

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

September 26, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Robert E. Wallace III, P.E.
Environmental Engineering Consultants, Inc.
Post Office Box 7854
Tampa, Florida 33673

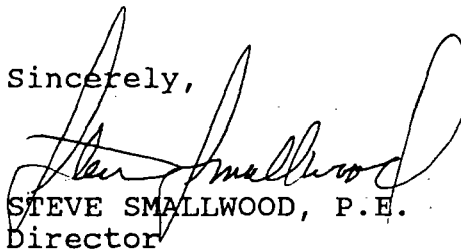
Dear Mr. Wallace:

Re: Permit No. AC 29-185895, Lafarge Corporation

Specific Condition No. 2 of the referenced permit for a ship to silo transfer system consisting of an enclosed screw conveyor, seal tank, Fuller Model 144 DS 10 (or equal) dust collector, and 500 TPH white cement pneumatic conveyor system limits visible emissions to 5% opacity pursuant to F.A.C. Rule 17-2.650(2)(c)11. Lafarge Corporation must do whatever is necessary to comply with the permit restriction. This may include covering the shipholds during unloading operations. For this reason, the Department does not believe it is appropriate to state in the permit that the transfer system may operate with the shipholds uncovered. We respectfully deny your request to amend the referenced permit to authorize operation with the shipholds uncovered.

A shiphold to shiphold cement transfer system was mentioned in the Environmental Protection Commission of Hillsborough County's September 12, 1991, letter. This system is not covered by the referenced permit. Unless it is covered by some other permit, we recommend Lafarge Corporation apply for a construction permit for the shiphold to shiphold transfer system.

Sincerely,



STEVE SMALLWOOD, P.E.
Director

Division of Air Resources Mgmt.

SS/WH/plm

Attach: Enviro. Eng. Consult. September 4, 1991, letter
EPCHC September 12, 1991, letter

c: Bill Thomas, SWD
Darrel Graziani, EPCHC
Guy Schuch, Lafarge Corp.

September 4, 1991



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

RECEIVED
ENVIRONMENTAL
ENGINEERING
CONSULTANTS, INC.

SEP 11 1991

Division of Air
Resources Management

Re: Lafarge Corporation
White Cement Unloading
AC29-185895

Dear Mr. Fancy:

Lafarge, Inc. is currently in the process of applying for an operating permit with the Florida Department of Environmental Regulation's Tampa Office and the Environmental Protection Commission of Hillsborough County (EPCHC) for the white cement unloading operation.

During their review, EPCHC raised a concern that the permit does not allow for the shiphold to be open during unloading.

Specific Condition No. 2 reads:

"2. Particulate matter emissions from the No. 8 baghouse controlling silos Nos 11, 12, 17 and 18 shall not exceed 0.03 grains/DSCF, 3.1 lbs/hr, and 5% opacity. Visible emissions from the shiphold shall not exceed 5% opacity."

Although there is not a reference to the applicable regulation from which the standard for the shiphold was obtained, the Final Determination dated January 31, 1991 does reference the rule. In response to several recommendations from EPCHC, the language of the Final Determination states "...the allowable visible emissions from the shiphold be reduced to 5% opacity as required by the Department's regulations (FAC Rule 17-2.650(2)(c)11). The Department agrees with EPCHC's comment and has changed Specific Conditions Nos 2 and 3 of the proposed permit to include these changes."

Since the permit clearly addresses the visible emission limit on the hold of the ship, both Lafarge, Inc. and EEC assumed FDER and EPCHC recognized the need for the hold to be open in order to allow the screw conveyer system to operate.

5119 NORTH FLORIDA AVENUE
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Mr. C. H. Fancy
September 4, 1991
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The initial compliance test on the shiphold was conducted on May 12, 1991. Based on our conversations with EPCHC, a three hour visible emission test would be required. During the second hour of the test, a very minute increase in opacity was observed hovering over the hold of the ship for a seven (7) minute period. During that time the average opacity was 15.2%. During the rest of the test period, the hold of the ship was in compliance. A representative from EPCHC was present during a portion of the test, he observed the open holds and found no problem with the operation.

On June 5, 1991 representatives from Lafarge, Inc. and EEC met with EPCHC to discuss this minor VE problem on the initial compliance test and proposed methods to correct the problem. This procedure was implemented, a retest was conducted on July 21, 1991 and confirmed the source to be in compliance with permit limitation. The county again observed the operation with the holds open and indicated no problem.

EPCHC feels the intent of the permit was to have the hold of the ship closed during unloading. It has been our intent all along to have the holds, where the screw conveyor operates, open during unloading.

The confusion may have arisen in EEC's October 18, 1990 response to FDER's letter of September 21, 1990. In the letter the "enclosed screw conveyor" system was discussed. We have attached photographs and drawings of the screw conveyor obtained from the supplier. As you can see, the screw conveyor is enclosed. This assists in reducing fugitive emissions. In addition, the letter goes on to say that the "shipboard personnel will be instructed to operate the conveying equipment so as to keep fugitive emissions at a minimum". It is our opinion that this infers the hold to be open or the issue of fugitive emissions would be moot if the hold was completely closed.

It has been EEC's experience that Subsection 17-2.650(2)(c)11., FAC has only been applied in permits when the hold of a ship is fully or partly open. Conventional pneumatic unloading of cement using a closed hold does not have this limitation.

We would therefore request that the language of the construction permit be amended to clearly allow for the shipholds to be open during unloading activities associated with the screw conveyor system so this confusion does not arise again.

Mr. C.H. Fancy
September 4, 1991
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Should you or your staff have any questions, please call Jim Estler at 238-3311.

Sincerely,

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.



Robert E. Wallace III, P.E.
President

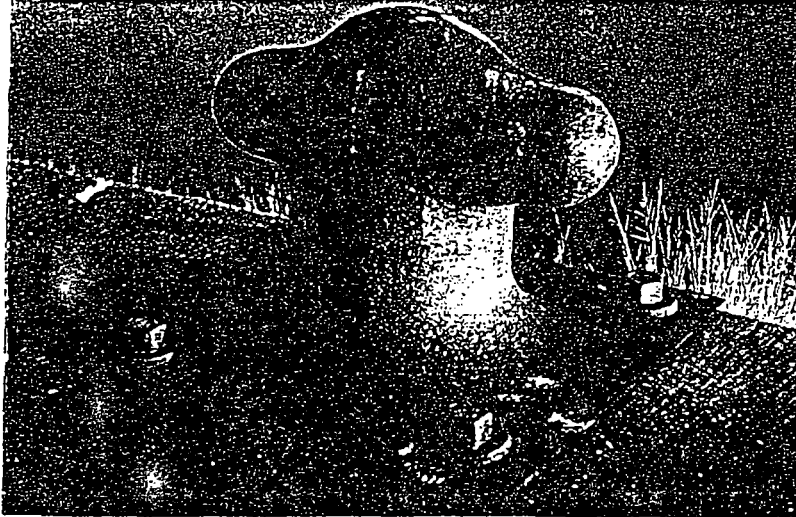
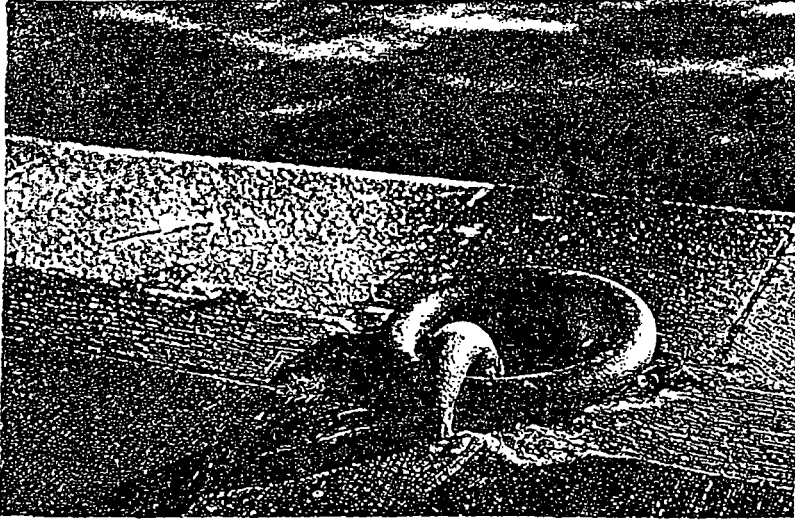
REW/JE/lrp/dege

Enclosure:

cc: Darrel J. Garaziani, EPCHC
Guy Schuch, Lafarge, Inc., Tampa
John W. Wittmayer, Lafarge, Dallas

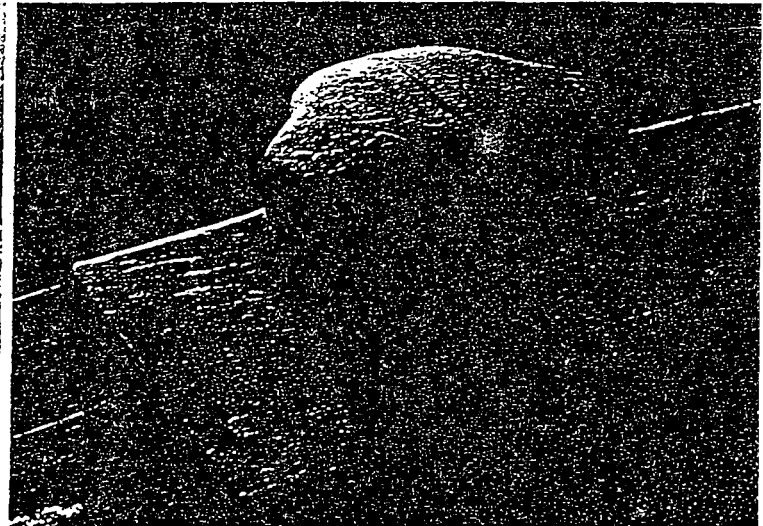
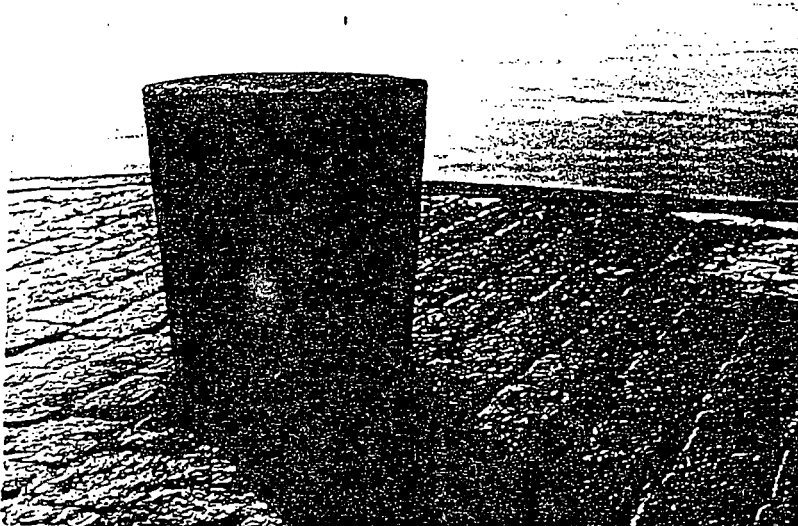
H. Hanks

B. Thomas, cc dist

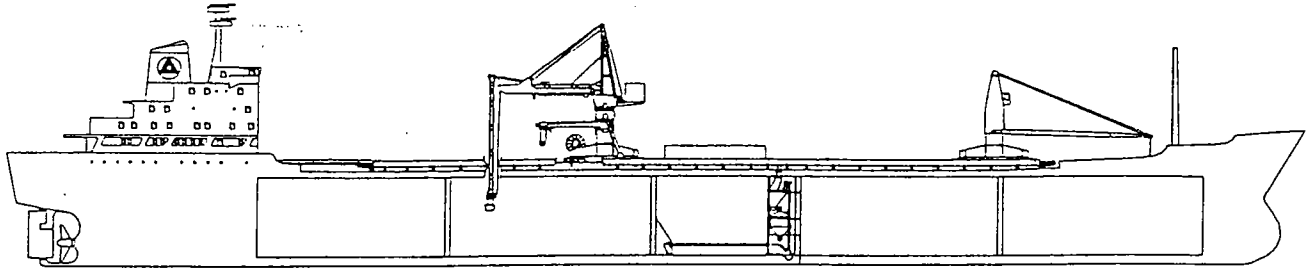


Self-loading and self-unloading system for Bulk Carriers

– easy flowing commodities



Multipurpose self-unloader



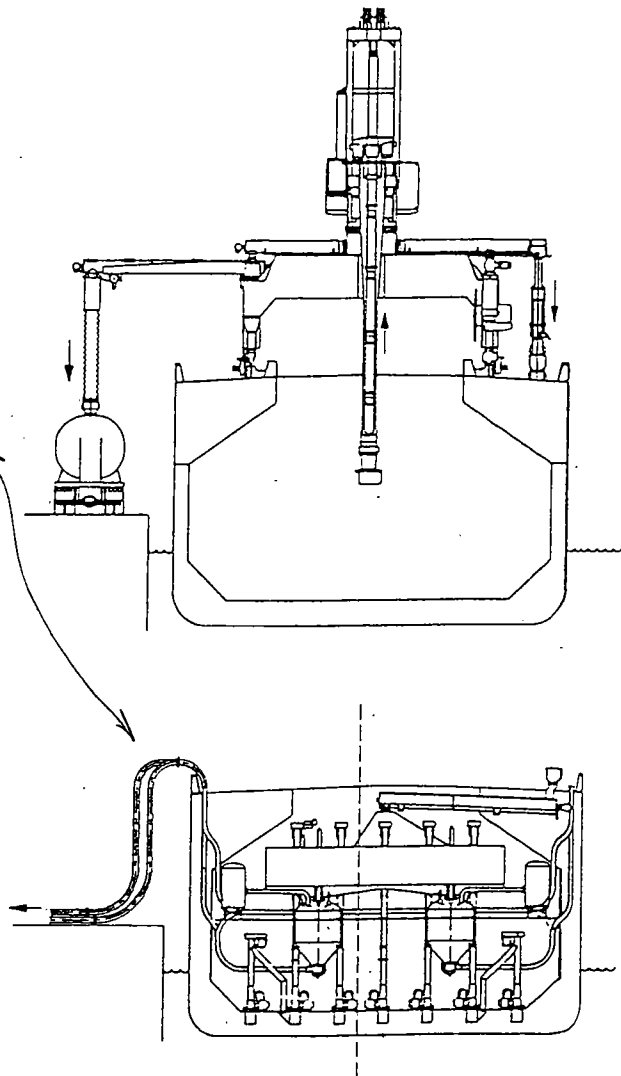
Self-unloaders fitted with a gantry type screw unloader offer increased flexibility regarding the type of commodities which can be transported.

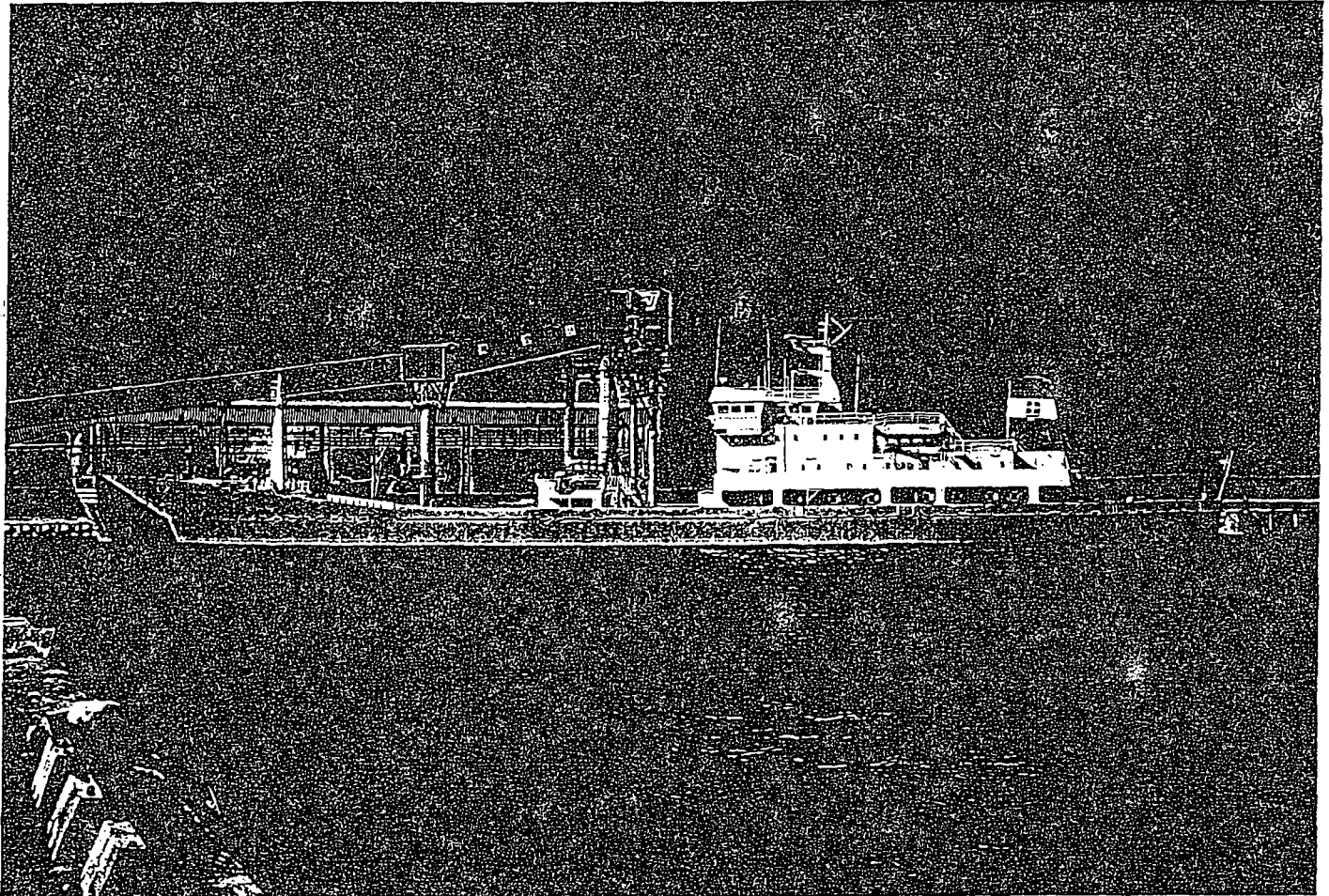
The gantry type unloader travels on deck and reclaims the material from the holds. The material can be discharged either direct into trucks or into the shore-side receiving conveyors by means of loading arms on both sides on the gantry.

Alternatively, the material can be discharged into a longitudinal conveyor on deck and from there to the pneumatic pumping station for discharge into the shore-side pipelines.

The above illustration shows a combination of the two self-unloading systems with the centre hold equipped for totally enclosed unloading. Hereby, the ship can discharge one hold independent of weather conditions. The fact that the vessel can carry a wide range of products makes the vessel very flexible with increased possibilities for return freights and thereby improved economy.

This system is particularly suitable for conversions of standard bulk carriers into self-unloaders as the modifications are kept to a minimum.





CMH MARINE AB is a company within the Consilium Group, which is organized in three business areas:

Materials Handling
 Marine & Industrial Products
 Trading

Within business area Materials Handling CMH Marine plays a dominant role with its two main product groups; Nordströms self-unloading equipment for bulk carriers and Siwertell continuous screw type ship unloaders.



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September 12, 1991

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

Re: Hillsborough County - AP
DER File No. AC29-185985
Lafarge Corporation

Dear Mr. Fancy:

In regard to Mr. Robert Wallace's September 4, 1991 request to amend the above construction permit I would like the Environmental Protection Commission of Hillsborough County to be on record as recommending that the request be denied based on our belief that the specific process permitted by the above air construction permit is not the process currently being employed to unload the white cement from the ship to the silo. The Environmental Protection Commission of Hillsborough County feels that the difference although small does trigger "modification" since particulate matter will be released from the shiphold as demonstrated during both compliance tests. These emissions were not originally accounted for in the construction application (attachment III of the application) since the hatches were to be closed. The following descriptions should help clarify the Environmental Protection Commission of Hillsborough County's position.

Description #1, October 18, 1990 response:

(part of Reply for AC)

The ship uses an enclosed screw conveyor to pick-up and transfer the cement from hold storage to a sealed tank on the ship where air is injected for the pneumatic transferring process. The cement is delivered from the ship directly into the silo by this pneumatic conveying system. No other transfers are made.

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SEP 16 1991

Division of Air
Resources Management

Mr. Clair Fancy, P.E.
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Description #2, June 13, 1991 response:

A dedicated vessel, the Dania Portland is used to transport cement between it's loading port in Denmark, and various ports in the United States and Puerto Rico. Tampa is usually the last stop on it's voyage. The vessel is divided into 5 holds containing cement. The center or #3 hold, with a capacity of about 4,000 tons has at it's bottom a reclaim system that conveys the cement to a pneumatic pump discharging the cement to the receiving silos. Conveying from #3 hold is performed with the hatches closed, and all systems are enclosed.

Permit issued
by BAR

Cement from the 4 other holds has to be transferred to #3 hold for pumping off the silos. This is done using a "Siwertell" ship unloading system. This consists of a ship mounted gantry screw unloader that picks up the cement from the open hatches with a screw head and transports it through an enclosed conveying system to the pumping hold. The system is remotely operated by the ship's operator.

This
activity
not
addressed
in permit

There is a certain amount of dust created around the screw head when material is agitated which is confined to the holds. However, when banks of material form and collapse, greater amounts of dust may be created for short periods of time and may escape through the open hatches. Without a breeze, this dust may hover above the hold of the ship. We believe this was most likely the case during the second hour of the visible emission test.

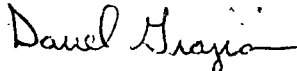
The above descriptions reveal a small but significant difference in that an additional transfer (hold to hold) is now required. This additional transfer requires that the hatch(es) be open thus allowing fugitive emissions. We strongly believe that this difference reflects a change in the method of operation which resulted in an increase in actual emissions. This belief has been communicated to Lafarge and Environmental Engineering and Consultants.

This
not
addressed
by BAR
permit

Mr. Clair Fancy, P.E.
September 12, 1991
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Thank you for considering our recommendations on this matter and should you have any questions please feel free to call me at (813) 272-5530.

Sincerely,



Darrel Graziani
Chief, Air Permitting Section

bm

cc: J. Harry Kerns, P.E., FDER SW-District
Robert Wallace, Environmental Engineering and Consultants
Guy Schuch, Lafarge Corporation

Enclosures: Attachment III - Permit Application
October 18, 1990 EEC Letter
June 13, 1991 Lafarge Letter
July 21, 1991 Method 9

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)

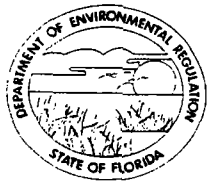
$$E = (3.09 \text{ lb/hr})(100 \text{ hrs/yr})/(2000 \text{ lb/ton})$$

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

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



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
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To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Steve Smallwood
FROM: Clair Fancy *by J.P. Herin*
DATE: September 26, 1991
SUBJ: Amendment of Permit
Lafarge Corporation

Attached for your approval and signature is a letter that will deny a request from Lafarge Corporation to amend a construction permit for a cement unloading system. The request was to state in the permit that the ship could be unloaded with the shipholds uncovered.

I recommend your approval and signature.

CF/WH/plm

Attachment

CHF *(OK)* *[Signature]* *10-10-91*

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece next to the article number.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Robert E. Wallace III, P.E.
 Environmental Eng.
 Consultants, Inc.
 P.O. Box 7854
 Tampa, FL 33673

4a. Article Number

P 617 884 172

4b. Service Type

- Registered Insured
- Certified COD
- Express Mail Return Receipt for Merchandise

7. Date of Delivery

10-11-91

5. Signature (Addressee)

[Handwritten Signature]

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

[Handwritten Signature]

PS Form 3811, October 1990

U.S. GPO: 1990-273-861

DOMESTIC RETURN RECEIPT

P 617 884 172



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Env. Eng. Cons.

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Tampa, FL

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Return Receipt Showing to Whom, Date, & Address of Delivery

TOTAL Postage & Fees

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10-11-91
AR 29-105895

PS Form 3800, June 1990