



DER

FEB 16 1983

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

BAOM
9/28/82
12/21/82

SOURCE TYPE: Power Plant Coal Bin (New¹ Existing¹)
APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Power Plant Coal Bin Baghouse (S-11)
SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.080 km North 3162.010 km
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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. Kooqler, Ph.D., P.E.
Name (Please Type)
SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS, INC.
Company Name (Please Type)
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Date: 12/21/82 Telephone No. (904) 377-5822

Florida Registration No. 12925

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Coal	Particulate	5	300,000 max.	--
	Matter			

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

- Total Process Input Rate (lbs/hr): 300,000 max. transfer rate
- Product Weight (lbs/hr): 300,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	1.2	4.4	17-2.630 FAC	1.2	771	2,939	--
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1 Air to Cloth Ratio	Particulate Matter	99.85%	> 0.5	Estimate - See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment
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, etc.). See 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). Estimated to be 99.85%
6. An 8½" 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 8½" 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 8½" 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



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FEB 16 1983

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

9729/82
12/21/82

SOURCE TYPE: Power Plant [X] New¹ [] Existing¹
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; Peeking 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 North 3162.392 km
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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)

(Affix Seal)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS, INC.
Company Name (Please Type)
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Date: 12/21/82 Telephone No. (904) 377-5822

Florida Registration No. 12925

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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 - See Section III,E for fuel use.				

B. Process Rate, if applicable: (See Section V, Item 1) SEE PAGE 3a

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

2. Product Weight (lbs/hr): _____

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
SEE PAGE 3a							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse	Part.Matter	See attachment package	> 0.5	Est.

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

Section III-C.

Air Pollutants Emitted (Flow Diagram E20)

Contaminant	Emissions		Emission Standard	Uncontrolled Emissions ⁽¹⁾	
	(lbs/hr)	(tpy)		(lbs/hr)	(tpy)
<u>Power Plant/Cement Plant</u>					
Part. Matter	172.9	675	NSPS & BACT	48,038	183,025
Sulfur Dioxide	1488.8	6142	BACT	1,711	6,519
Nitrogen Oxides	1279.8	4990	BACT	1,280	4,877
<u>Power Plant</u>					
Part. Matter	123.4	486	BACT	8,000	33,288
Sulfur Dioxide	1408.8	5837	BACT	1,406	5,850
Nitrogen Oxides	863.8	3405	BACT	864	3,595

(1) Uncontrolled emissions based on 99 percent control efficiency for particulate matter and 75 percent sulfur dioxide sorption in the cement kiln.

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. 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, 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 8½" 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 8½" 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 8½" 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



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STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

BAQM
9/29/82
12/21/82

SOURCE TYPE: Cement Kiln [X] New¹ [] Existing¹
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; Peeking 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 North 3162.392 km
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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)

(Affix Seal)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS,
Company Name (Please Type) INC.
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Date: 12/21/82 Telephone No. (904) 377-5822

Florida Registration No. 12925

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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 3a				

B. Process Rate, if applicable: (See Section V, Item 1) SEE PAGE 3a

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

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
SEE PAGE 3b a							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse	Part.Matter	See attachment package	> 0.5 :	Est.

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

Section III-C.

Air Pollutants Emitted (Flow Diagram E20)

Contaminant	Emissions		Emission Standard	Uncontrolled Emissions ⁽¹⁾	
	(lbs/hr)	(tpy)		(lbs/hr)	(tpy)

Power Plant/Cement Plant

Part. Matter	172.9	675	NSPS & BACT	48,038	183,025
Sulfur Dioxide	1488.8	6142	BACT	1,711	7,056
Nitrogen Oxides	1279.8	4990	BACT	1,280	4,990

Cement Plant

Part. Matter	49.5	189	NSPS	46,066	175,511
Sulfur Dioxide	80.0	305	BACT	320	1,219
Nitrogen Oxides	416.0	1585	BACT	416	1,585

(1) Uncontrolled emissions based on 99 percent control efficiency for particulate matter and 75 percent sulfur dioxide sorption in the cement kiln.

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. 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, 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 8½" 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 8½" 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 8½" 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



DER

FEB 16 1983

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

9/28/82
12/21/82

SOURCE TYPE: Raw Meal Transfer New¹ Existing¹
APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Raw Meal Transfer Baghouse (F-14)

SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.030 km North 3162.335 km
Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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) INC
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Date: 12/21/82 Telephone No. (904) 377-5822

(Affix Seal)

Florida Registration No. 12925

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)
DER FORM 17-1.122(16) Page 1 of 10

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		
Raw Meal	Particulate	2-3	250,000	F-11 and F-13
	Matter			

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

1. Total Process Input Rate (lbs/hr): 250,000

2. Product Weight (lbs/hr): 250,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.3	1.0	17-2.630 FAC	0.3	343	1,306	F-14
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.93%	> 0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

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BAQM



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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

9/28/82
12/21/82

SOURCE TYPE: Raw Material Bins Discharge New¹ Existing¹

APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Raw Material Bins Baghouse (D18)

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

UTM: East 359.950 km North 3162.477 km

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President

APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

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

*Attach letter of authorization

Signed: _____

Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)

Date: 12/21/82 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 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. Kooqler, Ph.D., P.E.
Name (Please Type)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS,
Company Name (Please Type) INC.

1213 NW 6th Street, Gainesville, FL 32601

Mailing Address (Please Type)

Florida Registration No. 12925

Date: 12/21/82 Telephone No. (904) 377-5822

(Affix Seal)

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Limestone	Particulate	2-3	800,000	D26
	Matter			

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

1. Total Process Input Rate (lbs/hr): 800,000

2. Product Weight (lbs/hr): 800,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.8	3.0	17-2.630 FAC	0.8	1,029	3,919	D-16
Matter							

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

Name and Type. (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.92%	> 0.5	Estimate -
Air to Cloth Ratio	Matter			See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment 1
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, etc.). See 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). Estimated to be 99.92%
6. An 8½" 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 8½" 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 8½" 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

AC 27-61020



DER

FEB 16 1983

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO ~~OPERATE~~/CONSTRUCT 9/28/82
AIR POLLUTION SOURCES 12/21/82

SOURCE TYPE: Blending Silo [] New¹ [] Existing¹
APPLICATION TYPE: [] 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; Peeking Unit No. 2, Gas Fired) Blending Silo Baghouse (G-12)
SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.037 km North 3162.312 km
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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)

(Affix Seal)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS,
Company Name (Please Type) INC.
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)

Florida Registration No. 12925 Date: 12/21/82 Telephone No. (904) 377-5822

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Raw Meal	Particulate	2-3	250,000	G-01
	Matter			

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

- Total Process Input Rate (lbs/hr): 250,000
- Product Weight (lbs/hr): 250,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	3.3	12.7	17-2.630 FAC	3.3	6,686	25,473	G-12
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.95%	> 0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹ See Section V, Item 2.

² Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 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)

⁵ If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment
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, etc.). See 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). Estimated to be 99.95%
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



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FEB 16 1983

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

9/28/82
12/21/82

SOURCE TYPE: Kiln Feed New¹ Existing¹

APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Kiln Feed Baghouse (H-15)

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

UTM: East 360.044 km North 3162.306 km

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President

APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

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

*Attach letter of authorization

Signed: _____

Richard C. Entorf, Senior Vice-President

Name and Title (Please Type)

Date: 12/21/82 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 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. Kooqler, Ph.D., P.E.

Name (Please Type)

(Affix Seal)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS,

Company Name (Please Type) INC.

1213 NW 6th Street, Gainesville, FL 32601

Mailing Address (Please Type)

Florida Registration No. 12925

Date: 12/21/82 Telephone No. (904) 377-5822

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Raw Meal	Particulate	2-3	250,000	H-05
	Matter			

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

1. Total Process Input Rate (lbs/hr): _____ 250,000

2. Product Weight (lbs/hr): _____ 250,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.8	2.9	17-2.630 FAC	0.8	1,029	3,919	H-15
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.93%	> 0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. -- 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment
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, etc.). See 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). Estimated to be 99.93%
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



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FEB 16 1983

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

BAOM
9/28/82
12/21/82

SOURCE TYPE: Raw Coal Handling New¹ Existing¹
APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Raw Coal Handling (S-04)
SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.102 km North 3162.210 km
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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)

(Affix Seal)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS,
Company Name (Please Type) INC.
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)

Florida Registration No. 12925 Date: 12/21/82 Telephone No. (904) 377-5822

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Coal	Particulate	5	300,000 max.	--
	Matter			

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

- Total Process Input Rate (lbs/hr): 300,000 max. transfer
- Product Weight (lbs/hr): 300,000 max.

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.8	2.9	17-2,630 FAC	0.8	514	1,959	--
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.85%	> 0.5	Estimate
Air to Cloth Ratio	Matter			See Attached.

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment.
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, etc.). See 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). Estimated to be 99.85%
6. An 8½" 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 8½" 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 8½" 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

AC 27-61027



DER

FEB 16 1983

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO ~~OPERATE~~/CONSTRUCT 9/28/82
AIR POLLUTION SOURCES 12/21/82

SOURCE TYPE: Cooler Discharge New¹ Existing¹
APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Cooler Discharge (L-16)
SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.086 km North 3162.200 km
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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.

(Affix Seal)

Signed: _____
John B. Kooqler, Ph.D., P.E.
Name (Please Type)
SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS, INC.
Company Name (Please Type)
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Date: 12/21/82 Telephone No. (904) 377-5822

Florida Registration No. 12925

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Clinker	Particulate	2-3	150,000	K-07 and L-01
	Matter			

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

1. Total Process Input Rate (lbs/hr): 150,000

2. Product Weight (lbs/hr): 150,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.8	2.9	17-2.630 FAC	0.8	514	1,959	L-16
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.85%	0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment
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, etc.). See 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). Estimated to be 99.85%
6. An 8½" 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 8½" 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 8½" 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



DER

FEB 16 1983

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

9/28/82
12/21/82

SOURCE TYPE: Clinker Silo (New¹ Existing¹)
APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Clinker Silo Baghouse (L-06)

SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.108 km North 3162.125 km
Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President

APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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. Kooqler, Ph.D., P.E.
Name (Please Type)

(Affix Seal)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS,
Company Name (Please Type) INC.
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)

Florida Registration No. 12925 Date: 12/21/82 Telephone No. (904) 377-5822

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Clinker	Particulate	2-3	150,000	L-05
	Matter			

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

1. Total Process Input Rate (lbs/hr): 150,000

2. Product Weight (lbs/hr): 150,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.6	2.4	17-2.630 FAC	0.6	429	1,633	L-06
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.85%	>0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment
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, etc.). See 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). Estimated to be 99.85%
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



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FEB 16 1983

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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

9/28/82
12/21/82

SOURCE TYPE: Clinker Silo [] New¹ [] Existing¹
APPLICATION TYPE: [] 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; Peeking Unit No. 2, Gas Fired] Clinker Silo Baghouse (L-08)
SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.114 km North 3162.137 km
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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) INC.
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Florida Registration No. 12925 Date: 12/21/82 Telephone No. (904) 377-5822

(Affix Seal)

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Clinker	Particulate	2-3	150,000	L-07
	Matter			

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

1. Total Process Input Rate (lbs/hr): 150,000

2. Product Weight (lbs/hr): 150,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.6	2.4	17-2.630 FAC	0.6	429	1,633	L-08
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.85%	0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment
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, etc.). See 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). Estimated to be 99.85%
6. An 8½" 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 8½" 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 8½" 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



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FEB 16 1983

BAOM

12/21/82

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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

SOURCE TYPE: Silo Discharge New¹ Existing¹
APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Silo Discharge Baghouse (M-08)
SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.105 km North 3162.125 km
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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) INC.
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Date: 12/21/82 Telephone No. (904) 377-5822

(Affix Seal)

Florida Registration No. 12925

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Clinker, Gypsum,	Particulate	2-3	244,000	L-07, 12, 14
Limestone	Matter			

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

1. Total Process Input Rate (lbs/hr): 244,000

2. Product Weight (lbs/hr): 244,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	1.8	6.9	17-2.630 FAC	1.8	17,200	14,572	M-08
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.85%	> 0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹ See Section V, Item 2.

² Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 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)

⁵ If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
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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, etc.). See Attachment 1
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6. An 8½" 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 8½" 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 8½" 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

FEB 16 1983

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STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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

9/28/82
12/21/82

SOURCE TYPE: Finish Mill New¹ Existing¹

APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Finish Mill Baghouse (N-13)

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

UTM: East 360.111 km North 3162.133 km

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President

APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)

Date: 12/21/82 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 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. Kooqler, Ph.D., P.E.
Name (Please Type)

(Affix Seal)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS,
Company Name (Please Type) INC.

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

Florida Registration No. 12925

Date: 12/21/82 Telephone No. (904) 377-5822

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Cement	Particulate	2-3	200,000	N-12
	Matter			

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

1. Total Process Input Rate (lbs/hr): 200,000
2. Product Weight (lbs/hr): 200,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	6.4	24.5	17-2.630 FAC	6.4	85,714	326,571	N-13
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
✓ Baghouse with 6.5-1	Particulate	99.99%	> 0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation. See Section 3A
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. See Attachment 1
(See Attachment)
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration to this special baghouse and on outlet concentration of 0.15 gr/ACF.
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, etc.). See 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). Estimated to be 99.99%
6. An 8½" 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 8½" 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 8½" 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



DER

FEB 16 1983

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

BAOM

APPLICATION TO ~~OPERATE~~ CONSTRUCT
AIR POLLUTION SOURCES

9/28/82
12/21/82

SOURCE TYPE: Cement Silo [] New¹ [] Existing¹

APPLICATION TYPE: [] 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; Peeking Unit No. 2, Gas Fired) Cement Silo Discharge Baghouse (Q-17)

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

UTM: East 360,125 km North 3162,100 km

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President

APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)

Date: 12/21/82 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 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. Kooqler, Ph.D., P.E.
Name (Please Type)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS,
Company Name (Please Type) INC.

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

Date: 12/21/82 Telephone No. (904) 377-5822

Florida Registration No. 12925

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Cement	Particulate	2-3	600,000	Q-13
	Matter			

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

1. Total Process Input Rate (lbs/hr): 600,000

2. Product Weight (lbs/hr): 600,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.6	2.4	17-2.630 FAC	0.6	857	3,266	Q-17
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.93%	> 0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹ See Section V, Item 2.

² Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 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)

⁵ If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment
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, etc.). See 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). Estimated to be 99.93%
6. An 8½" 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 8½" 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 8½" 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



FEB 16 1983

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

9/28/82
12/21/82

SOURCE TYPE: Cement Silo (New¹ Existing¹)
APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Cement Silo Baghouse A (0-15)
SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.125 km North 3162.110 km
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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) INC
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Date: 12/21/82 Telephone No. (904) 377-5822

Florida Registration No. 12925

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Cement	Particulate	2-3	200,000	Q-01
	Matter			

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

1. Total Process Input Rate (lbs/hr): _____ 200,000

2. Product Weight (lbs/hr): _____ 200,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.6	2.4	17-2.630 FAC	0.6	643	2,449	Q-15
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.90%	0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹ See Section V, Item 2.

² Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 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)

⁵ If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation. See Section 3A
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. See Attachment 1
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8. An 8½" 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

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STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO ~~OPERATE~~ CONSTRUCT
AIR POLLUTION SOURCES

9/28/82
12/21/82

SOURCE TYPE: Cement Silo New¹ Existing¹

APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Cement Silo Baghouse C (Q-15)

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

UTM: East 360.125 km North 3162.110 km

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President

APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

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

*Attach letter of authorization

Signed: _____

Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)

Date: 12/21/82 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 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. Kooqler, Ph.D., P.E.
Name (Please Type)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS
Company Name (Please Type) INC

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

Florida Registration No. 12925 Date: 12/21/82 Telephone No. (904) 377-5822

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Cement	Particulate	2-3	200,000	P-06
	Matter			

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

1. Total Process Input Rate (lbs/hr): 200,000

2. Product Weight (lbs/hr): 200,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.6	2.4	17-2.630 FAC	0.6	643	2,449	0-15
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.90%	>0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹ See Section V, Item 2.

² Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 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)

⁵ If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). | Based on estimated inlet concentration. See Attachment
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, etc.). See 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). Estimated to be | 99.90% |
6. An 8½" 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 8½" 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 8½" 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

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ATTACHMENT PACKAGE FOR
FLORIDA CRUSHED STONE COMPANY

SOURCES:

POWER PLANT
CEMENT KILN

I. Allowable Emissions

A. Power Plant

PM @ 0.1 lb/10 ⁶ BTU	=	123.4 lbs/hr
SO ₂ @ 1.2 lb/10 ⁶ BTU	=	1,408.8 lbs/hr
NO _x @ 0.7 lb/10 ⁶ BTU	=	863.8 lbs/hr
CO @ 1 lb/ton coal	=	50.0 lbs/hr
HC @ 0.3 lb/ton coal	=	15.0 lbs/hr

B. Cement Plant

1. Assumptions or Conditions

Clinker cooler exhaust is split between the kiln as combustion air; the raw mill, to provide heat for drying; and the raw mill by-pass. The raw mill by-pass gases are re-combined with the gases which have passed through the raw mill and enter the baghouse.

All kiln exhaust passes through raw materials dryer to provide heat for drying.

Exhaust from raw mill and raw materials dryer pass directly through the baghouse.

2. Emissions

Particulate Matter - Propose allowable particulate matter emissions to be equal to limit established by NSPS for kiln and clinker cooler

PM	= Kiln - 0.3 lb/ton (123.8 ton feed/hr)	= 37.1 lbs/hr
	Cooler - 0.1 lb/ton (123.8 ton feed/hr)	= 12.4 lbs/hr
		<u>49.5 lbs/hr</u>
SO ₂	(Polysius estimate)	= 80.0 lbs/hr
NO _x	(Polysius estimate)	= 416.0 lbs/hr
CO		= 0
HC		= 0

C. Cement Plant & Power Plant

1. Assumptions or Conditions

Clinker cooler exhaust is split between power plant and kiln as combustion air.

All kiln exhaust passes through raw materials dryer to provide heat for drying.

1. Assumptions or Conditions (continued)

Power plant exhaust is split between the raw mill, the raw materials dryer and the raw mill by-pass. The raw mill by-pass gases are re-combined with the gases passing through the raw mill and enter the baghouse.

Exhaust from raw mill is re-combined with raw mill by-pass gases and enters the baghouse.

Raw materials exhaust gases enter baghouse.

2. Emissions

Particulate Matter - Propose allowable particulate matter emissions to be equal to the limit established by NSPS for the kiln and clinker cooler plus the limit established by the standard of 0.1 lb/10⁶ BTU for the power plant.

$$\begin{array}{l} \text{PM} = \text{Kiln} - 0.3 \text{ lb/ton (123.8)} = 37.1 \text{ lbs/hr} \\ \text{Cooler} - 0.1 \text{ lb/ton (123.8)} = 12.4 \text{ lbs/hr} \\ \text{Power Plant} - 0.1 (1234.0) = \underline{123.4 \text{ lbs/hr}} \\ \hline 172.9 \text{ lbs/hr} \end{array}$$

Sulfur Dioxide - Propose allowable sulfur dioxide emissions to be equal to the limit established by 1.2 lbs/10⁶ BTU for the power plant plus the limit established by the Polysius estimate for the kiln.

$$\begin{array}{l} \text{SO}_2 = \text{Kiln} - \text{Polysius estimate} = 80.0 \text{ lbs/hr} \\ \text{Power Plant} - 1.2 (1234.0) = \underline{1,408.8 \text{ lbs/hr}} \\ \hline 1,488.8 \text{ lbs/hr} \end{array}$$

Nitrogen Oxides - Propose allowable nitrogen oxides emissions to be equal to the limit established by 0.7 lb/10⁶ BTU for the power plant plus the limit established by the Polysius estimate for the kiln.

$$\begin{array}{l} \text{NO}_x = \text{Kiln} - \text{Polysius estimate} = 416.0 \text{ lbs/hr} \\ \text{Power Plant} - 0.7 (1234.0) = \underline{863.8 \text{ lbs/hr}} \\ \hline 1,279.8 \text{ lbs/hr} \end{array}$$

Other Pollutants -

$$\begin{array}{l} \text{CO} = \text{Kiln} = 0 \text{ lbs/hr} \\ \text{Power Plant (1 lb/ton coal)} \\ \text{(50 tons/hr)} = \underline{50.0 \text{ lbs/hr}} \\ \hline 50.0 \text{ lbs/hr} \end{array}$$

$$\begin{array}{l} \text{HC} = \text{Kiln} = 0 \text{ lbs/hr} \\ \text{Power Plant (0.3 lb/ton coal)} \\ \text{(50 tons/hr)} = \underline{15.0 \text{ lbs/hr}} \\ \hline 15.0 \text{ lbs/hr} \end{array}$$

II. Potential Emissions From Individual Sources

A. Power Plant

Fuel Consumption - 50.0 tons/hr coal
Ash = 10.0%
Sulfur = 0.74%

PM	=	16(10) lbs/ton x 50 tons/hr	=	8,000 lbs/hr (AP-42)
SO ₂	=	38(0.74) x 50 tons/hr	=	1,406 lbs/hr (AP-42)
CO	=	1 lb/ton x 50 tons/hr	=	50 lbs/hr (AP-42)
HC	=	0.3 lb/ton x 50 tons/hr	=	15 lbs/hr (AP-42)
NO _x	=	0.7 lb/10 ⁶ BTU	=	863.8 lbs/hr (low NO _x burner)

B. Kiln

Fuel Consumption - 10.3 tons/hr coal
Ash = 10.0%
Sulfur = 0.74%

PM	=	(245 lb/ton of feed)(123.8 tons/hr)	=	30,331 lbs/hr (AP-42)
SO ₂	=	10.3 (2,000) (0.0074)(2)	=	305 lbs/hr
NO _x	=	(Polysius estimate)	=	416 lbs/hr
CO	=		=	0 lbs/hr
HC	=		=	0 lbs/hr

C. Dryer

Heat provided by external sources

PM	=	[(205,400 + 19,800)/2,000 ton/hr] x 96 lbs/ton	=	10,810 lbs/hr (AP-42)
----	---	---	---	-----------------------

D. Raw Mill Grinder

PM	=	[(205,400 + 19,800 + 5,000 + 17,300) /2,000] x 96 lbs/ton	=	11,880 lbs/hr (AP-42)
----	---	--	---	-----------------------

E. Clinker Cooler (Assume same emission factor as for grinder and dryer from AP-42)

PM	=	(75.0 tons clinker/hr)(96 lbs/ton)	=	7,200 lbs/hr (AP-42)
----	---	------------------------------------	---	----------------------

III. Potential Emissions From Operating Plant

A. Power Plant (Same as from power plant as individual source)

PM = 8,000 lbs/hr
SO₂ = 1,406 lbs/hr
CO = 50 lbs/hr
HC = 15 lbs/hr
NO_x = 864 lbs/hr

B. Cement Plant

1. Assumptions or Conditions

Clinker cooler exhaust is split between the kiln as combustion air; the raw mill to provide heat for drying; and the raw mill by-pass. The raw mill by-pass gases are re-combined with the gases which have passed through the raw mill and the combined stream enters the baghouse.

All kiln gases pass through the raw materials dryer to provide heat for drying. Supplemental heat is provided by externally pre-heated air. The entire gas stream exhausted from the dryer enters the baghouse.

2. Emissions

Particulate Matter -

- a. assume emissions from raw mill to be 11,880 lbs/hr based on AP-42 emission factor.
- b. assume clinker cooler emissions to be included in raw mill emissions for that portion of the cooler gases that pass through the raw mill.
- c. Assume the particulate matter in the cooler gases by-passing the raw mill to be in proportion to the fraction of the gas stream by-passing. It is estimated that 93,333 scfm of cooler gases will pass through the raw mill and that 14,078 scfm of cooler gases will by-pass the raw mill. Potential emissions from the cooler therefore are:

$$[14,078 / (14,078 + 93,333)] \times 7,200 = 944 \text{ lbs/hr}$$

- d. assume potential emissions from kiln to be 30,331 lbs/hr (AP-42) even though the kiln gases pass through the dryer. Kiln emissions are greater than dryer emissions so this assumption is conservative.

2. Emissions (continued)

- e. Assume the potential dryer emissions resulting from the externally pre-heated supplemental air are equal to the potential dryer emissions (AP-42) reduced by the fraction of dryer air provided by the kiln. The potential dryer emissions therefore are:

$$[26,875 / (26,875 + 72,910)] \times 10,810 = 2,911 \text{ lbs/hr.}$$

- f. the maximum potential particulate matter emissions expected from the cement plant will be:

Raw Mill	11,880 lbs/hr
Raw Mill By-Pass	944 lbs/hr
Kiln	30,331 lbs/hr
Dryer Supplemental Air	2,911 lbs/hr

Total Potential 46,066 lbs/hr

Other Potential Emissions - (same as from kiln as an individual source)

SO ₂	=	305 lbs/hr
NO _x	=	416 lbs/hr
CO	=	0 lbs/hr
HC	=	0 lbs/hr

C. Cement Plant & Power Plant

1. Assumptions or Conditions

See description of air stream re-use under Section entitled Allowable Emissions; Cement Plant and Power Plant and refer to attached flow diagram.

2. Emissions

Particulate Matter -

- a. raw mill potential emissions equal 11,880 lbs/hr based on AP-42.
- b. raw mill by-pass potential emissions are a fraction of potential power plant emissions:

$$[14,400 / (89,200 + 186,215)] \times 8,000 = 418 \text{ lbs/hr.}$$

2. Emissions (continued)

- c. Dryer potential emissions the greater of potential dryer emissions (10,810 lbs/hr from AP-42) or the sum of potential kiln emissions and a fraction of the power plant emissions since kiln and power plant gases are used in the dryer. Kiln and fractional power plant emissions are:

$$30,331 \text{ lbs/hr} + [186,215 / (186,215 + 89,200)] \times 8,000 \\ = 35,740 \text{ lbs/hr.}$$

- d. the maximum potential particulate matter emissions expected from the cement plant and power plant during combined operation will be:

Raw Mill	11,880 lbs/hr
Raw Mill By-Pass	418 lbs/hr
Dryer (kiln & power plant)	35,740 lbs/hr
<hr/>	
Total Potential	48,038 lbs/hr

Other Potential Emissions

SO ₂	=	1,406 + 305	=	1,711 lbs/hr
NO _x	=	864 + 416	=	1,280 lbs/hr
CO	=			50 lbs/hr
HC	=			15 lbs/hr

IV. Equipment and System Control Efficiency

A. Power Plant

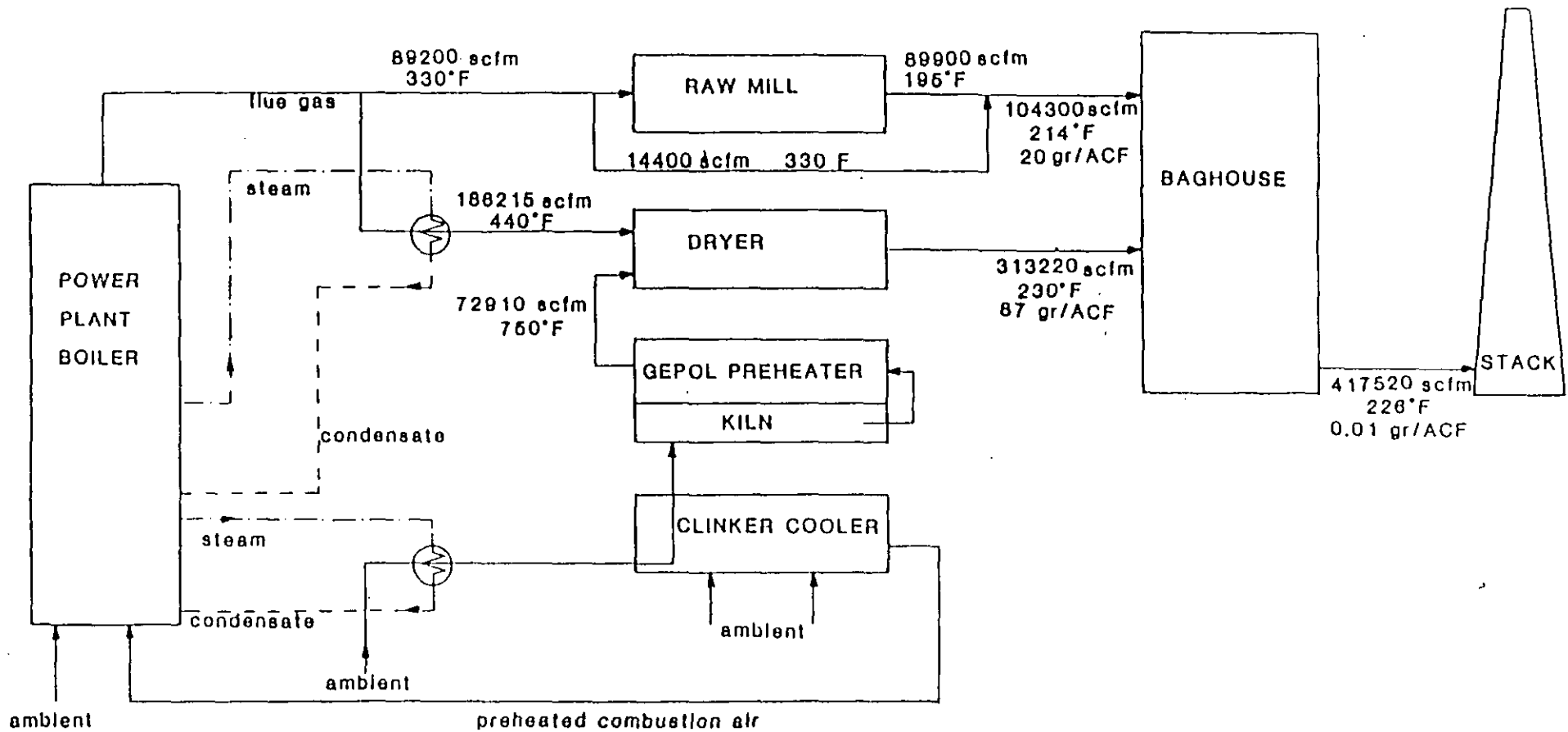
PM - $E_p = (8,000 - 123.4) \times 100/8,000 = 98.46\%$
SO₂ - $E_s = 0\%$
NO_x - $E_n = 0\%$
CO - $E_c = 0\%$
HC - $E_h = 0\%$

B. Cement Plant

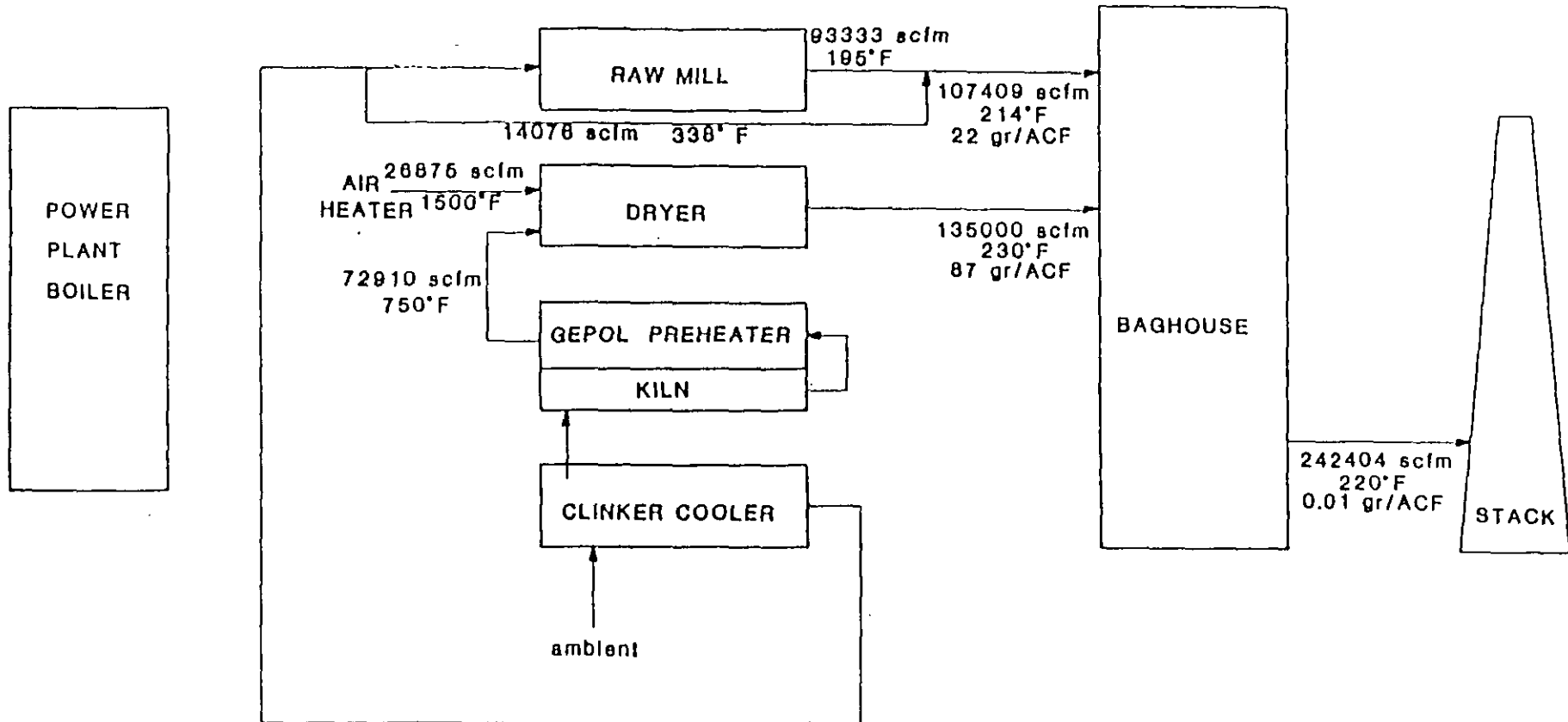
PM - $E_p = (46,066 - 49.5) \times 100/46,066 = 99.89\%$
SO₂ - $E_s = (305 - 80) \times 100/305 = 73.8\%$
NO_x - $E_n = 0\%$
CO - $E_c = 0\%$
HC - $E_h = 0\%$

C. Cement Plant & Power Plant

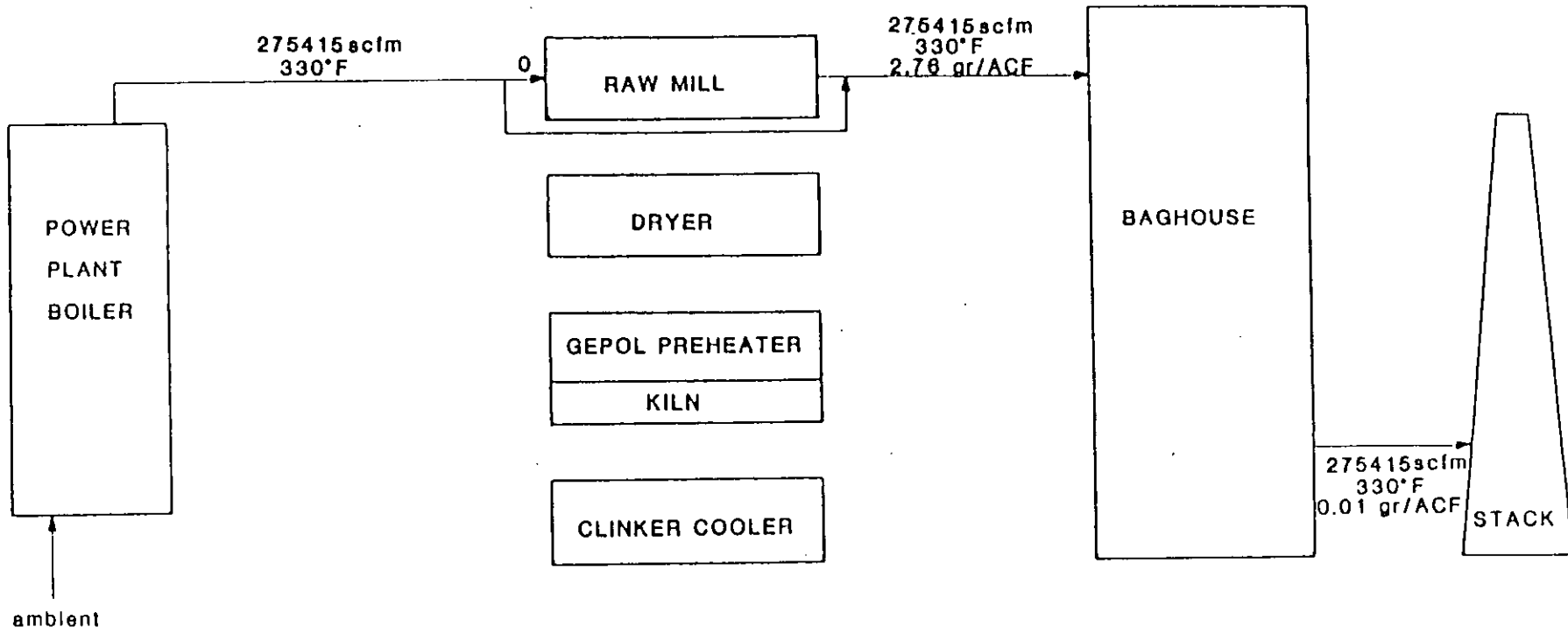
PM - $E_p = (48,038 - 172.9) \times 100/48,038 = 99.64\%$
SO₂ - $E_s = (1,711 - 1,488.8) \times 100/1,711 = 13.0\%$
NO_x - $E_n = 0\%$
CO - $E_c = 0\%$
HC - $E_h = 0\%$



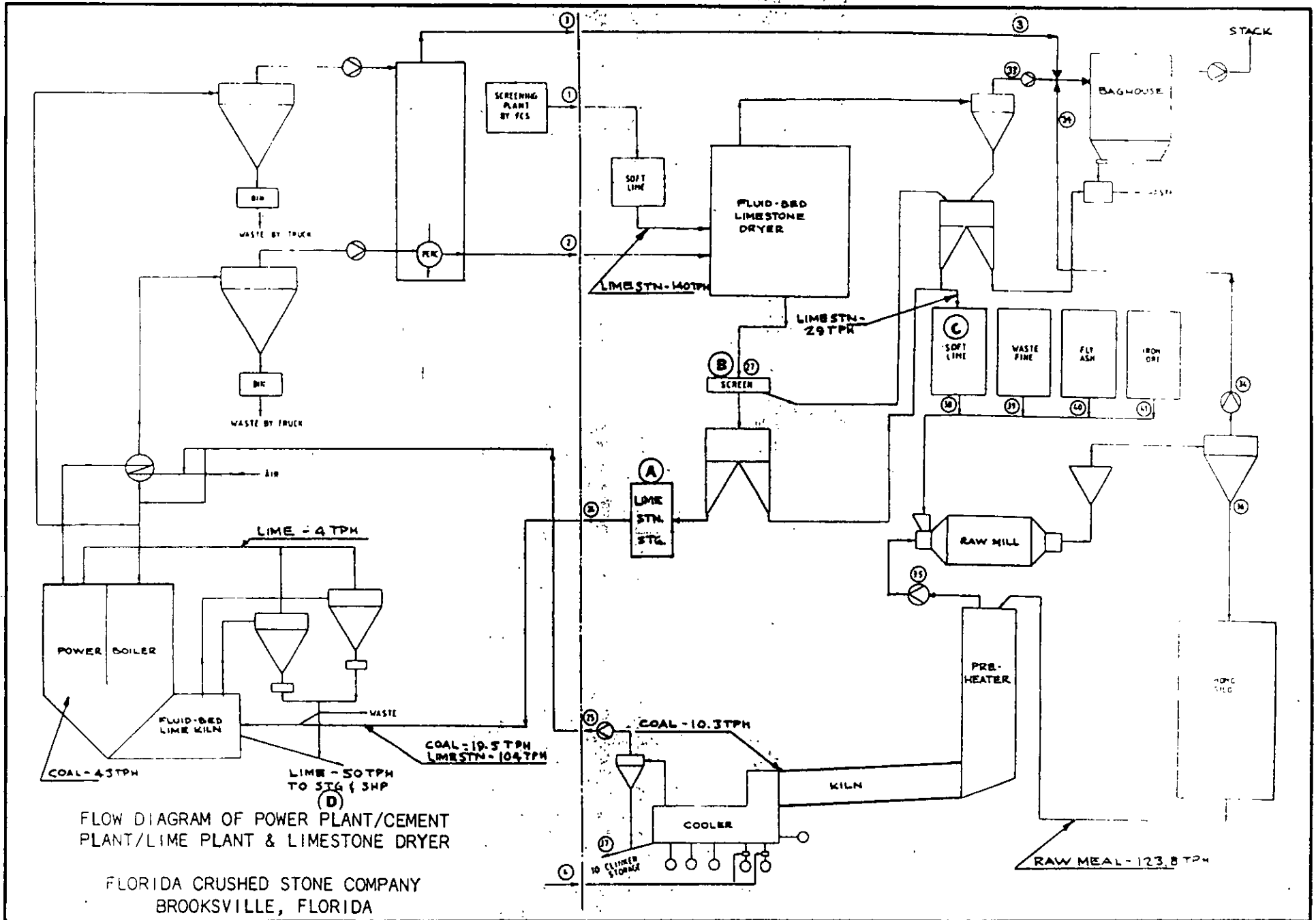
POWER PLANT OPERATING/CEMENT PLANT OPERATING



POWER PLANT NOT OPERATING/CEMENT PLANT OPERATING



POWER PLANT OPERATING/CEMENT PLANT NOT OPERATING



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

FLORIDA CRUSHED STONE COMPANY
BROOKSVILLE, FLORIDA



DER

FEB 16 1983

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

BAOM
9/28/82
12/21/82

SOURCE TYPE: Pre Mix Bin (X) New¹ () Existing¹
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; Peeking Unit No. 2, Gas Fired) Pre Mix Bins Baghouse D-12

SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.005 km North 3162.477 km
Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization

Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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. Kooqler, Ph.D., P.E.
Name (Please Type)
SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANT
Company Name (Please Type)
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Date: 12/21/82 Telephone No. (904) 377-5

(Affix Seal)

Florida Registration No. 12925

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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		
Limestone	Particulate	2-3	900,000	D 08
	Matter			

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

1. Total Process Input Rate (lbs/hr): 900,000

2. Product Weight (lbs/hr): 900,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.6	2.3	17-2.630 FAC	0.6	771	2,939	D12
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.92%	> 0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment
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, etc.). See 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). Estimated to be 99.92%
6. An 8½" 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 8½" 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 8½" 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

AC 27-61013

DER

FEB 16 1983

BAQM



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

9/28/82
12/21/82

SOURCE TYPE: Fly Ash Bin New¹ Existing¹
APPLICATION TYPE: 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; Peeking Unit No. 2, Gas Fired) Fly Ash Bin Baghouse (D23)

SOURCE LOCATION: Street Cobb Road, 2 miles N.W. of City Brooksville
UTM: East 360.017 km North 3162.337 km
Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Richard C. Entorf, Senior Vice-President
APPLICANT ADDRESS: Post Office Box 317, Leesburg, Florida 32748

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

*Attach letter of authorization
Signed: _____
Richard C. Entorf, Senior Vice-President
Name and Title (Please Type)
Date: 12/21/82 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 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.

(Affix Seal)
Signed: _____
John B. Kooqler, Ph.D., P.E.
Name (Please Type)
SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS,
Company Name (Please Type) INC.
1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)
Florida Registration No. 12925 Date: 12/21/82 Telephone No. (904) 377-5822

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)
DER FORM 17-1.122(16) Page 1 of 10

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		
Fly Ash	Particulate	5-6	8,000	D-19
	Matter			

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

1. Total Process Input Rate (lbs/hr): 8,000
2. Product Weight (lbs/hr): 8,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.6	2.4	17-2.630 FAC	0.6	771	2,939	D-23
Matter							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Baghouse with 6.5-1	Particulate	99.92%	> 0.5	Estimate
Air to Cloth Ratio	Matter			See Attached

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

	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.): _____

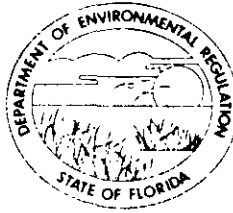
SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Section 3A
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. See Attachment 1
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Based on estimated inlet concentration. See Attachment 1
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, etc.). See 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). Estimated to be: 99.92%
6. An 8½" 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 8½" 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 8½" 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

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

February 14, 1983

CERTIFIED MAIL

Richard Entorf
Senior Vice-President
Florida Crushed Stone Company
P. O. Box 317
Leesburg, Florida 32748

Subject: Cement Plant, AC 27-16016, etc., Brooksville, Florida

Dear Mr. Entorf:


The Department has received all the revised applications of January 13, 1983, concerning your permit applications for all sources associated with your proposed Cement Plant/Power Plant project near Brooksville.

After reviewing your revised applications, we found that your proposed Cement Kiln-Power Plant baghouse (E-20) would not have the ability to reduce particulate emissions from the kiln and cooler to 37.1 lb/hr and 12.4 lb/hr based on AP-42 emission factors. We believe that AP-42 should be used as the basis for particulate emissions calculations. Please recalculate the particulate emissions from the kiln and cooler by AP-42 and recalculate the required efficiency for the baghouse.

We also need the explanations for each application which has been eliminated, those applications include Packing Plant (R 14), Masonary Silos (R 16), and Kiln Feed (H15).

When all the required information is received, we will resume processing your applications. If you have any questions on the data requested, please contact Bill Thomas and Bob King at (904) 488-1344.

Sincerely,


C. H. Fancy, P. E.
Deputy Chief
Bureau of Air Quality
Management

cc: Dan Williams
John Koogler

No. 0157970

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO Richard Entorf			
STREET AND NO. P. O. Box 317			
P.O. STATE AND ZIP CODE Leesburg, FL 32748			
POSTAGE	\$		
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	c	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	OPTIONAL SERVICES:	RETURN RECEIPT SERVICE:	
		SHOW TO WHOM AND DATE DELIVERED	c
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	c
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	c		
TOTAL POSTAGE AND FEES	\$		
POSTMARK OR DATE 2/14/83			

PS Form 3800, Apr. 1976

PS Form 3811, Jan. 1979

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

SENDER: Complete items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
 Show to whom and date delivered..... c
 Show to whom, date and address of delivery..... c
 RESTRICTED DELIVERY
 Show to whom and date delivered..... c
 RESTRICTED DELIVERY.
 Show to whom, date, and address of delivery. \$ _____

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
 Mr. Richard Entorf
 Post Office Box 317
 Leesburg, FL 32748

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	0157970	

(Always obtain signature of addressee or agent)

I have received the article described above.

SIGNATURE Addressee Authorized agent
J. P. Pal...

4. DATE OF DELIVERY
 FEB 16 1983
 LEESBURG FL

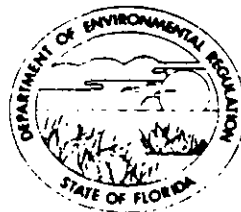
5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: _____ CLERK'S INITIALS
 FL

DEPARTMENT OF ENVIRONMENTAL REGULATION

July file

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

February 1, 1983

Mr. Richard C. Entorf
Senior Vice-President
Florida Crushed Stone Company
Post Office Box 317
Leesburg, Florida 32748

Subject: Proposed 125 MW Electric Co-generating Plant
Brooksville, Florida

Dear Mr. Entorf:

The letter is a request for additional information concerning the planned boiler to be installed at subject plant. The BACT review group requires this information to determine if subject source is an affected facility to which the provisions of New Source Performance Standards (NSPS) 40 CFR 60.40, Subpart D or 40 CFR 60.40a, Subpart Da would apply.

Please supply the following information:

1. The actual cost data to reconstruct the 1234 million Btu per hour steam generator to be installed at the subject plant. This data must include the fixed capital needed to provide all the depreciable components as defined in 40 CFR 60.2 (copy attached).
2. The fixed capital cost that would be required to construct a comparable entirely new source.
3. The amount (lbs/hr) of particulate, SO₂, and NO_x emitted to the atmosphere from the boiler prior to the boiler being shut down in 1977. Include any available emission test data and operating permit conditions from Ohio.
4. List all boiler components that were replaced and indicate if the item was purchased new from a manufacturer of said components, or, is a reconditioned component obtained from another existing source. For example: forced draft fan, burners, coal-pulverizers, air heaters, attemperator, radiant or convection superheaters, etc. Please be as specific as possible.

Mr. Richard C. Entorf
February 1, 1983
Page Two

5. The city, state, owner, and address of the aforementioned boiler when operated during the period from 1944 to 1977.

If any of the submitted information is stamped confidential, the data will be handled according to the provision of Subsection 403.111 of the Florida Statutes. As soon as the requested information is received, the determination of Best Available Control Technology will continue.

Sincerely yours,



C. H. Vancy, P.E.
Deputy Bureau Chief
Bureau of Air Quality Management

CHF/bjm

cc: without attachment

Hamilton S. Owen, Jr.
Power Plant Siting

John B. Koogler, Ph.D., P.E.
Sholtes & Koogler
Environmental Consultants, Inc.

Brian Beals, EPA Region IV

Dan Williams, DER Southwest District