ARMS Identification Number: **014** [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [ ] Yes [**X**] No	5. Emissions Unit Major Group SIC Code: **49**
6. Initial Startup Date (DD-MON-YYYY): **N/A**		
7. Long-term Reserve Shutdown Date (DD-MON-YYYY): **N/A**		
8. Package Unit: **N/A** Manufacturer:	Model Number:	
9. Generator Nameplate Rating: **N/A**	MW	
10. Incinerator Information: **N/A** Dwell Temperature:	°F	
Dwell Time:	seconds	
Incinerator Afterburner Temperature :	°F	
11. Emissions Unit Comment: **This application addresses PM/PM10 emissions only, in accordance with FDEP protocol.**		

Emissions Unit Information Section 1 of 1

Emissions Unit Control Equipment

A.

1. Description: **Fabric Filter (Baghouse) - High Temperature (T > 250^0 F)**
2. Control Device or Method Code: **016**

B.

1. Description: **N/A**
2. Control Device or Method Code: **N/A**

C.

1. Description: **N/A**
2. Control Device or Method Code: **N/A**

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:	**1850** mmBtu/hr
2. Maximum Incineration Rate: **N/A** lb/hr	tons/day
3. Maximum Process or Throughput Rate: **N/A**	
4. Maximum Production Rate: **N/A**	
5. Operating Capacity Comment: **Proposed power generation rate : 150 MW, net delivered**	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:	
hours/day: **24**	days/week: **7**
weeks/year: **52**	hours/year: **8760**

B. EMISSIONS UNIT REGULATIONS

Depending on the application category, this subsection of the Application for Air Permit form provides either a brief analysis or detailed listing of all federal, state, and local regulations applicable to the emissions unit addressed in this Emissions Unit Information Section.

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

N/A

Emissions Unit Information Section 1 of 1

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Title V Core List	

C. EMISSION POINT (STACK/VENT) INFORMATION

This subsection of the Application for Air Permit form provides information about the emission point associated with the emissions unit addressed in this Emissions Unit Information Section. An emission point is typically a stack or vent but can be any identifiable location at which air pollutants, including fugitive emissions, are discharged into the atmosphere.

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **Stack**	
2. Emission Point Type Code: [ ] 1 [X] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit: **N/A**	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **-Cement Plant** **-Power Plant**	
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W	
6. Stack Height:	**320** feet
7. Exit Diameter:	**16** feet
8. Exit Temperature:	**300** °F
9. Actual Volumetric Flow Rate:	**840,000** acfm

10. Percent Water Vapor :	7.5 %
11. Maximum Dry Standard Flow Rate:	**540,000** dscfm
12. Nonstack Emission Point Height: **N/A**	feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment: **N/A**	

D. SEGMENT (PROCESS/FUEL) INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of segment data (Fields 1-10) must be completed for each segment required to be reported and for each alternative operating method or mode (emissions trading scenario) under Chapter 62-213, F.A.C., for which the maximum hourly or annual segment-related rate would vary. A segment is a material handling, process, fuel burning, volatile organic liquid storage, production, or other such operation to which emissions of the unit are directly related. See instructions for further details on this subsection of the Application for Air Permit.

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode): **External Combustion Boilers: Electric Generation: Bituminous Coal**	
2. Source Classification Code (SCC): **1-01-002-99**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **77.1 Tons Burned**	5. Maximum Annual Rate: **675,396 Tons Burned**
6. Estimated Annual Activity Factor: **N/A**	
7. Maximum Percent Sulfur: **0.75**	8. Maximum Percent Ash: **8.0**
9. Million Btu per SCC Unit: **24 MMBtu/ton**	
10. Segment Comment: **N/A**	

Emissions Unit Information Section 1 of 1

Segment Description and Rate: Segment _____ of _____ **(N/A)**

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode): **N/A**	
2. Source Classification Code (SCC): **N/A**	
3. SCC Units: **N/A**	
4. Maximum Hourly Rate: **N/A**	5. Maximum Annual Rate: **N/A**
6. Estimated Annual Activity Factor: **N/A**	
7. Maximum Percent Sulfur: **N/A**	8. Maximum Percent Ash: **N/A**
9. Million Btu per SCC Unit: **N/A**	
10. Segment Comment: **N/A**	

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

Pollutant Potential/Estimated Emissions: Pollutant 1 of 2

1. Pollutant Emitted: **PM**		
2. Total Percent Efficiency of Control:		**99.4** %
3. Primary Control Device Code: **016**		
4. Secondary Control Device Code: **N/A**		
5. Potential Emissions:	**37.0** lb/hour	**162.1** tons/year
6. Synthetically Limited? [ ] Yes [X] No		
7. Range of Estimated Fugitive/Other Emissions: **N/A** [ ] 1 [ ] 2 [ ] 3	_____ to _____ tons/year	
8. Emission Factor: **0.02 lb/MMBtu** Reference: **BACT**		
9. Emissions Method Code: [ ] 1 [ ] 2 [ ] 3 [ ] 4 [X] 5		
10. Calculation of Emissions: 0.02 lb/MMBtu X 1850 MMBtu/hr = **37.0 lb/hr** 37.0 lb/hr X 8760 hpy X 1 ton/2000 lb = **162.1 tpy**		
11. Pollutant Potential/Estimated Emissions Comment: **N/A**		

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: **RULE (BACT for PSD)**		
2. Future Effective Date of Allowable Emissions: **N/A**		
3. Requested Allowable Emissions and Units: **0.02 lb/MMBtu**		
4. Equivalent Allowable Emissions:	**37.0** lb/hour	**162.1** tons/year
5. Method of Compliance: **EPA Method 5**		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode): **N/A**		

B.

1. Basis for Allowable Emissions Code: **N/A**		
2. Future Effective Date of Allowable Emissions: **N/A**		
3. Requested Allowable Emissions and Units: **N/A**		
4. Equivalent Allowable Emissions: **N/A**	lb/hr	tons/year
5. Method of Compliance: **N/A**		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode): **N/A**		

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

Pollutant Potential/Estimated Emissions: Pollutant 2 of 2

1. Pollutant Emitted: **PM10**
2. Total Percent Efficiency of Control: **N/A** %
3. Primary Control Device Code: **016**
4. Secondary Control Device Code: **N/A**
5. Potential Emissions: **37.0** lb/hour **162.1** tons/year
6. Synthetically Limited? [ ] Yes [X] No
7. Range of Estimated Fugitive/Other Emissions: **N/A** [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year
8. Emission Factor: **0.02 lb/MMBtu** Reference: **BACT**
9. Emissions Method Code: [ ] 1 [ ] 2 [ ] 3 [ ] 4 [X] 5
10. Calculation of Emissions: 0.02 lb/MMBtu X 1850 MMBtu/hr = **37.0 lb/hr** 37.0 lb/hr X 8760 hpy X 1 ton/2000 lb = **162.1 tpy**
11. Pollutant Potential/Estimated Emissions Comment: **N/A**

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: **RULE (BACT for PSD)**		
2. Future Effective Date of Allowable Emissions: **N/A**		
3. Requested Allowable Emissions and Units: **0.02 lb/MMBtu**		
4. Equivalent Allowable Emissions:	**37.0** lb/hour	**162.1** tons/year
5. Method of Compliance: **EPA Method 5**		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode): **PM10 assumed as equal to PM.**		

B.

1. Basis for Allowable Emissions Code: **N/A**		
2. Future Effective Date of Allowable Emissions: **N/A**		
3. Requested Allowable Emissions and Units: **N/A**		
4. Equivalent Allowable Emissions: **N/A**	lb/hr	tons/year
5. Method of Compliance: **N/A**		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode): **N/A**		

F. VISIBLE EMISSIONS INFORMATION

This subsection of the Application for Air Permit form must be completed for only those emissions units which are subject to a visible emissions limitation. The intent of this subsection of the form is to identify each activity associated with the emissions unit addressed in this section for which a separate opacity limitation would be applicable. Visible emission subtype codes for each such activity are listed in the instructions for Field 1. Most emissions units will be subject to a "subtype VE" limit only.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE**
2. Basis for Allowable Opacity: [**X**] Rule [ ] Other **Rule 62-296.405(1)(a) FAC**
3. Requested Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: **27** % Maximum Period of Excess Opacity Allowed: **6** min/hour
4. Method of Compliance: **EPA Method 9**
5. Visible Emissions Comment: **N/A**

Emissions Unit Information Section 1 of 1

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____ **(N/A)**

1. Visible Emissions Subtype: **N/A**
2. Basis for Allowable Opacity: **N/A** [ ] Rule [ ] Other
3. Requested Allowable Opacity: **N/A** Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4. Method of Compliance: **N/A**
5. Visible Emissions Comment: **N/A**

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____ **(N/A)**

1. Visible Emissions Subtype: **N/A**
2. Basis for Allowable Opacity: **N/A** [ ] Rule [ ] Other
3. Requested Allowable Opacity: **N/A** Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4. Method of Compliance: **N/A**
5. Visible Emissions Comment: **N/A**

G. CONTINUOUS MONITOR INFORMATION

This subsection of the Application for Air Permit form must be completed for only those emissions units which are required by rule or permit to install and operate one or more continuous emission, opacity, flow, or other type monitors. A separate set of continuous monitor information (Fields 1-6) must be completed for each monitoring system required.

Continuous Monitoring System: Continuous Monitor _____ of _____ **(N/A)**

1. Parameter Code: **N/A**
2. CMS Requirement: **N/A** [ ] Rule [ ] Other
3. Monitor Information: **N/A** Manufacturer: Model Number: Serial Number:
4. Installation Date (DD-MON-YYYY): **N/A**
5. Performance Specification Test Date (DD-MON-YYYY): **N/A**
6. Continuous Monitor Comment: **No CMS required for PM/PM10 emissions from power plant.**

Continuous Monitoring System: Continuous Monitor _____ of _____ **(N/A)**

1. Parameter Code: **N/A**
2. CMS Requirement: **N/A** [ ] Rule [ ] Other
3. Monitor Information: **N/A** Manufacturer: Model Number: Serial Number:
4. Installation Date (DD-MON-YYYY): **N/A**
5. Performance Specification Test Date (DD-MON-YYYY): **N/A**
6. Continuous Monitor Comment: **N/A**

Continuous Monitoring System: Continuous Monitor _____ of _____ **(N/A)**

1. Parameter Code: **N/A**
2. CMS Requirement: **N/A** [ ] Rule [ ] Other
3. Monitor Information: **N/A** Manufacturer: Model Number: Serial Number:
4. Installation Date (DD-MON-YYYY): **N/A**
5. Performance Specification Test Date (DD-MON-YYYY): **N/A**
6. Continuous Monitor Comment: **N/A**

H. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

This subsection of the Application for Air Permit form must be completed for all applications, not just those undergoing prevention-of-significant-deterioration (PSD) review pursuant to Rule 62-212.400, F.A.C. The intent of this subsection is to make a preliminary determination as to whether the emissions unit addressed in this Emissions Unit Information Section consumes PSD increment. PSD increment is consumed (or expanded) as a result of emission increases (decreases) occurring after pollutant-specific baseline dates. Pollutants for which baseline dates have been established are sulfur dioxide, particulate matter, and nitrogen dioxide.

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:

PM	[X] C	[ ] E	[ ] Unknown
SO2	[X] C	[ ] E	[ ] Unknown
NO2	[ ] C	[ ] E	[X] Unknown

4. Baseline Emissions:

PM	**37** lb/hour	**162.1** tons/year
SO2	**770** lb/hour	**3372.6** tons/year
NO2		**3705.5** tons/year

5. PSD Comment: **Above emissions are for power plant operating alone.**

I. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

This subsection of the Application for Air Permit form provides supplemental information related to the emissions unit addressed in this Emissions Unit Information Section. Supplemental information must be submitted as an attachment to each copy of the form, in hard-copy or computer-readable form.

Supplemental Requirements for All Applications

1. Process Flow Diagram [ ] Attached, Document ID:_____ [ ] Not Applicable [**X**] Waiver Requested **Current information on file with FDEP**
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [ ] Not Applicable [**X**] Waiver Requested **Current information on file with FDEP**
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [ ] Not Applicable [**X**] Waiver Requested **Current information on file with FDEP**
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [ ] Not Applicable [**X**] Waiver Requested **Current information on file with FDEP**
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [**X**] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [**X**] Not Applicable
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [**X**] Not Applicable
8. Supplemental Information for Construction Permit Application [**X**] Attached, Document ID: **Attachment 1** [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [**X**] Not Applicable

Additional Supplemental Requirements for Category I Applications Only (N/A)

10. Alternative Methods of Operation [ ] Attached, Document ID:_____ [X] Not Applicable
11. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID:_____ [X] Not Applicable
12. Enhanced Monitoring Plan [ ] Attached, Document ID:_____ [X] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID:_____ [X] Not Applicable
14. Acid Rain Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:_____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:_____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:_____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:_____ [X] Not Applicable

ATTACHMENT 1

SUPPLEMENTAL INFORMATION FOR PSD REVIEW

CENTRAL POWER & LIME, INC.
HERNANDO COUNTY, FLORIDA

The aspects discussed below need to be addressed under PSD review for the particulate matter emissions from the proposed project, in accordance with Rule 62-212.400, FAC.

1.0 BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

A particulate matter emission limit of 0.02 pound per MMBtu heat input is proposed as BACT for the power plant when operating alone. This emission limit corresponds to the presently permitted maximum allowable mass emission rate of 37.0 pounds per hour at 1850 MMBtu per hour heat input. The existing baghouse reflects the best available control equipment for particulate matter. It should be noted that the currently permitted maximum allowable particulate matter emission limit for the combined operation of the power plant and the cement plant will remain unchanged at 86.5 lbs/hr; 37.0 lbs/hr from the power plant and 49.5 lbs/hr from the cement plant.

The proposed BACT limit is more stringent than the current BACT limit of 0.03 lb/MMBtu. The proposed limit is also in line with control requirements imposed on other existing and pre-NSPS coal fired power plants using a baghouse for control of particulate matter. As another point of comparison, the proposed BACT limit corresponds to a particulate matter concentration of less than 0.01 gr/dscf. Installation of additional or alternate control equipment at this existing facility is considered neither practical nor necessary.

2.0 AMBIENT IMPACT ANALYSIS

An extensive ambient air quality review was conducted for particulate matter when the power plant was originally permitted. Given that the maximum allowable emission rate will not change (37.0 lbs/hr from the power plant and 86.5 lbs/hr from the power and cement plants), an ambient air analysis at this time would simply indicate a zero net impact based on identical negative (current) and positive (proposed) modeling input. Consequently, additional air quality analysis is not required.

3.0 ADDITIONAL IMPACT ANALYSES

There will be no change in the operation of the power plant or in the allowable particulate matter emissions as a result of this request. Therefore, additional impact analyses are not required.

3.1 Impairment to Visibility, Soils, Vegetation

There will be no change in the allowable particulate matter emissions as a result of this request. Therefore, additional analyses are not required.

3.2 Growth Related Impacts

There will be no change in the operation of the power plant or in the manpower requirements as a result of this request. Therefore, no growth related impacts are expected.

3.3 Impairment to Visibility

There will be no change in the allowable particulate matter emissions as a result of this request. Therefore, additional analyses are not required.

3.4 Air Quality Related Values Analysis

There will be no change in the allowable particulate matter emissions as a result of this request. Therefore, an AQRV analysis is not required.

4.0 GOOD ENGINEERING PRACTICE STACK HEIGHT ANALYSIS

As there will be no change in the power plant stack as a result of this request, the GEP stack height evaluation originally reviewed and approved by FDEP remains valid. Consequently, no additional analysis is required.

Rec'd 12-13-94

Florida Department of Environmental Protection

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

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

SOURCE TYPE: Coal Fired Power Plant [ ] New[1] [x] Existing[1]

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

COMPANY NAME: Central Power & Lime, Inc. COUNTY: Hernando

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

SOURCE LOCATION: Street 10311 Cement Plant Road City Brooksville

UTM: East (17) 360.008 km North 3162.392 1 km

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

APPLICANT NAME AND TITLE: Mr. Joe Piermatteo, Senior Vice President

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

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Central Power & Lime, Inc. 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: Joseph J Piermatteo

Joe Piermatteo, Senior Vice President
Name and Title (Please Type)

Date: 12/9/94 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 xxxxxx/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

[1] 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: 12/8/94 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.

A permit application to increase the generating rate and the heat input rate to an existing coal fired power plant with no change in emissions. Also see page 2a of 12.

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

Start of Construction N/A Completion of Construction N/A

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.)

Baghouse - $12,220,000 - existing baghouse

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

PSD-FL-090

PA 82-17

SECTION IIA: PROJECT INFORMATION

The steam generator at the Central Power and Lime, Inc. (CPL) plant originally went into service in 1949 at the American Electric Power Corporation Twin Branch station in Mishawaka, Indiana. The generator was retired in 1980, relocated to the CPL site and reconfigured. The reconfiguration did not constitute a major modification.

During the permitting of the plant, emission limiting standards for sulfur dioxide were imposed and were reduced several times to respond to concerns of interested parties. The originally proposed limits represented BACT and the reductions in the limits represented improvements to BACT. Emission limiting standards were also imposed for particulate matter, nitrogen oxides and the opacity of emissions. The emission limiting standards in the Final Conditions of Certification (PA 82-17, June 29, 1986) are:

Power Plant Only

SO_2 - 1.2 lb/MMBtu boiler heat input, maximum 2-hour average and 770 lb/hr, 3-hour average.

NOx - 0.7 lb/MMBtu boiler heat input not to exceed 846 lb/hr.

PM - 0.03 lb/MMBtu boiler heat input.

VE - 20% opacity, 6-minute average except for one 6-minute period per hour of not more than 27% opacity.

Power and Cement Plants

SO_2 - 1.2 lb/MMBtu boiler heat input, maximum 2-hour average and 781 lb/hr, maximum 3-hour average.

NOx - 0.7 lb/MMBtu boiler heat input plus 2.9 lb/ton kiln feed, not to exceed 1205 lb/hr.

PM - 0.03 lb/MMBtu boiler heat input plus 0.4 lb/ton kiln feed (for kiln and cooler).

VE - 10% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

The emission limiting standards in PSD-FL-090 are:

Power Plant Only

SO_2 - the lesser of these: 1.2 lb/MMBtu boiler heat input, maximum 2-hour average; 0.9 lb/MMBtu boiler heat input, maximum 3-hour average; and 915 lb/hour, maximum 3-hour average.

770 ON PREVIOUS PAGE.

NOx - 0.7 lb/MMBtu boiler heat input.

PM - 0.03 lb/MMBtu boiler heat input.

VE - 20% opacity, 6-minute average except for one 6-minute period per hour of not more than 27% opacity.

Heat Input Rate - When the power plant boiler is operating alone and the cement plant is not in operation, the maximum heat input rate of the boiler shall not exceed the site specific limit of 1,000 MMBtu per hour, maximum 3-hour average.

and Lime ?

Power and Cement Plants

SO_2 - 50 lb/hr, maximum 3-hour average plus the lesser of these: 1.2 lb/MMBtu boiler heat input, maximum 2-hour average; 0.9 lb/MMBtu boiler heat input, up to 1000 MMBtu, then decreasing linearly to 0.74 lb/MMBtu boiler heat input at 1234 MMBtu/hr, maximum 3-hour average; and 915 lb/hr, 3-hour average.

NOx - 0.7 lb/MMBtu boiler heat input plus 2.9 lb/ton kiln feed.

PM - 0.03 lb/MMBtu boiler heat input plus 0.3 lb/ton of kiln feed from the cement kiln and 0.1 lb/ton of kiln feed from the clinker cooler.

VE - 10% opacity, 6-minute average, except for one 6-minute period per hour of not more than 17% opacity.

By letter dated October 3, 1994, CPL requested approval from the Department to conduct tests demonstrating there would be no increase in actual emissions as the power generating rate of the plant increased from nominally 100 mw, net (near the 1000 MMBtu/hr limit with the power plant operating alone, imposed by PSD-FL-090) to nominally 133 mw, net. The approval was granted by amendment to PSD-FL-090(A) on October 6, 1994, and the tests were conducted during the period October 6-14, 1994.

The tests demonstrated there is no correlation between the power generating rate (heat input rate) and emission rates and demonstrated the plant could operate at generating rates within 90 to 100 percent of 150 mw, net, without exceeding presently permitted emission limits. Furthermore, the tests showed there was no increase in sulfur dioxide and nitrogen oxides emissions as the generating rate increased and only a slight (but not significant) increase in particulate matter emissions. The test report has been submitted to the Department.

The plant was able to achieve the increased generating rate without a significant increase in emission rates by increasing the limestone injection rate to control sulfur dioxide, by modulating the combustion air to control nitrogen oxides and by baghouse design to control particulate matter.

As a result of the data developed during the October 6-14, 1994, test period and the contracted electric power commitment of CPL, CPL is requesting a permit modification to allow a maximum electric power

generating rate of 150 mw, net, whether the power plant is operating in conjunction with the cement plant or operating with the cement plant out of service. The test data demonstrate there is no increase in sulfur dioxide or nitrogen oxides emissions and less than a significant increase in particulate matter emissions as the generating rate is increased to 150 mw, net:

SO_2: (770 - 695.2)(1/2000)(7353) = 275 TPY
NO_x: (846 - 757.1)(1/2000)(7353) = 327 TPY
PM: (37 - 6.22)(1/2000)(7353) = 113.2 TPY

Target Emission Rate (mw, net)	Test Emission Rate (mw, net)	Measured Emission Rate SO2 (lb/hr)	SO2 (tpy)(1)	NOx (lb/hr)	NOx (tpy)	PM (lb/hr)	PM (tpy)
100	106	695.2	3045	757.1	3316	6.22	27.2
150	137	599.8	2627	706.7	3095	7.65	33.5
Increase in Actual Emissions		< 0		< 0		6.3	
Significant Increase		40		40		15(2)	

(1) Based on 8760 hours per year.
(2) PM10 significant level.

CPL is requesting that the most restrictive of the presently permitted emission limits remain in effect as these limits reflect BACT and satisfy the air quality review of the PSD permitting process. The proposed permit limits are:

Power Plant Only

SO_2 - 0.90 lb/MMBtu boiler heat input up to 850 MMBtu per hour boiler heat input, then decreasing linearly to 0.42 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input and 770 lb/hr, all 3-hour averages.

NOx - 0.70 lb/MMBtu boiler heat input up to 1200 MMBtu per hour boiler heat input, then decreasing linearly to 0.46 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input and 846 lb/hr, averaging time per 40 CFR 60.46.

PM - 0.03 lb/MMBtu boiler heat input up to 1200 MMBTU per hour boiler heat input, then decreasing linearly to 0.02 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input and 37.0 lb/hr, averaging time per 40 CFR 60.46.

VE - 20% opacity, 6-minute average except for one 6-minute period per hour of not more than 27% opacity.

Heat Input - When the power plant is operating alone and the cement plant is not in service, the maximum heat input rate to the boiler shall not exceed 1850 MMBtu per hour(1), maximum 3-hour average.

(1) The 1850 MMBtu per hour heat input rate is the maximum expected heat input rate necessary to generate 150 mw, net, with the power plant operating at the lowest efficiency.

Power and Cement Plants

SO_2 - 50 lb/hr plus 0.90 lb/MMBtu boiler heat input up to 850 MMBtu per hour boiler heat input, then decreasing linearly to 0.42 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input and 781 lb/hr, all 3-hour averages.

NOx - 0.70 lb/MMBtu boiler heat input up to 1200 MMBtu per hour boiler heat input, then decreasing linearly to 0.46 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input plus 2.9 lb/ton of kiln feed (dry basis) and 1205 lb/hr, averaging time per 40 CFR 60.46.

PM - 0.03 lb/MMBtu boiler heat input up to 1200 MMBTU per hour boiler heat input, then decreasing linearly to 0.02 lb/MMBtu at 1850 MMBtu per hour(1) boiler heat input plus 0.3 lb/ton of kiln feed (dry basis) from the cement kiln and 0.1 lb/ton of kiln feed (dry basis) from the clinker cooler and 86.5 lb/hr, averaging time per 40 CFR 60.46.

VE - 10% opacity, 6-minute average except for one 6-minute period per hour of not more than 17% opacity.

Heat Input - When the power plant and the cement plant are operating together, the maximum heat input rate to the boiler shall not exceed 1850 MMBtu per hour(1), maximum 3-hour average.

(1) The 1850 MMBtu per hour heat input rate is the maximum expected heat input rate necessary to generate 150 mw, net, with the power plant operating at the lowest efficiency.

It should be noted that the increase in the electric power generating rate and the demonstrated control of sulfur dioxide, nitrogen oxides and particulate matter can be achieved with no physical changes to the steam boiler or air pollution control systems. It should also be noted that the plant will continue to operate in compliance with all applicable regulations and permit conditions.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr 8760 ; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions. (Yes or No)
Minor modification to an existing source.

1. Is this source in a non-attainment area for a particular pollutant? No

   a. If yes, has "offset" been applied? NA

   b. If yes, has "Lowest Achievable Emission Rate" been applied? NA

   c. If yes, list non-attainment pollutants. NA

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. Yes (1)

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. Yes (1)

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP)apply to this source? No

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

   a. If yes, for what pollutants? N/A

   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 justification for any answer of "No" that might be considered questionable.

(1) The minor modifications proposed herein is a change in the permitted electric power generating rate and the corresponding heat input rate with no physical modification to the plant and no significant change in emissions. The modification does not affect the previously determined BACT nor does it trigger another PSD review.

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		
Not applicable				

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

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

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

Power Plant alone (emission rates for power/cement plant operations remain unchanged)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
P.M.	37.0	162	BACT	See proposed	6168	27016	
SO_2	770	3373	BACT	emission	2197	9623	
NOx	846	3706	BACT	limits in	1673	7328	
				Section IIA			
				(p. 2A of 12)			

[1]See Section V, Item 2.

[2]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)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency (1)	Range of Particle Sizes Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Baghouse	PM	99.4	>2μm	(2)
Limestone injection	SO_2	65.0	NA	(2)
B&W Low NO_x Dual register burner	NO_x	49.4	NA	(2)

(1) These are required efficiencies at maximum generating rate for power plant operations only.

(2) Calculated efficiencies documented by testing.

E. Fuels - For Plant Only

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Coal	70.0 tph	77.1 tph	1850

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

Fuel Analysis: Coal

Percent Sulfur: 0.75 Percent Ash: 8.0

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

Heat Capacity: 12,000 BTU/lb --

Other Fuel Contaminants (which may cause air pollution): None

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

Annual Average NA Maximum NA

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

Fly ash and bottom ash generated in the power plant is used as a raw material in the cement plant.

Stack gas characteristics for power plant only:

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

Stack Height: 320 ft. Stack Diameter: 16 ft at top ft.

Gas Flow Rate: 840,000 ACFM 540,000 DSCFM Gas Exit Temperature: 300 °F.

Water Vapor Content: 7.5 % Velocity: 69.6 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 $(ft)^3$	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
See Attached Pages

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)].

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 per- mit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

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.)

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).

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.

7. An 8 1/2" 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).

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.

SECTION V. SUPPLEMENTAL INFORMATION

1. Operating Conditions

A. Generating Rate, net - 150 mw
Auxiliary Loads - 15 mw
Generating Rate, gross - 165 mw

B. Heat Input Rate - The heat input rate will vary with plant efficiency. The efficiency is a function of cooling water temperature and other operating factors. The heat input rate at the lowest expected plant efficiency is 1850 MMBtu/hour or 11,212 Btu/kw, gross.

C. Coal Use Rate - The coal feed rate will be a function of the heating value of the coal. During tests conducted over the period October 6-14, 1994, the heating value of coal ranged from 11,514 to 12,541 Btu/lb. For purposes of this application, a nominal heating value of 12,000 Btu/lb has been selected. The nominal maximum coal use rate at a heat input rate of 1850 MMBtu/hr is 77.1 tph.

2/3. Controlled and Uncontrolled Emissions

Particulate Matter (AP-42, Section 1.1)

Uncontrolled Emissions

= 10 A lb/ton of coal, where A is the ash content of the coal (A = 8.0%)

= 10 (8.0) x 77.1 tph coal

= 6168 lb/hr

x 8760/2000

= 27,016 tpy

Controlled Emissions

= 37.0 lb/hr (current permit limit)

x 8760/2000

= 162 tpy

Sulfur Dioxide (AP-42, Section 1.1)

Uncontrolled Emissions

= 38 S lb/ton of coal, where S is the sulfur content of the coal (S = 0.75%)

= 38 (0.75) x 77.1 tph coal

= 2197 lb/hr

x 8760/2000

= 9623 tpy

Controlled Emissions

= 770 lb/hr (current permit limit)

x 8760/2000

= 3373 tpy

Nitrogen Oxides (AP-42, Section 1.1)

Uncontrolled Emissions

= 21.7 lb/ton of coal for a dry-bottom wall fired furnace

= 21.7 lb/ton x 77.1 tph coal

= 1673 lb/hr

x 8760/2000

= 7328 tpy

Controlled Emissions

= 846 lb/hr (current permit limit)

x 8760/2000

= 3706 tpy

Other Emissions - will be at present permitted or actual emission rates. When both the power plant and cement plant operate, PSD-FL-090 and 091 imposes the following emission limits which will be complied with:

Total fluorides	-	0.7 lb/hr
Sulfuric acid mist	-	1.7 lb/hr
Beryllium	-	0.0005 lb/hr
Mercury	-	0.03 lb/hr

4/5. Control Equipment Specifications and Efficiencies

Particulate Matter

Baghouse E-20

Number of bags	-	3876
Bag Length	-	37 ft.
Bag Diameter	-	12 inches
Total Cloth Area	-	450,500 ft^2
Air/Cloth Ratio	-	2.3/1 with power and cement plants
Cleaning	-	Reverse air; variable cycle

Efficiency required with power plant only

$$E_p = (6168 - 37) \times 100/6168 = 99.4\%$$

Sulfur Dioxide

Limestone injection

Efficiency required with power plant at maximum rate

$$E_3 = (2197 - 770) \times 100/2197 = 65.0\%$$

Nitrogen Oxides

B & W Low NOx Dual Register Burners

Efficiency required with power plant at maximum rate.

$$E_n = (1673 - 846) \times 100/1673 = 49.4\%$$

6. Flow Diagram - See Attachment 1

7. Location Map - See Attachment 2

8. Site Map - See Attachment 3

9. Application Fee of $250 for minor modification to be deducted from $10,000 fee paid for Site Certification modification.

10. Not Applicable.

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: 6. Operating Costs:

7. Energy: 8. Maintenance Cost:

9. Emissions:

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:[1] d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy:[2] 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:[1] d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy:[2] h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]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:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

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:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

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:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]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^2* _____ 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_2	_____ 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.

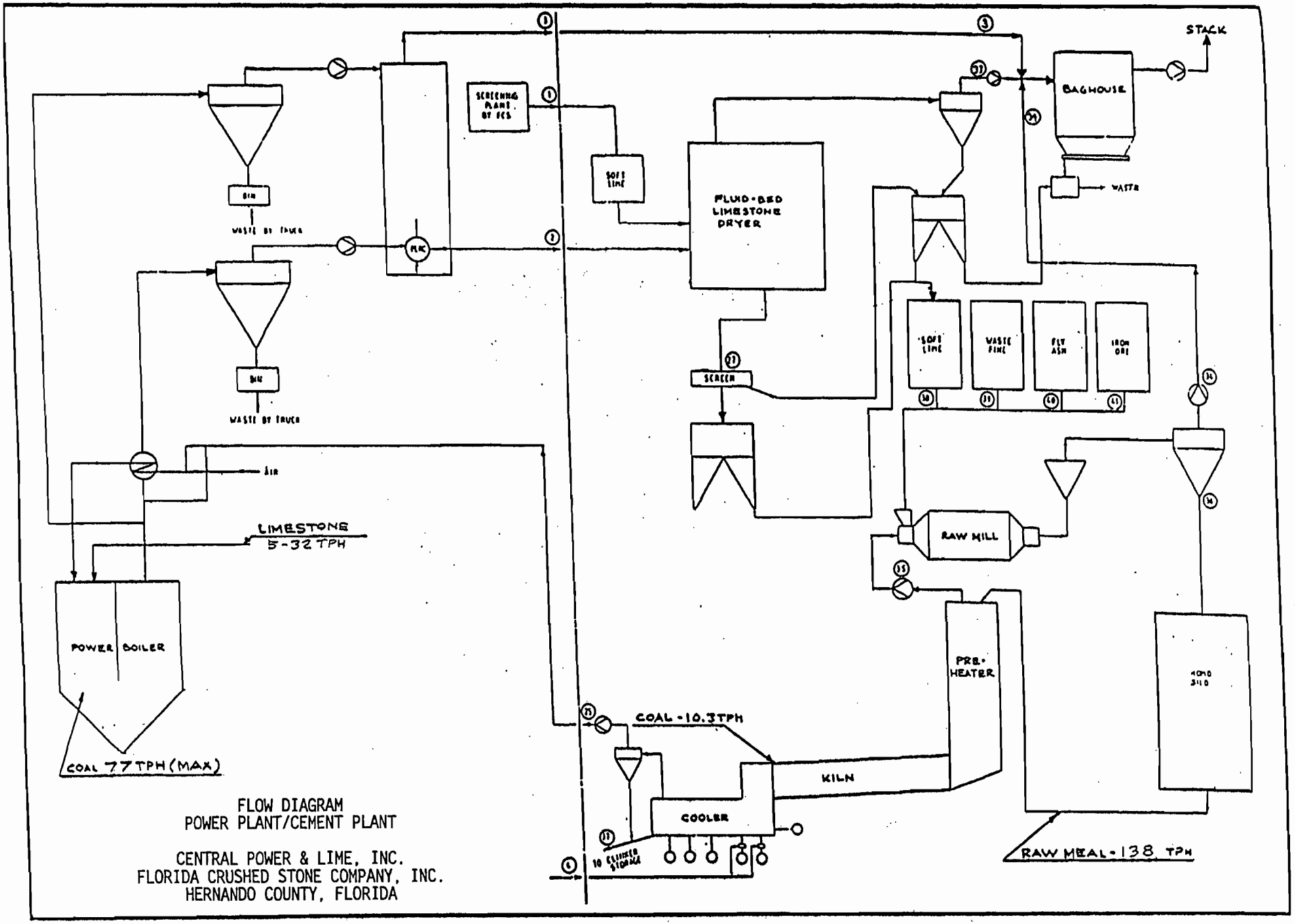
F. Attach all other information supportive to the PSD review.

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

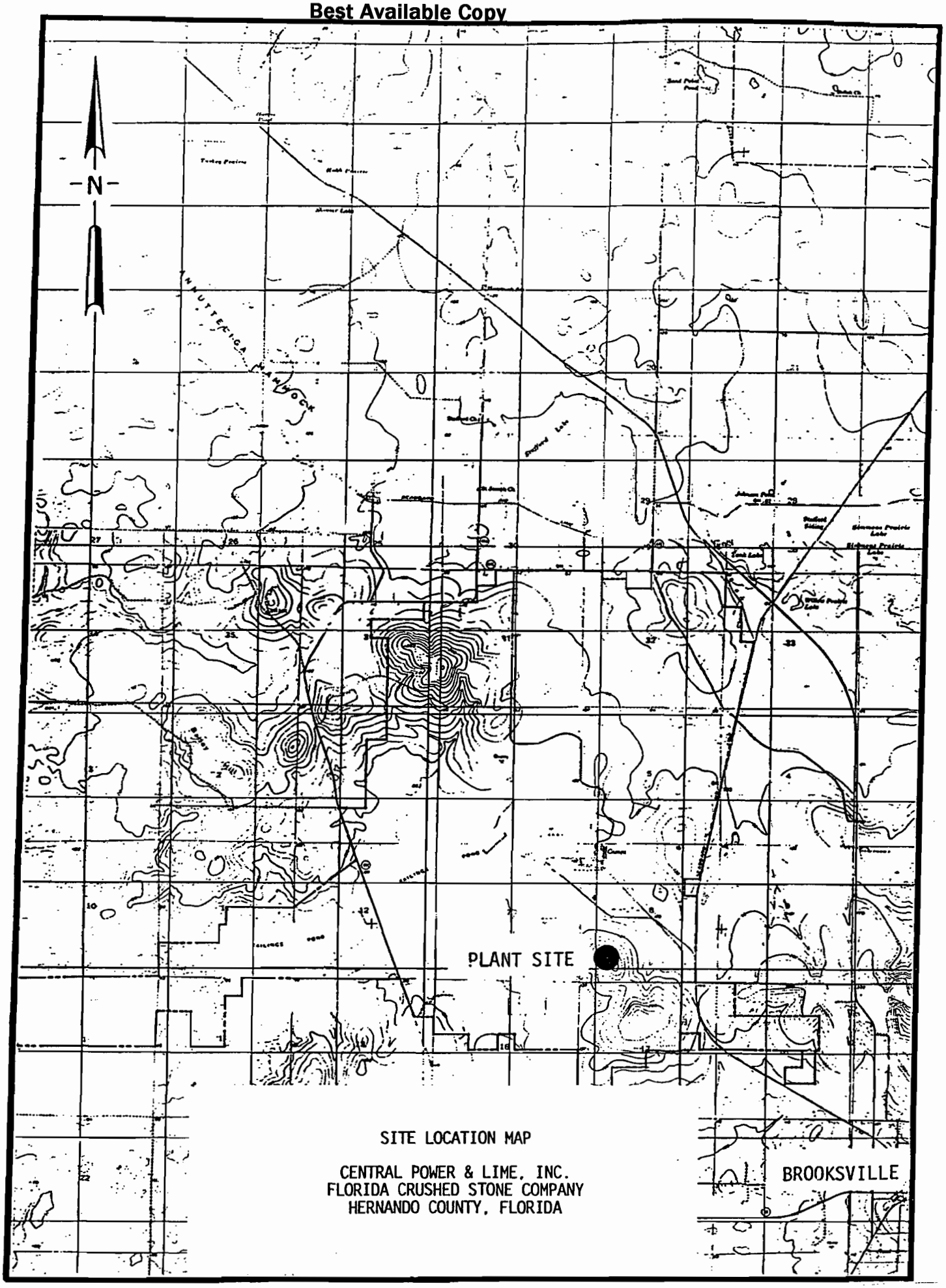
KOOGLER & ASSOCIATES



FLOW DIAGRAM
POWER PLANT/CEMENT PLANT

CENTRAL POWER & LIME, INC.
FLORIDA CRUSHED STONE COMPANY, INC.
HERNANDO COUNTY, FLORIDA

ATTACHMENT 2

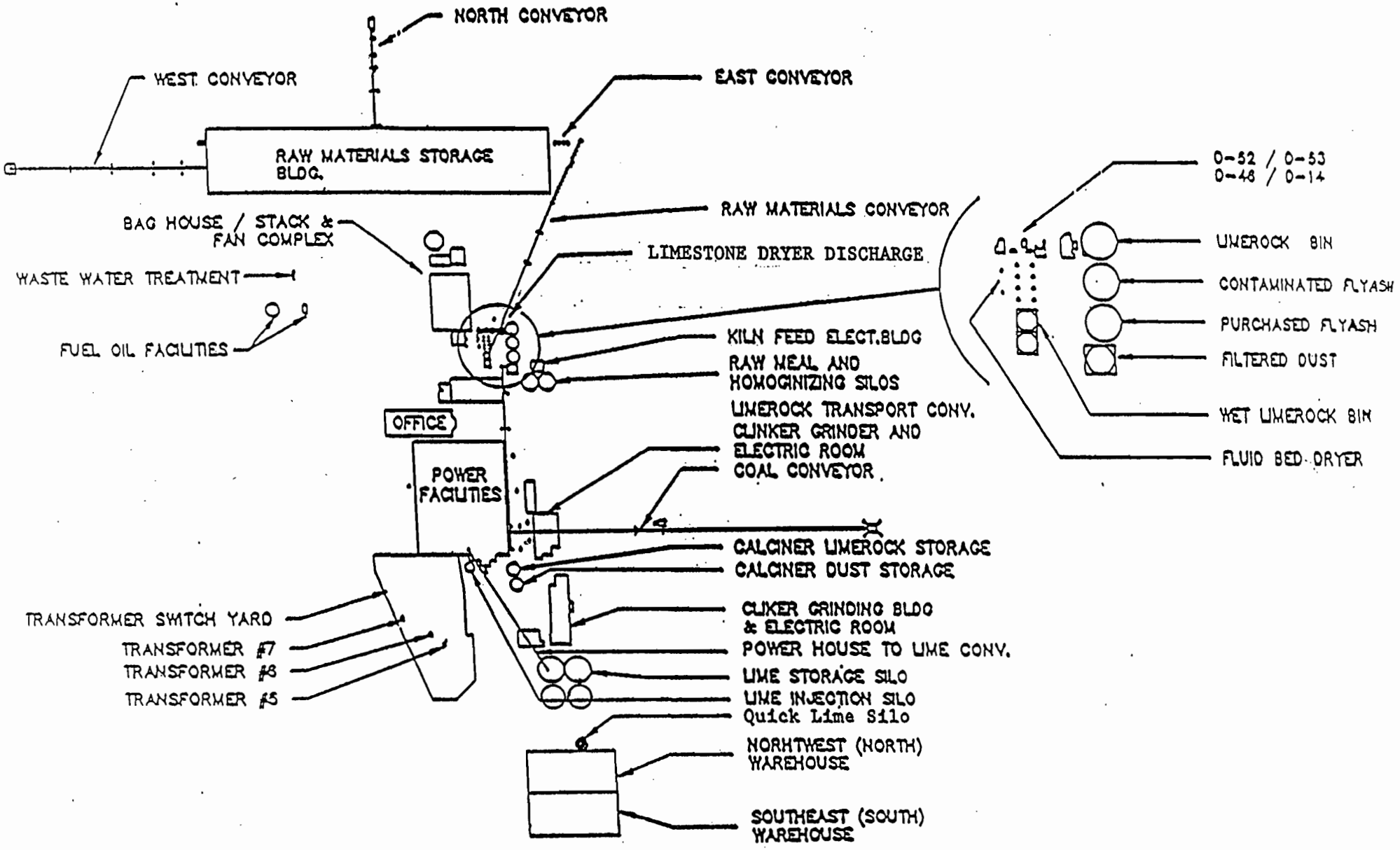


SITE LOCATION MAP

CENTRAL POWER & LIME, INC.
FLORIDA CRUSHED STONE COMPANY
HERNANDO COUNTY, FLORIDA

ATTACHMENT 3

KOOGLER & ASSOCIATES



SITE MAP

CENTRAL POWER & LIME, INC.
FLORIDA CRUSHED STONE COMPANY, INC.
HERNANDO COUNTY, FLORIDA

JR's

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

May 23, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Joseph J. Piermatteo
Senior Vice President
Central Power and Lime, Inc.
10311 Cement Plant Road
Brooksville, Florida 34601

Dear Mr. Piermatteo:

Enclosed is a proposed amendment and Public Notice for PSD-FL-090 for the Brooksville facility. The Department requires a public notice for this modification. All comments during the public notice period should be addressed to Mr. A. A. Linero at the Department's Tallahassee address.

If there are additional questions on the above, please call Mr. John Reynolds at (904) 488-1344.

Sincerely,

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

CHF/jr/t

Enclosures

cc: B. Thomas, SWD
J. Harper, EPA
J. Bunyak, NPS
H. Oven, PPS
C. Hetrick, HCBCC

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CERTIFIED MAIL

In the Matter of an
Application for Permit Amendment DEP File No. PSD-FL-090(D)
Hernando Co.

Mr. Joseph J. Piermatteo
Senior Vice President
Central Power & Lime, Inc.
10311 Cement Plant Road
Brooksville, Florida 34601
_____/

INTENT TO ISSUE

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit amendment for a modification (copy attached) to the applicant's facility as detailed in the application/request specified, above, for the reasons stated in the application/request.

The applicant, Central Power & Lime, Inc., applied on March 15, 1995, to the Department for an amendment of their PSD permit to increase the maximum heat input to the power boiler. The facility is located in Hernando County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that a permit amendment is required for the proposed work.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit Amendment. 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 permit amendment.

The Department will issue the permit amendment 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 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 their 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 intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application/ request 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 receipt of this intent 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

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF INTENT TO ISSUE PERMIT AMENDMENT

PSD-FL-090

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit amendment to Central Power & Lime, Inc., 10311 Cement Plant Road, Brooksville, Florida 34601. This company operates a Portland Cement plant and power cogeneration facility capable of generating a total of 150 megawatts of power. The amendment increases the allowable heat input rate while reducing the allowable particulate matter emissions. Additional control measures will prevent significant increases in actual sulfur dioxide and nitrogen oxides emissions. Therefore, this change will not cause or contribute to a violation of any air pollution standard or adversely affect the environment.

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 (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, 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 this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application/ request 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/request 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
8407 Laurel Fair Circle
Tampa, Florida 33619

Any person may send written comments on the proposed action to Mr. Al Linero at the Department's Tallahassee address. 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.

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 PROTECTION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE PERMIT AMENDMENT all copies were mailed by certified mail before the close of business on 5-23-95 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk 5/23/95 Date

Copies furnished to:

B. Thomas, SWD
J. Harper, EPA
J. Bunyak, NPS
H. Oven, PPS
C. Hetrick, HCBCC

Technical Evaluation
and
Preliminary Determination

Central Power & Lime, Inc.
Power Plant/Cement Plant Cogeneration Facility
Hernando County
Brooksville, Florida

Federal Permit Number
PSD-FL-090
State Permit Amendment
PSD-FL-090(D)

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

May 23, 1995

I. Application Information

A. Applicant

Mr. Joseph J. Piermatteo
Senior Vice President
Central Power & Lime, Inc.
10311 Cement Plant Road
Brooksville, Florida 34601

B. Request

The Department received a complete application on April 26, 1995, to allow an increase in the boiler heat input so that 150 megawatts can be generated to meet increased power demand.

C. Classification

The applicant's facility (SIC 3241) is located on Cement Plant Road, Brooksville, Hernando County, Florida. UTM coordinates of the site are: Zone 17, 360.0 km E and 3,162.4 km N.

II. Project Description/Emissions

This cement plant/power cogeneration facility was originally permitted in 1983 under the Power Plant Site Certification Rule (PA 82-17) and two federal air construction permits (Power Plant/ PSD-FL-090, Cement Plant/PSD-FL-091). The facility was permitted to produce 600,000 tons per year of portland cement and 125 megawatts of power when both plants were operating (25 megawatts for internal use and 100 megawatts for export). The design called for the power plant gases to be used for material drying in the cement plant, which resulted in the absorption of about 20% of the power plant's SO_2 emissions in the calcium component of the cement. So that the SO_2 emission limit for normal operation would not be exceeded when the cement plant was down (no absorption of SO2), the power plant heat input was limited to 1,000 MMBTU/hr (sufficient to produce 100 megawatts) when the power plant was operating alone. The purpose of the capacity reduction was to make up for the lost SO_2 absorption when the cement plant was down, while allowing the same power export rate of 100 megawatts.

The current amendment is based on the need to meet increased power demand. The applicant proposes producing a maximum of 150 megawatts while increasing boiler heat input to 1,850 MMBTU/hr. The increases in heat input and power output appear out of proportion because the applicant used the worst-case summer conditions when the cooling water is at its maximum temperature and the unit operates less efficiently. However, the emission limits are not being increased. Limestone injection will be used to control additional SO_2 emitted while NOx will be controlled by combustion adjustments. It is assumed that none of the added power will be used by the new cement kiln at the same location covered under another PSD permit (PSD-FL-227).

With the Department's approval, a power plant test program was conducted by the applicant in October 1994 with the goal of showing that the above control measures would result in no emission increases at higher heat input rates. The power plant was tested at slightly above the permitted rate of 100 megawatts (with the cement plant down) and at rates closer to the requested maximum of 150 megawatts. Both manual stack testing and continuous emission monitors (CEMS) were used for SO2 and NOx emissions. Opacity and stack gas flow rate were continuously measured by stack monitors. Particulate matter emissions were obtained by manual stack sampling. Pertinent results are briefly summarized below along with the Department's proposed limits:

	MMBTU/hr Heat Input	Tons/hr Limestone Injection	Emissions (lb/hr) PM/PM10	SO2	NOx	%Opacity V.E.
Permitted	1,000	-	37	770	846	20
Tested@106MW	1,179	6	6	734	720	5
Tested@137MW	1,516	19	8	683	657	5
Proposed@150MW	1,850	(monitored)	25	770	846	10

The applicant contends that the PM/PM10 results show no increase when analyzed statistically according to the "Student-t" significance test and therefore PSD review does not apply. The Department's position is that PSD applies due a change in a federally enforceable permit limit on heat input which will result in an increase in actual emissions. It is reasonable to assume that an 85% increase in permitted fuel firing rate will result in an increase in actual PM/PM10 emissions. Therefore, actual boiler emissions at the 100 megawatt net output baseline must be compared with future allowable emissions to determine if a PSD-significant increase will occur ((25 - 6) x 8760/2000 = 83 tons/yr). This PM/PM10 increase exceeds the significant emissions rate of 15 tons/yr listed in Table 212.400-2 of Chapter 62-212, Florida Administrative Code (F.A.C.).

III. Rule Applicability

The construction permit application is subject to review under Chapter 403, Florida Statutes (F.S.), and Chapters 62-209 through 62-297 and 62-4, F.A.C. The facility is located in an area designated as attainment for all criteria pollutants (Rule 62-275.400, F.A.C.). The proposed project is subject to the preconstruction review requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). The proposed

increase in PM/PM10 emissions exceeds the significant level set forth in Table 212.400-2 of Chapter 62-212, F.A.C. Preconstruction review must include a determination of Best Available Control Technology (BACT), good engineering practice stack height, ambient impact analysis, impact on soils, vegetation, and visibility. Rules 62-212.400(2)(g), 62-296.800, Table 296.800-1, Section 60.220, and 62-297.300, Table 297.330-1, apply to this permit amendment.

IV. Air Quality Analysis

A. Requirements

The proposed project will emit only PM/PM_{10} in a PSD-significant amount. The air quality impact analyses required by the PSD regulations for this pollutant include:

* An analysis of existing air quality;
* A PSD increment analysis;
* An Ambient Air Quality Standards (AAQS) analysis;
* An analysis of impacts on soils, vegetation, wildlife, visibility and of growth-related air quality modeling impacts; and
* A "Good Engineering Practice" (GEP) stack height determination.

The analysis of existing air quality generally relies on preconstruction monitoring data collected with EPA-approved methods. The PSD and AAQS analyses depend on air quality dispersion modeling carried out in accordance with EPA guidelines.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Florida Department of Environmental Protection has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A discussion of the modeling procedure and required analyses follows.

B. Existing Air Quality

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD NSR. However, an exemption to the monitoring requirement can be obtained if the maximum air quality

impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimis concentration. Pollutants which do not have a specified de minimis level may also be exempt from preconstruction monitoring requirements. In addition, if an acceptable ambient monitoring method for the pollutant has not been established by EPA, monitoring is not required.

Maximum PM/PM_{10} impacts from the project are predicted to be 0.26 ug/m^3 for the 24-hour averaging time, which is less than the applicable de minimis level of 10 ug/m^3. Therefore, preconstruction ambient air quality monitoring is not required for this project.

C. Modeling Method

1. Model Selection

The EPA-approved Industrial Source Complex (ISC2) dispersion model was used to evaluate pollutant emissions from the proposed project. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. This model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options in each modeling scenario. Direction-specific downwash parameters were used because the stacks were less than the good engineering practice (GEP) stack height.

2. Meteorological Data

Meteorological data used in the ISCST2 model to determine air quality impacts consisted of a concurrent five year period (1987-1991) of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) station at Tampa, Florida. These data from the NWS station at Tampa were selected for use in the model because this station is the closest primary weather station to the project site. The surface observations included wind direction, wind speed, temperature, cloud cover and cloud ceiling.

3. Receptor Network

To determine the significant impact area, if any, concentrations were predicted for a total of 239 receptors located at the fenced property and at distances from the power plant of 3.0, 5.0, 7.0, and 10.0 km along 36 radials with each radial spaced at 10-degree intervals.

The Chassahowitzka National Wilderness Area is a PSD Class I area. The nearest boundary is located approximately 15 km from the project site. Maximum impacts for this Class I area were predicted at thirteen discrete receptors located along its boundaries.

D. Results

1. Significant Impact Analysis

The maximum predicted PM/PM_{10} air quality impacts due to the project are 0.26 ug/m^3 for the 24-hour averaging time and 0.02 ug/m^3 for the annual averaging time. These predicted values are less than the applicable significant impact levels of 5 ug/m^3, 24-hour average and 1 ug/m^3, annual average. Therefore, there are no significant impact areas associated with this project, and no further AAQS or PSD Class II modeling for this project is required.

2. Class I Area

Maximum PM/PM_{10} impacts predicted at the nearby PSD Class I area for comparison to the National Park Service (NPS)-recommended Class I significant impact levels are 0.001 ug/m^3 for the 24-hour averaging time and 0.00005 ug/m^3 for the annual averaging time. These values are less than the NPS-recommended Class I significant levels of 0.27 ug/m^3, 24-hour average and 0.07 ug/m^3, annual average. Therefore, no further Class I modeling analysis is required.

E. Additional Impacts Analysis

1. Impacts on Soils, Vegetation, Wildlife, and Visibility

Because the predicted impacts for PM/PM10 are less than the significant impacts, the project is not expected to have a significant adverse effect on regional or Class I area vegetation, soils, wildlife, and visibility.

2. Growth-Related Air Quality Impacts

No growth-related air quality impacts are expected with the completion of this project.

V. Conclusion

Based on the information provided by Central Power and Lime, Inc., the Department has reasonable assurance that the proposed project, as proposed herein, will not cause or contribute to a violation of an ambient air quality standard, PSD increment, or any other technical provisions of Chapters 62-209 through 62-297 of the Florida Administrative Code.

AQ Jones 5/23

Department of Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

June XX, 1995

DRAFT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Joseph J. Piermatteo
Senior Vice President
Central Power & Lime, Inc.
10311 Cement Plant Road
Brooksville, Florida 34601

Dear Mr. Piermatteo:

Re: Amendments to PSD-FL-090
Boiler Heat Input Increase From 1000 to 1,850 MMBTU/hr

The Department received your application on March 15, 1995, for amendment of the subject air construction permit allowing an increase to 1,850 MMBTU/hr in the boiler firing rate. The permit is amended as shown:

Specific Condition A.1.c.:

FROM: c. Particulates - 0.03 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

TO: **c. PM/PM10 - 0.0135 lb per MMBTU (25.0 lbs per hour at 1,850 MMBTU/hr), averaging time per 40 CFR 60.46.**

Specific Condition A.1.d.:

FROM: d. Visible emissions - 20% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

TO: **d. Visible emissions - 10% opacity, 6-minute average, except for one 6-minute period per hour of not more than 17% opacity.**

Specific Condition A.2.c.:

FROM: c. Particulates - 0.03 lb. per million Btu heat input plus 0.3 lb from the cement kiln and 0.1 lb from the clinker cooler per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.

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TO: **c. PM/PM10 - 0.0135 lb per MMBTU (25.0 lbs per hour at 1,850 MMBTU/hr) plus 0.3 lb from the cement kiln and 0.1 lb from the clinker cooler per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.**

Specific Condition C.6.:

FROM: 6. Instruments shall be installed, calibrated, and maintained to continuously measure the amounts of coal used, material fed to the kiln, and clinker produced. The records of fuel usage with the fuel analysis, daily kiln feed and clinker produced shall be reported quarterly to the Florida Department of Environmental Regulation Southwest District office.

TO: **6. Instruments shall be installed, calibrated, and maintained to continuously measure the amounts of coal and limestone used in the boiler, material fed to the kiln, and clinker produced. The records of coal and limestone used in the boiler, fuel analysis, daily kiln feed and clinker produced shall be reported quarterly to the Department's Southwest District office.**

Specific Condition G.1.:

FROM: 1. When the power plant boiler is operating alone and the cement plant is not in operation, the maximum heat input rate of the boiler shall not exceed the site specific limit of 1,000 million Btu per hour, maximum three-hour average.

TO: **1. The heat input rate of the boiler, with or without the cement plant operating, shall not exceed the maximum necessary to produce 150 MW of power and shall in no case exceed 1,850 MMBTU/hr, maximum three-hour average.**

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 (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 applicant of the amendment request/application and the parties listed below must be filed within 14 days of receipt of this amendment. Petitions filed by other persons must be filed within 14 days of the amendment issuance or within 14 days of their receipt of this amendment, whichever occurs first. 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.

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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 the 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 amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the amendment request/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 receipt of this amendment 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.

A copy of this amendment letter shall be attached to and shall become a part of Air Construction Permit PSD-FL-090.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell, Secretary

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CERTIFICATE OF SERVICE

This is to certify that this Permit Amendment and all copies were mailed to the listed persons before the close of business on June XX, 1995.

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

_____

(Clerk) (Date)

cc: B. Thomas, SWD
J. Harper, EPA
J. Bunyak, NPS
H. Oven, PPS
C. Hetrick, HCBCC

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Best Available Control Technology (BACT) Determination
Central Power and Lime, Inc.
Hernando County
PSD-FL-090(D)
PA 82-17

The applicant proposes to increase boiler fuel consumption by 85 percent over the originally permitted level of 1,000 MMBTU/hr in order to increase power generation from 100 MW to 150 MW. The proposed project for the Brooksville facility will result in a significant increase in emissions of particulate matter (PM/PM10). The project is, therefore, subject to Prevention of Significant Deterioration (PSD) review in accordance with Rule 62-212.400, Florida Administrative Code (F.A.C.). The BACT determination is part of the review required by Rule 62.212.410, F.A.C.

Date of Receipt of BACT Application: March 15, 1995

BACT Determination Proposed by Applicant:

Emission Limit: 0.02 lb PM/PM10 per MMBTU heat input to the boiler with a maximum of 37.0 lbs PM/PM10 per hour at 1,850 MMBTU per hour heat input.

Control Technology: Existing baghouse.

BACT Determination Procedure:

In accordance with F.A.C. Chapter 62-212, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, Rule 62-212.410(1), F.A.C., states that in making the BACT determination the Department shall give consideration to:

(a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emision limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).

(b) All scientific, engineering, and technical material and other information available to the Department.

(c) The emission limiting standards or BACT determinations of any other state.

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(d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Determined by DEP:

Emission Limit: 0.0135 lb PM/PM10 per MMBTU (25.0 lbs PM/PM10 per hour at 1,850 MMBTU/hr)
Visible emissions - 10% opacity, 6-minute average, except for one 6-minute period per hour of not more than 17% opacity.

Control Technology: Existing baghouse with improved bag maintenance/replacement

BACT Determination Rationale:

Recent test results for the boiler operating alone at 137.2 megawatts show that PM/PM10 emissions averaged 7.65 lbs per hour (with new filter bags) while the continuously monitored opacity averaged 5.0 per cent. The tighter limits are based on the Department's assessment of what is achievable with the existing baghouse if bags are replaced on a more frequent basis than before. The Department believes that the permittee will be able to comply consistently with the tighter limits. The additional cost of more frequent bag replacement is not expected to have a significant impact on the permittee's production costs.

Environmental Impact Analysis:

The maximum predicted PM/PM_{10} air quality impacts due to the project are 0.26 ug/m^3 for the 24-hour averaging time and 0.02 ug/m^3 for the annual averaging time. These predicted values are less than the applicable significant impact levels of 5 ug/m^3, 24-hour average and 1 ug/m^3, annual average.

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Conclusion:

The ambient air quality impact from PM/PM10 emissions due to the proposed modification is in compliance with all applicable requirements and reflects a reduction in allowable emissions. Therefore, the Department concludes that the emission control technology for the proposed increase in power output represents BACT.

BACT Analysis Details Available From:

A. A. Linero, P.E., Administrator
New Source Review Section
Bureau of Air Regulation
111 South Magnolia Drive
Tallahassee, Florida 32399-2400

Recommended by:

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

Date

Approved by:

Virginia B. Wetherell, Secretary
Dept. of Environmental Protection

Date

Technical Evaluation
and
Preliminary Determination

Central Power & Lime, Inc.
Power Plant/Cement Plant Cogeneration Facility
Hernando County
Brooksville, Florida

Federal Permit Number
PSD-FL-090
State Permit Amendment
PSD-FL-090(D)

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

May 18, 1995

I. Application Information

A. Applicant

Mr. Joseph J. Piermatteo
Senior Vice President
Central Power & Lime, Inc.
10311 Cement Plant Road
Brooksville, Florida 34601

B. Request

The Department received a complete application on April 26, 1995, to allow an increase in the boiler heat input so that 150 megawatts can be generated to meet increased power demand.

C. Classification

The applicant's facility (SIC 3241) is located on Cement Plant Road, Brooksville, Hernando County, Florida. UTM coordinates of the site are: Zone 17, 360.0 km E and 3,162.4 km N.

II. Project Description/Emissions

This cement plant/power cogeneration facility was originally permitted in 1983 under the Power Plant Site Certification Rule (PA 82-17) and two federal air construction permits (Power Plant/ PSD-FL-090, Cement Plant/PSD-FL-091). The facility was permitted to produce 600,000 tons per year of portland cement and 125 megawatts of power when both plants were operating (25 megawatts for internal use and 100 megawatts for export). The design called for the power plant gases to be used for material drying in the cement plant, which resulted in the absorption of about 20% of the power plant's SO2 emissions in the calcium component of the cement. So that the SO2 emission limit for normal operation would not be exceeded when the cement plant was down (no absorption of SO2), the power plant heat input was limited to 1,000 MMBTU/hr (sufficient to produce 100 megawatts) when the power plant was operating alone. The purpose of the capacity reduction was to make up for the lost SO2 absorption when the cement plant was down, while allowing the same power export rate of 100 megawatts.

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because the applicant used the worst-case summer conditions when the cooling water is at its maximum temperature and the unit operates less efficiently.

With the Department's approval, a power plant test program was conducted by the applicant in October 1984 with the goal of showing that the above control measures would result in no emission increases at higher heat input rates. The power plant was tested at slightly above the permitted rate of 100 megawatts (with the cement plant down) and at rates closer to the requested maximum of 150 megawatts. Both manual stack testing and continuous emission monitors (CEMS) were used for SO2 and NOx emissions. Opacity and stack gas flow rate were continuously measured by stack monitors. Particulate matter emissions were obtained by manual stack sampling. Pertinent results are briefly summarized below along with the Department's proposed limits:

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The applicant contends that the PM/PM10 results show no increase when analyzed statistically according to the "Student-t" significance test and therefore PSD review does not apply. The Department's position is that PSD applies due a change in a federally enforceable permit limit on heat input which will result in an increase in actual emissions. It is reasonable to assume that an 85% increase in permitted fuel firing rate will result in an increase in actual PM/PM10 emissions. Therefore, actual boiler emissions at the 100 megawatt net output baseline must be compared with future allowable emissions to determine if a PSD-significant increase will occur ((25 - 6) x 8760/2000 = 83 tons/yr). This PM/PM10 increase exceeds the significant emissions rate of 15 tons/yr listed in Table 212.400-2 of Chapter 62-212, Florida Administrative Code (F.A.C.).

III. Rule Applicability

The construction permit application is subject to review under Chapter 403, Florida Statutes (F.S.), and Chapters 62-209 through 62-297 and 62-4, F.A.C. The facility is located in an area designated as attainment for all criteria pollutants (Rule 62-275.400, F.A.C.). The proposed project is subject to the preconstruction review requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). The proposed

increase in PM/PM10 emissions exceeds the significant level set forth in Table 212.400-2 of Chapter 62-212, F.A.C. Preconstruction review must include a determination of Best Available Control Technology (BACT), good engineering practice stack height, ambient impact analysis, impact on soils, vegetation, and visibility. Rules 62-212.400(2)(g), 62-296.800, Table 296.800-1, Section 60.220, and 62-297.300, Table 297.330-1, apply to this permit amendment.

IV. Air Quality Analysis

A. Requirements

The proposed project will emit only PM/PM_{10} in a PSD-significant amount. The air quality impact analyses required by the PSD regulations for this pollutant include:

* An analysis of existing air quality;
* A PSD increment analysis;
* An Ambient Air Quality Standards (AAQS) analysis;
* An analysis of impacts on soils, vegetation, wildlife, visibility and of growth-related air quality modeling impacts; and
* A "Good Engineering Practice" (GEP) stack height determination.

The analysis of existing air quality generally relies on preconstruction monitoring data collected with EPA-approved methods. The PSD and AAQS analyses depend on air quality dispersion modeling carried out in accordance with EPA guidelines.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Florida Department of Environmental Protection has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A discussion of the modeling procedure and required analyses follows.

B. Existing Air Quality

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD NSR. However, an exemption to the monitoring requirement can be obtained if the maximum air quality

impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimis concentration. Pollutants which do not have a specified de minimis level may also be exempt from preconstruction monitoring requirements. In addition, if an acceptable ambient monitoring method for the pollutant has not been established by EPA, monitoring is not required.

Maximum PM/PM_{10} impacts from the project are predicted to be 0.26 ug/m^3 for the 24-hour averaging time, which is less than the applicable de minimis level of 10 ug/m^3. Therefore, preconstruction ambient air quality monitoring is not required for this project.

C. Modeling Method

1. Model Selection

The EPA-approved Industrial Source Complex (ISC2) dispersion model was used to evaluate pollutant emissions from the proposed project. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. This model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options in each modeling scenario. Direction-specific downwash parameters were used because the stacks were less than the good engineering practice (GEP) stack height.

2. Meteorological Data

Meteorological data used in the ISCST2 model to determine air quality impacts consisted of a concurrent five year period (1987-1991) of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) station at Tampa, Florida. These data from the NWS station at Tampa were selected for use in the model because this station is the closest primary weather station to the project site. The surface observations included wind direction, wind speed, temperature, cloud cover and cloud ceiling.

3. Receptor Network

To determine the significant impact area, if any, concentrations were predicted for a total of 239 receptors located at the fenced property and at distances from the power plant of 3.0, 5.0, 7.0, and 10.0 km along 36 radials with each radial spaced at 10-degree intervals.

The Chassahowitzka National Wilderness Area is a PSD Class I area. The nearest boundary is located approximately 15 km from the project site. Maximum impacts for this Class I area were predicted at thirteen discrete receptors located along its boundaries.

D. Results

1. Significant Impact Analysis

The maximum predicted PM/PM_{10} air quality impacts due to the project are 0.26 ug/m^3 for the 24-hour averaging time and 0.02 ug/m^3 for the annual averaging time. These predicted values are less than the applicable significant impact levels of 5 ug/m^3, 24-hour average and 1 ug/m^3, annual average. Therefore, there are no significant impact areas associated with this project, and no further AAQS or PSD Class II modeling for this project is required.

2. Class I Area

Maximum PM/PM_{10} impacts predicted at the nearby PSD Class I area for comparison to the National Park Service (NPS)-recommended Class I significant impact levels are 0.001 ug/m^3 for the 24-hour averaging time and 0.00005 ug/m^3 for the annual averaging time. These values are less than the NPS-recommended Class I significant levels of 0.27 ug/m^3, 24-hour average and 0.08 ug/m^3, annual average. Therefore, no further Class I modeling analysis is required.

E. Additional Impacts Analysis

1. Impacts on Soils, Vegetation, Wildlife, and Visibility

Because the predicted impacts for PM/PM10 are less than the significant impacts, the project is not expected to have a significant adverse effect on regional or Class I area vegetation, soils, wildlife, and visibility.

2. Growth-Related Air Quality Impacts

No growth-related air quality impacts are expected with the completion of this project.

V. Conclusion

Based on the information provided by Central Power and Lime, Inc., the Department has reasonable assurance that the proposed project, as proposed herein, will not cause or contribute to a violation of an ambient air quality standard, PSD increment, or any other technical provisions of Chapters 62-209 through 62-297 of the Florida Administrative Code.

Date: 10/14/97 12:47:11 PM
From: Alvaro Linero TAL
Subject: Re: Florida Crushed Stone
To: John Reynolds TAL

John. I'm sorry but I have minimal time to think about this one because I am at Public Service Training. I believe the district consulted with Pat Comer. She may have advised the district to get the A/C or Certification changed. Pat - I'm sorry if I mis-characterize your role in this. I only remember that you and I looked at a few things from the file one day. I'll bet all Koogler is doing is what he was told to do.

So far, I have been unable to get simple things such as this handled through the Title V program. Pat generally says that our SIP requirements and Title V are different programs and that one can not do the job of the other. Pat - Correct me if I'm wrong.

Feel free to consult with her. Is there some device to make a small change in a (possibly expired) PSD or construction permit without having to re-issue it? I hate to reissue permits with all kinds of out-dated language. Maybe we can issue some kind of federally-enforceable letter to make such a small change and not have to re-issue a permit to build a facility that has existed for years. Can you ask Pat about this? Thanks.

Date: 10/15/97 4:42:13 PM
From: John Reynolds TAL
Subject: Florida Crushed Stone - Permit Modifications for Compliance Testing
To: Gerald Kissel TPA
To: Hamilton Buck Oven TAL
CC: Alvaro Linero TAL

I finally heard from Pat Comer who confirmed that Florida Crushed Stone's site certification (PA82-17D) and PSD permit (PSD-FL-090B) conditions will have to be amended as "applicable requirements" for the Title V permit. Such a relaxation of a federally enforceable permit condition requires that more analysis be done. I'm concerned about the possibility that a former modification to meet increased power demand may have resulted in an increase in actual emissions which effectively triggered NSPS applicability (which would weigh heavily on this current request). We'll need to send an incompleteness letter on this. Looks like we received your letter on September 17 transmitting Koogler's request received by the SWD on September 5. Could you send Koogler a letter tomorrow stating that the request should be refiled with Buck Oven's office so that the changes can be coordinated through Site Certification?

Date: 11/5/97 9:28:07 AM
From: Gerald Kissel TPA
Subject: Florida Crushed Stone (your e-mail 11/4/97)
To: John Reynolds TAL
CC: David Zell TPA

Dave Zell faxed your 10/15 e-mail to John Koogler and discussed it with him, and John said that he didn't want anything more formal from us and that he would take it from there with FCS.

Florida Department of
Environmental Protection

Memorandum

TO: John Reynolds
David Zell

FROM: Buck Oven BO

DATE: April 2, 1998

SUBJECT: Florida Crushed Stone/Central Power & Lime
Request to Modify Conditions, PA 82-17, AO27-321888A, AC27-222095, & PSD-FL-090B

Please review and comment on the attached letter from John Koogler and return your comments to me.

Attch:

cc: Al Linero
Bill Thomas
Mike Harley

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

March 30, 1998

Mr. Hamilton S. "Buck" Oven, Jr., P.E.
Administrator, Power Plant Siting
Florida Department of
Environmental Protection
2600 Blair Stone Road, Mail Stop 48
Tallahassee, Florida 32399-2400

SUBJECT: Florida Crushed Stone Company/Central Power & Lime
Hernando County
Permits AO27-231888A and AC27-222095 - Cement Plant
PA82-17D - Power Plant
Permit PSD-FL-090B - Project

Dear Mr. Oven:

On behalf of Florida Crushed Stone Company (FCS) and Central Power & Lime (CPL), I would like to clarify by permit amendment the compliance testing requirements for the FCS cement plant and the CPL power plant. This request was previously submitted to Mr. David Zell of the Florida Department of Environmental Protection's Southwest District. Mr. Zell, in consultation with John Reynolds (FDEP Tallahassee DARM) and Pat Comer (FDEP Tallahassee OGC), concluded that this request should be refiled with your office.

As you are aware, the cement kiln, clinker cooler, raw mill, and limestone dryer associated with the cement plant and the CPL power plant all discharge through a common baghouse and stack. The permits for the facility specify emission limiting standards for the cement plant while operating alone, the power plant while operating alone, and for the cement plant and power plant when operating together. By far, the most common operating scenario is for the cement plant and power plant to operate together.

The current cement plant operating permit (AO27-231888A at Specific Condition 19) requires compliance testing on an annual basis (within 60 days prior to May 1) when only the cement plant sources are operating (the kiln, cooler, raw mill and limestone dryer). The permits are less specific regarding compliance testing requirements for the power plant and for the power plant and cement plant operating together.

Historically, FCS/CPL has conducted annual compliance testing for the regulated air pollutants (particulate matter, sulfur dioxide, nitrogen oxides and opacity) with the cement plant and power plant operating together. This is shown in the following table:

CALENDAR YEAR	OPERATING SCENARIO DURING COMPLIANCE TESTING
1987	Cement Plant Only
1988	Cement Plant and Power Plant Together
1989	Cement Plant Only Power Plant Only
1991	Cement Plant and Power Plant Together Cement Plant Only
1992	Cement Plant and Power Plant Together Cement Plant Only
1993	Cement Plant and Power Plant Together
1994	Cement Plant and Power Plant Together Cement Plant Only
1995	Cement Plant and Power Plant Together Power Plant Only (NOx)
1996	Cement Plant and Power Plant Together Cement Plant Only
1997	Cement Plant and Power Plant Together
1998 (Anticipated)	Cement Plant and Power Plant Together Cement Plant Only

Difficulties have arisen in scheduling annual compliance testing with only the cement plant operating because of the reliability factor associated with the power plant. The fact is the power plant has a scheduled six-week outage only every two years for maintenance. With this schedule, it is impossible to conduct compliance testing with the cement plant sources only operating every year. This matter has been discussed with the Department in the past and the Department has been understanding of operational conditions at FCS/CPL and has either waived or delayed compliance testing of the cement plant sources only (see attached FDEP letter dated April 5, 1995).

Central Power & Lime recently received a letter from the FDEP Southwest District (see attached FDEP letter dated December 8, 1997). This letter outlined specific testing problems being experienced by the Southwest District. Two of these problems are pertinent to FCS/CPL and this request:

- Testing outside the time period specified in the permit
- Tests delayed because of operational requirements

It is hoped that all of the applicable requirements, regulations, and permit conditions relating to compliance testing can be clarified and reconciled. FCS/CPL believe that this should be accomplished before issuance of any of the various Title V permits for this facility.

Regarding compliance testing when the power plant only is operating, FCS/CPL has had an informal understanding with the Department that if emissions measured with the cement plant and power plant operating together were less than, or "near", the limits permitted for the power plant operating alone, the presumption would be that the power plant operating alone was in compliance. This understanding has never been committed to writing and no specific limits have been established to evaluate how this understanding would be implemented if emissions measured during joint operations fell outside of "near" as referenced in the verbal understanding.

The flexibility the Department has granted in past compliance testing is within the jurisdiction of the Department. Rule 62-297.310(7)(a)(4), F.A.C. states:

> During each federal fiscal year (October 1-September 30), unless otherwise specified by rule, order or permit, the owner or operator of each emission unit shall have a formal compliance test conducted for:
>
> a. Visible emissions, ...
>
> b. Each of the following pollutants, if there is an applicable standard, and if the emission unit emits or has the potential to emit; ... 100 tons per year or more of any other regulated air pollutant; and
>
> c. Each NESHAP pollutant, ...
>
> [Emphasis added]

Rather than continuing to address the necessity of waivers on a case-by-case basis and consistent with the request in the Department's April 5, 1995, letter, we are requesting that the compliance testing requirements of the cement plant and power plant be amended in the existing permits, and prior to the Title V operation permits which will be issued in the not too distant future.

In proposing amended compliance test requirements, we looked at the planned operating schedule of the FCS/CPL cement plant and power plant. Annually, the cement plant is scheduled for a 7-10 day outage for maintenance, normally during the last quarter of the calendar year. With the power plant, there is a planned outage of approximately six weeks every two years for maintenance. A power plant outage is in effect at the time of this writing, and the cement plant only will be tested during this outage.

Consistent with the requirements of Rule 62-297.310(7)(a)4, F.A.C. and the planned operating schedules of the cement plant and the power plant, the following compliance test requirements are proposed:

Combined Cement Plant/Power Plant Operation

- Test the main plant stack emissions for the following pollutants during each federal fiscal year (October 1-September 30):

  Particulate Matter (PM)
  Opacity (VE)
  Nitrogen Oxides (NOx)
  Sulfur Dioxide (SO_2)

  All emission testing should be performed at the main plant stack during a period when the cement plant, clinker cooler, raw mill and limestone dryer are operating simultaneously and under normal operating conditions (as currently defined in Specific Condition No. 23 of Permit AO27-231888A), and when the power plant is operating under normal operating conditions and within 90-100 percent of the rate defined in Specific Condition G.1. of PSD-FL-090 as amended August 8, 1995.

  Note 1: The note pertaining to the operation of the limestone dryer included as part of Specific Condition 19 of Permit AO27-231888A should be incorporated here.

  Note 2: If it is necessary to specify a test date either in amendments to existing permits or in the forthcoming Title V operating permit, it is requested that the period be specified as "within 60 days prior to the date of May 1".

Cement Plant

- Test the main plant stack emissions for the following pollutants every two years during the scheduled outage of the CPL power plant: (the remainder of Specific Condition 19 of Permit AO27-231888A should be incorporated here).

Power Plant

- It is suggested that there be no specific test requirements for the power plant when operating alone as the power plant is scheduled to operate jointly with the cement plant approximately 97 percent of the time (all but 7-10 days per year) and because of the fact there are no New Source Performance Standards applicable to the power plant. Demonstration of compliance with the cement plant and power plant operating jointly, coupled with the compliance demonstration for the cement plant every two years, should provide the Department with reasonable assurance that the joint FCS/CPL facility is operating in compliance with applicable emission limiting standards.

I appreciate your review and consideration of this request. If you have any questions regarding these matters or if additional information is required, please do not hesitate to contact me.

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:scc

Enclosures: FDEP letter dated April 5, 1995
FDEP letter dated December 8, 1997

Copies to: Mr. Joe Piermatteo, FCS
Mr. Ron Aliff, FCS
Mr. Charles Allen, FCS
Mr. David Zell, FDEP-SWD

Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

April 5, 1995

Mr. Tom Mountain
Florida Crushed Stone
Post Office Box 1508
10311 Cement Plant Road
Brooksville, Florida 34605-1508

Dear Mr. Mountain:

In response to your letter dated March 30, 1994, the Department will waive the annual compliance test required by permit AO27-231888 due to the financial and operational problems that it would necessitate. The Department understands that the source will be tested during the next scheduled Power Plant outage that should be in March 1996. Should your schedule change and a Power Plant shut down be scheduled prior to that time please schedule a compliance test for that shut down. Notify the Department 15 days prior to the next compliance test.

Since this situation may arise again please submit an application to the Department to change permit AO27-231888 to require compliance testing that reflects actual operating conditions including Power Plant scheduled outages.

If you have should have any questions, please call me at (813)744-6100 extension 119.

Sincerely,

W. A. Proses

W. A. Proses
Air Compliance Supervisor

cc: John B. Koogler, Ph.D.,P.E. Koogler & Associates

JBK ✓
COPY (SCC) ✓
PAR
hit ✓

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

Bryan E. Adkins
Central Power & Lime, Inc.
P O Box 1508
Brooksville, FL 34605-1508

December 8, 1997

The purpose of this letter is to ask your assistance in solving a problem which has become more prevalent over the last few years. We have noticed that, for some of our permitted facilities, there is a declining trend in the rate of full compliance with their testing requirements. We believe that much of the problem can be attributed to a lack of attention to details of changing permit requirements and failure to understand the implications of missing a required test date (e.g., new EPA guidance will soon cause us to consider a facility which tests more than five days late to be significantly out of compliance). Therefore, we are asking that you take a little time to review your testing requirements, ask us about any points you do not understand, and do the necessary planning to ensure that you do not enter an out-of-compliance condition. For our part, we pledge to work with you to, wherever possible, rationalize your annual testing schedule and find ways to anticipate tests which are about to go overdue so we can help you to avoid the embarrassment and expense of being found to have violated your testing requirements. Please direct any questions to Joe Cox, our data systems person, at (813) 744-6100, extension 129.

As a first step in this process, you may find it helpful to go through all of the permits which are currently in force for your facility and make a list of all testing requirements, including the dates when the tests are to be accomplished. In most cases, the permit will contain one or more specific conditions which specify that testing will be accomplished in a 60-day period ending with a specific date. Caution: these dates may change when a permit is amended or renewed.

The following paragraphs outline some of the specific testing problems we are experiencing and some comments on the action you should take if one or more of these situations applies to you:

a. **Test report unclear.** Although not normally a reason to reject the test, reports frequently contain incomplete or confusing information with regard to designation of the equipment tested—and this leads to delays in processing the report and calls or letters to get the missing information or clarify ambiguous comments. Please ensure that all correspondence about tests (or any other matter regarding your permits) includes a clear statement of your facility's seven-digit AIRS identification number (in the case of this facility, that is 0530032) and the emission unit numbers of the unit or units tested. You can find the emission unit number or numbers near the beginning of your permit—after the process description and before the first specific condition. It is very important to use these numbers, since there are sometimes facilities with similar names and your name for a piece of equipment may not coincide with its emission unit number (what you call "Unit 2" in the plant may be "Emission Unit 005" in the permit and our database). Imprecise terminology may cause a test to be credited to the wrong facility or emission unit, or use time we could devote to identifying test requirements about to go overdue so we can warn you.

b. **Testing outside the time period specified in the permit.** Some facilities manage to test each year, but perform some of their tests outside the specified testing window. If your test is delayed for some reason (e.g., the emission unit was not operating during that period) one year, the next year's test is not slipped to occur one year later. In cases where you would like to move one or more tests to allow you to consolidate your testing requirements, please contact our office

and we will try to amend your permit to allow that. Moving test dates without coordinating a permit change could result in having to retest, and we want to help you avoid that expense.

c. **Tests delayed because of operational requirements.** Sometimes, tests must be delayed for reasons beyond your control (e.g., the equipment is broken down or raw materials are unavailable). In these cases, you should send us a letter as soon as you recognize the problem and coordinate a new testing date. We can grant a reasonable delay and take the necessary steps to keep your facility from being designated out of compliance. Where possible, you should plan outages to avoid this problem or request testing slightly early to avoid going overdue.

d. **Tests not required because of special conditions.** A few permits contain special conditions which can negate the need for a test. For example, some dual-fueled (oil and gas) equipment does not require a visible emissions test if oil is burned for less than 400 hours in the year preceding the test date. In cases such as this, you should send a letter certifying that you have met the requirements for waiver of the test. Please do not assume that we know you are burning only gas—we need a document to form the basis for moving the date of the next required test to the following year.

e. **Test notification not timely.** Generally, permits require that you notify our office at least 15 days prior to conducting a test. We need this time to plan our attendance at some of the tests (we are required to audit a portion of the tests conducted in our District). Sometimes, circumstances arise which make it difficult for you to comply with this requirement. In those situations, please call our office as soon as you are aware of the problem and we will try to work with you to find a mutually acceptable solution; however, do not assume that we will be able to accommodate you, especially in cases where the reason for the problem is simply failure to adequately plan ahead.

f. **Required submittals not included with report.** Some permits require the submission of additional information, such as process rates or fuel analyses, with the test report. Failure to submit this information could invalidate the test and require you to go to the expense of conducting another test. Since reports frequently arrive at our office after the end of the testing window, rejection of a test would probably mean that your facility would not have met its obligation to demonstrate compliance with the permit. Please ensure that the test team conducting your test understands and complies with all of the provisions in your permits which affect the test.

Again, if you have any questions about any of the situations listed above, or any other matter, please call or send us a letter asking for clarification. It is very important that you understand all of the conditions in your permit.

We would also like to take this opportunity to let you know that there is serious consideration being given to holding one or more seminars in mid-January to discuss tools and techniques for completion of Annual Operating Reports. If this seminar does take place, it will be an opportunity to get help in locating sources of information and ensure you understand all of the instructions for completion of the report.

Thank you in advance for your support of our efforts to help you comply with your testing and reporting requirements. Together, we can make Florida's compliance rate the best in EPA Region 4.

Sincerely,

William C. Thomas
Air Program Administrator

Department of
Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

May 4, 1998

Mr. John B. Koogler, Ph.D., P.E.
Koogler & Associates
4014 NW Thirteenth Street
Gainesville, Florida 32609

Re: Florida Crushed Stone company, PA 82-17

Dear Mr. Koogler:

Please see the attached Memo from John Reynolds is response to your letter dated March 30, 1998. You may wish to discuss the matter with the Bureau of Air Regulation.

Sincerely,

Hamilton S. Oven

Hamilton S. Oven, P.E.
Administrator, Siting
Coordination Office

Attach:

cc: John Reynolds
David Zell

Florida Department of
Memorandum Environmental Protection

TO: Buck Oven

THRU: Al Linero 4/8

FROM: John Reynolds

DATE: April 8, 1998

SUBJ: Florida Crushed Stone/Central Power & Lime
Request for Amendment of Annual Testing Requirement
PSD-FL-090/PA 82-17

The request is made for amendment of the annual testing requirements for the cement kiln and power plant such that there would be no specific test requirements for the power plant when operating alone. The justification given in the March 30 letter is based primarily on two factors: (1) the cement kiln and the power plant are operated jointly 97% of the time, and (2) there are no New Source Performance Standards that apply to the power plant.

Before the PSD permit was issued, the EPA made a determination (see attached letter dated January 27, 1983) stating that NSPS applicability would be triggered by any physical or operational change resulting in an increase in emissions of a pollutant regulated under 40CFR60, Subpart Da. The EPA stated that, although the relocation and rebuilding of this very old boiler ("1944 model") did not alter its status as an existing source, it would be considered as a modified source (subject to Subpart Da) if its emissions in the new location are higher than those at the former location. I did not find evidence in the file as to whether a comparison of emissions at the former location was ever made. Nonetheless, subsequent increases in heat input to the boiler have occurred of a magnitude sufficient to conclude that actual emissions must have increased at the relocated site relative to the former site. Consequently, the Department should re-examine NSPS applicability for this facility (perhaps during the review of their Title V permit), and at the very least require annual testing of the boiler operating alone.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

4AW-AM

JAN 27 1983

DER
BAQM

Mr. Clair Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Fancy:

This letter is in answer to your letter of January 5, 1983 in which you requested an applicability determination under 40CFR Part 60 for an electric steam generating unit.

As you stated in your letter, the situation involves an application to construct a 125 megawatt electric co-generating plant in conjunction with a Portland cement plant. Approximately 100 megawatts will be sold on the Florida electric power grid. The boiler was operated in another state from 1944 to 1977 and has been rebuilt, however the applicant contends that the changes were not of sufficient magnitude to be a reconstruction as defined in 40CFR60.15. Your basic question is whether the proposed power plant would be subject to 40CFR60, Subpart Da?

Based on the information supplied, the power plant would not be subject to Subpart Da, however, we would encourage you to thoroughly investigate the applicant's contention that previous changes were not of sufficient magnitude to be a reconstruction under 40CFR60.15. You might want to ask for cost records from the applicant that would support his contention. I am also enclosing two EPA memorandums which discuss a reconstruction applicability determination previously made for a nitric acid plant. The important point to note in this determination is that a plant cannot be classified as a relocated facility (i.e. existing facility) if the facility is constructed by combining components from two or more existing facilities. If the proposed power plant is constructed by using components from two or more existing units, then the provisions of 40CFR60, Subpart Da would apply.

In addition, under the "modification" section (40CFR60.14), any physical or operational change in an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of Section 111 of the Clean Air Act. Upon modification, an exisitng facility shall

become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere. We recommend that previous emission data be obtained to insure that there will be no increase in emissions which would trigger the modification provision of 40CFR60.

We also note from your letter that the power plant may be operated when the cement plant is down, therefore, we recommend that during the compliance demonstration, testing should occur during all modes of operation.

If we can be of further assistance in this matter, please call Mr. Brian Beals of my staff at 404/881-4901.

Sincerely,

James T. Wilburn, Chief
Air Management Branch
Air & Waste Management Division

Enclosure

Date: 8/18/98 3:38:43 PM
From: Tom Ellison TPA
Subject: Florida Crushed Stone/Central Power & Lime
To: Hamilton Buck Oven TAL
CC: Gerald Kissel TPA
CC: John Reynolds TAL

A 3/30/98 letter from John Koogler requested the Department to amend testing conditions for the kiln and power plant permits for the subject facilities. What is the status of this application?

Thanks for your help.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

MAR 27 1984

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

REF: 4AW-AM

Mr. Richard C. Entorf
Senior Vice-President
Florida Crushed Stone Company
P. O. Box 317
Leesburg, Florida 32748

RE: PSD-FL-90 and 91

Dear Mr. Entorf:

Review of your March 30, 1983, application to construct a 600,000 ton per year cement plant and cogeneration facility near Brooksville, Hernando County, Florida, has been completed. The construction is subject to rules for the Prevention of Significant Deterioration (PSD) of air quality contained in 40 CFR §52.21. The Florida Department of Environmental Regulation (FDER) performed the preliminary determination concerning the proposed construction and published a request for public comment on May 27, 1983. In response to a request from Florida Mining and Materials, a hearing was held on November 30, 1983. On January 25, 1984, FDER performed a final determination recommending issuance of the PSD permit by EPA. The final determination contains responses to issues raised during the hearing and the public comment period.

The Environmental Protection Agency (EPA) has determined that the construction as described in the application meets all the applicable requirements of 40 CFR §52.21. Accordingly, pursuant to 40 CFR §124.15, the Regional Administrator has made a final decision to issue the enclosed Permit to Construct-Part I Specific Conditions and Part II General Conditions. This authority to construct, granted as of the effective date of the permit, is based solely on the requirements of 40 CFR §52.21, the federal regulations governing significant deterioration of air quality. It does not apply to other permits issued by this Agency or by other agencies. Please be advised that a violation of any permit condition, as well as any construction which proceeds in material variance with information submitted in your application, will be subject to enforcement action.

This final permit decision is subject to appeal under 40 CFR §124.19 by petitioning the Administrator of the EPA within thirty (30) days after receipt thereof. The petitioner must submit a statement of reasons for the appeal and the Administrator must decide on the petition within a reasonable time period. If the petition is denied, the permit shall become effective upon notice of such action to the parties to the appeal. If the petition is granted, any applicable effective date shall be determined by the results of the appeal proceedings. If no appeal is filed with the Administrator, the permit shall become effective thirty (30) days after receipt of this letter. Upon the expiration of the thirty (30) day period, EPA will notify you of the status of the permit's effective date.

Receipt of this letter does not constitute authority to construct. Approval to construct this facility shall be granted as of the effective date of the permit. The complete analysis which justifies this approval has been fully documented for future reference, if necessary. Any questions concerning this approval may be directed to Mr. Jesse Baskerville, Acting Chief, Air Engineering Section, Air and Waste Management Division at 404/881-4253.

Sincerely yours,

George L. Harlow

for Thomas W. Devine, Director
Air and Waste Management Division

Enclosure

cc: Mr. Steve Smallwood, P.E., Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation

PERMIT TO CONSTRUCT UNDER THE RULES FOR THE
PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

Pursuant to and in accordance with the provisions of Part C, Subpart I of the Clean Air Act, as amended, 42 U.S.C. §7470 et seq., and the regulations promulgated thereunder at 40 CFR §52.21 (1983),

Florida Crushed Stone Company
Leesburg, Florida

is, as of the effective date of this permit (PSD-FL-90 and 91) authorized to modify a stationary source at the following location:

Intersection of Cobb Road and Yontz Rd.
3.5 Miles Northwest of Brooksville, Florida

UTM Coordinates: 360.0-360.1 km East, 3162.1-3162.5 km North

Upon completion of authorized construction and commencement of operation/production, this stationary source shall be operated in accordance with the emission limitations, sampling requirements, monitoring requirements and other conditions set forth in the attached Specific Conditions (Part I) and General Conditions (Part II).

This permit is hereby issued on MAR 27 1984 and shall become effective thirty (30) days after receipt thereof unless a petition for administrative review is filed with the Administrator during that time. If a petition is filed any applicable effective date shall be determined in accordance with 40 CFR §124.19(f)(1).

If construction does not commence within 18 months after the effective date of this permit, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, this permit shall expire and authorization to construct shall become invalid.

This authorization to construct/modify shall not relieve the owner or operator of the responsibility to comply fully with all applicable provisions of Federal, State, and local law.

March 27, 1984
Date Signed

Regional Administrator

PART I

Specific Conditions

The construction and operation of the Florida Crushed Stone Company (FCS) steam electric power plant and cement plant shall be in accordance with the attached general conditions and all applicable provisions of 40 CFR 52.21. In addition to the foregoing, the permittee shall comply with the following specific conditions of approval:

A. Emission Limitations

1. Stack emissions from the power plant boiler only shall not exceed the following site specific limitations when burning coal:

   a. SO_2 - 0.9 lb. per million Btu heat input, maximum three-hour average (not to exceed 915 lb. per hour, maximum three-hour average). 770 ← Gov't & CABINET DECISION 775, NOT 750

   b. NO_x - 0.7 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

   c. Particulates - 0.03 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

   d. Visible emissions - 20% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

2. Stack emissions from the combined cement plant/lime plant and power plant boiler shall not exceed the following site specific limits: 1.2 lb/10⁶ BTU max 2-hr avg

   a. SO_2 - 50 lb. per hour plus 0.74 lb. per million Btu boiler heat input, maximum three-hour average (not to exceed ~~965~~ 781 lb/hr maximum three-hour average).

   b. NO_x - 0.7 lb. per million Btu heat input plus 2.9 lb. per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.

   c. Particulates - 0.03 lb. per million Btu heat input plus 0.3 lb. from the cement kiln and 0.1 lb from the clinker cooler per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.

d. Visible emissions - less than 10 percent opacity, 6-minute average, except for one 6-minute period per hour of not more than 17% opacity.

e. Total Fluorides: 0.7 lb/hr.

f. Sulfuric Acid Mist: 1.7 lb/hr.

g. Beryllium: 0.0005 lb/hr.

h. Mercury: 0.03 lb/hr.

3. The emission rates from the main baghouse when only the cement plant is operating shall not exceed the emission limits and maximum allowable emissions listed below:

Pollutant	Emission Limits lb/ton of kiln feed	Maximum Allowable Emissions lb/hr	tons/yr
PM	0.4	49.5	216
SO_2	0.6	50.0	325
NO_x	2.9	359.0	1572

4. Visible emissions from the kiln, cooler, dryer and raw mill shall be less than 10 percent opacity.

5. Particulate emissions from the coal and fly ash handling facilities.

a. All conveyors and conveyor transfer points will be enclosed to preclude particulate emissions (except those directly associated with the coal stacker/reclaimer, emergency stockout stacker/reclaimer, emergency stockout, and deep bucket conveyor).

b. Inactive coal storage piles will be shaped, compacted and oriented to minimize wind erosion.

c. Water sprays or chemical wetting coal agents and stabilizers will be applied to coal storage piles, handling equipment, etc. during dry periods and as necessary to all coal handling facilities to maintain an opacity of less than or equal to 5 percent, except when adding, moving or removing coal from the coal pile, during which the opacity shall be no more than 20%.

d. The fly ash handling system (including transfer and silo storage) will be totally enclosed and vented (including pneumatic system exhaust) through fabric filters.

6. Particulate emissions from bag filter exhausts from the coal and fly ash handling systems (excluding those facilities covered by Specific Condition A.5.c.) shall be limited to 0.02 gr/acf. A visible emission reading of 5% opacity or less may be used to establish compliance with this emission limit. A visible emission reading greater than 5% opacity will not create a presumption that the 0.02 gr/acf emission limit is being violated. However, a visible emission reading greater than 5% opacity will require the permittee to perform a stack test, as set forth in Specific Condition B.

7. Emissions of particulate matter from all other baghouse-equipped sources associated with the cement plant shall not exceed the maximum allowable emission limits listed below:

BAGHOUSE INVENTORY

Florida Permit No. (AC 27-)	Source Name	Allowable PM Emissions lb/hr	TPY
61019 (18676	Raw Materials Bin	0.8	3.5
61012 (18672	Pre Mix Bin	0.6	2.6
61013 (18673	Fly Ash Bin	0.6	2.6
61017 (18675	Raw Meal Transfer	0.3	1.3
61020 (18677	Blending Silo	3.3	14.5
61021 (18678	Kiln Feed	0.8	3.5
61030 (18685	Clinker Silo	0.6	2.6
61032 (18686	Clinker Silo	0.6	2.6
61027 (18684	Cooler Discharge	0.8	3.5
61033 (18687	Silo Discharges	1.8	7.9
61037 (18688	Finish Mill	6.4	28.0
61038 (18689	Cement Silo Discharge	0.6	2.6
61040 (18690	Cement Silo	0.6	2.6
61041 (18681	Cement Silo	0.6	2.6
61042 (18683	Cement Silo	0.6	2.6
61026 (18680	Coal Handling	0.8	3.5

8. Visible emissions from all sources listed in Specific Condition 7 shall not be greater than 5 percent opacity.

9. Compliance with the opacity limits of Specific Conditions A.1.d., A.2.d., A.4., A.5.c., A.6., and A.8. will be determined by EPA reference method 9 (including alternate method 1), Appendix A, 40 CFR Part 60).

B. Stack Testing

1. Within 60 calendar days after achieving the maximum capacity at which each unit will be operated (but no later than 180 operating days after initial startup) and annually thereafter, the permittee shall conduct: (a) performance tests on the main stack for particulates, SO_2, NO_x, and visible emissions (1) during normal operations near (± 3%) 1,234 million Btu per hour heat input when the power plant and cement plant are operating in combination, (2) at or near 1,000 million Btu per hour when the power plant is operating alone, and (3) at or near maximum production when the cement plant is operating alone; and (b) visible emissions tests on all baghouses. The Department shall be furnished a written report of the results of such performance tests within 45 days of completion of the test.

2. Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The permittee shall make available to the Department such records as may be necessary to determine the conditions of the performance tests.

3. The permittee shall provide 30 days notice of the performance tests or 10 working days for stack tests in order to afford the Department the opportunity to have an observer present.

4. Stack tests for particulates, NO_x, and SO_2 and visible emissions tests shall be performed annually from the date of the first performance test(s) in accordance with Specific Conditions B.2. and 3. above.

5. Performance tests for Specific Condition B.1.(a)(1) and (2) shall be conducted in accordance with the provisions of 40 CFR Part 60 including Appendix A and 40 CFR 60.46.

6. Performance tests for particulate for Specific Condition B.1.(a)(3) shall be conducted in accordance with 40 CFR Part 60, including Appendix A and 40 CFR 60.64.

7. Compliance with the SO_2 and NO_x emission limits in Specific Condition A.3. shall be demonstrated in accordance with EPA Methods 6 and 7, respectively, in 40 CFR 60, Appendix A.

8. Compliance with the particulate emission limits for all sources listed in Specific Condition Nos. A.6. and A.7. shall be demonstrated by EPA Method 5 or 17 (Appendix A, 40 CFR 60).

9. Compliance with total fluoride emission limits in Specific Condition A.2.e. shall be demonstrated, if required by EPA, in accordance with EPA Method 13A or 13B, and 40 CFR 60.8.

10. Compliance with sulfuric acid mist limits in Specific Condition A.2.f. shall be demonstrated, if required by EPA, in accordance with EPA Method 8, and 40 CFR 60.8.

11. Compliance with beryllium limits in Specific Condition A.2.g. shall be demonstrated, if required by EPA, in accordance with EPA Method 104, and 40 CFR 60.8.

12. Compliance with mercury limits in Specific Condition A.2.h. shall be demonstrated, if required by EPA, in accordance with EPA Method 101A, and 40 CFR 60.8.

13. EPA Methods 1 and 2 shall be used for determining stack gas velocity when required in Specific Conditions B.7., B.8., B.9., B.10., B.11., and B.12.

C. Monitoring Program

1. A flue gas oxygen meter shall be installed for the unit to continuously monitor a representative sample of the boiler flue gas. The oxygen monitor shall be used with automatic feedback or manual controls to continuously maintain air/fuel ratio parameters at an optimum. Performance tests shall be conducted and operating procedures established. The document "Use of Flue Gas Oxygen Meter as BACT for Combustion Controls" may be used as a guide. The permittee shall install and operate a continuous opacity monitoring device for the baghouse exhaust. The monitoring devices shall meet the applicable requirements of 40 CFR 60.45 and 40 CFR 60.13 including certification of each device. The Department shall be provided 30 days notice on each certification.

2. The permittee shall operate two ambient monitoring devices for suspended particulates in accordance with EPA quality assurance procedures and reference methods in 40 CFR 53. The monitoring devices shall be operated at a location approved by the Department of Environmental Regulation. The frequency of operation of the particulate monitors shall be every six days commencing as specified by the Department. In addition, the permittee shall operate a meteorological station, which includes wind measuring equipment, at a location approved by the Department. These data will be reported with the ambient data.

3. The ambient monitoring program shall begin at least one year prior to initial start up of the boiler and shall continue for at least one year of commercial operation. The Department and the permittee shall review the results of the monitoring program annually and determine the necessity for the continuation of or modifications to the monitoring program.

4. Samples of all fuel oil and coal fired shall be taken and an ultimate analysis obtained including the heating value on a moisture free basis. Accordingly, samples shall be taken of each fuel shipment received. Coal sulfur content shall be determined and recorded on a daily basis. Records of all the analyses shall be kept for public inspection for a minimum of two years after the data are recorded.

5. Prior to operation of the source, the permittee shall submit to the Department a plan or procedure that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

6. Instruments shall be installed, calibrated, and maintained to continuously measure the amounts of coal used, material fed to the kiln, and clinker produced. The records of fuel usage with the fuel analysis, daily kiln feed and clinker produced shall be reported quarterly to the Florida Department of Environmental Regulation Southwest District office.

D. Reporting

1. Stack monitoring, fuel usage and fuel analysis data shall be reported to the Department's Southwest District Office and to the Hernando County Health Department on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR 60.7.

2. Utilizing the SAROAD or other format approved in writing by the Department, ambient air monitoring data shall be reported to the Bureau of Air Quality Management of the Department quarterly. Commencing on the date of certification, such reports shall be due within 45 days following the quarterly reporting period. Reporting and monitoring shall be in conformance with 40 CFR, Parts 53 and 58.

3. Beginning one month after approval, the permittee shall submit to the Department a monthly status report briefly outlining progress made on engineering design and purchase of major pieces of air pollution control equipment. All reports and information required to be submitted under this condition shall be submitted to the Administrator of Power Plant Siting, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida, 32301.

E. Coal Characteristics and Contracts

Before approval can be granted by EPA for use of control devices, characteristics of the coal to be fired must be known. Therefore, before these approvals are granted, the permittee must submit to the Department of Environmental Regulation copies of coal contracts which should include the expected sulfur content, ash content, and heat content of the coal to be fired. These data will be used by the Department and EPA in evaluating the adequacy of the control devices. Also, the applicant must demonstrate the ability to acquire a low sulfur coal supply of sufficient length to enable the installation of sulfur removal equipment if the supplies of low sulfur coal should not become available or be discontinued. Therefore, the coal contracts must be for a period of at least five (5) years from the date of start-up of the boiler.

F. Coal Information

As an alternative to the submittal of contracts for purchase of coal under Specific Condition E above, the permittee may submit the following information:

1. The name of the coal supplier;

2. The sulfur content, ash content, and heat content of the coal as specified in the purchase contracts;

3. The location of the coal deposits covered by the contract (including mine name and seam);

4. The date by which the first delivery of coal will be made;

5. The duration of the contract; and

6. An opinion of counsel for the permittee that the contracts are legally binding.

G. Additional Conditions

1. When the power plant boiler is operating alone and the cement plant is not in operation, the maximum heat input rate of the boiler shall not exceed the site specific limit of 1,000 million Btu per hour, maximum three-hour average.

2. The maximum coal consumption in the kiln shall not exceed 10.3 tons per hour.

3. Construction shall reasonably conform to the plans and schedule given in the application.

4. The permittee shall report any delays in construction and completion of the project which would delay commercial operation by more than 90 days to EPA.

5. Reasonable precautions to prevent fugitive particulate emissions during construction and operation, such as coating or paving of roads and construction sites, wetting roads, and regrassing or watering areas of disturbed soils and storage areas, will be taken by the permittee. In addition, the main access road(s) within FCS's property will be paved.

6. Any fuel oil to be fired in the boiler shall be "new oil", which means an oil which has been refined from crude oil and has not been used. The quality of the fuel oil used by the boiler shall not cause the allowable emission limits listed in the table below to be exceeded. Such emissions may be calculated in accordance with AP-42, third edition.

Allowable Emission Limits

Pollutant	lb/MMBtu
PM	0.015
SO_2	0.31
NO_x	0.16
Visible emissions	Maximum 20% Opacity

Fuel Oil limits

7. The height of the boiler exhaust stack for the plant shall not be less than 320 ft. above grade.

8. Particulate emissions from the following sources of Chemical Lime Company (wholly owned subsidiary of Florida Crushed Stone Company) shall not exceed the following limits:

Source	DER Permit No.	Emissions (lb/hr)
Kiln	AO 27-55581	16.0
Hydrator	AO 27-25269	12.5
Dryer	AO 27-50400	14.5
Bagging	AO 27-17352	5.0

9. The permittee must submit to the Florida Department of Environmental Regulation within thirty (30) days after it becomes available a copy of the technical data pertaining to the selected particulate and SO_2 emissions controls. These data should include, but not be limited to, projected or guaranteed efficiency and emission rates, and major design parameters such as injection rates, injection points, air/cloth ratio and flow rate. EPA may, upon review of these data, disapprove the use of any such device if it determines the selected control device to be inadequate to meet the required emission limits. Such disapproval shall be issued within 30 days of receipt of the technical data.

PART II

GENERAL CONDITIONS

1. The permittee shall notify the permitting authority in writing of the beginning of construction of the permitted source within 30 days of such action and the estimated date of startup of operation.

2. The permittee shall notify the permitting authority in writing of the actual start-up of the permitted source within 30 days of such action and the estimated date of demonstration of compliance as required in the specific conditions.

3. Each emission point for which an emission test method is established in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitting source. The permittee shall notify the permitting authority of the scheduled date of compliance testing at least thirty (30) days in advance of such test. Compliance test results shall be submitted to the permitting authority within forty-five (45) days after the compliance testing. The permittee shall provide (1) sampling ports adequate for test methods applicable to such facility, (2) safe sampling platforms, (3) safe access to sampling platforms, and (4) utilities for sampling and testing equipment.

4. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of two (2) years for the date of recording.

5. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall provide the permitting authority with the following information in writing within five (5) days of such conditions:

   (a) description of noncomplying emission(s),
   (b) cause of noncompliance,
   (c) anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance,
   (d) steps taken by the permittee to reduce and eliminate the noncomplying emission, and

(e) steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of this report does not constitute a waiver of the emission limitations contained within this permit.

6. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, modifications to the permit may then be made by the permitting authority to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations specified herein.

7. In the event of any change in control or ownership of the source described in the permit, the permittee shall notify the succeeding owner of the existence of this permit and the permitting authority.

8. The permittee shall allow representatives of the state environmental control agency or representatives of the Environmental Protection Agency upon the presentation of credentials:

   (a) to enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;

   (b) to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Act;

   (c) to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;

   (d) to sample at reasonable times any emission of pollutants; and

   (e) to perform at reasonable times an operation and maintenance inspection of the permitted source.

9. All correspondence required to be submitted by this permit to the permitting agency shall be mailed to the:

Chief, Air Management Branch
Air and Waste Management Division
U.S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30365

10. The conditions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

The emission of any pollutant more frequently or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

I N T E R O F F I C E M E M O R A N D U M

Date: 27-Jun-1995 02:20pm EST
From: Alvaro Linero TAL
LINERO_A
Dept: Air Resources Management
Tel No: 904/921-9532
SUNCOM: 291-9532

TO: John Reynolds TAL (REYNOLDS_J)

Subject: CPL Permit

John. I looked over the final PSD permit. I saw some things that I perhaps should have seen when I forwarded the drafts and Intent-to-Issue.

See the attached incompleteness memo
I'm trying to understand the meaning of "net" power production. Does it mean 150 MW available for export after deducting internal uses? Do the internal uses (if any) include the cement plant or just uses by the power plant?

When they asked for the disproportionate increase from 1000 mmBtu/hr to 1850 (versus 100 to 150 MW) I "bought" their explanation that they needed more heat input due to poor cooling in summer. Could it be that their increase is from 100 to 165?

In any case, I would like to put a limit on power production. It is at least addressed in Koogler's application. It ought to say something like that they will be limited to the lesser of 1850 mmBtu/hr or the heat input rate required to produce 150 MW (or possibly 165 MW once we determine what "net" means to them).

Let's talk about what PSD permit(s) Koogler really wants to revise. Did he need to change only the power plant permit (090) or the kiln permit as well (091)? As I mentioned, it looks like you made one change on 090 that was a revision of something in 091. You were looking at the original (proposed) EPA PSD permit.
See the final permit attached (3-27-84)

I have a call in to Koogler and Pradeep to see what they had in-mind. I'll wait until you get back to finalize the permit with you. If I get any inquiries from Tom Mountain, I will ask him to explain everything real slow.

Department of
Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

September 8, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Tom Mountain
Central Power & Lime, Inc.
P. O. Box 1508
Brooksville, Florida 34605-1508

Dear Mr. Mountain:

This is in reply to the August 4, 1994, letter from Koogler & Associates regarding a requested modification of permit conditions (PSD-FL-090 and -091 and Site Certification PA 82-17) to increase the net power plant output to 150 MW while eliminating emission limits based on heat input.

After reviewing the information submitted and considering the comments from the Department's Southwest District and Hernando County concerning PSD rule applicability, the Department requires a PSD construction permit application for this request. The reasons are discussed below.

The construction permit specified a 125 MW cogeneration power plant integrated with a 600,000 TPY Portland cement plant to be constructed on the site of an existing aggregate and lime plant. Although the maximum design output was 125 MW, the permitted net power output with the cement plant not operating was 100 MW by virtue of the 1,000 MMBTU/hr boiler heat input limit. Therefore, 100 MW must be considered as the "baseline" permitted output for evaluating PSD applicability for an increase in net power output. This means that actual boiler emissions at 100 MW net output must be compared with the future allowable emissions (no increase in allowables) to determine if a PSD-significant increase will occur.

From the data in Attachment 1, it appears that the power plant may have been operating above the "baseline" permitted net output. Assuming that "net MW delivered" means "before deducting internal consumption and after deducting line loss", if the net power delivered was 142 MW and the line loss was 3.5 MW with 25 MW consumed by the cement plant, then the power exported would be about 120.5 MW, or about 21% above the net output of 100 MW when the cement plant is not operating.

Analysis of data in Attachment 1, 3 and 4, shows that a difference in actual vs. allowable emissions of slightly over 1% for NO_x and for SO_2 would exceed the PSD-significant level of 40 TPY, while a 7% increase over actual PM/PM_{10} emissions would exceed the significant level of 15 TPY. To conclude that a 21% increase in net power output would not carry with it an increase in actual emissions of at least these magnitudes would be unlikely. Viewed another way, if the three SO_2 stack test measurements are averaged and compared with the allowable (691 vs. 770 lbs/hr with the cement plant down) and the difference is then multiplied by the 1993 operating hours, the increase would be (770-691)(1/2000)(7353) = 290 TPY. The actual difference would be higher because the 691 lbs/hr average is based on operation at rates higher than the 100 MW "baseline" rate.

Regarding the issue of whether the increased rate constitutes a change in the method of operation, both the Department's Southwest District and Hernando County pointed out that a change in a federally enforceable permit limit on capacity (i.e., 1,000 MMBTU/hr), which also results in an increase in actual emissions, must be done by way of a construction permit application. The only way that this can be avoided is to revise the allowable emissions downward such that the allowable vs. actual emissions are less than significant, but this would leave very little margin for compliance.

Sincerely,

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

CHF/JB/bjb

cc: W. Thomas, SWD
B. Oven, DEP
J. Pennington, DEP
D. Beason, DEP
C. Cleveland, OHF&C
J. Koogler, K&A
D. Buff, KBN

I N T E R O F F I C E M E M O R A N D U M

Date: 19-Jul-1995 09:30am ES
From: John Reynolds TAL
REYNOLDS_J
Dept: Air Resources Manageme
Tel No: (904)488-1344
SUNCOM: 278-1344

TO: Hamilton Buck Oven TAL (OVEN_H)

Subject: Central Power & Lime

Al Linero asked me to inquire about the status of the site certification order for Central Power & Lime (PSD-FL-090) and to offer any assistance needed from this end. He visited the Brooksville site yesterday on his way to the Title V Workshop in Tampa and was impressed with the power plant operation. He indicated that he had a better understanding of CPL's urgent need for approval of this modification and hoped that the site certification order would not be overly delayed. Please advise if we can help.

ATTACHMENT 1

FLORIDA PUBLIC SERVICE COMMISSION DOCUMENTS

APPROVAL OF POWER SALE AGREEMENT
AND
DETERMINATION OF NEED

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Florida Power and Light Company for approval of cogeneration agreement with Florida Crushed Stone Company.	) DOCKET NO. 840348-EI) ORDER NO. 13765) ISSUED: 10-9-84	

The following Commissioners participated in the disposition of this matter:

GERALD L. GUNTER, Chairman
JOSEPH P. CRESSE
JOHN R. MARKS, III
SUSAN N. LEISNER
KATIE NICHOLS

NOTICE OF PROPOSED AGENCY ACTION

ORDER APPROVING CONTRACT

BY THE COMMISSION:

Pursuant to the provisions of Florida Administrative Code Rules 25-17.80 through 25-17.89 (the "Cogeneration Rules"), Florida Power and Light Company (FPL or Company), on September 24, 1984, petitioned this Commission for approval of its agreement with Florida Crushed Stone Company (FCS) for the purchase and sale of energy and capacity produced by FCS's qualifying facility (QF) and for specific findings that: 1) the agreement is reasonable, prudent and in the best interests of FPL's retail electric customers; 2) the security for the termination fee is adequate; 3) all payments made by FPL pursuant to the agreement for energy and capacity may be recovered from its customers; and 4) FPL shall not be required to resell the energy and capacity purchased pursuant to the agreement to another electric utility.

FCS is a Florida Corporation having its principal place of business at Leesburg, Florida. FCS, as part of its construction and operation of a 600,000 ton per year cement plant and a 360,000 ton per year lime plant near Brooksville in Hernando County, Florida, intends to construct and operate a coal-fired cogeneration plant having a capacity of 125 megawatts. The coal-fired cogeneration plant has been certified as a qualifying facility by the Federal Energy Regulatory Commission pursuant to 18 C.F.R. Section 292.207. Thus, the QF meets the requirements of Florida Administrative Code Rule 25-17.80. In addition FCS has received permission to construct the facility under the Power Plant Siting Act, Chapter 403, Florida Statues.

Both the Cogeneration Rules and the related Commission orders encourage electric utilities and owners of qualifying facilities to negotiate contracts for the purchase and sale of firm energy and capacity, it being understood that, absent a contract, a utility must purchase in accordance with the terms of its standard offer. In accordance with these directives, FPL and FCS have undertaken to arrive at a mutually agreeable arrangement for the purchase and sale of energy and capacity to be produced by FCS's QF.

Under the Agreement, which extends until October 31, 2005, FPL has the right to terminate the Agreement by February 15, 1988 if FCS fails to deliver energy by January 31, 1988. The price to be paid by FPL for energy under the Agreement is a function of FPL's avoided energy costs. Through March, 1992, FPL will pay FCS less than 100% of its actual hourly avoided cost for energy. The methodology used to calculate avoided energy costs will be

that specified in Rule 25-17.825(2). Commencing April 1, 1992, the date established by the Commission in Order No. 13247, Docket No. 830377-EU, as the in-service date for the statewide avoided unit, the price paid by FPL for energy will be less than 100% of the lesser of: 1) the actual hourly avoided cost for energy or 2) the average monthly cost of energy produced at the St. Johns River Power Park. The generating units at the St. Johns River Power Park will use coal as their energy source.

Payments by FPL for capacity are a function of the amount of capacity FCS commits to furnish ("committed capacity"). By May 1, 1987, FCS must designate at least 100 mw and not more than 150 mw as the initial committed capacity. Thereafter, by one year's advance written notice, the committed capacity may be increased in annual increments of 10% up to a maximum of 150 mw. FPL has agreed to make capacity payments based on a sliding scale related to the monthly capacity factor achieved by FCS. The capacity payments to be made by FPL with the QF operating at 70% committed capacity is less than the "Standard Offer Avoided Capacity Payments" established in Order No. 13247. However, FPL has agreed to make capacity payments where the capacity factor, based on committed capacity, is between 57.5% and 82.5%. The pricing adjustment operates to reduce or increase the capacity payment by 1.6% for each percentage point reduction or increase respectively from 70% in achieved capacity factor. The capacity payments to be made by FPL are structured as contemplated by the Cogeneration Rules in that the QF shall be required to pay FPL a termination fee in the event the QF is unable to perform pursuant to the terms of the Agreement.

In addition to designating the level of committed capacity by May 1, 1987, FCS has agreed to maintain an annual capacity factor and an annual on-peak capacity factor of at least 57.5%, failing which, no payment for capacity will be made. By October 1 of each year FCS will provide a projection of the amount of energy and capacity for each month of the following calendar year and thereafter will provide a weekly projection of capacity and energy for the following week. FCS has agreed to coordinate its annual projections of planned outages and to use its best efforts to produce energy and capacity up to and in excess of the committed capacity upon a timely request by FPL.

Under the Commission's Cogeneration Rules, as implemented by Order No. 13247, FPL is obligated to purchase firm energy and capacity from a QF made available in accordance with the terms of the "standard offer". In addition, all electric utilities are encouraged to negotiate with QFs for the purchase of firm energy and capacity. The firm capacity payments and the method of computing firm energy payments to be made pursuant to the "standard offer" were established so that the capacity to be made available by QFs would serve to defer or avoid the construction of additional generating capacity by Florida's electric utilities.

The Agreement between FCS and FPL will provide FPL an opportunity to obtain at least 100 mw of additional generating capacity which may defer the need for FPL to finance and construct generating capacity or, with other potential external capacity additions, will serve that deferral function. The price to be paid by FPL for the capacity payments is cost effective because, at a 70% capacity factor, it is less than the capacity payments established by Order No. 13247 for use as the "standard offer" capacity purchase price. The price to be paid for energy should also be less than the energy purchase price specified in Order No. 13247. As noted previously, the energy price paid before April 1, 1992 will be less than 100% of full avoided cost;

thereafter, it will be less than 100% of coal-fired generation costs on FPL's system.

In addition to the capacity benefits provided, the Agreement offers FPL an opportunity to reduce its use of oil as a boiler fuel at a price less than the full avoided cost. The price paid for the energy furnished under the Agreement will always be less than FPL's avoided energy cost.

Based upon current forecasts of the price of oil and coal and the likelihood of a continuation of the price differential between oil and coal, the Agreement with FCS appears to be a reasonable and prudent action, particularly when the potential value of the capacity deferral is considered.

Florida Administrative Code Rule 25-17.83(2)(c) sets forth the requirement that there be "... adequate provisions to protect the utility's ratepayers in the event that the qualifying facility fails to perform pursuant to the terms and conditions of the contract." This requirement is applicable where, and to the extent that, the annual firm energy and capacity payments in any year exceed that year's annual value of deferring the statewide avoided unit.

Under the Agreement, FCS shall be liable for a termination fee which will compensate FPL and its ratepayers in the event FCS fails to perform pursuant to the terms and conditions of the Agreement. Should such payment be made, FPL would reduce the cost of fuel recovered through the Fuel and Purchased Power Cost Recovery Clause by the amount of the payment. The termination fee is considered to be payable by FCS at the end of the term of the Agreement if there is any remaining balance or in the event of a default under the Agreement. The termination fee will be secured by a first lien on all real property, machinery and equipment of FCS. This lien will be on a parity basis with that of FCS's lenders.

The Commission's orders adopting the Cogeneration Rules, Order No. 13247 implementing those rules and the Rules themselves encourage owners of QFs and electric utilities to negotiate contracts for the sale and purchase of capacity and energy produced by QFs. Florida Administrative Code Rule 25-17.831 requires the filing of all contracts between a qualifying facility and a utility with the Commission. Florida Administrative Code Rule 25-17.83(8), however, provides that the payments for firm energy and capacity made to a qualifying facility shall be recoverable by the utility from its customers "... if the contract is found to be prudent in accordance with Section (2) of this rule." Subsection (2) contains three criteria to be met in determining the prudence, for cost recovery purposes, of contracts for the purchase of electricity produced by a QF:

> (a) it is demonstrated that the purchase of firm energy and capacity from the qualifying facility pursuant to the terms and conditions of the contract can reasonably be expected to result in the economic deferral or avoidance of additional capacity construction by Florida utilities from a statewide perspective; and
>
> (b) the cumulative present worth of firm energy and capacity payments made to the qualifying facility over the term of the contract are to be no greater than the cumulative present worth of the value of a

year-by-year deferral of the statewide avoided unit over the term of the contract; and

(c) to the extent that the annual firm energy and capacity payments made to the qualifying facility in any year exceed that year's annual value of deferring the statewide avoided unit, the contract contains adequate provisions to protect the utility's ratepayers in the event that the qualifying facility fails to perform pursuant to the terms and conditions of the contract. Such provisions may be in the form of a requirement for the repayment of firm energy and capacity payments made by the utility, a surety bond or equivalent assurance of performance of the contract by the qualifying facility, or payments of less than full avoided firm energy and capacity costs.

Based upon our review of the Agreement, the first criterion is met because we find that the purchase from the qualifying facility can reasonably be expected to result in the economic deferral or avoidance of additional capacity construction from a statewide perspective. Although FPL proposes that it not be compelled to resell to another utility the capacity provided by FCS, that capacity will serve to provide deferral benefits to FPL and will, to the extent not needed by FPL, provide potential deferral benefits to other electric utilities.

Pursuant to the Agreement, payments will be a percentage of the cost of fuel for the coal units at the St. Johns River Power Park or of actual avoided cost, whichever is less. Order No. 13247 identified Tampa Electric Company's Big Bend Unit 4, a coal-fired unit, as the unit from which the "standard offer energy payments" would be determined. The cost of fuel at the Big Bend Unit and at the St. Johns River Power Park should be similar, if not the same. Because the Agreement calls for an energy payment of less than the fuel cost at the St. Johns River Power Park, the cumulative present worth of those payments should be less than or very close to that of the statewide avoided unit over the term of the contract. Similarly, because the capacity payments to be made under the Agreement are lower than the "standard offer" payments, their present worth will be lower. Accordingly, we find that the second criterion is met.

As was previously discussed, FCS's obligation to pay FPL a termination fee, if required, is secured on a parity basis with FCS's lenders by an Addendum and Security Agreement and real estate mortgage. It is our finding that the termination agreement provides adequate security to protect FPL's ratepayers in the event that FCS fails to perform pursuant to the terms and conditions of the contract and, therefore, that the third criterion is met.

We consider that our finding of prudence pursuant to Florida Administrative Code Rule 25-17.83(8) fulfills three of four of FPL's requested specific findings. The fourth requested finding was that FPL not be required to resell the energy and capacity purchased from FCS to another utility.

At our Agenda Conference FPL clarified its request on this point to acknowledge that, while it may at some point be prudent for it to sell the FCS capacity to another utility, it wanted a statement from the Commission that it would not have to sell the capacity and energy at its cost. On this point, we are not prepared to say that FPL shall not be required to resell the energy and capacity purchased from FCS to another electric

utility. Rather, we find that FPL may retain the FCS capacity and energy for its own use as long as its retention is prudent under the circumstances. Furthermore, it may be prudent for FPL to sell the FCS capacity and energy to another utility in excess of its cost if FPL does not need the capacity and energy.

In view of the above, it is

ORDERED by the Florida Public Service Commission that the contract between Florida Power and Light Company and Florida Crushed Stone Company for the purchase and sale of energy and capacity from Florida Crushed Stone Company's coal-fired cogeneration plant in Hernando County, Florida is approved.

ORDERED that the action proposed herein is preliminary in nature and will not become effective or final, except as provided by Florida Administrative Code Rule 25-22.29. It is further

ORDERED that any person adversely affected by the action proposed herein may file a petition for a formal proceeding, as provided by Florida Administrative Code Rule 25-22.29. Said petition must be received by the Commission Clerk on or before October 30, 1984 in the form provided by Florida Administrative Code Rule 25-22.36(7)(a) and (f). It is further

ORDERED that in the absence of such a petition, this order shall become effective on October 30, 1984 as provided by Florida Administrative Code Rule 25-22.29(6).

ORDERED that if this order becomes final and effective on October 30, 1984 any party adversely affected may request judicial review by the Florida Supreme Court by the filing of a notice of appeal with the Commission Clerk and the filing of a copy of the notice and the filing fee with the Supreme Court. This filing must be completed within 30 days of the effective date of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

By ORDER of the Florida Public Service Commission, this 9th day of October, 1984.

STEVE TRIBBLE
Commission Clerk

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Florida Crushed Stone Company for Determination of Need for a Coal-Fired Cogeneration Electrical Power Plant.	)	DOCKET NO. 820460-EU
	)	ORDER NO. 11611
	)	ISSUED: 2-14-83

The following Commissioners participated in the disposition of this matter:

GERALD L. GUNTER, Chairman
SUSAN W. LEISNER
JOSEPH P. CRESSE

FINAL ORDER

BY THE COMMISSION:

Under the Florida Electrical Power Plant Siting Act, Section 403.501 et seq., Florida Statutes, the Commission is charged with the responsibility of determining whether construction of a proposed electrical generating facility is necessary to meet the present or expected need for electricity in all or a part of Florida. The Department of Environmental Regulation must determine whether the proposed plant will comply with all relevant environmental standards while the Department of Community and Veteran Affairs must determine whether the proposed plant is compatible with the State Comprehensive Plan. Weighing all of these determinations, the Governor and Cabinet, sitting as the Power Plant Siting Board, ultimately determine whether approval will be granted for construction of the proposed plant.

The Act applies to any electrical generating facility equal to or greater than 50 MW of capacity (Section 403.506, Florida Statutes). Therefore, on November 5, 1982, Florida Crushed Stone Company (FCS) filed a petition seeking a determination of need for a 125 MW electrical generating facility it proposes to build and operate. The power plant is part of a cogeneration project; FCS intends to interconnect with and sell power to Florida Power Corporation (FPC). FCS was recently granted status as a Qualifying Facility (QF) by the Federal Energy Regulatory Commission (FERC).

The proposed plant would be located near Brooksville in Hernando County, Florida. It would be constructed along with a 600,000 ton per year cement plant. It would be a coal-fired plant, using coal shipped to the site by unit train. FCS anticipates that it will initially need 25 MW of power from the plant, eventually requiring 38 MW of power for its own use. The remainder of the power produced would be sold to FPC. The unit is expected to be in service in November of 1984.

While the Act requires the Commission to determine whether a need exists for the addition of any generating facility of 50 MW or larger, the statute in our opinion, is designed primarily to have the Commission determine whether a need exists for the addition of capacity by a regulated electric utility or by a municipality. It lists five criteria the Commission must consider in determining need:

1) the need for electrical system reliability and integrity;

2) the need for adequate electricity at a reasonable cost;

3) whether the proposed plant is the most cost effective alternative available;

4) conservation measures taken or reasonably available that might mitigate the need for new plant; and

5) other matters within the Commission's jurisdiction which it deems relevant (Section 403.519, Florida Statutes).

The Commission's Rules (Rule 25-22.81(3), Florida Administrative Code), require submission of forecasted peaks, number of customers, net energy for load, and load factors to substantiate the need for the proposed plant. All of these criteria put the issue before the Commission as whether the forecasted load, given a utility's present generation resources and the cost of available alternatives to meet the forecasted load, determines whether there is a need for the proposed plant.

However, significantly different issues are raised when a private entity, such as FCS, proposes to build a cogeneration facility. Cogeneration refers to the sequential use of an energy resource such as coal, oil, gas, or other fuels to produce both electricity and forms of useful thermal energy such as heat or steam to be used in an industrial, commercial, or other facility for heating or cooling purposes. Thus it has been governmental policy to encourage cogeneration both because it makes more efficient use of energy resources and because it may lessen the need for public utilities to build additional generating facilities. Under the Florida Energy Efficiency and Conservation Act (Section 366.80 et seq., Florida Statutes) the Commission has determined that cogeneration appears to be a cost effective conservation measure. Therefore, as part of our statutory authority to consider other matters within our jurisdiction we deem relevant to a need determination, we have decided that additional criteria relating to fuel efficiency should be used to evaluate the application of FCS.

A duly noticed hearing was held on FCS's application on January 26, 1983 in Brooksville, Florida. Parties to the proceeding included FCS, FPC, Florida Mining and Materials, Inc., International Minerals Corporation (IMC), The Sierra Club, Mr. Greg Copeland and the Staff. At the commencement of the hearing, comments on the proposed plant were also heard from members of the general public. Mr. Richard Entorf and Mr. Kenneth BuShea testified on behalf of FCS. Mr. Entorf outlined the proposed plant and Mr. BuShea testified concerning the fuel efficiencies the project is expected to achieve. Mr. Karl Wieland testified for FPC concerning the proposed plant's expected impact on system reliability and integrity, and on FPC's generation expansion plan.

Mr. Barney Capehart testified for The Sierra Club. Addressing the subject of fuel efficiency he suggested several methods for measuring fuel efficiency and assessing the relative desirability of this proposed cogeneration facility. Mr. Frank Seidman testified for IMC concerning the need for cogeneration and the impact it might have on the statewide need for additional generation facilities.

Evidence adduced at the hearing showed that the proposed power plant is currently owned by the American Electric Power Company. It began commercial operation in 1949 and has been placed on inactive status by AEC. FCS plans to purchase the plant and move it to its property in Hernando County. There it would become a power source for the cement plant FCS plans to construct. Mr. Entorf testified that a power plant the size of 125 MW was necessary to achieve the desired level of steam extraction for the size of the cement plant FCS wants to construct. The power plant would produce electricity, steam, and waste heat, the latter known as flue gas. The steam and flue gas would be transferred to the cement plant and would be used to dry

components in the cement production process. Steam condensate and waste heat would be produced as a by-product of the cement production process and would be returned to the power plant to be used in the production of electricity.

The combined facility is referred to as a topping cycle cogeneration facility because the power plant produces both steam and electricity and the steam is fed into the cement plant for use in the cement manufacturing process. It is also a bottoming cycle facility because waste heat from the cement plant is cycled back to the power plant for use in the production of further electricity and steam. A schematic illustration of this process is attached hereto as Appendix A.

With this background we now address the specific issues:

Electric System Reliability and Integrity

The first statutory criteria we must consider is the impact of the proposed plant on the integrity and reliability of the electric system. Mr. Wieland testified that electric system reliability and integrity will be satisfactory both before and after construction of the proposed facility. We find that the addition of 125 MW of generating capacity will enhance system reliability and integrity simply because it will increase the diversity of generating sources; however, this benefit cannot be quantified, and we view it as a minor, but desirable, result of constructing the proposed plant.

The Need for Adequate Electricity at a Reasonable Cost

The second statutory criteria we must consider is the need for adequate electricity at a reasonable cost. Commission Rule 25-17.82, Florida Administrative Code, requires utilities to purchase electricity produced by a QF at the utilities' full avoided fuel cost. Additionally, our Rules permit a utility and a QF to negotiate for capacity credits if a QF meets certain reliability standards. Thus, if FCS receives full avoided costs for the energy it produces, it will have no impact on the cost of electricity to FPC's ratepayers. We continue to believe that a QF and a utility should be encouraged to negotiate contracts for less than full avoided costs; if this occurred, production of electricity by FCS would lower the cost of power to FPC's ratepayers.

In his direct testimony Mr. Wieland stated that the present generation expansion plan of FPC does not call for the construction of additional capacity until 1993, and that construction of the FCS plant would have no effect on the expansion plan. He also stated that FPC anticipated making no capacity payments to FCS, and urged the Commission to make its determination of need subject to the condition that no capacity payments be made.

Testifying on this point for IMC, Mr. Seidman stated that the additional load growth expected for penisular Florida, coupled with the retirement of existing plant, led him to conclude that in the foreseeable future Florida has a continuing need for additional capacity.

We find it unnecessary to make a factual finding with respect to this issue given the increased fuel efficiency inherent in cogeneration (depending on the type of fuel used by the cogenerator), the need for additional capacity is irrelevant to a

determination of need such as this, assuming the Commission allows no capacity payments to be passed along to ratepayers where capacity costs are not avoided. It must be emphasized that there is no link between our determination of need and the price to be paid, if any, for the capacity supplied by a QF. Additionally, our finding that the proposed plant will have essentially no impact on the need for an adequate supply of electricity at a reasonable cost is expressly based on the premise that neither the FERC nor the Commission's Rules would require a utility to compensate a QF for any cost associated with either energy or capacity when no energy is purchased or capacity costs are avoided by the utility.

The Most Cost Effective Alternative

The third statutory criteria we are directed to consider is whether the proposed plant is the most cost effective alternative available. We are unable to reach a factual finding on this issue. Whether the proposed plant is the most cost effective alternative available to FCS is a private economic decision not properly reviewed by us. As noted in other parts of this Order, cogeneration appears to be a cost effective conservation measure.

A somewhat related issue was raised by Florida Mining and Materials. It was whether construction or certification of the FCS plant would preempt construction of additional cogeneration facilities. Because we view cogeneration as a cost effective conservation measure, the answer to this question is no.

Other Conservation Measures

The fourth statutory criteria we must consider is whether other conservation measures, reasonably available to FCS, might mitigate the need for the proposed plant. FCS took the position that it knows of no conservation measures which are more cost effective than the proposed plant. Again, because we believe cogeneration to be a cost effective conservation measure, this statutory criterion is satisfied.

Fuel Efficiency

Several issues were raised concerning the fuel efficiency the proposed facility was likely to achieve. Staff suggested that three criteria be used to assess fuel efficiency. First, as a threshhold, a proposed cogeneration facility should meet the standard established by FERC for certification as a QF. Second, a proposed cogeneration facility should use less fuel than if its constituent parts were separately constructed. Third, the fuel efficiency of the power plant component of the proposed cogeneration facility should compare favorably to the fuel efficiency achieved by comparable generating facilities operated by public utilities.

Mr. Capehart suggested three performance measures that should be applied to the proposed facility. The first was the percentage of useful thermal energy produced compared to the amount of electric energy produced. In this case this performance measure is the same as the FERC certification standard. The second was the percent of by-product power relative to total power produced. The third standard was the Fuel Chargeable to Power of the power plant. Mr. Capehart indicated that the information necessary to calculate the Fuel Chargeable to Power for the proposed plant was not available but that the net heat rate of the power plant was an acceptable close approximation of it.

The criteria suggested by Staff embody the three elements of fuel efficiency relevant to this situation and we adopt them. To be certified as a QF, FERC requires a topping cycle cogenerator to produce at least 5% useful thermal energy relative to the electricity produced by the facility. The FCS proposed plant will produce 6.8% useful thermal energy. This figure is derived, as shown in Appendix A, by comparing the net steam extracted from the power plant to the useful power output plus the useful thermal energy output of the power plant, or:

$$\frac{\text{31.08 MMBTU/hour}}{\text{426.5 MMBTU/hour Power Output + 31.08 MMBTU/hour Thermal Output}} = 6.8\%$$

There are no minimum operating standards a QF must meet in order to be certified as a bottoming cycle QF.

The second criteria is the overall fuel efficiency achieved by the cogeneration facility. Mr. Entorf and Mr. BuShea testified that the proposed facility is 9.5% more fuel efficient than if the power plant and the cement plant were separately constructed. This figure recognizes the energy captured from the waste flue gas and cycled to the cement plant and the preheated combustion air returned to the power plant from the cement plant, in addition to the net steam extracted from the power plant. As shown on Appendix A, this means a total of 144.5 MMBTU/hour are reused in the sequential energy process in the cogeneration facility. This constitutes approximately 9.5% of the total combined energy input to both facilities. In other words, the combined energy inputs required for the power plant and the cement plant is 1513.72 MMBTU/hour. If the two plants operated independently rather than as a cogeneration facility, approximately 9.5% of the energy inputs would have been wasted.

Finally, we must consider the fuel efficiency of the power plant itself. Mr. BuShea testified that the net heat rate of the power plant, assuming a cooling water temperature of 92°, is expected to be 9,892 BTU per KWH. Mr. Wieland testified that the average heat rate of FPC's fossil fuel base load plants over the last two fuel adjustment periods was 10,161 - 10,018 BTU per KWH, FPC's average system heat rate was 10,000 - 10,600 BTU per KWH and that he believed a representative heat rate for penisular Florida generating units was 10,000 - 11,000 BTU per KWH.

Based on this record, we find that the proposed cogeneration facility can be expected to achieve a desirable level of fuel efficiency both because it will use energy that otherwise would be wasted either in the power production or cement manufacture processes and because it will produce electricity at a fuel efficiency level that compares favorably to the fuel efficiencies achieved by public utilities.

In addition to making the above factual findings, The Sierra Club urged us to make a finding as to the relative desirability of this proposed cogeneration facility. Mr. Capehart testified that in his opinion the fuel savings potential of this facility is not great, relative to what can be achieved by cogeneration technology, and that the degree of need for this type of cogeneration facility was low. While we specifically endorse Mr. Capehart's suggested performance measure of Fuel Chargeable to Power, we decline to make any factual findings with respect to the relative desirability of the proposed project. We decline to do so because we do not believe the record is sufficiently

complete as to what fuel efficiencies we ought to expect from cogeneration facilities that consist of a power plant and a cement plant. Nor was the record sufficiently developed as to the reasonable likelihood of more fuel efficient cogeneration projects than that proposed by FCS being located in Florida. For these reasons we accept The Sierra Club's Proposed Findings of Fact No.s 2, 4, 5, 6, 8, and 9. We reject The Sierra Club's Proposed Findings of Fact No.s 1, 3, 7, and 10 because the record is insufficient with respect to these points. We accept The Sierra Club's Proposed Conclusion of Law No. 1 and reject Proposed Conclusion of Law No. 2 for the same reasons.

Thus, based on the record before us, we conclude that Florida Crushed Stone Company's proposed cogeneration facility, including a 125 MW coal-fired power plant, will enhance electric system reliability and integrity by an unquantified amount, will have no impact on an adequate supply of electricity at a reasonable cost if FCS receives no greater or less than actual avoided costs for the electricity it sells, but will achieve greater fuel efficiency than a generating facility that is not part of a cogeneration facility. Additionally we find that the proposed cogeneration facility appears to be a cost effective conservation measure.

Therefore we conclude that a need exists for the cogeneration facility proposed by Florida Crushed Stone Company. The relief sought by Florida Crushed Stone Company, an affirmative determination of need, will be and the same is hereby granted. It is, therefore,

ORDERED by the Florida Public Service Commission that this Order constitute the final report required by Section 403.507(1)(b), Florida Statutes, the report concluding that a need exists, within the meaning of Section 403.519, Florida Statutes, for the construction of the 125 MW generating facility proposed by Florida Crushed Stone, Inc. It is further

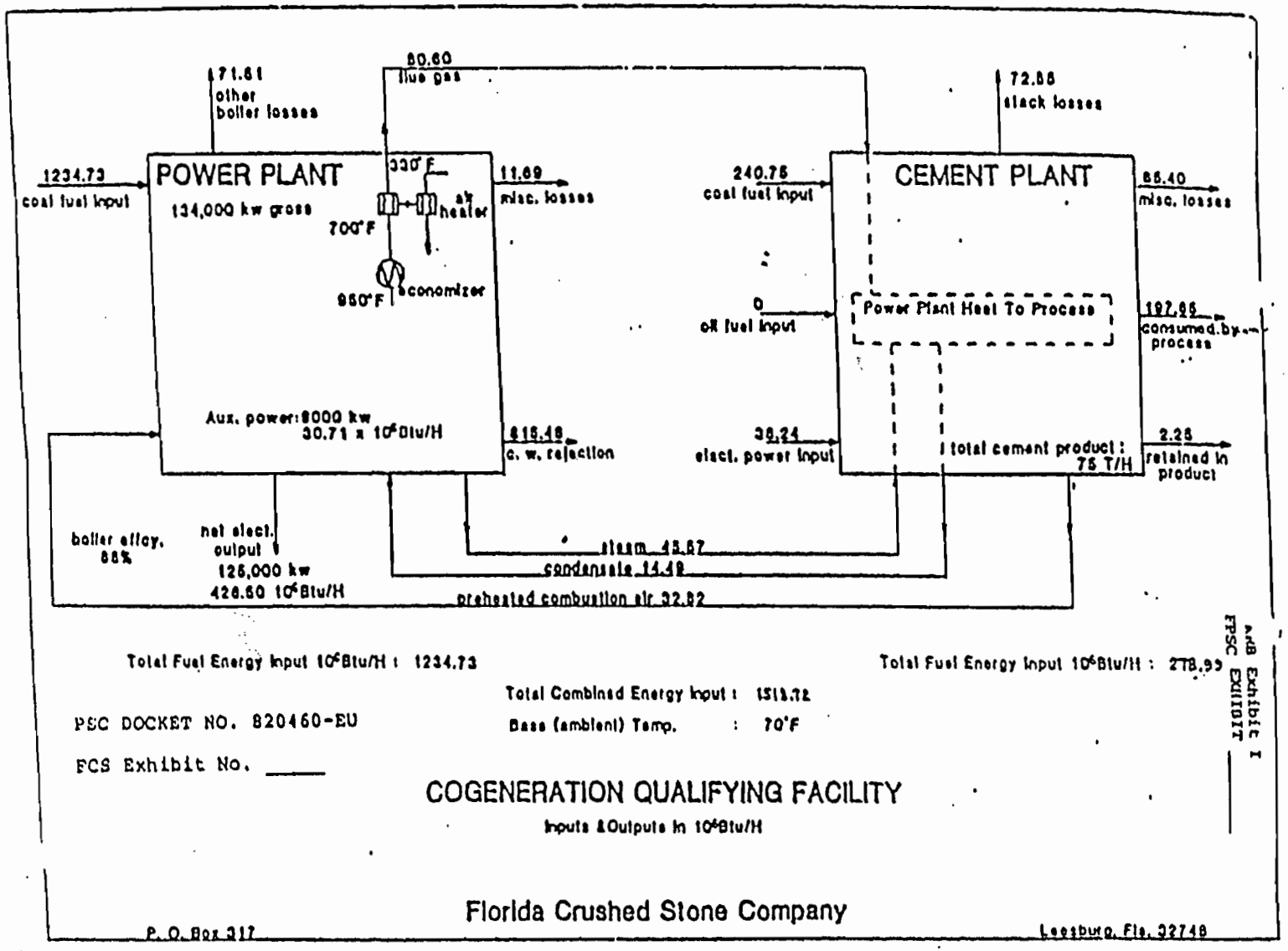
ORDERED that a copy of this Order be furnished to the Department of Environmental Regulation, as required by Section 403.507(1)(b), Florida Statutes.

By ORDER of the Florida Public Service Commission this 14th day of February, 1983.

(S E A L)

STEVE TRIBBLE
COMMISSION CLERK

BED



Total Fuel Energy Input 10^6Btu/H : 1234.73

Total Fuel Energy Input 10^6Btu/H : 278.99

Total Combined Energy Input : 1513.72

Base (ambient) Temp. : 70°F

PSC DOCKET NO. 820460-EU

FCS Exhibit No. _____

COGENERATION QUALIFYING FACILITY

Inputs & Outputs in 10^6Btu/H

A&B Exhibit I
FPSC EXHIBIT _____

Florida Crushed Stone Company

P. O. Box 317 Leesburg, Fla. 32748

APPENDIX A

ATTACHMENT 2

BACKGROUND INFORMATION

MEMORANDUM

TO: Tom Mountain

FROM: John Koogler

DATE: August 9, 1993

SUBJECT: Rationale for Permit Limit Restricting CPL Electric Power Generating Rate to 100 Megawatts (1000 MMBTU per hour heat input) When the Cement Plant is Not Operating

The files for permitting the Florida Crushed Stone CPL plant were reviewed beginning with the original application for Power Plant Site Certification. This application was prepared in or around October 1982. The original application anticipated a sulfur dioxide emission rate from the power plant of 1.2 pounds per million BTU; or 1480 pounds per hour based on a heat input rate of 1234 MMBTU per hour. Additionally, a sulfur dioxide emission rate of 80 pounds per hour was anticipated from the cement plant. The air quality modeling that was conducted to support the application showed that the sulfur dioxide impact at the Chassahowitzka Wildlife Refugee (a Class I PSD area) would be 4.7 micrograms per cubic meter, 24-hour average. The allowable 24-hour Class I PSD increment for sulfur dioxide is 5.0 micrograms per cubic meter.

Both Florida Mining and Materials and Florida Rock Industries petitioned to intervene in the permitting process. Both claimed that the consumption of 94 percent of the 24-hour Class I PSD SO_2 increment by FCS would severely limit their potential for development. As a result of their concerns, FCS examined sulfur dioxide emissions from the CPL plant and determined (in conjunction with Babcock & Wilcox and Polysius) that approximately 19 percent of the sulfur dioxide generated by the combustion of coal in the power plant would be absorbed when the power plant flue gases were used for material drying in the cement plant. This absorption resulted in a sulfur dioxide emission rate from the power plant of 1200 pounds per hour (at 125 megawatts) when the cement plant was operating. Sulfur dioxide emissions from the cement plant were also reexamined and based upon refined estimates, the expected sulfur dioxide emission rate was reduced to 50 pounds per hour. FDER determined that the revised emission rates (1200 pounds per hour from the power plant and 50 pounds per hour from the cement plant) were acceptable but recognized the sulfur

KOOGLER & ASSOCIATES

dioxide absorption from the power plant flue gas was contingent upon the cement plant operating. To assure the 1200 pound per hour power plant emission limit was not exceeded when the cement plant did not operate, FDER limited the power generating rate to 100 megawatts (1000 MMBTU per hour) and limited the sulfur dioxide emission rate to 1.2 pounds per million BTU. This is where the 1000 MMBTU per hour (100 megawatt) limit originated.

Going back to the original site certification application, FCS stated that the company proposed to construct a 125 megawatt power plant with 12 megawatts of the electric power being used to operate the existing aggregate and lime plants and 13 megawatts of the electric power being used to operate the proposed cement plant. Based upon these factors, FCS would have available for sale 100 megawatts of electric power. FDER used this information to further rationalize the limit of 100 megawatts (1000 MMBTU/hr) when the cement plant was not operating. The Department's position was that if FCS exported 100 megawatts of power when the cement plant was operating, there should be no hardship on FCS to export only 100 megawatts when the cement plant was not operating.

Further along in the permitting process, FCS agreed to further reductions in the sulfur dioxide emission rate from the CPL plant. Initially, there was an agreement with Florida Rock Industries to reduce the sulfur dioxide emissions from the power plant to 915 pounds per hour through the use of limestone injection. Under this agreement, the sulfur dioxide emission rate of 50 pounds per hour from the cement plant remained unchanged.

Later, FCS agreed to reduce sulfur dioxide emissions from the power plant to 770 pounds per hour, sulfur dioxide emissions from the cement plant to 50 pounds per hour and sulfur dioxide emissions when both plants were operating to 781 pounds per hour. This was based on an agreement between FCS and Florida Mining and Materials reached during a hearing before the Governor and the Cabinet.

The notice of agency action modifying Conditions of Certification executed on January 30, 1985 and revised on April 18, 1985 and the final order modifying Conditions of Certification executed on June 29, 1986, left the limitation on the power plant generating rate intact.

By letter dated October 25, 1984, FDER was informed that the SO_2 emission limit of 770 pounds per hour could be achieved from the power plant (with or without the lime plant) without the cement plant operating and with the power plant operating at 125 megawatts. This is well below the limit of 1200 pounds per hour which triggered the 100 megawatt limit initially. The only reason I can recall for retaining the 100 megawatt limit is the FDER reasoning cited above.

ATTACHMENT 3

STATE OF FLORIDA

POWER PLANT SITE CERTIFICATION

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

ELECTRIC POWER PLANT SITE CERTIFICATION REVIEW

FOR

FLORIDA CRUSHED STONE COMPANY

CASE NO. PA 82-17

Power Plant Site Certification Section
Bureau of Permitting
Division of Environmental Permitting
Tallahassee, Florida
32301

Pursuant to Chapter 403. Part II, Florida Statutes, this report constitutes the Department of Environmental Regulation's required analysis and recommended Conditions of Certification for the Florida Crushed Stone Company, PA 82-17. The report and attached Conditions of Certification are hereby approved.

June 13 1983
Date

Victoria Tschinkel
Secretary

APPENDIX I

State of Florida Department of Environmental Regulation
Florida Crushed Stone Company
PA 82-17
CONDITIONS OF CERTIFICATION

Appendix I

State of Florida Department of Environmental Regulation
Florida Crushed Stone Company
Case No. PA 82-17
CONDITIONS OF CERTIFICATION

I. Air

The construction and operation of the Florida Crushed Stone Company (FCS) steam electric power plant site shall be in accordance with all applicable provisions of Chapters 17-2, 17-5 and 17-7, Florida Administrative Code (FAC). In addition to the foregoing, the permittee shall comply with the following specific conditions of certification:

A. Emission Limitations

1. Stack emissions from the power plant boiler only shall not exceed the following site specific limitations when burning coal:

a. SO_2 - 1.2 lb. per million Btu heat input, maximum daily average, and 1,200 lb. per hour, maximum three-hour average.

b. NO_x - 0.7 lb. per million Btu heat input, averaging time per Rule 17-2.700, FAC.

c. Particulates - 0.1 lb. per million Btu heat input, averaging time per Rule 17-2.700, FAC.

d. Visible emissions - 20% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

2. Stack emissions from the combined cement plant and power plant boiler shall not exceed the following site specific limits:

a. SO_2 - 1.2 lb. per million Btu heat input, maximum daily average, and 1,250 lb. per hour, maximum three-hour average.

b. NO_x - 0.7 lb. per million Btu heat input plus 2.9 lb. per ton of kiln feed (dry basis), averaging time per Rule 17-2.700, FAC.

c. Particulates - 0.1 lb. per million Btu heat input plus 0.3 lb. per ton of kiln feed (dry basis), averaging time per Rule 17-2.700, FAC.

d. Visible emissions - 10 percent opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

3. When the power plant boiler is operating alone and the cement plant is not in operation, the maximum heat input rate of the boiler shall not exceed the site specific limit of 1,000 million Btu per hour, maximum three-hour average.

4. Particulate emissions from the coal and fly ash handling facilities.

a. All conveyors and conveyor transfer points will be enclosed to preclude particulate emissions (except those directly associated with the coal stacker/reclaimer or emergency stockout stacker/reclaimer or emergency stockout).

b. Inactive coal storage piles will be shaped, compacted and oriented to minimize wind erosion.

c. Water sprays or chemical wetting agents and stabilizers will be applied to storage piles, handling equipment, etc. during dry periods and as necessary to all facilities to maintain an opacity of less than or equal to 5 percent, except when adding, moving or removing coal from the coal pile, during which the opacity shall be no more than 20%.

d. The fly ash handling system (including transfer and silo storage) will be totally enclosed and vented (including pneumatic system exhaust) through fabric filters; and

e. The permittee must submit to the Department within thirty (30) days after it becomes available a copy of the technical data pertaining to the selected particulate emissions control for the

coal and fly ash handling facilities. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. The Department may, upon review of these data, disapprove the use of any such device if the Department determines the selected control device to be inadequate to meet the emission limits specifed in Condition I.A.5. below. Such disapproval shall be issued within 30 days of receipt of the technical data.

5. Particulate emissions from bag filter exhausts from the coal and fly ash handling systems (excluding those facilities covered by Condition I.A.4.c. above) shall be limited to 0.02 gr/acf. A visible emission reading of 5% opacity or less may be used to establish compliance with this emission limit. A visible emission reading greater than 5% opacity will not create a presumption that the 0.02 gr/acf emission limit is being violated. However, a visible emission reading greater than 5% opacity will require the permittee to perform a stack test, as set forth in Condition I.C.

6. Compliance with opacity limits of the facilities listed in Condition I.A.5. will be determined by EPA reference method 9 (Appendix A, 40 CFR 60).

7. Construction shall reasonably conform to the plans and schedule given in the application.

8. The permittee shall report any delays in construction and completion of the project which would delay commercial operation by more than 90 days to the Department's Southwest District Office in Tampa.

9. Reasonable precautions to prevent fugitive particulate emissions during construction, such as coating of roads and construction sites used by contractors, and regrassing or watering areas of disturbed soils, will be taken by the permittee.

10. Any fuel oil to be fired in the unit shall be "new oil", which means an oil which has been refined from crude oil and has not been used. The quality of the fuel oil used by the boiler shall not cause the allowable emission limits listed in the table below to be exceeded. Such emissions may be calculated in accordance with AP-42, third edition.

Allowable Emission Limits

Pollutant	lb/MMBtu
PM	0.015
SO_2	0.31
NO_x	0.16
Visible emissions	Maximum 20% Opacity

11. Samples of all fuel oil and coal fired in the boilers shall be taken and an ultimate analysis obtained including the heating value on a moisture free basis. Accordingly, samples shall be taken of each fuel shipment received. Coal sulfur content shall be determined and recorded on a daily basis to demonstrate compliance with the 1.2 lb. per million Btu SO_2 emission limits in Conditions I.A.1.a. and I.A.2.a. Records of all the analyses shall be kept for public inspection for a minimum of two years after the data are recorded.

12. The height of the boiler exhaust stack for the plant shall not be less than 310 ft. above grade.

13. In accordance with Rules 17-2.250(1) and (6), excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. In case of excess emissions resulting from malfunctions, the permittee shall notify the Department in accordance with Rule 17-4.13, Florida

Administrative Code. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

B. Air Monitoring Program

1. A flue gas oxygen meter shall be installed for the unit to continuously monitor a representative sample of the flue gas. The oxygen monitor shall be used with automatic feedback or manual controls to continuously maintain air/fuel ratio parameters at an optimum. Performance tests shall be conducted and operating procedures established. The document "Use of Flue Gas Oxygen Meter as BACT for Combustion Controls" may be used as a guide. The permittee shall install and operate continuous monitoring devices for the boiler exhaust for sulfur dioxide and opacity to demonstrate compliance with the pound-per-hour SO_2 emission limits and visible emission limits, respectively, in Conditions I.A.1.a. and I.A.2.a. The monitoring devices shall meet the applicable requirements of Section 17-2.710, FAC, and 40 CFR 60.45, and 40 CFR 60.13. including certification of each device. The permittee will provide the department with 30 days notice on each certification.

2. The permittee shall operate two ambient monitoring devices for suspended particulates in accordance with DER quality assurance procedures and EPA reference methods in 40 CFR 53. The monitoring devices shall be operated at a location approved by the Department. The frequency of operation of the particulate monitors shall be every six days commencing as specified by the Department. In addition, the permittee shall operate a meteorological station, which includes wind measuring equipment, at a location approved by the Department. These data will be reported with the ambient data.

3. The permittee shall maintain a daily log of the amounts and types of fuel used and copies of the ultimate fuel analyses containing the heating value on a moisture free basis. These logs shall be kept for at least two years.

4. The permittee shall provide stack sampling facilities as required by Rule 17-2.700(4), FAC.

5. The ambient monitoring program shall begin at least one year prior to initial start up of the boiler and shall continue for at least one year of commercial operation. The Department and the permittee shall review the results of the monitoring program annually and determine the necessity for the continuation of or modifications to the monitoring program.

6. Prior to operation of the source, the permittee shall submit to the Department a plan or procedure that will allow the permittee to monitor emission control equipment efficiencyand enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

C. Stack Testing

1. Within 60 calendar days after achieving the maximum capacity at which each unit will be operated (but no later than 180 operating days after initial startup) and annually thereafter, the permittee shall conduct performance tests for particulates SO_2, NO_x, and visible emissions during normal operations near ($\pm$3%) 1,234 million Btu per hour heat input when the power plant and cement plant are operating in combination, and 1,000 million Btu per hour when the power plant is operating alone, and visible emission tests on all coal handling and flyash baghouses. The Department shall be furnished a written report of the results of such performance tests within 45 days of completion of the tests. The performance tests will be conducted in accordance with the provisions of 40 CFR 60.46.

2. Performance tests shall be conducted and data reduced in accordance with methods and procedures outlined in Rule 17-2.700, FAC.

3. Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The permittee shall make available to the Department such records as may be necessary to determine the conditions of the performance tests.

4. The permittee shall provide 30 days notice of the performance tests or 10 working days for stack tests in order to afford the Department the opportunity to have an observer present.

5. Stack tests for particulates, NO_x, and SO_2 and visible emissions tests shall be performed annually from the date of the first performance test(s) in accordance with Conditions C.2, 3, and 4 above.

D. Reporting

1. Stack monitoring, fuel usage and fuel analysis data shall be reported to the Department's Southwest District Office and to the Hernando County Health Department on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR 60.7 and Rule 17-2.710, FAC.

2. Utilizing the SAROAD or other format approved in writing by the Department, ambient air monitoring data shall be reported the Bureau of Air Quality Management of the Department quarterly. Commencing on the date of certification, such reports shall be due within 45 days following the quarterly reporting period. Reports shall be in conformance with 40 CFR, Parts 53 and 58.

3. Beginning one month after certification, the permittee shall submit to the Department a monthly status report briefly outlining progress made on engineering design and purchase of major pieces of air pollution control equipment. All reports and information required to be submitted under this condition shall be submitted to the Administrator of Power Plant Siting, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida, 32301.

E. Coal Characteristics and Contracts

Before approval can be granted by the Department for use of control devices, characteristics of the coal to be fired must be known. Therefore, before these approvals are granted, the

permittee must submit to the Department copies of coal contracts which should include the expected sulfur content, ash content, and heat content of the coal to be fired. These data will be used by the Department in its evaluation of the adequacy of the control devices. Also, the permittee must demonstrate the ability to aquire a low sulfur coal supply of sufficient length to enable the installation of sulfur removal equipment if the supplies of low sulfur coal should not become available or be discontinued. Therefore, the coal contracts must be for a period of at least five (5) years from the date of start-up of the boiler.

F. Coal Information

As an alternative to the submittal of contracts for purchase of coal under Condition E above, the permittee may submit the following information:

1. The name of the coal supplier;
2. The sulfur content, ash content, and heat content of the coal as specified in the purchase contracts;
3. The location of the coal deposits covered by the contract (including mine name and seam);
4. The date by which the first delivery of coal will be made;
5. The duration of the contract; and
6. An opinion of counsel for the permittee that the contracts are legally binding.

II. Water

A. Cooling System

The amount of groundwater used as makeup to the cooling system shall not exceed the following site specific standard of 30.3 MGD on a daily maximum or 14.83 MGD on an annual average.

B. Coal Pile Runoff and Leachate

Coal pile runoff and leachate from less than the 10-year 24-hour rainfall event shall be collected and treated in a lined treatment facility prior to discharge to the tailings pond.

C. Water Monitoring Programs

The permittee shall monitor and report to the Department or Water Management District the listed parameters on the basis specified herein. The methods and procedures utilized shall receive written approval by the Department. The monitoring program may be reviewed annually by the Department, and a determination may be made as to the necessity and extent of continuation and may be modified in accordance with condition No. XXV.

1. Groundwater Monitoring

   a. The groundwater levels shall be monitored continuously in wells as approved by Southwest Florida Water Management District. Chemical analyses shall be made on samples from all monitored wells identified in Conditions II.C.3. below. The location, frequency and selected chemical analyses shall be as given in Condition II.C.3.

   b. The groundwater monitoring program shall be implemented at least one year prior to operation of the power plant. The chemical analyses shall be in accord with the latest edition of Standard Methods for the Analysis of Water and Wastewater. The data shall be submitted within 30 days of collection/analysis to the Southwest Florida Water Management District and to the DER Southwest District Office.

   c. Conductivity and heavy metals shall be monitored in wells around the coal pile, coal pile runoff sump, landfill and cooling pond.

2. Leachate

a. Compliance

Leachate from the coal storage pile, coal pile runoff collection sump, and ditches shall not contaminate waters of the State (including both surface and groundwaters) in excess of the limitations of Chapter 17-3, FAC.

b. Monitoring

A monitoring well system shall be used, commencing one year prior to operation to determine whether or not leachate from the coal pile runoff collection sump, canals, ditches and coal pile is contaminating the groundwater in violation of Chapter 17-3. The permittee shall keep a monthly record of the monitoring results and shall notify the Southwest District Office of the Department and the Southwest Florida Water Management District when said measurements exceed water quality standards. A quarterly summary of the results of monitoring shall be provided to the Department and SWFWMD using DER Form 17-1,216(2). The proposed monitoring well system shall be submitted to the Department for approval prior to installation.

c. Corrective Action

When the leachate monitoring system indicates to the Department violation of the groundwater quality standards of Chapter 17-3, FAC, the appropriate ditches, treatment system sump, landfill or coal pile shall be sealed, relocated or closed or the operation of the affected facility shall be altered in such a manner as to assure the Department that no significant contamination of the groundwater will occur.

d. Zone of Discharge

Leachate from the coal storage pile, wastewater ponds, landfill or coal pile runoff collection sump shall not contaminate waters of the State (including both surface and groundwaters) in excess of the limitations of Chapter 17-3, FAC, beyond the boundary of separate and individual zones of discharge extending 50 feet below the ground surface and 100 feet from the edge of each individual pile or pond.

3. Shallow Aquifer Monitoring Wells

After consultation with the DER and SWFWMD, FCS shall install a monitoring well network to adequately monitor groundwater quality horizontally and vertically in the surficial and Floridan aquifers. Groundwater levels and flow directions will be determined twice a year (May and September) at the site through the preparation of seasonal piezometric contour maps. From these maps, the water quality monitoring well network will be located. Monitoring well locations and designs shall be submitted to the Department and SWFWMD for review and approval. Approval or disapproval of the locations and design shall be granted within 60 days. Monitoring wells of adequate design and number shall be installed upgradient and downgradient from each liquid waste sump and each coal pile storage area. Two additional monitoring wells will be placed immediately downgradient of the cooling pond. The water samples collected from each of the monitor wells shall be collected immediately after removal by pumping of a quantity of water equal to two casing volumes. The water quality analyses shall be performed monthly during the year prior to commercial operation and quarterly thereafter. Results shall be submitted to the Department and the SWFWMD by the tenth (10th) day of the month following the month during which such analyses were performed.

The analysis shall follow the methods set forth in the current edition of Standard Methods for the Examination of Water and Wastewater by APHA-AWWA-WPCF or Methods for Chemical Analysis of Water and Wastes by the U.S. Environmental Protection Agency, with the methods used being specified. Results shall be submitted on the tenth day of the following month. Background water quality data shall be provided with data collected and submitted a minimum of twelve months prior to start-up of the power plant. The District may require further water quality testing if the pH levels decline significantly from ambient (baseline) as established during the pre-operational study period. Testing for the following constituents is required:

TDS	Zinc
Conductance	Copper
pH	Nickel
Sulfate	Selenium
Chloride	Chromium
Iron	Arsenic
Aluminum	Beryllium
Cadmium	Mercury
Silver	Lead
Manganese	Gross Alpha, Ra^{226}
	Ra^{226}
Barium	(when Gross Alpha
Sodium	activity exceeds
Fluorine	15 pCi/l)

4. Flow Monitoring

An automated flow measurement device shall be installed on the Emergency Relief Spillway for the cooling pond, with data collected and measured in gallons per day and submitted monthly. Automated flow measurement devices shall be installed at all points of inflow to the impoundments, with data collected and measurement in gallons per day and submitted monthly.

5. Pond Level

A staff gauge shall be installed at or in the cooling pond, surveyed and referenced to NGVD, with water levels collected weeksly and submitted monthly.

6. Pond Quality

As a measure to protect groundwater quality: water quality sampling for pH and suspended solids to be collected on a monthly basis from a single site in the cooling pond near the emergency spillway within three (3) feet from the bottom of the pond. Background water quality data shall be provided, with data collected and submitted a minimum of 12 months prior to start-up of the power plant. The analysis shall follow the methods set forth in the current edition of Standard Methods for the Examination of Water and Wastewater by APHA-AWWA-WPCF or Methods for Chemical Analysis of Water and Wastes by the U.S. Environmental Protection Agency, with the methods used being specified. Results shall be submitted on the tenth day of the following month. The District may require further water quality testing if the pH within the cooling pond falls below pH 6.3 for two consecutive months. Any additional water quality analyses required by the Department of Environmental Regulation shall be submitted to the District.

7. Coal Pile Runoff Sump Liner

The proposed liner for the coal pile sump will be verified to be resistant to the periodic inflows of low pH water that contact it. The chemical and physical characteristics of the proposed liner shall be submitted to the department for approval at least 60 days prior to installation of the liner.

8. Impoundment Dam Construction

Any modifications to existing impoundments or construction of new impoundments must, as a minimum, be designed, constructed, and operated to Chapter 17-9, Florida Administrative Code. Before any construction is initiated on impoundments, SWFWMD must review and approve all design plans and parameters relating to embankment construction and water control structures.

9. Dam Inspection

District shall have the right to inspect dam embankments and structures at any reasonable time.

10. Cooling Pond System

The SWFWMD will be supplied with an operation and maintenance schedule, which will outline how the water enters, is routed within, and leaves the cooling pond system, under normal and emergency situations. Also an inspection and monitoring program shall be included.

11. Dam Inspection Report

An annual inspection report, pertaining to the condition of the impoundments will be submitted by an engineer registered in the State of Florida, who is experienced in the field of construction and maintenance of dams.

D. Emergency Shortages

In the event an emergency water shortage should be declared pursuant to Section 373.175 or 373.246, F.S., by Southwest Florida Water Management District for an area including the location of the FCS withdrawal points, the Department pursuant to Section 403.516, F.S., may alter, modify, or declare to be inactive, all or parts of Condition II.A. An authorized Water Management District representative, at any reasonable time, may enter the property to inspect the facilities.

E. Minimum Water Level Restrictions

The Department and SWFWMD may, at a future date pursuant to Section 403.516, F.S., establish a minimum water level in the aquifer or aquifers hydrologically associated with these withdrawals, which may require FCS to reduce or cease withdrawal from these groundwater sources at times when water levels fall below these minimums.

F. Water Withdrawal Limits

Florida Crushed Stone is authorized to make a combined average annual withdrawal of 14,902,000 gallons of water per day

with a maximum combined withdrawal rate not to exceed 33,500,000 during a single day. Withdrawals are authorized as shown in the table below.

WELL I.D.	WITHDRAWAL POINT LATITUDE	LONGITUDE	GALLONS PER DAY AVERAGE	GALLONS PER DAY MAXIMUM
1	28 35 29	82 26 01	630,000	1,080,000
4	28 35 25	82 26 15	1,260,000	2,160,000
5	28 35 25	82 26 15	2,310,000	4,320,000
6	28 35 25	82 26 15	2,730,000	5,040,000
7	28 35 25	82 26 15	840,000	1,728,000
8	28 35 51	82 26 29	4,620,000	8,352,000
9	28 35 51	82 26 29	3,990,000	7,200,000
10	28 35 51	82 26 29	840,000	1,728,000
11	28 35 14	82 26 37	1,890,000	2,952,000
	Combined Totals		14,902,000	33,500,000

G. Flow Measurement

Florida Crushed Stone shall maintain and operate flow measuring devices as approved in writing by the Director of the SWFWMD Resource Regulation Department on all groundwater withdrawal points listed in condition II.T. Such devices shall have and maintain an accuracy within five percent of the actual flow under installed conditions. Total flow from each designated withdrawal point shall be recorded on a monthly basis and reported, on forms furnished, to the SWFWMD by the tenth day of the following month.

Reports shall be addressed to:

Processing and Records Section
Southwest Florida Water Management District
2379 Broad Street
Brooksville, Florida 33512

H. Runoff

There shall be no runoff from Florida Crushed Stone's property as a result of the withdrawals permitted.

I. Water Sampling

The District reserves the right, at all reasonable times, to collect water samples for analysis. The District may, upon prior notice, collect water samples from any or all withdrawal points listed, or may, at the option of the District, provide mailable containers to Florida Crushed Stone, and require Florida Crushed Stone to forward samples from any or all withdraw points within a reasonable period of time prescribed.

J. Water Conservation

Water conservation shall be practiced by Florida Crushed Stone to increase the efficiency of transport, application, and use, to decrease waste and to minimize runoff from the site. At such time as the SWFWMD adopts specific conservation criteria, Florida Crushed Stone will be subject to such criteria upon notice and after a reasonable period for compliance.

K. Groundwater Use

The use of groundwater herein authorized for power plant use is a modification of use of currently authorized quantities in conjunction with existing mining operations at the Florida Crushed Stone Brooksville Mine permitted under Consumptive Use Permit No. 200215, and is not to be construed as the grant of new or increased use of groundwater. Florida Crushed Stone shall modify Consumptive Use Permit No. 200215 prior to power plant start-up to reduce the total withdrawal of groundwater in connection with all other activities on its properties at this mine by the amount herein authorized for power

plant use. Jurisdiction to regulate groundwater and surface water withdrawals for use for all purposes except power plant use at Florida Crushed Stone Brooksville Mine is specifically reserved to the SWFWMD.

L. Monitoring Devices

All measuring or monitoring devices required by any condition herein shall be installed, and all required data collection, and reporting shall commence no later than power plant start-up, unless otherwise provided.

M. Water Use Plan

Florida Crushed Stone shall make maximum utilization of recirculated water from its cooling pond/impoundment up to the combined total of 144 mgd of cooling pond water and groundwater as shown in its Water Use Plan (Figure 3.3-1) as shown on page 7 of Exhibit 1 attached. Water withdrawals at the site shall be used in accordance with such Water Use Plan, including recirculation and reuse of cooling pond water.

III. Control Measures During Construction

A. Stormwater Runoff

During construction and plant operation, necessary measures shall be used to settle, filter, treat or absorb silt containing or pollutant laden stormwater runoff to limit the suspended solids to 50 mg/l or less at the POD during rainfall periods less than the 10-year, 24-hour rainfall, and to prevent an increase in turbidity to more than 50 Jackson Turbidity Units above background in waters of the State.

Control measures shall consist at the minimum of filters, sediment traps, barriers, berms or vegetative planting. Exposed or disturbed soil shall be protected as soon as possible to minimize silt and sediment laden runoff. The pH shall be kept within the range of 6.0 to 8.5.

B. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the Department and appropriate local health agency.

C. Environmental Control Programs

An environmental control program shall be established under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable conditions of certification.

The permittee shall notify the Department if unexpected harmful effects or evidence of irreversible environmental damage are detected during construction, shall immediately cease work and shall provide an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects or damage and to prevent recurrence.

IV. Solid Wastes

Solid wastes resulting from construction or operation shall be disposed of in accordance with the applicable regulations of Chapter 17-7, FAC. Chemical Wastes collected from the coal pile runoff sump and water treatment facility shall be disposed of in a landfill with an impervious liner. The plans and specifications for the chemical wastes landfill shall be submitted to the Southwest Florida District Office for review and approval 90 days prior to construction of that landfill.

Open burning in connection with land clearing shall be in accordance with Chapter 17-5, FAC. No additional permits shall be required, but the Division of Forestry shall be notified prior to burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.

V. Operation Safeguards

The overall design, layout, and operation of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions.

VI. Screening

The permittee shall provide screening of the site through the use of aesthetically acceptable structures, vegetated earthen walls and/or existing or planted vegetation.

VII. Transformer and Electric Switching Gear

The foundations for transformers, capacitors, and switching gear necessary for connecting the FCS facility to the existing distribution system shall be constructed of an impervious material and shall be constructed in such a manner to allow complete collection and recovery of any spills or leakage of oily, toxic, or hazardous substances.

VIII. Toxic, Deleterious, or Hazardous Materials

The spill of any toxic, deleterious, or hazardous materials shall be reported in the manner specified by Condition XIII.

IX. Construction on Sovereignty Lands

No construction on sovereignty lands shall commence without obtaining lease or title from the Department of Natural Resources.

X. Coal Pile

An acid resistant, impermeable liner shall be placed underneath the coal pile. An impermeable liner shall not have a permeability greater than $1x10^{-7}$ cm/sec.

XI. Floodproofing

The power generation equipment and other facilities vital to the operation of the plant shall be constructed in such a manner that water elevations at the 100 year flood will not cause damage to the equipment or necessitate plant shutdown.

XII. Cooling Pond Perimeter Berms

Construction of cooling pond perimeter berms shall be in conformance with the provisions of Chapter 17-9, FAC, regarding earthen dams and shall be inspected regularly as required by Chapter 17-9, FAC, and annually by a licensed engineer.

XIII. Transmission Lines, Access Road and Rail Spur

A. General

1. Filling and construction in waters of the State shall be minimized to the extent practicable. No such activities shall take place without obtaining lease or title from the Department of Natural Resources and/or TIITF where required. Construction and access roads should avoid wetlands and be located in surrounding uplands.

2. Placement of fill in wetland areas shall be minimized by spanning such areas with the maximum span practicable. Borrow pits shall not be located in waters of the State.

3. The Department may determine that any fill required in wetlands for construction but not required for maintenance purposes shall be removed and the ground restored to its original contours after transmission line, roadway or rail spur placement. Placement and removal of any such temporary fill shall be coordinated with the DER District Office.

4. Where fill in wetlands is necessary for access, keyhole fills from upland areas should be oriented as nearly parallel to surface water flow lines as possible.

5. Sufficient size and number of culverts or other structures shall be placed through fill causeways to maintain substantially unimpaired sheet flow.

6. Turbidity control measures, including but not limited to hay bales, turbidity curtains, sodding, mulching, and seeding, shall be employed to prevent violation of water quality standards.

7. The Rights-of-Way shall be located so as to minimize impacts, such as the removal of vegetation, in or on stream beds, to the extent practicable. For transmission lines, within 25 feet of the banks of any streams, rivers or lakes, vegetation shall be left undisturbed, except for selective topping of trees or removal of trees which topping would kill. For transmission lines, if it is necessary to remove such trees within 25 feet of the banks of streams, rivers or lakes, the root mat shall be left undisturbed.

8. Any necessary water quality certifications which must be made to the Corps of Engineers shall be made at the time of a finding of compliance for specific work at specific locations.

9. Construction activities should proceed as much as practicable during the dry season.

B. Other Construction Activities

1. Maintenance roads under control of the permittee shall be planted with native species to prevent erosion and

subsequent water quality degradation where drainage from such roads would impact water of the State significantly.

2. Good environmental practices such as described in Environmental Criteria for Electric Transmission Systems as published by the U.S. Department of Interior and the U.S. Department of Agriculture shall be followed to the extent practicable.

3. Compliance with the most recent version of the National Electric Safety Code adopted by the Public Service Commission is required.

4. Fences that run parallel to the transmission line and may become conductive shall be grounded at appropriate intervals; fences running perpendicular to the line shall be grounded at the edge of the right-of-way.

5. Field reconnaissance of rare and endangered species shall be performed in order to minimize impacts on these species.

6. Open burning in connection with land clearing shall be in accordance with the applicable rules of the Department of Agriculture and Consumer Services. No additional permits shall be required, but the Division of Forestry shall be notified prior to burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.

C. Maintenance

1. Vegetative clearing operations for maintenance purposes to be carried out within the corridor shall follow the general standards for clearing a right-of-way for overhead transmission lines as referenced in Sections XIII.A.7. and XIII. B.2. Selective clearing of vegetation is preferred over clearing and grubbing or clear cutting.

2. If chemicals or herbicides are to be used for vegetation control, the name, type, proposed use, locations, and

manner of application shall be provided to the Department prior to their application for assessment of compliance with applicable regulations.

D. Archaeological Sites

Any archaeological sites discovered during construction of the transmission lines, access roads or rail spurs shall be disturbed as little as possible and such discovery shall be communicated to the Department of State, Division of Archives, History and Records Management (DAHRM). Potentially affected areas will be surveyed, and if a significant site is located, the site shall be avoided, protected, or excavated as directed by DAHRM.

E. Road Crossing

For all locations where the transmission line or the rail spur will cross state highways, the applicant will submit materials pursuant to the Department of Transportation's (DOT) "Utility Accomodation Guide" to DOT's district office for review and approval. All applicable regulations pertaining to roadway crossings by rail or transmission lines shall be complied with. Crossing of county roads shall be coordinated with the County Engineer.

F. Emergency Reporting

Emergency replacement of a previously constructed right-of-way or transmission lines shall not be considered a modification pursuant to Section 403.516, F.S. A verbal report of the emergency shall be made to the Department as soon as possible. Within fourteen (14) calendar days after correction of the emergency, a report to the Department shall be made outlining the details of the emergency and the steps taken for its temporary relief. The report shall be a written description of all work performed and shall set forth any pollution control

measures or mitigative measures which were utilized or are being utilized to prevent pollution of waters, harm to sensitive areas or alteration of archaeological or historical resources.

G. Final Right-of-Way Location

A map of 1:24,000 scale showing final location of the right-of-way shall be submitted to the Department upon completion of acquisition.

H. Compliance

Construction and maintenance shall comply with the applicable rules and regulations of the Department and those agencies specified in 17-17.54(2)(a) and (b), FAC.

I. Construction Plans

All proposed transmission line ROW areas, plant access roads and railroad lines which are designed to traverse a stream, lake, pond, canal, swamp, marsh or other natural or artificial system which functions to store or convey water and would require a permit under Chapter 40C-4 or 40C-6, FAC, shall have said design plans and specifications reviewed by the SWFWMD or SFWMD staff. The staff shall determine if such plans are consistent with the Site Certification Application, the Recommended Conditions of Certification and applicable District rules. To determine such consistency, information to include but not be limited to the following items shall be submitted to the District 60 days prior to construction:

1. A centerline profile of existing topographic features along proposed access road(s).
2. Preliminary design of proposed access road(s) with elevations marked.
3. Typical cross-section of access road(s).
4. Cross-section of each stream or creek at those points to be crossed by access road(s) or other facilities.

5. Specifications showing size and type of water control structure (pipe, culvert, etc.) to be placed within or on waters of the District, with proposed flowline elevations marked.
6. Specifications showing design capacity of all water control structures to be employed.
7. Specifications showing location and type of each transmission tower and access road(s) to be constructed within or on the waters of the District.
8. Computer rates of flow for streams or water courses before and after construction during a one hundred (100) year flood.
9. Any other information needed by FCS to show compliance with standards in Rule 40C-4 and 40C-6, FAC.

XIV. Change in Discharge

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant identified in the application more frequently than, or at a level in excess of, that authorized herein shall constitute a violation of the certification. Any anticipated facility expansions, production increases, or process modification which will result in new, different or increased discharges or expansion in steam generating capacity will require a submission of a new or supplemental application pursuant to Chapter 403, F.S.

XV. Non-Compliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specified in this certification, the permittee shall notify the manager of DER's SWFWMD office by telephone during the working day in which the

permittee becomes aware of said non-compliance and shall confirm this situation in writing within seventy-two hours supplying the following information:

A. A description and cause of non-compliance; and

B. The period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue and steps being taken to reduce, eliminate and prevent recurrence of the non-complying event.

XVI. Facilities Operation

The permittee shall at all times maintain in good working order and operate at the efficiencies set forth in the design criteria and as necessary to meet emission limitations all treatment or control facilities or systems installed or used by the applicant to achieve compliance with the terms and conditions of this certification. Such systems are not to be bypassed without prior Department approval.

XVII. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impacts resulting from non-compliance with any limitation specified in this certification, including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying event.

XVIII. Right of Entry

The permittee shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the presentation of credentials:

A. To enter upon the permittee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit; and

B. To have access to and to make copies of all records required to be kept under the conditions of this certification; and

C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants; and

D. To assess any damage to the environment or violation of ambient standards.

XIX. Revocation or Suspension

This certification may be suspended or revoked pursuant to Section 403.512, F.S., or for violations of any Condition of Certification.

XX. Civil and Criminal Liability

This certification does not relieve the permittee from civil or criminal responsibility or liability for non-compliance with any conditions of this certification, applicable rules or regulations of the Department, or Chapter 403, F.S., or regulations thereunder.

Subject to Section 403.511, F.S., this certification shall not preclude the institution of any legal action or relieve the permittee from any responsibilities or penalties established pursuant to any other applicable state statutes or regulations.

XXI. Property Rights

The issuance of this certification does not convey any property rights in either real or personal property, tangible or intanglible, nor any exclusive privileges, nor does it authorize

any injury to public or private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. The applicant will obtain title, lease or right of use to any sovereign submerged lands occupied by the plant, transmission line structures, or appurtenant facilities from the State of Florida.

XXII. Severability

The provisions of this certification are severable, and, if any provision of this certification or the application of any provision of this certification to any circumstances is held invalid, the application of such provision to other circumstances and the remainder of the certification shall not be affected thereby.

XXIII. Definitions

The meaning of terms used herein shall be governed by the definitions contained in Chapter 403., F.S., and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these general or special conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative, by the use of the commonly accepted meaning as determined by the Department.

XXIV. Review of Site Certification

The certification shall be final unless revised, revoked or suspended pursuant to law. At least every five years from the date of issuance of this certification, the Department shall review all monitoring data that has been submitted to it during the preceeding five-year period for the purpose of determining

the extent of the permittee's compliance with the conditions of this certification of the environmental impact of this facility. The Department shall submit results of its review and recommendations to the permittee. Such review will be repeated at least every five years thereafter.

XXV. Modification of Conditions

The conditions of this certification may be modified in the following manner:

A. The Board pursuant to 403.516(1), F.S., hereby delegates to the Secretary the authority to modify, after notice and opportunity for hearing, any conditions pertaining to consumptive use of water, monitoring of air or water, sampling, groundwater, mixing zones, zones of discharge, leachate control programs, effluent or emission limitations and transmission line construction.

B. All other modifications shall be made in accordance with Sections 403.516, F.S.

XXVI. Effect of Certification

Certification and conditions of certification are predicated upon design and performance criteria indicated in the application. Thus, conformance to those criteria, unless specifically amended, modified, or as the Department and parties are otherwise notified, is binding upon the applicant in the preparation, construction, and maintenance of the certified project. In those instances where a conflict occurs between the application's design criteria and the conditions of certification, the conditions shall prevail.

XXVII. Noise

To mitigate the effects of noise produced by the steam blowout of steam boiler tubes, FCS shall conduct public awareness campaigns prior to such activities to forewarn the public of the estimated time and duration of the noise.

ATTACHMENT 4

FEDERAL PSD PERMIT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

MAR 27 1984

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

REF: 4AW-AM

Mr. Richard C. Entorf
Senior Vice-President
Florida Crushed Stone Company
P. O. Box 317
Leesburg, Florida 32748

RE: PSD-FL-90 and 91

Dear Mr. Entorf:

Review of your March 30, 1983, application to construct a 600,000 ton per year cement plant and cogeneration facility near Brooksville, Hernando County, Florida, has been completed. The construction is subject to rules for the Prevention of Significant Deterioration (PSD) of air quality contained in 40 CFR §52.21. The Florida Department of Environmental Regulation (FDER) performed the preliminary determination concerning the proposed construction and published a request for public comment on May 27, 1983. In response to a request from Florida Mining and Materials, a hearing was held on November 30, 1983. On January 25, 1984, FDER performed a final determination recommending issuance of the PSD permit by EPA. The final determination contains responses to issues raised during the hearing and the public comment period.

The Environmental Protection Agency (EPA) has determined that the construction as described in the application meets all the applicable requirements of 40 CFR §52.21. Accordingly, pursuant to 40 CFR §124.15, the Regional Administrator has made a final decision to issue the enclosed Permit to Construct-Part I Specific Conditions and Part II General Conditions. This authority to construct, granted as of the effective date of the permit, is based solely on the requirements of 40 CFR §52.21, the federal regulations governing significant deterioration of air quality. It does not apply to other permits issued by this Agency or by other agencies. Please be advised that a violation of any permit condition, as well as any construction which proceeds in material variance with information submitted in your application, will be subject to enforcement action.

This final permit decision is subject to appeal under 40 CFR §124.19 by petitioning the Administrator of the EPA within thirty (30) days after receipt thereof. The petitioner must submit a statement of reasons for the appeal and the Administrator must decide on the petition within a reasonable time period. If the petition is denied, the permit shall become effective upon notice of such action to the parties to the appeal. If the petition is granted, any applicable effective date shall be determined by the results of the appeal proceedings. If no appeal is filed with the Administrator, the permit shall become effective thirty (30) days after receipt of this letter. Upon the expiration of the thirty (30) day period, EPA will notify you of the status of the permit's effective date.

Receipt of this letter does not constitute authority to construct. Approval to construct this facility shall be granted as of the effective date of the permit. The complete analysis which justifies this approval has been fully documented for future reference, if necessary. Any questions concerning this approval may be directed to Mr. Jesse Baskerville, Acting Chief, Air Engineering Section, Air and Waste Management Division at 404/881-4253.

Sincerely yours,

George L. Harlow

for Thomas W. Devine, Director
Air and Waste Management Division

Enclosure

cc: Mr. Steve Smallwood, P.E., Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation

PERMIT TO CONSTRUCT UNDER THE RULES FOR THE
PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

Pursuant to and in accordance with the provisions of Part C, Subpart I of the Clean Air Act, as amended, 42 U.S.C. §7470 et seq., and the regulations promulgated thereunder at 40 CFR §52.21 (1983),

Florida Crushed Stone Company
Leesburg, Florida

is, as of the effective date of this permit (PSD-FL-90 and 91) authorized to modify a stationary source at the following location:

Intersection of Cobb Road and Yontz Rd.
3.5 Miles Northwest of Brooksville, Florida

UTM Coordinates: 360.0-360.1 km East, 3162.1-3162.5 km North

Upon completion of authorized construction and commencement of operation/production, this stationary source shall be operated in accordance with the emission limitations, sampling requirements, monitoring requirements and other conditions set forth in the attached Specific Conditions (Part I) and General Conditions (Part II).

This permit is hereby issued on MAR 27 1984 and shall become effective thirty (30) days after receipt thereof unless a petition for administrative review is filed with the Administrator during that time. If a petition is filed any applicable effective date shall be determined in accordance with 40 CFR §124.19(f)(1).

If construction does not commence within 18 months after the effective date of this permit, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, this permit shall expire and authorization to construct shall become invalid.

This authorization to construct/modify shall not relieve the owner or operator of the responsibility to comply fully with all applicable provisions of Federal, State, and local law.

March 27, 1984
Date Signed

Regional Administrator

PART I

Specific Conditions

The construction and operation of the Florida Crushed Stone Company (FCS) steam electric power plant and cement plant shall be in accordance with the attached general conditions and all applicable provisions of 40 CFR 52.21. In addition to the foregoing, the permittee shall comply with the following specific conditions of approval:

A. Emission Limitations

1. Stack emissions from the power plant boiler only shall not exceed the following site specific limitations when burning coal:

   a. SO_2 - 0.9 lb. per million Btu heat input, maximum three-hour average (not to exceed 915 lb. per hour, maximum three-hour average). 770 ← Gov't & Cabinet Decision (770, NOT 750)

   b. NO_x - 0.7 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

   c. Particulates - 0.03 lb. per million Btu heat input, averaging time per 40 CFR 60.46.

   d. Visible emissions - 20% opacity, 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

2. Stack emissions from the combined cement plant/lime plant and power plant boiler shall not exceed the following site specific limits:

   1.2 lb/10⁶ Btu max 2-hr avg

   a. SO_2 - 50 lb. per hour plus 0.74 lb. per million Btu boiler heat input, maximum three-hour average (not to exceed ~~965~~ 781 lb/hr maximum three-hour average).

   b. NO_x - 0.7 lb. per million Btu heat input plus 2.9 lb. per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.

   c. Particulates - 0.03 lb. per million Btu heat input plus 0.3 lb. from the cement kiln and 0.1 lb from the clinker cooler per ton of kiln feed (dry basis), averaging time per 40 CFR 60.46.

d. Visible emissions - less than 10 percent opacity, 6-minute average, except for one 6-minute period per hour of not more than 17% opacity.

e. Total Fluorides: 0.7 lb/hr.

f. Sulfuric Acid Mist: 1.7 lb/hr.

g. Beryllium: 0.0005 lb/hr.

h. Mercury: 0.03 lb/hr.

3. The emission rates from the main baghouse when only the cement plant is operating shall not exceed the emission limits and maximum allowable emissions listed below:

Pollutant	Emission Limits lb/ton of kiln feed	Maximum Allowable Emissions lb/hr	tons/yr
PM	0.4	49.5	216
SO_2	0.6	50.0	325
NO_x	2.9	359.0	1572

4. Visible emissions from the kiln, cooler, dryer and raw mill shall be less than 10 percent opacity.

5. Particulate emissions from the coal and fly ash handling facilities.

a. All conveyors and conveyor transfer points will be enclosed to preclude particulate emissions (except those directly associated with the coal stacker/reclaimer, emergency stockout stacker/reclaimer, emergency stockout, and deep bucket conveyor).

b. Inactive coal storage piles will be shaped, compacted and oriented to minimize wind erosion.

c. Water sprays or chemical wetting coal agents and stabilizers will be applied to coal storage piles, handling equipment, etc. during dry periods and as necessary to all coal handling facilities to maintain an opacity of less than or equal to 5 percent, except when adding, moving or removing coal from the coal pile, during which the opacity shall be no more than 20%.

d. The fly ash handling system (including transfer and silo storage) will be totally enclosed and vented (including pneumatic system exhaust) through fabric filters.

6. Particulate emissions from bag filter exhausts from the coal and fly ash handling systems (excluding those facilities covered by Specific Condition A.5.c.) shall be limited to 0.02 gr/acf. A visible emission reading of 5% opacity or less may be used to establish compliance with this emission limit. A visible emission reading greater than 5% opacity will not create a presumption that the 0.02 gr/acf emission limit is being violated. However, a visible emission reading greater than 5% opacity will require the permittee to perform a stack test, as set forth in Specific Condition B.

7. Emissions of particulate matter from all other baghouse-equipped sources associated with the cement plant shall not exceed the maximum allowable emission limits listed below:

BAGHOUSE INVENTORY

Florida Permit No. (AC 27-)	Source Name	Allowable PM Emissions lb/hr	TPY
61019 118676	Raw Materials Bin	0.8	3.5
61012 118672	Pre Mix Bin	0.6	2.6
61013 118673	Fly Ash Bin	0.6	2.6
61017 118675	Raw Meal Transfer	0.3	1.3
61020 118677	Blending Silo	3.3	14.5
61021 118678	Kiln Feed	0.8	3.5
61030 118685	Clinker Silo	0.6	2.6
61032 118686	Clinker Silo	0.6	2.6
61027 118684	Cooler Discharge	0.8	3.5
61033 118687	Silo Discharges	1.8	7.9
61037 118688	Finish Mill	6.4	28.0
61038 118689	Cement Silo Discharge	0.6	2.6
61040 118690	Cement Silo	0.6	2.6
61041 118681	Cement Silo	0.6	2.6
61042 118683	Cement Silo	0.6	2.6
61026 118680	Coal Handling	0.8	3.5

8. Visible emissions from all sources listed in Specific Condition 7 shall not be greater than 5 percent opacity.

9. Compliance with the opacity limits of Specific Conditions A.1.d., A.2.d., A.4., A.5.c., A.6., and A.8. will be determined by EPA reference method 9 (including alternate method 1), Appendix A, 40 CFR Part 60).

B. Stack Testing

1. Within 60 calendar days after achieving the maximum capacity at which each unit will be operated (but no later than 180 operating days after initial startup) and annually thereafter, the permittee shall conduct: (a) performance tests on the main stack for particulates, SO_2, NO_x, and visible emissions (1) during normal operations near (± 3%) 1,234 million Btu per hour heat input when the power plant and cement plant are operating in combination, (2) at or near 1,000 million Btu per hour when the power plant is operating alone, and (3) at or near maximum production when the cement plant is operating alone; and (b) visible emissions tests on all baghouses. The Department shall be furnished a written report of the results of such performance tests within 45 days of completion of the test.

2. Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The permittee shall make available to the Department such records as may be necessary to determine the conditions of the performance tests.

3. The permittee shall provide 30 days notice of the performance tests or 10 working days for stack tests in order to afford the Department the opportunity to have an observer present.

4. Stack tests for particulates, NO_x, and SO_2 and visible emissions tests shall be performed annually from the date of the first performance test(s) in accordance with Specific Conditions B.2. and 3. above.

5. Performance tests for Specific Condition B.1.(a)(1) and (2) shall be conducted in accordance with the provisions of 40 CFR Part 60 including Appendix A and 40 CFR 60.46.

6. Performance tests for particulate for Specific Condition B.1.(a)(3) shall be conducted in accordance with 40 CFR Part 60, including Appendix A and 40 CFR 60.64.

7. Compliance with the SO_2 and NO_x emission limits in Specific Condition A.3. shall be demonstrated in accordance with EPA Methods 6 and 7, respectively, in 40 CFR 60, Appendix A.

8. Compliance with the particulate emission limits for all sources listed in Specific Condition Nos. A.6. and A.7. shall be demonstrated by EPA Method 5 or 17 (Appendix A, 40 CFR 60).

9. Compliance with total fluoride emission limits in Specific Condition A.2.e. shall be demonstrated, if required by EPA, in accordance with EPA Method 13A or 13B, and 40 CFR 60.8.

10. Compliance with sulfuric acid mist limits in Specific Condition A.2.f. shall be demonstrated, if required by EPA, in accordance with EPA Method 8, and 40 CFR 60.8.

11. Compliance with beryllium limits in Specific Condition A.2.g. shall be demonstrated, if required by EPA, in accordance with EPA Method 104, and 40 CFR 60.8.

12. Compliance with mercury limits in Specific Condition A.2.h. shall be demonstrated, if required by EPA, in accordance with EPA Method 101A, and 40 CFR 60.8.

13. EPA Methods 1 and 2 shall be used for determining stack gas velocity when required in Specific Conditions B.7., B.8., B.9., B.10., B.11., and B.12.

C. Monitoring Program

1. A flue gas oxygen meter shall be installed for the unit to continuously monitor a representative sample of the boiler flue gas. The oxygen monitor shall be used with automatic feedback or manual controls to continuously maintain air/fuel ratio parameters at an optimum. Performance tests shall be conducted and operating procedures established. The document "Use of Flue Gas Oxygen Meter as BACT for Combustion Controls" may be used as a guide. The permittee shall install and operate a continuous opacity monitoring device for the baghouse exhaust. The monitoring devices shall meet the applicable requirements of 40 CFR 60.45 and 40 CFR 60.13 including certification of each device. The Department shall be provided 30 days notice on each certification.

2. The permittee shall operate two ambient monitoring devices for suspended particulates in accordance with EPA quality assurance procedures and reference methods in 40 CFR 53. The monitoring devices shall be operated at a location approved by the Department of Environmental Regulation. The frequency of operation of the particulate monitors shall be every six days commencing as specified by the Department. In addition, the permittee shall operate a meteorological station, which includes wind measuring equipment, at a location approved by the Department. These data will be reported with the ambient data.

3. The ambient monitoring program shall begin at least one year prior to initial start up of the boiler and shall continue for at least one year of commercial operation. The Department and the permittee shall review the results of the monitoring program annually and determine the necessity for the continuation of or modifications to the monitoring program.

4. Samples of all fuel oil and coal fired shall be taken and an ultimate analysis obtained including the heating value on a moisture free basis. Accordingly, samples shall be taken of each fuel shipment received. Coal sulfur content shall be determined and recorded on a daily basis. Records of all the analyses shall be kept for public inspection for a minimum of two years after the data are recorded.

5. Prior to operation of the source, the permittee shall submit to the Department a plan or procedure that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

6. Instruments shall be installed, calibrated, and maintained to continuously measure the amounts of coal used, material fed to the kiln, and clinker produced. The records of fuel usage with the fuel analysis, daily kiln feed and clinker produced shall be reported quarterly to the Florida Department of Environmental Regulation Southwest District office.

D. Reporting

1. Stack monitoring, fuel usage and fuel analysis data shall be reported to the Department's Southwest District Office and to the Hernando County Health Department on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR 60.7.

2. Utilizing the SAROAD or other format approved in writing by the Department, ambient air monitoring data shall be reported to the Bureau of Air Quality Management of the Department quarterly. Commencing on the date of certification, such reports shall be due within 45 days following the quarterly reporting period. Reporting and monitoring shall be in conformance with 40 CFR, Parts 53 and 58.

3. Beginning one month after approval, the permittee shall submit to the Department a monthly status report briefly outlining progress made on engineering design and purchase of major pieces of air pollution control equipment. All reports and information required to be submitted under this condition shall be submitted to the Administrator of Power Plant Siting, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida, 32301.

E. Coal Characteristics and Contracts

Before approval can be granted by EPA for use of control devices, characteristics of the coal to be fired must be known. Therefore, before these approvals are granted, the permittee must submit to the Department of Environmental Regulation copies of coal contracts which should include the expected sulfur content, ash content, and heat content of the coal to be fired. These data will be used by the Department and EPA in evaluating the adequacy of the control devices. Also, the applicant must demonstrate the ability to acquire a low sulfur coal supply of sufficient length to enable the installation of sulfur removal equipment if the supplies of low sulfur coal should not become available or be discontinued. Therefore, the coal contracts must be for a period of at least five (5) years from the date of start-up of the boiler.

F. Coal Information

As an alternative to the submittal of contracts for purchase of coal under Specific Condition E above, the permittee may submit the following information:

1. The name of the coal supplier;

2. The sulfur content, ash content, and heat content of the coal as specified in the purchase contracts;

3. The location of the coal deposits covered by the contract (including mine name and seam);

4. The date by which the first delivery of coal will be made;

5. The duration of the contract; and

6. An opinion of counsel for the permittee that the contracts are legally binding.

G. Additional Conditions

1. When the power plant boiler is operating alone and the cement plant is not in operation, the maximum heat input rate of the boiler shall not exceed the site specific limit of 1,000 million Btu per hour, maximum three-hour average.

2. The maximum coal consumption in the kiln shall not exceed 10.3 tons per hour.

3. Construction shall reasonably conform to the plans and schedule given in the application.

4. The permittee shall report any delays in construction and completion of the project which would delay commercial operation by more than 90 days to EPA.

5. Reasonable precautions to prevent fugitive particulate emissions during construction and operation, such as coating or paving of roads and construction sites, wetting roads, and regrassing or watering areas of disturbed soils and storage areas, will be taken by the permittee. In addition, the main access road(s) within FCS's property will be paved.

6. Any fuel oil to be fired in the boiler shall be "new oil", which means an oil which has been refined from crude oil and has not been used. The quality of the fuel oil used by the boiler shall not cause the allowable emission limits listed in the table below to be exceeded. Such emissions may be calculated in accordance with AP-42, third edition.

Allowable Emission Limits

Pollutant	lb/MMBtu
PM	0.015
SO_2	0.31
NO_x	0.16
Visible emissions	Maximum 20% Opacity

Fuel Oil limits

7. The height of the boiler exhaust stack for the plant shall not be less than 320 ft. above grade.

8. Particulate emissions from the following sources of Chemical Lime Company (wholly owned subsidiary of Florida Crushed Stone Company) shall not exceed the following limits:

Source	DER Permit No.	Emissions (lb/hr)
Kiln	AO 27-55581	16.0
Hydrator	AO 27-25269	12.5
Dryer	AO 27-50400	14.5
Bagging	AO 27-17352	5.0

9. The permittee must submit to the Florida Department of Environmental Regulation within thirty (30) days after it becomes available a copy of the technical data pertaining to the selected particulate and SO_2 emissions controls. These data should include, but not be limited to, projected or guaranteed efficiency and emission rates, and major design parameters such as injection rates, injection points, air/cloth ratio and flow rate. EPA may, upon review of these data, disapprove the use of any such device if it determines the selected control device to be inadequate to meet the required emission limits. Such disapproval shall be issued within 30 days of receipt of the technical data.

PART II

GENERAL CONDITIONS

1. The permittee shall notify the permitting authority in writing of the beginning of construction of the permitted source within 30 days of such action and the estimated date of startup of operation.

2. The permittee shall notify the permitting authority in writing of the actual start-up of the permitted source within 30 days of such action and the estimated date of demonstration of compliance as required in the specific conditions.

3. Each emission point for which an emission test method is established in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitting source. The permittee shall notify the permitting authority of the scheduled date of compliance testing at least thirty (30) days in advance of such test. Compliance test results shall be submitted to the permitting authority within forty-five (45) days after the compliance testing. The permittee shall provide (1) sampling ports adequate for test methods applicable to such facility, (2) safe sampling platforms, (3) safe access to sampling platforms, and (4) utilities for sampling and testing equipment.

4. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of two (2) years for the date of recording.

5. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall provide the permitting authority with the following information in writing within five (5) days of such conditions:

   (a) description of noncomplying emission(s),
   (b) cause of noncompliance,
   (c) anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance,
   (d) steps taken by the permittee to reduce and eliminate the noncomplying emission, and

(e) steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of this report does not constitute a waiver of the emission limitations contained within this permit.

6. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, modifications to the permit may then be made by the permitting authority to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations specified herein.

7. In the event of any change in control or ownership of the source described in the permit, the permittee shall notify the succeeding owner of the existence of this permit and the permitting authority.

8. The permittee shall allow representatives of the state environmental control agency or representatives of the Environmental Protection Agency upon the presentation of credentials:

(a) to enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;

(b) to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Act;

(c) to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;

(d) to sample at reasonable times any emission of pollutants; and

(e) to perform at reasonable times an operation and maintenance inspection of the permitted source.

9. All correspondence required to be submitted by this permit to the permitting agency shall be mailed to the:

Chief, Air Management Branch
Air and Waste Management Division
U.S. Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30365

10. The conditions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

The emission of any pollutant more frequently or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.