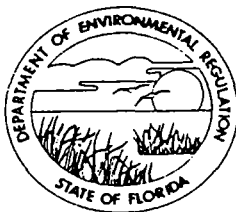


STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

RECEIVED

200pd.
8-24-90
Rpt. #151161
BOB MARTINEZ
GOVERNOR

SOUTHWEST DISTRICT
4520 OAK FAIR BLVD.
TAMPA, FLORIDA 33610-7347
813-823-5561
Suncom-552-7612



AUG 24 1990

E.P.C. OF H.C.
AIR PROGRAM

DALE TWACHTMANN
SECRETARY
DR. RICHARD D. GARRITY
DISTRICT MANAGER

AC 29-185895

RECEIVED
DER-MAIL ROOM
1990 AUG 30 AM 11:14

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Cement Storage Silos [] New¹ [X] Existing¹
APPLICATION TYPE: [] Construction [] Operation [X] Modification
COMPANY NAME: Lafarge Corporation COUNTY: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Four (4) white cement silo w/baghouse No. 8.

SOURCE LOCATION: Street 2001 Maritime Blvd. City Tampa
UTM: East 17-358.0E North 3090.7N
Latitude 27 ° 56 ' 08 "N Longitude 82 ° 26 ' 36 "W

APPLICANT NAME AND TITLE: Guy Schuch, Terminal Manager

APPLICANT ADDRESS: 2001 Maritime Blvd., Tampa, Florida 33605

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Lafarge Corporation

I certify that the statements made in this application for a construction/modification 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

Attachment I

Signed: Guy Schuch
Guy Schuch, Terminal Manager
Name and Title (Please Type)

Date: 8/20/90 Telephone No. 813/247-4831

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

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

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

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

Signed

Robert E. Wallace III
Robert E. Wallace III, P.E., President

Name (Please Type)

Environmental Engineering Consultants, Inc.

Company Name (Please Type)

P. O. Box 7854, Tampa, FL 33673

Mailing Address (Please Type)

Florida Registration No. 21608

Date: 8/20/90

Telephone No. 813/237-3781

SECTION II: GENERAL PROJECT INFORMATION

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

This is a modification of Operation Permit No. A029-127512. Four silos, Nos 11, 12, 17 and 18 will be pneumatically loaded from ships, as well as from trucks and particulate emissions controlled by a 12,000 ACM Baghouse No. 8. (Continued on Attachment II)

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

Start of Construction September, 1990 Completion of Construction February, 1990

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

	Purchase	Installation	Total
Dust Collector	\$20,000	14,000	34,000
Power and Controls	3,000	7,000	10,000
Demolition-Existing Dust Coll.		4,000	4,000
Contingency	2,300	2,500	4,800
Total	\$25,300	27,500	52,800

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

Permit No. A029-127512 Loc. No. 8 Issued 5/8/87 Expires 4/2/92

Permit No. A029-127516 Loc. No. 23 Issued 5/8/87 Expires 4/2/92

Permit No. A029-132629 Loc. No. 24 Issued 5/8/87 Expires 4/2/92

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;
if power plant, hrs/yr - ; if seasonal, describe: -
Ship offloading operation to run a maximum of 100 hours per year.

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

1. Is this source in a non-attainment area for a particular pollutant? N/A
 - a. If yes, has "offset" been applied?
 - b. If yes, has "Lowest Achievable Emission Rate" been applied?
 - c. If yes, list non-attainment pollutants.
 2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI.
 3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII.
 4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source?
 5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source?
- H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? Yes
- a. If yes, for what pollutants? particulate
 - b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Portland Cement	Particulate		See Attachment III	See Attachment IV

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

1. Total Process Input Rate (lbs/hr): See Attachment III

2. Product Weight (lbs/hr): _____

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

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulate	See Attachment III		17-2.650(2)(c)	3.09 lb/hr.	See Attachment III		
			11.b.(i) & (ii)				
			0.03 gr/dscf				
			5% opacity				

¹See Section V, Item 2.

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

³Calculated from operating rate and applicable standard.

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

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Fuller Fabric Filter	Particulate	99 + %	-	Purchase Specification
or equal				Sheet Attached:
				Attachment
				V

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

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

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

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

Annual Average _____ Maximum _____

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

Dust collected by control device will be returned to system.

Brief description of operating characteristics of control devices: _____

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

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
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.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" 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).
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.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY N/A

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

Yes No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

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

Yes No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

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

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

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

1. Control Device/System:

2. Operating Principles:

3. Efficiency:*

4. Capital Costs:

*Explain method of determining

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:¹

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:²

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION N/A

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

B. Meteorological Data Used for Air Quality Modeling

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

C. Computer Models Used

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

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

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

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

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

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

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

FLORIDA CEMENT



Lafarge Corporation

December 18, 1989

TO WHOM IT MAY CONCERN:

This is to advise that Mr. Guy Schuch is Plant Manager of the Tampa plant. In this capacity, he is a Lafarge Corp. representative authorized and responsible for preparing permit applications and related correspondence as required by the Florida Dept. of Environmental Regulations.

F. W. Koester

F. W. Koester
President, Southern Region
Lafarge Corp.

STATE OF FLORIDA
COUNTY OF HILLSBOROUGH

I hereby certify that the foregoing is a true and correct copy of the original instrument.

WITNESS my hand and official seal, this 21st day of August A.D., 1990.

Clifton B. Tait

Notary Public
State of Florida



NOTARY PUBLIC, STATE OF FLORIDA,
MY COMMISSION EXPIRES: NOV. 4, 1990,
BONDED THRU NOTARY PUBLIC UNDERWRITERS

LAFARGE CORPORATION - A029-127512

ATTACHMENT II

Continued from Section IIA

This modification will result in a reduction in overall particulate emissions since white cement will be shipped directly to the Tampa Plant silos for packaging.

At present, white cement for packaging is pneumatically off loaded from ships at Terminal III under Permit No. A029-127516, loaded into bulk carrier trucks at Terminal III under Permit No. A029-132629 and pneumatically transferred to the four white cement storage silos at the Tampa Plant under Permit No. A029-127512.

This modification will not eliminate the handling of white cement at Terminal III, but will greatly reduce it by normally unloading the white cement for packaging directly to the package storage silos at the Tampa Plant. White cement shipped by bulk truck to customers will still be handled through Terminal III. Transfer of white cement from Terminal III by truck to the plant will still be possible, but only used when necessary (i.e. if white cement for packaging runs out before next white ship arrives). Air emission sources will comply with F.A.C. Chapter 17-2 regulations.

ATTACHMENT III

Process Weights and Emissions Estimates

The proposed ship offloading system for white cement will pump 20,000 tons per year into silos at the main plant. The pumping rate is dependent on the individual ship pumping capacity. The expected range is 200-500 tons per hour.

The estimated maximum emission rate (using the RACT emissions limit of 0.03 gr/dscf) is:

$$E = (12,000 \text{ cu.ft./min.})(0.03 \text{ gr/cu.ft.})(60 \text{ min/hr})/(7000 \text{ gr/lb})$$

$$E = 3.09 \text{ lb/hr.}$$

Actual tons per year (based on 100 hrs/yr operation @ 200 TPH)

$$E = (3.09 \text{ lb/hr})(100 \text{ hrs/yr})/(2000 \text{ lb/ton})$$

$$E = 0.15 \text{ ton/year maximum}$$

The unloading rate is expected to be greater than 200 TPH, with operating hours proportionally less, resulting in lower total tons per year.

The existing truck transfer operation, which will be discontinued except for special cases as explained in Attachment II, currently has a total emissions of 0.16 tons per year.

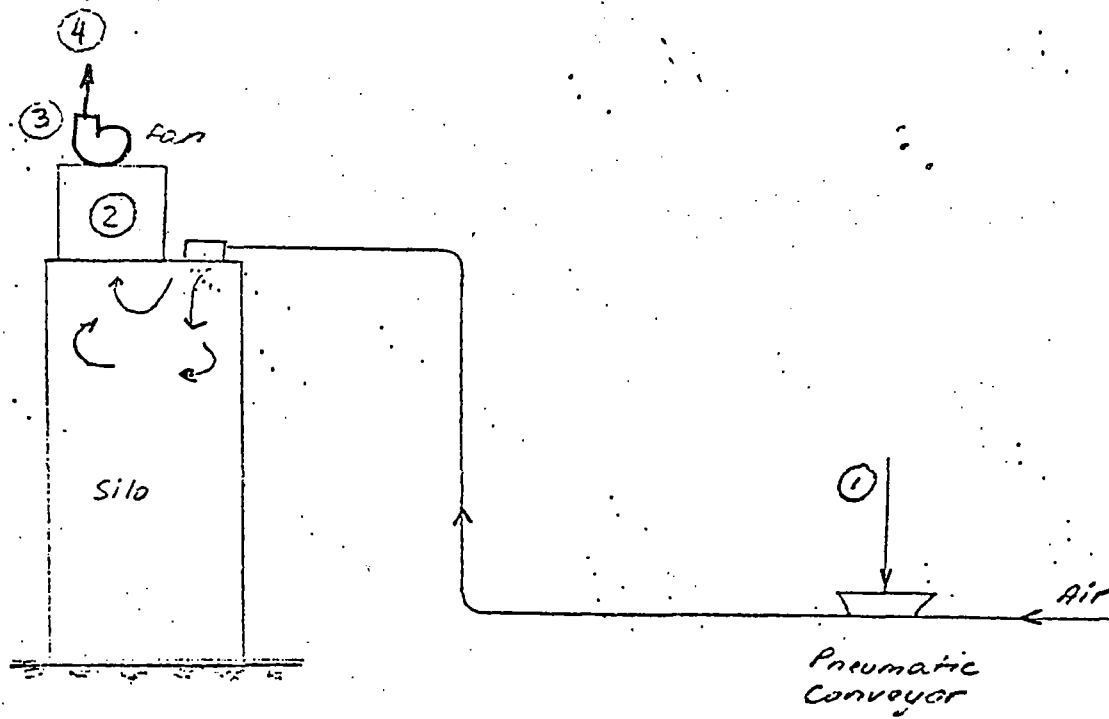
As a result of the proposed ship offloading system, less white cement will be handled through the existing systems at Terminal III. The process weights for both Permit No. A029-127516 for the ship offloading and Permit No. A029-132629 for

truck loading will be reduced by 20,000 tons per year from 52,500 T/yr to 32,500 T/yr. As a result, the total emission will be reduced by 0.2 T/yr. for Permit No. A029-127516 and by 0.06 T/yr for Permit No. A029-132629.

The net decrease in total plant emissions resulting from the proposed new system will be 0.27 tons per year.

new baghouse emits 0.15 Tpy

*existing ship unloading reduced by amount based new system
truck loading*

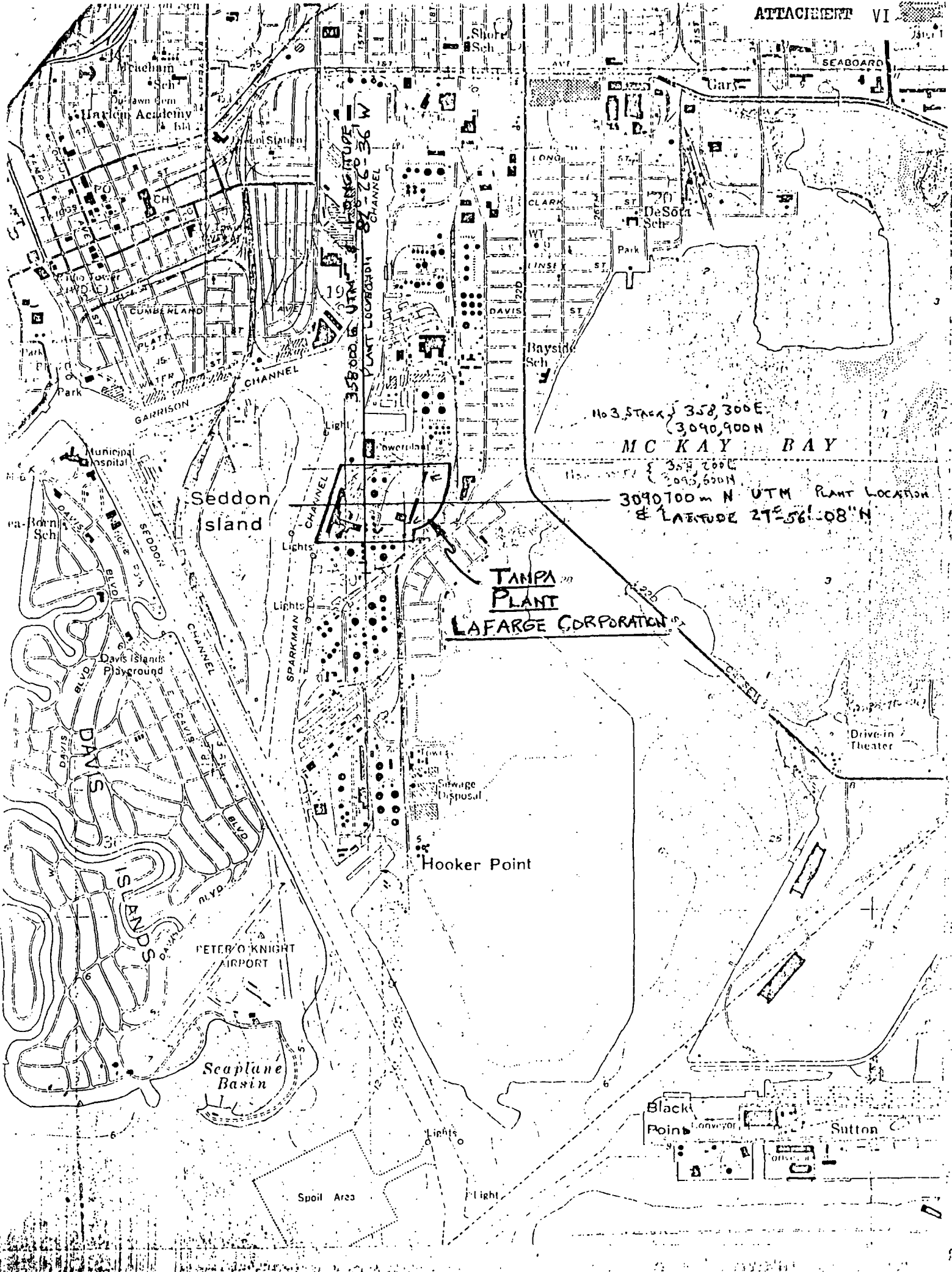


FLOW SHEET
Cement Conveying

1. Cement
2. Dust Collector
3. Flue
4. Point of Discharge

**TAMPA PLANT
FABRIC FILTERS**

Point Number (from Flow Diagram) Location No. 8		Manufacturer & Model No. (if available) Fuller Model 144DS10 (or equal)		
Name of Abatement Device Dust Collector		Type of Particulate Controlled Portland Cement Dust		
GAS STREAM CHARACTERISTICS				
Flow Rate (acfm)		Gas Stream Temperature (°F)	Particulate Grain Loading (grain/scf)	
Design Maximum	Average Expected		Inlet	Outlet
12,000	12,000	Ambient	--	0.02
Pressure Drop (in. H₂O)		Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements	
8		Ambient	(hp)	(ft ³ /min)
			30	12,000
PARTICULATE DISTRIBUTION (By Weight)				
Micron Range	Inlet		Outlet	
0.0-0.5	%		%	
0.5-1.0	%		%	
1.0-5.0	%		%	
5-10	%		%	
10-20	%		%	
over 20	%		%	
FILTER CHARACTERISTICS				
Filtering Velocity (acfm/ft² of Cloth)	Bag Diameter	Bag Length	Number of Bags	Number of Compartments in Baghouse
	5 (in.)	10 (ft)	144	one
Bag rows will be:		Walkways will be provided between banks of bags:		
Staggered Straight		Yes No		
Filtering Material: Polyester				
Describe Bag Cleaning Method and Cycle: Reverse Pulse Jets of High Pressure Air with Adjustable Cycle.				
ADDITIONAL INFORMATION				



No 3 Stack 358,300E
3090,900N

MCKAY BAY

358,300E
3090,900N

3090700m N UTM PLANT LOCATION
& LATITUDE 27°56'08"N

TAMPA PLANT
LAFARGE CORPORATION

Seddon Island

Hooker Point

PETER O KNIGHT AIRPORT

Seaplane Basin

Black Point
Sutton

Spoil Area

Lights

Light

PAY

DATE 08/17/90 CHECK NO. 00012476 AMOUNT *****200.00

TWO HUNDRED AND 00/100 DOLLARS

THE ORDER OF

STATE OF FLORIDA
DEPT OF ENVIRNMTL REGULATION
TALLAHASSEE, FL.
32399-1002

Lafarge Corporation

AUTHORIZED REPRESENTATIVE



Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) w/baghouse No. 8.

SOURCE LOCATION: Street 2001 Maritime Blvd. City Tampa
UTM: East 17-358.0E North 3090.7N
Latitude 27 ° 56 ' 08 "N Longitude 82 ° 26 ' 36 "W

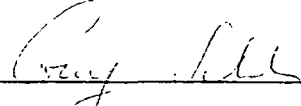
APPLICANT NAME AND TITLE: Guy Schuch, Terminal Manager
APPLICANT ADDRESS: 2001 Maritime Blvd., Tampa, Florida 33605

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I am the undersigned owner or authorized representative* of Lafarge Corporation
I certify that the statements made in this application for a construction/modification 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: 
Guy Schuch, Terminal Manager
Name and Title (Please Type)

Attachment I

Date: 8/21/90 Telephone No. 813/247-4831

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

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* See Florida Administrative Code Rule 17-2.100(57) and (104)