

Check Sheet

→ P 5/5

Company Name: *PM&M*  
Permit Number: *AC 27-173474*  
PSD Number:  
County:  
Permit Engineer:  
Others involved:

Application:

- Initial Application
- Incompleteness Letters
- Responses
- Final Application (if applicable)
- Waiver of Department Action
- Department Response
- Other

Intent:

- Intent to Issue
- Notice to Public
- Technical Evaluation
- BACT Determination
- Unsigned Permit
- Correspondence with:
  - EPA
  - Park Services
  - County
  - Other
- Proof of Publication
- Petitions - (Related to extensions, hearings, etc.)
- Other

Final Determination:

- Final Determination
- Signed Permit
- BACT Determination
- Other

Post Permit Correspondence:

- Extensions
- Amendments/Modifications
- Response from EPA
- Response from County
- Response from Park Services
- Other

*MD actual certificate of completion*

BEST AVAILABLE COPY

P 256 396 119

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

U.S.G.P.O. 1989-234-555

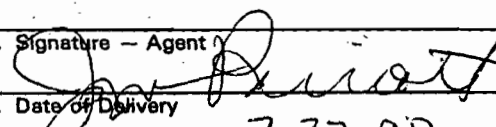
PS Form 3800, June 1985

Sent to	Henry E. Andre
Street and No.	FLA Mining & Mat.
City, State and Zip Code	P.O. BOX 6
Postage	Brooksville, FL
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	7-25-90
	AC 27-173474

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

- 1.  Show to whom delivered, date, and addressee's address. (Extra charge)
- 2.  Restricted Delivery (Extra charge)

3. Article Addressed to: Henry E. Andre, V.P. Fla. Mining & Materials P.O. BOX 6 Brooksville, FL 34605-0006	4. Article Number P 256 396 119
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
5. Signature -- Address X	Always obtain signature of addressee or agent and <b>DATE DELIVERED.</b>
6. Signature -- Agent X 	8. Addressee's Address (ONLY if requested and fee paid)
7. Date of Delivery 7-27-90	

File Copy



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMIT

Mr. Henry E. Andre, Vice-President  
Florida Mining and Materials  
Post Office Box 6  
Brooksville, Florida 34605-0006

July 25, 1990

Enclosed is construction permit No. AC 27-173474 to modify the operation of Kiln No. 2 at your facility near Brooksville, Hernando County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any party to this permit has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

*Benny D. Anderson*  
fr — C. H. Fancy, P.E.  
Chief  
Bureau of Air Regulation

Copy furnished to:

- B. Thomas, SW District
- J. Tessitore, P.E.
- G. Worley, EPA

Ready file } 7/25/90  
John Reynolds } *ARM*

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of buisness on 7-25-90.

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

Kuni Jaber  
Clerk

7-25-90  
Date

Final Determination

Florida Mining and Materials  
Brooksville, Hernando County, Florida

Modification of Kiln No. 2 Operation  
Permit No. AC 27-173474

Department of Environmental Regulation  
Division of Air Resources Management  
Bureau of Air Regulation

July 20, 1990

## Final Determination

The construction permit application has been reviewed by the Department. Public notice of the Department's Intent to Issue was published in the Sun-Journal on June 22, 1990. The Technical Evaluation and Preliminary Determination were available for public inspection at the DER's Southwest District office in Tampa and the DER's Bureau of Air Regulation office in Tallahassee.

Comments requesting minor changes were received from the applicant prior to the public notice period.

The substantive changes requested are addressed below:

- A. Revise hourly production limit by averaging annual production based on 8200 hours/yr.

According to EPA's June 13, 1989 memorandum on limiting potential to emit, the averaging time for limits on production may not exceed the annual limit rolled on a monthly basis. Therefore, Specific Condition No. 3 has been revised to allow a rolling 30-day average limit on production rate.

- B. Add language allowing flolite oil to be used during periods when coal is "excessively wet."

Instead of "excessively wet," the following language has been added to Specific Condition No. 5: "or when coal moisture content exceeds the normal range."

- C. Increase proposed NO<sub>x</sub> limit from 162.3 lbs/hr to 250 lbs/hr.

EPA's policy on netting calculations will not allow an increase in the proposed limit. To obtain a higher limit, the application would have to be refiled under the Prevention of Significant Deterioration (PSD) rule.

The final action of the department will be to issue the permit as modified above.



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

**PERMITTEE:**

Moore McCormack Resources,  
Inc., dba  
Florida Mining and Materials  
P. O. Box 6  
Brooksville, Florida  
34605-0006

Permit Number: AC 27-173474

Expiration Date: December 31, 1991

County: Hernando

Latitude/Longitude: 28°38'34"N  
82°28'25"W

Project: Modification of Kiln  
No. 2 Operation

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of the No. 2 kiln to burn Flolite oil, increase operating rates, and operate kiln without operating the raw mill. The facility is located in Brooksville, Hernando County, Florida. The UTM coordinates are Zone 17, 356.0 km East and 3169.9 km North.

The source shall be modified in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Florida Mining & Materials (FM&M) application received on December 4, 1989.
2. EPA's letter dated January 10, 1990.
3. EPA's letter dated May 9, 1990.
4. FM&M's letter dated May 21, 1990.

PERMITTEE:

Florida Mining and Materials

Permit Number: AC 27-173474

Expiration Date: December 31, 1991

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.



PERMITTEE:

Florida Mining and Materials

Permit Number: AC 27-173474

Expiration Date: December 31, 1991

**GENERAL CONDITIONS:**

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE: Permit Number: AC 27-173474  
Florida Mining and Materials Expiration Date: December 31, 1991

**GENERAL CONDITIONS:**

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes compliance with New Source Performance Standards (NSPS).

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

PERMITTEE: Permit Number: AC 27-173474  
Florida Mining and Materials Expiration Date: December 31, 1991

**GENERAL CONDITIONS:**

- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the dates analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS:**

1. The specific conditions of this permit supercede those of the current permit AC 27-138850.
2. The annual hours of operation of kiln No. 2 shall not exceed 8200.
3. The No. 2 kiln feed rate shall not exceed 130 tons per hour (wet basis), yielding a maximum clinker production rate of 79.6 tons per hour (dry basis), averaged on a rolling 30-day production period.

PERMITTEE: Florida Mining and Materials      Permit Number: AC 27-173474  
Expiration Date: December 31, 1991

**SPECIFIC CONDITIONS:**

4. The No. 2 kiln fuel input rate shall not exceed 300 MMBTU per hour based on firing 24,219 lbs/hr coal with a heating value of 12,387 BTU/lb. The sulfur content of the coal shall not exceed 1.0 percent by weight using ASTM-D-3177-84. Coals with heating values lower than 12,387 BTU per pound shall be fired only if the sulfur content to heat value ratio of the coal does not exceed 0.83 pounds of sulfur per MMBTU of heat input.

5. During startup periods that are to exceed no more than 250 hours per year, or periods when raw materials feed is stopped, or when coal moisture content exceeds the normal range, fuel shall consist of up to 2069 gallons/hr of Flolite re-refined oil blend containing no more than 1 percent sulfur by weight, or coal containing no more than 1.0 percent sulfur by weight. At all times the Flolite oil shall contain no higher concentration of metals or toxics than listed below:

Cadmium - 0.3 ppm, Lead - 5.0 ppm, Arsenic - 1.0 ppm

6. Emissions from the No. 2 kiln shall not exceed the following:

Pollutant	Maximum Allowable Emissions	
	lbs/hr	tons per year
PM	13.5	55.3
SO <sub>2</sub>	11.5	47.0
NO <sub>x</sub>	162.3	665.3
VOC	7.4	31.2
CO	64.0	262.2
VE	10% opacity	

7. Compliance shall be demonstrated in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60 Appendix A (1988) using the following methods:

EPA Method 5 for PM  
EPA Method 6 for SO<sub>2</sub>  
EPA Method 7 for NO<sub>x</sub>  
EPA Method 9 for VE  
EPA Method 10 for CO  
EPA Method 25A for VOC

PERMITTEE:

Florida Mining and Materials

Permit Number: AC 27-173474

Expiration Date: December 31, 1991

**SPECIFIC CONDITIONS:**

8. The kiln feed rate and clinker production rate shall be monitored and recorded daily in accordance with 40 CFR 60.63. The coal feed rate to the kiln and the average coal sulfur content and heating value (BTU/lb) of each coal shipment shall be determined and recorded. If coal of sulfur content exceeding 1.0 percent by weight is fired in the kiln (due to variability in the sulfur content of coal within a shipment) samples will be taken of coal entering the kiln at a minimum frequency of once per hour and analyzed for sulfur content. The average sulfur content of samples taken within each 3-hour period shall not exceed 1.0 percent by weight.

9. Emissions of NO<sub>x</sub> will be minimized through the use of low excess air firing. A continuous kiln exhaust gas oxygen monitor/recorder shall be installed, calibrated, operated and maintained in proper working order.

10. The applicant shall apply reasonable work practices to minimize fugitive PM emissions, including the following:

- a. All permanent haul roads shall be paved.
- b. Temporary haul roads shall be watered or treated with chemical dust suppressants at regular intervals.
- c. Dry raw materials (moisture content  $\leq$  14 %) shall be stored below natural grade in silos or enclosed structures.
- d. Coal stored at or above natural grade shall be compacted, turned and/or watered as necessary to maintain a minimum 8 percent moisture content in the surface layer and aligned with the predominant wind direction to minimize wind erosion.
- e. Abandoned haul roads and other disturbed areas shall be revegetated within 60 days of the date active service ends.
- f. All cement products shall be transferred to transport trucks with a sealed pneumatic conveying system which is either a closed system or exhausted through a bag filter.

11. The applicant shall comply with all of the applicable provisions and requirements of F.A.C. Chapters 17-2, 17-4, and 40 CFR 60 Subpart F.

PERMITTEE: Florida Mining and Materials Permit Number: AC 27-173474  
Expiration Date: December 31, 1991

**SPECIFIC CONDITIONS:**

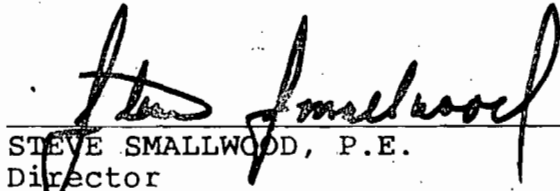
12. The Department's Southwest District office shall be notified at least 15 days prior to compliance testing. Test reports shall be submitted to the Department's Southwest District office within 30 days of compliance test completion.

13. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

14. An application for an operation permit must be submitted to the Department's Southwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this 20<sup>th</sup> day  
of July, 1990

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

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

Attachments Available Upon Request



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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

# Interoffice Memorandum

TO: Steve Smallwood  
FROM: Clair Fancy *CAF*  
DATE: July 20, 1990  
SUBJ: Approval of Construction Permit No. AC 27-173474  
Florida Mining and Materials

Attached for your approval and signature is a permit prepared by the Bureau of Air Regulation for the above mentioned company to modify the operation of Kiln No. 2 at their Brooksville facility.

No comments were received during the public notice period, although additional information was requested by a person residing near the plant. Prior to the public notice period, the applicant requested minor changes in wording of some permit conditions, and these are discussed in the Final Determination.

Day 90, after which this permit will be issued by default, is July 27, 1990.

I recommend your approval and signature.

SS/JR/plm

Attachments

*CAF- Thank-you  
check page 6 of B  
with JKP. If 25A  
is not appropriate for this  
process delete it and  
retype the page  
accordingly.  
otherwise OK*



In the folder labeled as follows there are documents, listed below, which were not reproduced in this electronic file. That folder can be found in the supplementary documents file drawer. Folders in that drawer are arranged alphabetically, then by permit number.

**Folder Name:** Florida Mining and Materials

**Permit(s) Numbered:**

AC 27 -173474
---------------

Documents:

<u>Period during which document was received</u>	<u>Detailed Description</u>
--	-----------------------------

Application 12/04/89	1. Attachment to application: Figure V-5 USGS TOPOGRAPHICAL MAP 2. Attachment to application: SUPPLEMENTAL INFORMATION: SECTION VII
-------------------------	--



## CROSS/TESSITORE &amp; ASSOCIATES, P.A.

4763 S. CONWAY ROAD, SUITE F  
ORLANDO, FLORIDA 32812  
407/851-1484

March 21, 1991

RECEIVED  
MAR 28 1991  
DER-BAQM

Mr. Bill Thomas, P.E.  
Air Engineering Section  
FDER-Southwest District  
4520 Oak Fair Blvd.  
Tampa, Florida 33610-7347

SUBJECT: Florida Mining and Materials  
Permit No. AC27-173474 Kiln No. 2  
Permit Nos. AC27-185898; AC27-185900 thru 185907  
Kiln No. 2 Auxiliary Sources  
C/TA # F03.175

Dear Mr. Thomas:

This correspondence concerns the subject permitted sources. Please find enclosed four copies of each permit number package of the F.D.E.R. Air Pollution Sources Certificate of Completion of Construction for the following permitted sources:

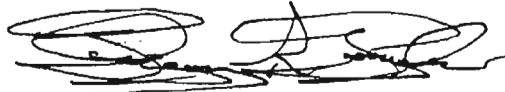
Permit Number	Source	Identification	Permit Fee
AC27-173474	(E-19)	Kiln No. 2	\$1500.00
AC27-185898	(L-07;M09;M10)	Clinker Handling	\$ 750.00
AC27-185900	(N-23)	Finish Mill	\$ 750.00
AC27-185901	(P-05;P-07;Q-17)	Cement Silo	\$ 750.00
AC27-185902	(F-17;G-11)	Blending Silo	\$ 750.00
AC27-185903	(H-13)	Raw Mill No. 2	\$ 750.00
AC27-185904	(M-3514)	Cement Bagging	\$ 750.00
AC27-185905	(M-2280)	Raw Material Premix	\$ 750.00
AC27-185906	(K-09)	Clinker Cooler No. 2	\$1500.00
AC27-185907	(C-11A)	Raw Materials Storage/	
AC27-185907	(C-11)	Fly Ash Storage Silo	\$ 750.00
TOTAL			\$9000.00

March 21, 1991  
Mr. Bill Thomas  
Page Two

Also enclosed is a check in the amount of \$9,000 made payable to the Florida Department of Environmental Regulation, for the application processing fee necessary for the 5 year operating permits for the ten (10) permit numbers.

Should you have any questions or comments, please do not hesitate to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gregory R. Gonzales', with some scribbles underneath.

Gregory R. Gonzales  
Environmental Specialist

GRG/slw

ENC: A/S

CC: Bruce Mitchell F.D.E.R. Tallahassee  
John Reynolds F.D.E.R. Tallahassee  
Ralph Shepard Florida Mining & Materials  
C3383.DOC

VENDOR NO.	INVOICE DATE	DOCUMENT NO.	REMARKS	GROSS	DISCOUNT	NET AMOUNT
18124	3 20 91	91079 RS		9,000.00	.00	9,000.00
	3 22 91	30469	** TOTAL	9,000.00	.00	9,000.00

DETACH BEFORE DEPOSITING

**FLORIDA MINING & MATERIALS**  
A SOUTHDOWN COMPANY

P.O. BOX 6  
BROOKSVILLE, FLORIDA 34605-0006

United Bank of Grand Junction, N.A.  
GRAND JUNCTION, COLORADO 81501  
PAYABLE IF DESIRED THROUGH  
WELLS FARGO BANK, N.A.

**FLORIDA MINING & MATERIALS**  
A SOUTHDOWN COMPANY  
P.O. BOX 6  
BROOKSVILLE, FLORIDA 34605-0006

82-91  
1021

**No. 030469**

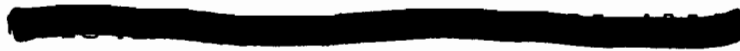
DATE OF CHECK	CHECK NO.	AMOUNT OF CHECK
3 22 91	30469	*****9,000.00

PAY TO THE ORDER OF  
FLA DEPT OF ENVIRONMTL REGLTN  
4520 OAK FAIR BLVD  
TAMPA FL 33610

FLORIDA MINING & MATERIALS

*Thomas L. Audley*

*Karen A. Twitchell*





PM  
3-15-91  
Orlando, FL

CROSS/TESSITORE & ASSOCIATES, P.A.

4763 S. CONWAY ROAD, SUITE F  
ORLANDO, FLORIDA 32812  
407/851-1484

MARCH 15, 1991  
F03.175

RECEIVED

MAR 19 1991

DER-BAQM

Mr. Bill Thomas, P.E.  
Air Engineering Section  
FDER-Southwest District  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347

SUBJECT: Florida Mining and Materials  
Permit No. AC27-173474 - Kiln No. 2  
Permit Nos. AC27-185898; AC27-185900 through 185907  
Kiln No. 2 Auxiliary Sources

Dear Mr. Thomas:

This correspondence, concerning the subject sources, is in accordance with our March 14, 1991, telephone conversation. From our conversation, it is our understanding that:

As stated in the specific conditions of the existing subject source construction permits, an F.D.E.R. Air Pollution Sources Certificate of Completion of Construction must be submitted to the F.D.E.R. within 45 days after the compliance test. You have granted us an extension from the current due date of March 15, 1991, until March 25, 1991. This extension is necessary to allow the sixteen (16) permitted sources package to be reviewed and signed by all of the necessary parties.

Also, you have requested us to submit the Certificate of Completion on Kiln No. 2 at the tested increased kiln input rate of 130 Tons/yr. We currently have submitted additional requests for modifications to Kiln No. 2 to the Tallahassee F.D.E.R. office. The Tallahassee office is currently working on issuing construction permits for these modifications. It is your feeling that to avoid confusion, a construction permit should be issued and compliance with the construction permit should be demonstrated, and the source issued an operating permit, prior to the issuance of additional construction permits.

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

Sincerely,

Gregory R. Gonzales  
Environmental Specialist

GRG:kim

cc: **Bruce Mitchell** FDER  
Tallahassee Office  
Ralph Spehard, FM&M

REGISTERED PROFESSIONAL ENGINEERS

Federal ID # 59-1638534



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

AUG 20 1990

4APT-AE

RECEIVED

AUG 23 1990

DER-BAQM

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

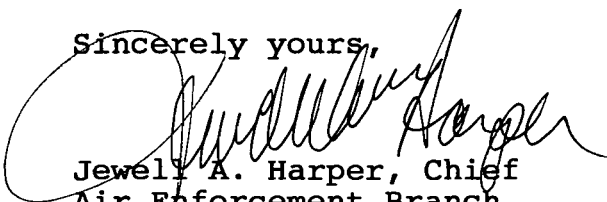
RE: Florida Mining and Materials (PSD-FL-124A)

Dear Mr. Fancy:

This is to acknowledge receipt of your final determination and permit for the modification to the above referenced facility, dated July 25, 1990. As requested we have reviewed the package and have no adverse comments.

Thank you for the opportunity to review this package. If you have any questions on this issue, please contact Mr. Gregg Worley of my staff at (404) 347-2904.

Sincerely yours,

  
Jewell A. Harper, Chief  
Air Enforcement Branch  
Air, Pesticides, and Toxics  
Management Division

cc: C. M. Coleman Jr., V.P.  
Florida Mining and Materials  
P.O. Box 6  
Brooksville, Florida 34605-0006

# HOPPING BOYD GREEN & SAMS

ATTORNEYS AND COUNSELORS

123 SOUTH CALHOUN STREET

POST OFFICE BOX 6526

TALLAHASSEE, FLORIDA 32314

(904) 222-7500

FAX (904) 224-8551

CARLOS ALVAREZ  
JAMES S. ALVES  
BRIAN H. BIBEAU  
ELIZABETH C. BOWMAN  
WILLIAM L. BOYD, IV  
RICHARD S. BRIGHTMAN  
PETER C. CUNNINGHAM  
WILLIAM, H. GREEN  
WADE L. HOPPING  
FRANK E. MATTHEWS  
RICHARD D. MELSON  
WILLIAM D. PRESTON  
CAROLYN S. RAEPPLÉ  
GARY P. SAMS  
ROBERT P. SMITH, JR.

LYDIA R. ANNUNZIATA  
KATHLEEN BLIZZARD  
THOMAS M. DE ROSE  
RICHARD W. MOORE  
DIANA M. PARKER  
LAURA BOYD PEARCE  
MICHAEL R. PETROVICH  
DAVID L. POWELL  
DOUGLAS S. ROBERTS  
CECELIA C. SMITH  
SAM J. SMITH  
CHERYL G. STUART

July 13, 1990

OF COUNSEL  
W. ROBERT FOKES

## BY HAND DELIVERY

Dale H. Twachtmann, Secretary  
c/o Office of General Counsel  
Florida Department of Environmental  
Regulation  
2600 Blair Stone Road, Room 654  
Tallahassee, Florida 32399-2400

Re: Florida Mining & Materials  
Brooksville Cement Plant Kiln No. 2  
Permit No. AC27-173474

Dear Secretary Twachtmann:

On April 30, 1990, Florida Mining & Materials ("FMM") received the Department's Notice of Intent to issue air construction permit No. AC27-173474 for Kiln No. 2 at its Brooksville Cement Plant located in Hernando County, Florida. The Department's Technical Evaluation and Preliminary Determination was received along with the Notice of Intent. Pursuant to your Order dated June 15, 1990, FMM has until July 13, 1990 to file a petition for administrative proceedings regarding the permit.

I am writing on behalf of FMM to request an extension of thirty-one (31) days, to and including August 13, 1990, in which to file a petition for administrative proceedings regarding the permit. This request is made pursuant to Florida Administrative Code Rule 17-103.070, which provides that a timely request for extension of time shall toll the running of the time period in which to file an appropriate petition. As good cause for granting the requested extension of time for filing, FMM would show the following:

Dale H. Twachtman, Secretary  
July 13, 1990  
Page 2

1. The proposed permit contains fourteen specific conditions, several of which appear to warrant clarification or correction.

2. FMM representatives have discussed the proposed permit and accompanying Technical Evaluation and Preliminary Determination with the Chief of the Department's Bureau of Air Regulation. Based upon that discussion, FMM submitted a letter to the Department requesting certain revisions in the permit conditions.

3. This request is filed as a protective measure to avoid waiver of FMM's rights to challenge the permit as proposed. Grant of this request will allow the parties an opportunity to discuss the pertinent permit provisions and to achieve a mutually acceptable resolution of points in need of clarification or correction, without the initiation of formal administrative proceedings.

I hereby certify that I have attempted to contact Clair Fancy, Chief of the Department's Bureau of Air Regulation, regarding this matter.

Accordingly, I respectfully request that you formally extend the time for filing of a petition for administrative proceedings in regard to the Department's Notice of Intent to issue air construction permit No. AC27-173474 to and including August 13, 1990.

Sincerely,

  
Peter C. Cunningham

F1MinExt:PCC/gbb

cc: Clair Fancy, P.E.  
Richard Donelan, Esquire  
C. M. Coleman, Jr.  
*J. Reynolds*

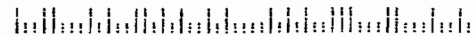


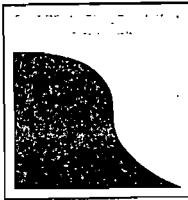
**FLORIDA MINING & MATERIALS**

P. O. BOX 6, BROOKSVILLE, FLORIDA 34605-0006



Mr. C.H. Fancy, P.E. Chief  
Bureau of Air Regulations  
Florida Dept. of Environmental Regulations  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400





**FLORIDA MINING & MATERIALS**

A SOUTHDOWN COMPANY

P. O. BOX 6, BROOKSVILLE, FLORIDA 34605-0006  
TELEPHONE (904) 796-7241

July 11, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. C.H. Fancy, P.E. Chief  
Bureau of Air Regulations  
Florida Dept. of Environmental Regulations  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Dear Mr. Fancy:

Attached is the Affidavit of Legal Publication, published in the Sun Journal on June 22, 1990. This Intent to Issue was for the modification to Florida Minings' #2 Kiln Permit.

Sincerely,

Ralph E. Shepard  
Manager Environmental Affairs

RES/jp

cc: Hank Andre  
Don Kelly  
Joe Tessitore

RECEIVED

JUL 16 1990

DER-BAQ

AFFIDAVIT OF LEGAL PUBLICATION

The Sun-Journal
Published Tuesday thru Saturday
Brooksville, Hernando, Florida
STATE OF FLORIDA
COUNTY OF HERNANDO

Before the undersigned authority personally appeared David Poole, who on oath says he is General Manager of the Sun-Journal, a daily newspaper published at 703 Lamar Ave., Brooksville in Hernando County, Florida; that the attached copy of advertisement, being a legal advertisement in

the matter of Notice of Intent
in the Court
was published in said newspaper in the issues of
6-22

Affiant says that the said Sun-Journal is a newspaper published at 703 Lamar Ave., Brooksville, in said Hernando County, Florida, and that said newspaper has heretofore been continuously published in said Hernando County, Florida, each Tuesday thru Saturday and has been entered as second-class mail matter at the post office in Brooksville, in said Hernando County, Florida, for a period of 1 year next preceding the first publication of the attached copy of advertisement; and further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Handwritten signature of David Poole

David Poole,
General Manager, The Sun-Journal

Sworn to and subscribed before me this 22nd day of June 1990 A.D.

BY: Christina Frousel
Notary Public

Filed 19 at O'clock M. and Recorded in
Book No Page
Record Verified
Clerk, Court, Hernando County, FL
By D.C.

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

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Florida Mining and Materials, Post Office Box 6, Brooksville, Florida 34605-0006, to modify kiln No. 2 at their Brooksville cement plant. The modification involves increasing operation rate by approximately 8 percent and operating hours by about 6 percent. The modification also provides for operation of the No. 2 kiln without operating the raw mill and the use of re-refined oil for kiln startup. This permit does not involve processing or combustion of hazardous wastes or toxic materials. A determination of Best Available Control Technology (BACT) was not required. The applicant's facility is located off U.S. Highway 98 northwest of Brooksville, Hernando County, Florida. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes. The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends

require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C. The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Department of Environmental Regulation, Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Department of Environmental Regulation, Southwest District, 4520 Oak Fair Boulevard, Tampa, Florida 33610-7347. Any person may send written comments on the proposed action to Mr. C. H. Fancy at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination. PUBLISH: June 22, 1990

RECEIVED  
JUN 29 1990  
DER-BAQU

13424 Brooksville Rock Road  
Brooksville, Florida 34614  
Tel (904)7967037  
June 26, 1990

Mr. H.C.Fancy  
Florida Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Florida Mining and Materials - Hernando County  
Notice Of Intent To Issue - Kiln No. 2

Dear Mr. Fancy:

I read the public notice printed in the June 22nd edition of "The Brooksville Sun Journal" regarding your Department's intent to modify the permit for the No.2 kiln at Florida Mining and Materials(FM&M). The narrative statement in this ad did not mention whether or not there would be any additional impacts to air quality due to the proposed operation changes. I would like to know if the proposed changes will result in increased emissions from this facility. I would also like to know the reason that this permit modification is needed by FM&M.

Thank you for your attention.

Sincerely,



Paul J. Furman

HOPPING BOYD GREEN & SAMS

ATTORNEYS AND COUNSELORS

123 SOUTH CALHOUN STREET

POST OFFICE BOX 6526

TALLAHASSEE, FLORIDA 32314

(904) 222-7500

FAX (904) 224-8551

CARLOS ALVAREZ  
JAMES S. ALVES  
BRIAN H. BIBEAU  
ELIZABETH C. BOWMAN  
WILLIAM L. BOYD, IV  
RICHARD S. BRIGHTMAN  
PETER C. CUNNINGHAM  
WILLIAM H. GREEN  
WADE L. HOPPING  
FRANK E. MATTHEWS  
RICHARD D. MELSON  
WILLIAM D. PRESTON  
CAROLYN S. RAEPPLE  
GARY R. SAMS  
ROBERT R. SMITH, JR.

RECEIVED

JUN 13 1990

DER-BAQW

June 12, 1990

LYDIA R. ANNUNZIATA  
KATHLEEN BLIZZARD  
THOMAS M. DE ROSE  
RICHARD W. MOORE  
DIANA M. PARKER  
LAURA BOYD PEARCE  
MICHAEL R. PETROVICH  
DAVID L. POWELL  
DOUGLAS S. ROBERTS  
CECELIA C. SMITH  
SAM J. SMITH  
CHERYL G. STUART  
  
OF COUNSEL  
W. ROBERT FOKES

BY HAND DELIVERY

Dale H. Twachtmann, Secretary  
c/o Office of General Counsel  
Florida Department of Environmental  
Regulation  
2600 Blair Stone Road, Room 654  
Tallahassee, Florida 32399-2400

Re: Florida Mining & Materials  
Brooksville Cement Plant Kiln No. 2  
Permit No. AC27-173474

Dear Secretary Twachtmann:

On April 30, 1990, Florida Mining & Materials ("FMM") received the Department's Notice of Intent to issue air construction permit No. AC27-173474 for Kiln No. 2 at its Brooksville Cement Plant located in Hernando County, Florida. The Department's Technical Evaluation and Preliminary Determination was received along with the Notice of Intent. Pursuant to your Order dated June 13, 1990, FMM has until June 13, 1990 to file a petition for administrative proceedings regarding the permit.

I am writing on behalf of FMM to request an extension of thirty (30) days, to and including July 13, 1990, in which to file a petition for administrative proceedings regarding the permit. This request is made pursuant to Florida Administrative Code Rule 17-103.070, which provides that a timely request for extension of time shall toll the running of the time period in which to file an appropriate petition. As good cause for granting the requested extension of time for filing, FMM would show the following:

Dale H. Twachtmann, Secretary  
June 12, 1990  
Page 2

1. The proposed permit contains fourteen specific conditions, several of which appear to warrant clarification or correction.

2. FMM representatives have discussed the proposed permit and accompanying Technical Evaluation and Preliminary Determination with the Chief of the Department's Bureau of Air Regulation. Based upon that discussion, FMM submitted a letter to the Department requesting certain revisions in the permit conditions.

3. This request is filed as a protective measure to avoid waiver of FMM's rights to challenge the permit as proposed. Grant of this request will allow the parties an opportunity to discuss the pertinent permit provisions and to achieve a mutually acceptable resolution of points in need of clarification or correction, without the initiation of formal administrative proceedings.

I hereby certify that I have contacted Clair Fancy, Chief of the Department's Bureau of Air Regulation, regarding this matter and that he does not object to the grant of this request.

Accordingly, I respectfully request that you formally extend the time for filing of a petition for administrative proceedings in regard to the Department's Notice of Intent to issue air construction permit No. AC27-173474 to and including July 13, 1990.

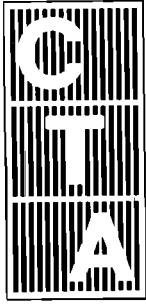
Sincerely,

*Peter C. Cunningham* / by *psv*

Peter C. Cunningham

FLMinExt:PCC/gbb

cc: Clair Fancy, P.E.  
Carol Forthman, Esquire  
C. M. Coleman, Jr.



CROSS/TESSITORE & ASSOCIATES, P.A.

4763 S. CONWAY ROAD, SUITE F  
ORLANDO, FLORIDA 32812  
407/851-1484

RECEIVED

JUN 04 1990

DER - BAQM

May 31, 1990

Mr. C.H. Fancy  
Bureau of Air Regulation  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blairstone Road  
Tallahassee, FL 32399-2400

Subject: Florida Mining and Materials  
No. 2 Kiln; Permit # AC 27-138850-PSD-FL-124  
C/TA #F03.182

Dear Mr. Fancy:

Currently, Florida Mining and Materials is developing a response to a Technical Evaluation and Preliminary Determination issued by the Department on April 25, 1990 for the subject source. This letter is to verify that, while processing of the new permit continues, the existing Construction Permit # AC 27-138850-PSD-FL-124 is still in effect. The expiration date of April 1, 1990 for this permit has passed. However, the initial Application to Amend (modify) the construction permit was submitted in December, 1989 and since the modification is not yet complete, the permit should remain valid.

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

Sincerely,

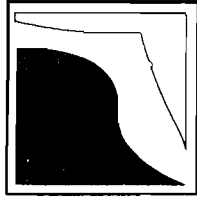
*Joseph L. Tessitore*  
Joseph L. Tessitore, P.E.  
Vice President

JLT/kp

cc: B. Coleman  
P. Cunningham

C5479.Doc

*G. Reynolds*  
*B. Thomas, SW Dist.*  
*CHF/BA*



# FLORIDA MINING & MATERIALS

CONSTRUCTION MATERIALS DIVISION

P. O. BOX 6, BROOKSVILLE, FLORIDA 34605-0006  
TELEPHONE (904) 796-7241

C. M. COLEMAN, JR.  
VICE PRESIDENT & GENERAL MANAGER

May 21, 1990

**RECEIVED**

**MAY 22 1990**

**DER-BAQM**

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

Dear Mr. Fancy:

This letter is in response to the Technical Evaluation and Preliminary Determination and proposed permit for Florida Mining & Materials' No. 2 kiln near Brooksville, Florida.

Please consider making the following changes to the language in the proposed permit:

1. The owner of the facility is Moore McCormack Resources, Inc., a subsidiary of Southdown, Inc. Florida Mining & Materials is a dba name. Please issue the permit in the name of Moore McCormack Resources, Inc. dba Florida Mining & Materials. The required public notification will be in the name of Florida Mining & Materials.
2. Our application requests an amendment to the No. 2 kiln permit. We have not made, and do not propose any, modifications to the No. 2 kiln itself. Please change the description on the title page and throughout the document from "Modification to Kiln No. 2" to "Amendment to No. 2 Kiln Permit."
3. Specific condition #3 -- add the following language after (dry basis), "averaged over 8,200 hours per year."
4. Specific condition #5 -- Change 2,069 lbs/hour to "2,069 gallons/hour." Line #2, after the word stopped, add -- "or when coal is excessively wet."
5. Specific condition #6 -- The emission limits for PM, SO<sub>2</sub>, NO<sub>x</sub>, and VOC do not agree with the limits shown in the table included in the Technical Evaluation section.



Mr. C. H. Fancy, P.E.  
May 21, 1990  
Page Two

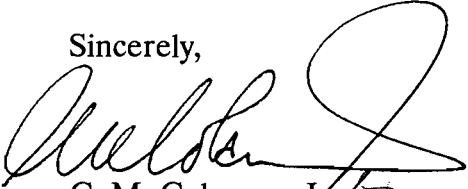
Please change the table in specific condition #6 to conform to the values shown in the Technical Evaluation section.

6. Specific condition #10c -- after the words shall be stored, add -- "below natural grade."
7. Specific condition #10d -- Delete - "The coal storage pile shall be" and add -- "Coal stored at or above natural grade shall be."

In order to ensure these specific requested changes are communicated to you properly, I've also included a marked-up copy of the proposed permit.

Finally, the new proposed emission limits on  $\text{NO}_x$  of 162.3 lbs/hour are severely restrictive and difficult to achieve. Previous compliance testing since 1986 has resulted in emissions of 403 lbs/hr (April 1986), 244 lbs/hr (May 1986), 111.9 lbs/hr (Aug. 1986), 172.8 lbs/hr (April 1987), 117 lbs/hr (June 1988), 127.2 lbs/hr (May 1989, and 181.8 lbs/hr (May 1989). The current allowable rate of 250 lbs/hr is tight, but achievable and we will pursue this limit with EPA Region IV personnel.

Sincerely,



C. M. Coleman, Jr.  
Vice President and  
General Manager

CMC,Jr:gm

Enclosure

cc: J. Reynolds  
B. Andrews  
B. Thomas, SW Dist.

HOPPING BOYD GREEN & SAMS

ATTORNEYS AND COUNSELORS

123 SOUTH CALHOUN STREET

POST OFFICE BOX 6526

TALLAHASSEE, FLORIDA 32314

(904) 222-7500

FAX (904) 224-8551

CARLOS ALVAREZ  
JAMES S. ALVES  
BRIAN H. BIBEAU  
ELIZABETH C. BOWMAN  
WILLIAM L. BOYD, IV  
RICHARD S. BRIGHTMAN  
PETER C. CUNNINGHAM  
WILLIAM H. GREEN  
WADE L. HOPPING  
FRANK E. MATTHEWS  
RICHARD D. MELSON  
WILLIAM D. PRESTON  
CAROLYN S. RAEPPEL  
GARY P. SAMS  
ROBERT P. SMITH, JR.

KATHLEEN BLIZZARD  
THOMAS M. DEROSE  
RICHARD W. MOORE  
DIANA M. PARKER  
LAURA BOYD PEARCE  
MICHAEL P. PETROVICH  
DAVID L. POWELL  
DOUGLAS S. ROBERTS  
CECELIA C. SMITH  
SAM J. SMITH  
CHERYL G. STUART

May 14, 1990

OF COUNSEL  
W. ROBERT FOKES

BY HAND DELIVERY

Dale H. Twachtmann, Secretary  
c/o Office of General Counsel  
Florida Department of Environmental  
Regulation  
2600 Blair Stone Road, Room 654  
Tallahassee, Florida 32399-2400

Re: Florida Mining & Materials  
Brooksville Cement Plant Kiln No. 2  
Permit No. AC27-173474

Dear Secretary Twachtmann:

On April 30, 1990, Florida Mining & Materials ("FMM") received the Department's Notice of Intent to issue air construction permit No. AC27-173474 for Kiln No. 2 at its Brooksville Cement Plant located in Hernando County, Florida. The Department's Technical Evaluation and Preliminary Determination was received along with the Notice of Intent. Pursuant to the Notice of Intent, FMM has until May 14, 1990 to file a petition for administrative proceedings regarding the permit.

I am writing on behalf of FMM to request an extension of thirty (30) days, to and including June 13, 1990, in which to file a petition for administrative proceedings regarding the permit. This request is made pursuant to Florida Administrative Code Rule 17-103.070, which provides that a timely request for extension of time shall toll the running of the time period in which to file an appropriate petition. As good cause for granting the requested extension of time for filing, FMM would show the following:

Dale H. Twachtmann, Secretary  
May 14, 1990  
Page 2

1. The proposed permit contains fourteen specific conditions, several of which appear to warrant clarification or correction.

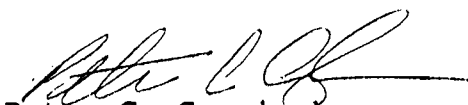
2. FMM representatives will be discussing the proposed permit and accompanying Technical Evaluation and Preliminary Determination with permitting staff of the Department's Bureau of Air Regulation in the near future.

3. This request is filed as a protective measure to avoid waiver of FMM's rights to challenge the permit as proposed. Grant of this request will allow the parties an opportunity to discuss the pertinent permit provisions and to achieve a mutually acceptable resolution of points in need of clarification or correction, without the initiation of formal administrative proceedings.

I hereby certify that I have contacted Clair Fancy, Chief of the Department's Bureau of Air Regulation, regarding this matter and that he does not object to the grant of this request.

Accordingly, I respectfully request that you formally extend the time for filing of a petition for administrative proceedings in regard to the Departments Notice of Intent to issue air construction permit No. AC27-173474 to and including June 13, 1990.

Sincerely,

  
Peter C. Cunningham

FlMinExt:PCC/gbb

cc: Clair Fancy, P.E.  
Gary Smallridge, Esquire  
C. M. Coleman, Jr.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

RECEIVED  
MAY 11 1990  
DER-BAQM

MAY 9 1990

4APT/AE

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

RE: Florida Mining and Materials (PSD-FL-124A)

Dear Mr. Fancy:

This is to acknowledge receipt of your preliminary determination and draft permits for the proposed modification to the above referenced facility, dated April 25, 1990. We have reviewed the package as requested and have the following comments.

Our comments concerning the netting calculation performed by the applicant, as expressed in our letter to you dated January 10, 1990, have been satisfactorily addressed. The change in emissions has been correctly determined from old actual emissions to new allowable emissions. Therefore, we concur with the Bureau of Air Regulation's conclusion that the proposed modification would be a minor modification and not subject to the best available control technology requirements (BACT) of prevention of significant deterioration (PSD) review.

Thank you for the opportunity to review this package and for addressing our previous comments. If you have any questions or comments on this issue, please contact Mr. Gregg Worley of my staff at (404) 347-2864.

Sincerely yours,

*Jewell A. Harper, for*

Jewell A. Harper, Chief  
Air Enforcement Branch  
Air, Pesticides, and Toxics  
Management Division

cc: C.M. Coleman Jr., V.P.  
Florida Mining and Materials  
P.O. Box 6  
Brooksville, Florida 34605-0006

*J. Reynolds*  
*B. Thomas, SWD*  
*CIF/BA*

P 938 762 878

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, June 1985

Sent to	Henry E Andre	
Street and No.	P.O. Box 6 - FLA M&M Mat.	
City, State and ZIP Code	Brooksville FL	
Postage		\$
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt showing to whom and Date Delivered		
Return Receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees		\$
Postmark or Date	4-26-90 AC 27-173474	

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

- 1.  Show to whom delivered, date, and addressee's address. (Extra charge)
- 2.  Restricted Delivery (Extra charge)

3. Article Addressed to:  
 Henry E. Andre, VP  
 Fla. Mining & Materials  
 P.O. Box 6  
 Brooksville, FL  
 34605-0006

4. Article Number  
P 938 762 878

Type of Service:

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

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Address

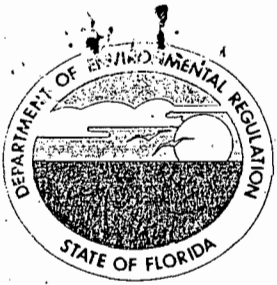
X

6. Signature - Agent

7. Date of Delivery

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





# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

April 25, 1990

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Henry E. Andre, Vice-President  
Florida Mining and Materials  
Post Office Box 6  
Brooksville, Florida 34605-0006

Dear Mr. Andre:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for Florida Mining and Materials to modify kiln No. 2 at the facility near Brooksville, Florida.

Please submit any written comments you wish to have considered concerning the Department's proposed action to me.

Sincerely,

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

CHF/JR/plm

Attachments

c: B. Thomas, SW Dist.  
J. Tessitore, P.E.  
G. Worley, EPA



BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of  
Application for Permit by:

Florida Mining and Materials  
Post Office Box 6  
Brooksville, Florida 34605-0006

DER File No. AC 27-173474

---

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Florida Mining and Materials, applied on December 4, 1989, to the Department of Environmental Regulation for a permit to modify kiln No. 2 at their Brooksville cement plant. The modification involves increasing operation rate by approximately 8 percent and operating hours by about 6 percent. The modification also provides for operation of the No. 2 kiln without operating the raw mill and the use of re-refined oil for kiln startup. The applicant's facility is located off U.S. Highway 98 northwest of Brooksville, Hernando County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

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

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application(s) have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such



person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.  
Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



---

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

Copies furnished to:

B. Thomas, SW Dist.  
J. Tessitore, P.E.  
G. Worley, EPA

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 4-26-90.

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

Kym J. J. J. J.  
Clerk

4-26-90  
Date

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

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Florida Mining and Materials, Post Office Box 6, Brooksville, Florida 34605-0006, to modify kiln No. 2 at their Brooksville cement plant. The modification involves increasing operation rate by approximately 8 percent and operating hours by about 6 percent. The modification also provides for operation of the No. 2 kiln without operating the raw mill and the use of re-refined oil for kiln startup. This permit does not involve processing or combustion of hazardous wastes or toxic materials. A determination of Best Available Control Technology (BACT) was not required. The applicant's facility is located off U.S. Highway 98 northwest of Brooksville, Hernando County, Florida. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(c) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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

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

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

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

Technical Evaluation  
and  
Preliminary Determination

Florida Mining and Materials  
Brooksville, Hernando County, Florida

Modification to Kiln No. 2  
Permit No. AC 27-173474

Department of Environmental Regulation  
Division of Air Resources Management  
Bureau of Air Regulation

April 25, 1990

## I. Application

### A. Applicant

Florida Mining and Materials  
Post Office Box 6  
Brooksville, Florida 34605-0006

### B. Request

The Department received a complete application on December 4, 1989, which was amended on March 26, 1990, for a permit to modify kiln No. 2 at the applicant's cement plant in Brooksville, Florida.

### C. Classification/Location

The applicant's cement manufacturing facility (SIC Code 3241) is located off U.S. Highway 98 northwest of Brooksville, Florida, with latitude of 28°38'34" N and longitude of 82°28'25"W. The UTM coordinates of the site are: Zone 17, 356.0 km E and 3169.9 km N.

## II. Project Description/Emissions

The applicant proposes to modify the operation of kiln No. 2 as follows:

- a) Increase process input rate from 120 TPH to 130 TPH.
- b) Increase coal consumption rate from 10.5 TPH to 12 TPH.
- c) Increase hours of operation from 7,896 hr/yr to 8,200 hr/yr.
- d) Operate kiln without raw mill.
- e) Use Flolite re-refined oil for start up of kiln (250 hr/yr).

It is also proposed that allowable emission limits for carbon monoxide (CO) and volatile organic compounds (VOC) be increased to reflect actual operating conditions for the No. 2 kiln. The existing permit does not allow for the fact that CO is emitted not only from combustion of coal but also from calcining of calcium carbonate in the kiln feed. Therefore, the applicant requests revision of the existing emission limit to include the CO generated by the process as well as the amount resulting from the increased coal combustion rate.

The current permit prevents kiln operation when the raw mill is down in order to maximize the removal of sulfur dioxide (SO<sub>2</sub>) by additional contact with raw materials in the raw mill. This existing permit condition relates back to the original permit limit of 3 pounds of SO<sub>2</sub> per hour which was increased to 12 pounds per hour by a permit amendment in November 1988. Test data show that it is no longer necessary that the raw mill be operated at all times when the kiln is running.

Emission changes resulting from the proposed permit are summarized below:

	Current Allowable		Current Actual(1)		New Allowable(2)		Net Increase	Significant Increase
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	T/yr	T/yr
PM	21.6	85.3	7.7	30.4	13.5	55.3	24.9	25
SO <sub>2</sub>	12.0	47.4	1.8	7.1	11.5	47.0	39.9	40
NO <sub>x</sub>	250.0	987.0	158.4	625.4	162.3	665.3	39.9	40
VOC	2.7	10.7	5.4	21.3	7.4	31.2	9.9	40
CO	8.9	35.1	41.1	162.3	64.0	262.2	99.9	100

(1) Based on the highest two 1989 stack test results

(2) New allowable (8200 hrs) vs. current actual 7896 (hrs)

It is presumed that the applicant will accept reductions in allowable emission limits that are necessary to avoid PSD review for particulate matter (PM), SO<sub>2</sub> and NO<sub>x</sub>. Any emission increase above these levels would require another evaluation including a Best Available Control Technology (BACT) determination, additional \$4,000 application fee, and perhaps additional air modeling data (this evaluation does not address the air modeling data submitted with this application).

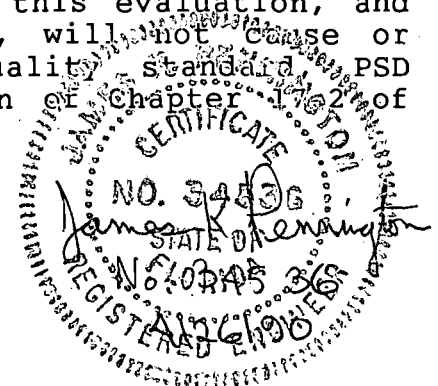
There is no objection to the request to use Flolite re-refined oil. This fuel has already been approved for use in kiln No. 1 at this facility.

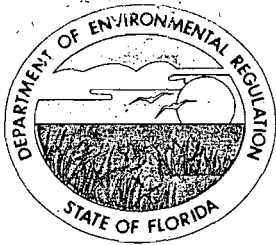
### III. Rule Applicability

The construction permit application is subject to review under Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4. The facility is located in an area classified as attainment for each of the regulated air pollutants. Although the kiln is a major source, the proposed increases in emissions are less than the significant levels listed in Table 500-2 and therefore the proposed modification is not subject to the new source review requirements of F.A.C. Rule 17-2.500. Applicable rules are F.A.C. Rule 17-2.600(7)(b) and F.A.C. Rule 17-2.660, Standards of Performance for New Stationary Sources, Section 60.60, Subpart F, Portland Cement Plants.

### IV. Conclusion

Based on the information provided by Florida Mining and Materials, the Department has reasonable assurance that the modification to kiln No.2, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 403 of the Florida Administrative Code.





# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:  
Florida Mining and Materials  
P. O. Box 6  
Brooksville, Florida  
34605-0006

Permit Number: AC 27-173474  
Expiration Date: December 31, 1991  
County: Hernando  
Latitude/Longitude: 28°38'34"N  
82°28'25"W  
Project: Modification to Kiln  
No. 2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of the No. 2 kiln to burn Flolite oil, increase operating rates, and operate kiln without operating the raw mill. The facility is located in Brooksville, Hernando County, Florida. The UTM coordinates are Zone 17, 356.0 km East and 3169.9 km North.

The source shall be modified in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Florida Mining & Materials (FM&M) application received on December 4, 1989.
2. EPA's letter dated January 10, 1990.



PERMITTEE: Permit Number: AC 27-173474  
Florida Mining and Materials Expiration Date: December 31, 1991

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:

Florida Mining and Materials

Permit Number: AC 27-173474

Expiration Date: December 31, 1991

GENERAL CONDITIONS:

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE: Florida Mining and Materials      Permit Number: AC 27-173474  
Expiration Date: December 31, 1991

**GENERAL CONDITIONS:**

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes compliance with New Source Performance Standards (NSPS).

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

PERMITTEE:

Florida Mining and Materials

Permit Number: AC 27-173474

Expiration Date: December 31, 1991

**GENERAL CONDITIONS:**

- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the dates analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS:**

1. The specific conditions of this permit supercede those of the current permit AC 27-138850.
2. The annual hours of operation of kiln No. 2 shall not exceed 8200.
3. The No. 2 kiln feed rate shall not exceed 130 tons per hour (wet basis), yielding a maximum clinker production rate of 79.6 tons per hour (dry basis).
4. The No. 2 kiln fuel input rate shall not exceed 300 MMBTU per hour based on firing 24,219 lbs/hr coal with a heating value of 12,387 BTU/lb. The sulfur content of the coal shall not exceed 1.0 percent by weight using ASTM-D-3177-84. Coals with heating

PERMITTEE:

Florida Mining and Materials

Permit Number: AC 27-173474

Expiration Date: December 31, 1991

**SPECIFIC CONDITIONS:**

values lower than 12,387 BTU per pound shall be fired only if the sulfur content to heat value ratio of the coal does not exceed 0.83 pounds of sulfur per MMBTU of heat input.

5. During startup periods that are to exceed no more than 250 hours per year, or periods when raw materials feed is stopped, fuel shall consist of up to 2069 lbs/hr of Flolite re-refined oil blend containing no more than 1 percent sulfur by weight, or coal containing no more than 1.0 percent sulfur by weight. At all times the Flolite oil shall contain no higher concentration of metals or toxics than listed below:

Cadmium - 0.3 ppm, Lead - 5.0 ppm, Arsenic - 1.0 ppm

6. Emissions from the No. 2 kiln shall not exceed the following:

<u>Pollutant</u>	<u>Maximum Allowable Emissions</u> <u>lbs/hr</u>	<u>tons per year</u>
PM	12.6	51.7
SO <sub>2</sub>	11.0	45.0
NO <sub>x</sub>	144.8	593.8
VOC	7.44	31.2
CO	64.0	262.2
VE	10% opacity	

7. Compliance shall be demonstrated in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60 Appendix A (1988) using the following methods:

EPA Method 5 for PM  
EPA Method 6 for SO<sub>2</sub>  
EPA Method 7 for NO<sub>x</sub>  
EPA Method 9 for VE  
EPA Method 10 for CO  
EPA Method 25 or 25A for VOC

8. The kiln feed rate and clinker production rate shall be monitored and recorded daily in accordance with 40 CFR 60.63. The coal feed rate to the kiln and the average coal sulfur content and heating value (BTU/lb) of each coal shipment shall be determined and recorded. If coal of sulfur content exceeding 1.0 percent by

PERMITTEE:

Florida Mining and Materials

Permit Number: AC 27-173474

Expiration Date: December 31, 1991

**SPECIFIC CONDITIONS:**

weight is fired in the kiln (due to variability in the sulfur content of coal within a shipment) samples will be taken of coal entering the kiln at a minimum frequency of once per hour and analyzed for sulfur content. The average sulfur content of samples taken within each 3-hour period shall not exceed 1.0 percent by weight.

9. Emissions of NO<sub>x</sub> will be minimized through the use of low excess air firing. A continuous kiln exhaust gas oxygen monitor/recorder shall be installed, calibrated, operated and maintained in proper working order.

10. The applicant shall apply reasonable work practices to minimize fugitive PM emissions, including the following:

- a. All permanent haul roads shall be paved.
- b. Temporary haul roads shall be watered or treated with chemical dust suppressants at regular intervals.
- c. Dry raw materials (moisture content  $\leq$  14 %) shall be stored in silos or enclosed structures.
- d. The coal storage pile shall be compacted, turned and/or watered as necessary to maintain a minimum 8 percent moisture content in the surface layer and aligned with the predominant wind direction to minimize wind erosion.
- e. Abandoned haul roads and other disturbed areas shall be revegetated within 60 days of the date active service ends.
- f. All cement products shall be transferred to transport trucks with a sealed pneumatic conveying system which is either a closed system or exhausted through a bag filter.

11. The applicant shall comply with all of the applicable provisions and requirements of F.A.C. Chapters 17-2, 17-4, and 40 CFR 60 Subpart F.

12. The Department's Southwest District office shall be notified at least 15 days prior to compliance testing. Test reports shall be submitted to the Department's Southwest District office within 30 days of compliance test completion.

PERMITTEE: Florida Mining and Materials      Permit Number: AC 27-173474  
Expiration Date: December 31, 1991

**SPECIFIC CONDITIONS:**

13. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

14. An application for an operation permit must be submitted to the Department's Southwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this \_\_\_\_\_ day  
of \_\_\_\_\_, 1990

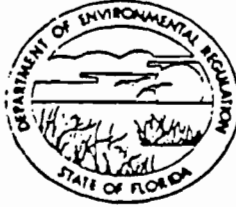
STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

---

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

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

RECEIVED

MAR 29 1990

DER-BAQM.

WAIVER OF 90 DAY TIME LIMIT  
UNDER SECTIONS 120.60(2) AND 403.0876, FLORIDA STATUTES

License (Permit, Certification) Application No. AC 27-173474

Applicant's Name: Florida Mining & Materials

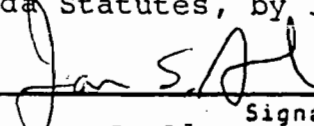
The undersigned has read Sections 120.60(2) and 403.0876, Florida Statutes, and fully understands the applicant's rights under that section.

With regard to the above reference license (permit, certification) application, the applicant hereby with full knowledge and understanding of (his) (her) (its) rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right under Sections 120.60(2) and 403.0876, Florida Statutes, to have the application approved or denied by the State of Florida Department of Environmental Regulation within the 90 day time period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes. Said waiver is made freely and voluntarily by the applicant, is in (his) (her) (its) self-interest, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Regulation.

This waiver shall expire on the 3rd day of May 19 90.

The undersigned is authorized to make this waiver on behalf of the applicant.

This waiver is intended only to extend the 90 day period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes, by 30 days.

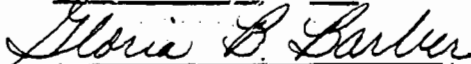
  
Signature

James S. Alves  
Hopping Boyd Green & Sams

Please Type Name of Signee  
P. O. Box 6526, Tallahassee, FL 32314  
March 28, 1990

Date

Sworn to and subscribed  
before me this 28th day  
of March 19 90.

  
Notary Public

Notary Public, State of Florida  
My Commission Expires May 17, 1990  
Bonded thru Troy Fain - Insurantz Inc.

My commission expires:

DER Form 17-1.201(8)

Effective November 30, 1982

Page 1 of 2

Patty -  
Glad we got this -  
I'll talk to Peter on  
what they intend to do.

3/30

Clan



Section 120.60, Florida Statutes

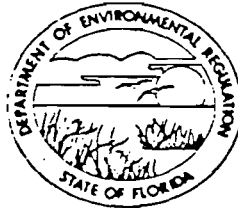
(2) When an application for a license is made as required by law, the agency shall conduct the proceedings required with reasonable dispatch and with due regard to the rights and privileges of all affected parties or aggrieved persons. Within 30 days after receipt of an application for a license, the agency shall examine the application, notify the applicant of any apparent errors or omissions, and request any additional information the agency is permitted by law to require. Failure to correct an error or omission or to supply additional information shall not be grounds for denial of the license unless the agency timely notified the applicant within this 30 day period. The agency shall notify the applicant if the activity for which he seeks a license is exempt from the licensing requirement and return any tendered application fee within 30 days after receipt of the original application or within 10 days after receipt of the timely requested additional information or correction of errors or omissions. Every application for license shall be approved or denied within 90 days after receipt of the original application or receipt of the timely requested additional information or correction of errors or omissions unless a shorter period of time for agency action is provided by law. The 90-day or shorter time period shall be tolled by the initiation of a proceeding under Section 120.57 and shall resume 10 days after the recommended order is submitted to the agency and the parties. Any application for a license not approved or denied within the 90-day period or shorter time period, within 15 days after conclusion of a public hearing held on the application, or within 45 days after the recommended order is submitted to the agency and the parties, whichever is latest, shall be deemed approved and, subject to the satisfactory completion of an examination, if required as prerequisite to licensure, the license shall be issued. The Public Service Commission, when issuing a license, and any other agency, if specifically exempted by law, shall be exempt from the time limitations within this subsection. Each agency, upon issuing or denying a license, shall state with particularity the grounds or basis for the issuance or denial of same, except where issuance is a ministerial act. On denial of a license application on which there has been no hearing, the denying agency shall inform the applicant of any right to a hearing pursuant to Section 120.57.

Section 403.0876, Florida Statutes

Permits; processing. ---Within 30 days after receipt of an application for a permit under this chapter, the department shall review the application and shall request submittal of all additional information the department is permitted by law to require. If the applicant believes any departmental request for additional information is not authorized by law or departmental rule, the applicant may request a hearing pursuant to s. 120.57. Within 30 days after receipt of such additional information, the department shall review it and may request only that information needed to clarify such additional information or to answer new questions raised by or directly related to such additional information. If the applicant believes the request of the department for such additional information is not authorized by law or departmental rule, the department, at the applicant's request, shall proceed to process the permit application. Permits shall be approved or denied within 90 days after receipt of the original application, the last item of timely requested additional material, or the applicant's written request to begin processing the permit application.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

RECEIVED

MAR 29 1990

DER-BAQIM

WAIVER OF 90 DAY TIME LIMIT  
UNDER SECTIONS 120.60(2) AND 403.0876, FLORIDA STATUTES

License (Permit, Certification) Application No. AC 27-173474

Applicant's Name: Florida Mining & Materials

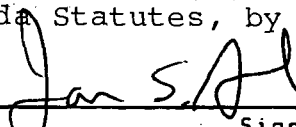
The undersigned has read Sections 120.60(2) and 403.0876, Florida Statutes, and fully understands the applicant's rights under that section.

With regard to the above reference license (permit, certification) application, the applicant hereby with full knowledge and understanding of (his) (her) (its) rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right under Sections 120.60(2) and 403.0876, Florida Statutes, to have the application approved or denied by the State of Florida Department of Environmental Regulation within the 90 day time period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes. Said waiver is made freely and voluntarily by the applicant, is in (his) (her) (its) self-interest, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Regulation.

This waiver shall expire on the 3rd day of May 1990.

The undersigned is authorized to make this waiver on behalf of the applicant.

This waiver is intended only to extend the 90 day period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes, by 30 days.

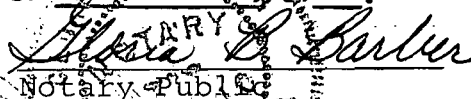
  
\_\_\_\_\_  
Signature

James S. Alves  
Hopping Boyd Green & Sams

Please Type Name of Signee  
P. O. Box 6526, Tallahassee, FL 32314  
March 28, 1990

\_\_\_\_\_  
Date

Sworn to and subscribed  
before me on 28th day  
of March 1990.

  
Notary Public

My commission expires: May 17, 1990

Notary Public, State of Florida  
My Commission Expires May 17, 1990  
Bonded Thru Troy Fain - Insurance Inc.

DER Form 14.7 (201(8))

Effective November 30, 1982

Page 1 of 2

Section 120.60, Florida Statutes

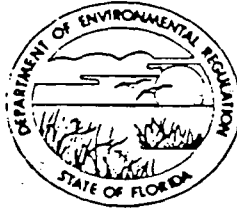
(2) When an application for a license is made as required by law, the agency shall conduct the proceedings required with reasonable dispatch and with due regard to the rights and privileges of all affected parties or aggrieved persons. Within 30 days after receipt of an application for a license, the agency shall examine the application, notify the applicant of any apparent errors or omissions, and request any additional information the agency is permitted by law to require. Failure to correct an error or omission or to supply additional information shall not be grounds for denial of the license unless the agency timely notified the applicant within this 30 day period. The agency shall notify the applicant if the activity for which he seeks a license is exempt from the licensing requirement and return any tendered application fee within 30 days after receipt of the original application or within 10 days after receipt of the timely requested additional information or correction of errors or omissions. Every application for license shall be approved or denied within 90 days after receipt of the original application or receipt of the timely requested additional information or correction of errors or omissions unless a shorter period of time for agency action is provided by law. The 90-day or shorter time period shall be tolled by the initiation of a proceeding under Section 120.57 and shall resume 10 days after the recommended order is submitted to the agency and the parties. Any application for a license not approved or denied within the 90-day period or shorter time period, within 15 days after conclusion of a public hearing held on the application, or within 45 days after the recommended order is submitted to the agency and the parties, whichever is latest, shall be deemed approved and, subject to the satisfactory completion of an examination, if required as prerequisite to licensure, the license shall be issued. The Public Service Commission, when issuing a license, and any other agency, if specifically exempted by law, shall be exempt from the time limitations within this subsection. Each agency, upon issuing or denying a license, shall state with particularity the grounds or basis for the issuance or denial of same, except where issuance is a ministerial act. On denial of a license application on which there has been no hearing, the denying agency shall inform the applicant of any right to a hearing pursuant to Section 120.57.

Section 403.0876, Florida Statutes

Permits; processing. ---Within 30 days after receipt of an application for a permit under this chapter, the department shall review the application and shall request submittal of all additional information the department is permitted by law to require. If the applicant believes any departmental request for additional information is not authorized by law or departmental rule, the applicant may request a hearing pursuant to s. 120.57. Within 30 days after receipt of such additional information, the department shall review it and may request only that information needed to clarify such additional information or to answer new questions raised by or directly related to such additional information. If the applicant believes the request of the department for such additional information is not authorized by law or departmental rule, the department, at the applicant's request, shall proceed to process the permit application. Permits shall be approved or denied within 90 days after receipt of the original application, the last item of timely requested additional material, or the applicant's written request to begin processing the permit application.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

RECEIVED

FEB 12 1990

DER-BAQM

WAIVER OF 90 DAY TIME LIMIT  
UNDER SECTIONS 120.60(2) AND 403.0876, FLORIDA STATUTES

License (Permit, Certification) Application No. AC 27-138850

Applicant's Name: Florida Mining & Materials

The undersigned has read Sections 120.60(2) and 403.0876, Florida Statutes, and fully understands the applicant's rights under that section.

With regard to the above reference license (permit, certification) application, the applicant hereby with full knowledge and understanding of (his) (her) (its) rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right under Sections 120.60(2) and 403.0876, Florida Statutes, to have the application approved or denied by the State of Florida Department of Environmental Regulation within the 90 day time period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes. Said waiver is made freely and voluntarily by the applicant, is in (his) (her) (its) self-interest, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Regulation.

This waiver shall expire on the 3rd day of April 1990.

The undersigned is authorized to make this waiver on behalf of the applicant.

This waiver is intended only to extend the 90 day period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes, by 30 days.

Peter C. Cunningham  
Signature

Peter C. Cunningham  
Please Type Name of Signee  
Hopping Boyd Green & Sams  
P. O. Box 6526, Tallahassee, FL 32314  
2/12/90 Date

Sworn to and subscribed  
before me this 12th day  
of February 1990.  
[Signature]  
Notary Public  
My Commission Expires: May 17, 1990  
DER 17-1.201(8)

Notary Public, State of Florida  
Commission Expires May 17, 1990  
Bonded thru Troy Fain - Insurance Inc.

Effective November 30, 1982

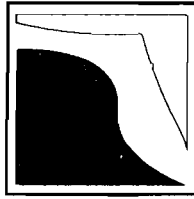
Page 1 of 2

Section 120.60, Florida Statutes

(2) When an application for a license is made as required by law, the agency shall conduct the proceedings required with reasonable dispatch and with due regard to the rights and privileges of all affected parties or aggrieved persons. Within 30 days after receipt of an application for a license, the agency shall examine the application, notify the applicant of any apparent errors or omissions, and request any additional information the agency is permitted by law to require. Failure to correct an error or omission or to supply additional information shall not be grounds for denial of the license unless the agency timely notified the applicant within this 30 day period. The agency shall notify the applicant if the activity for which he seeks a license is exempt from the licensing requirement and return any tendered application fee within 30 days after receipt of the original application or within 10 days after receipt of the timely requested additional information or correction of errors or omissions. Every application for license shall be approved or denied within 90 days after receipt of the original application or receipt of the timely requested additional information or correction of errors or omissions unless a shorter period of time for agency action is provided by law. The 90-day or shorter time period shall be tolled by the initiation of a proceeding under Section 120.57 and shall resume 10 days after the recommended order is submitted to the agency and the parties. Any application for a license not approved or denied within the 90-day period or shorter time period, within 15 days after conclusion of a public hearing held on the application, or within 45 days after the recommended order is submitted to the agency and the parties, whichever is latest, shall be deemed approved and, subject to the satisfactory completion of an examination, if required as prerequisite to licensure, the license shall be issued. The Public Service Commission, when issuing a license, and any other agency, if specifically exempted by law, shall be exempt from the time limitations within this subsection. Each agency, upon issuing or denying a license, shall state with particularity the grounds or basis for the issuance or denial of same, except where issuance is a ministerial act. On denial of a license application on which there has been no hearing, the denying agency shall inform the applicant of any right to a hearing pursuant to Section 120.57.

Section 403.0876, Florida Statutes

Permits; processing. ---Within 30 days after receipt of an application for a permit under this chapter, the department shall review the application and shall request submittal of all additional information the department is permitted by law to require. If the applicant believes any departmental request for additional information is not authorized by law or departmental rule, the applicant may request a hearing pursuant to s. 120.57. Within 30 days after receipt of such additional information, the department shall review it and may request only that information needed to clarify such additional information or to answer new questions raised by or directly related to such additional information. If the applicant believes the request of the department for such additional information is not authorized by law or departmental rule, the department, at the applicant's request, shall proceed to process the permit application. Permits shall be approved or denied within 90 days after receipt of the original application, the last item of timely requested additional material, or the applicant's written request to begin processing the permit application.



## FLORIDA MINING & MATERIALS

CONSTRUCTION MATERIALS DIVISION

P. O. BOX 6, BROOKSVILLE, FLORIDA 34605-0006  
TELEPHONE (904) 796-7241

C. M. COLEMAN, JR.  
VICE PRESIDENT & GENERAL MANAGER

March 20, 1990

Mr. C. H. Fancy, P. C., Chief  
Bureau of Air Regulation  
Florida Department of Environmental  
Regulation  
2600 Blair Stone Road, Room 338  
Tallahassee, Florida 32399-2400

Re: Amendment of Permit No. AC 27-138850  
New Permit No. AC 27-173474

Dear Mr. Fancy:

Florida Mining & Materials submitted an application to amend the referenced Department Air Permit for its Brooksville Cement Plant Kiln No. 2 on December 1, 1989. While the Department did not request any additional information, the Region IV office of the U. S. Environmental Protection Agency commented on the application by letter dated January 10, 1990. We have reviewed Mr. Miller's comment letter and would like to take this opportunity to respond.

The Region IV letter states that the "netting calculation" contained in Florida Mining's application was incorrect, and that the correct calculation "should be proposed allowable emission - existing actual emissions (based on data)." Florida Mining believes the approach set forth in its application is valid under the Department's rules. In an effort to avoid delay in the permitting process, however, our consultant has performed the emission comparisons calculation in the manner suggested by Region IV. Accordingly, please find attached a permit application addendum submitted in response to Region IV's comment letter.

Florida Mining is prepared to accept the "Current Proposed Allowable Emissions" as set forth in Table 3 of the addendum, in the amended construction permit for Kiln No. 2. These emission rates ensure that the permit amendment will not result in a significant net emissions increase based on a comparison of past actual emissions (utilizing statistical analysis of historical emissions testing data) and proposed allowable emissions. Please note that Florida Mining has revised the requested annual hours of operation for Kiln No. 2 from

RECEIVED

MAR 26 1990

DER-BAQM

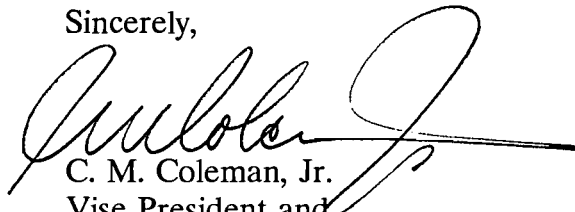
Mr. C. H. Fancy, P. E., Chief  
March 5, 1990  
Page 2

from 8400 hours per year to 8200 hours per year.

In closing, I would emphasize that Florida Mining's decision to revise the application in response to Region IV's comment should not be construed as agreement that other emission comparison approaches are incorrect. In fact, the Region IV approach could penalize a facility that has maintained emission rates lower than those required by permit conditions established to reflect Best Available Control Technology.

Please do not hesitate to call me or Joe Tessitore (404/851-1484) if you or your staff have any questions regarding this submittal.

Sincerely,



C. M. Coleman, Jr.  
Vise President and  
General Manager

CMC/mmff

Enclosures

cc: John Reynolds  
*B. Thomas, SW Dist.*  
*B. Miller, EPA*

RECEIVED MAR 2 1990



**PERMIT APPLICATION ADDENDUM**

**FLORIDA MINING AND MATERIALS  
NO. 2 KILN**

**March 21, 1990**

*This document is submitted in addendum to the  
Application to Amend Air Pollution Source Permit,  
December 1, 1989.*

Cross/Tessitore & Associates, P.A.  
4763 South Conway Road, Suite F.  
Orlando, Florida 32812  
(407) 851-1484  
F03.178/R5108.Doc

## TABLE OF CONTENTS

	<u>PAGE</u>
1.0 Introduction	1
2.0 Methodology	1
Table 1 Actual Emissions Summary	3
Table 2 Calculated Allowable Emissions for PSD	4
Table 3 Proposed Allowable Emissions	5
Table 4 Airborne Emissions Comparison	6
Appendix A	
Table A-1 Emissions Testing Summary 1 No. 2 Kiln	8
Table A-2 Emissions Testing Summary 2 No. 2 Kiln	9

## 1.0 INTRODUCTION

The analysis provided here is offered in response to comments made by the Region IV Office of the U.S. Environmental Protection Agency on the Application to Amend Air Pollution Source Permit submitted for Florida Mining and Materials No. 2 Kiln, to the Florida Department of Environmental Regulation on December 1, 1989.

These comments focused on calculations included in the application to determine the net annual emissions increases which would result from the proposed permit amendments. In specific, the new annual increases calculated were due to the proposed increase in annual hours of production. For purposes of calculating net increases, it was assumed that current actual emissions are essentially equal to the current permitted allowable emissions in lbs/hr. Comments issued by U.S. EPA, however, indicated that actual emissions should be based on existing operating data. The following analysis, therefore, provides revised calculations to comply with this requirement.

## 2.0 METHODOLOGY

The first step in revising the previously submitted emissions calculations was to establish values for current actual emissions of each regulated compound. As required, historical operating data was used as a basis for determining these values. Included in Appendix A is a summary of emissions testing results for the No. 2 Kiln. From this data, the mean tested emissions rate was calculated for Particulate, Sulfur Dioxide, and Nitrogen Dioxide (NO<sub>x</sub>). The standard deviation was then calculated for each of these three sets of data, according to the following equation:

$$SD = \frac{(\sum (V_i - \bar{V})^2)^{\frac{1}{2}}}{(n - 1)^{\frac{1}{2}}}$$

Where            SD = Standard Deviation  
                  V<sub>i</sub> = Data Point  
                   $\bar{V}$  = Mean  
                  n = Number of Data Points

The test results included in Appendix A actually represents only a sample of the entire population of operating data which could be obtained. Further, testing is often conducted during only optimum operating conditions. It was, therefore, necessary to adjust the mean tested emission rates to be more representative of actual operating conditions.

It is assumed that, throughout the typical operating year, actual emissions may vary as much as three standard deviations above the mean tested emissions rate for each compound. Therefore, the following equation was used to calculate actual emissions for Particulate, Sulfur Dioxide, and Nitrogen Dioxide (NO<sub>x</sub>):

$$\text{Actual Emissions} = \bar{V} + 3(\text{SD})$$

Sufficient test data was not available for Volatile Organic Compounds and Carbon Monoxide to establish a reliable statistical value for actual emissions. However, calculations which were included in the December 1, 1989 permit application provide a basis for actual emissions rates of these compounds. Table 1 provides a summary of actual emissions for each regulated compound.

The next step in revising the emissions calculations was to determine values for proposed allowable emissions for each compound. Florida Mining and Materials does not wish to propose a net emissions increase which would result in a Prevention of Significant Deterioration (PSD) review. Therefore, Table 2 was developed to calculate the maximum allowable emissions rate for PSD. In this analysis, the following procedures were followed:

- 1) The actual emissions rate for each compound was multiplied by the actual hours of operation in 1989 to determine the annual actual emissions rate in ton/yr.
- 2) This value was then increased by the PSD significant emissions rate to obtain the annual emissions rate allowable for PSD.
- 3) This annual allowable emissions rate was used, along with the proposed operating schedule of 8,200 hrs/yr, to obtain an allowable emissions rate on an hourly basis.

It should be noted that the proposed operating schedule has been reduced from 8,400 hrs/yr in the December 1, 1989 permit application to 8,200 hrs/yr.

Given the values for PSD in Table 2, it was then necessary to establish what levels should be proposed as allowable emissions. This was achieved by using the following criteria:

- 1) For Particulate, Sulfur Dioxide, and Nitrogen Dioxide (NO<sub>x</sub>), the allowable emissions for PSD from Table 2 were compared with the current permitted allowable levels. Of these two values, the lesser was selected as the proposed allowable emissions rate.
- 2) For Volatile Organic Compounds and Carbon Monoxide, the actual emissions rate calculated in the December 1, 1989 permit application and listed in Table 1, was established as the proposed allowable emissions rate.

A summary of the proposed allowable emissions for each compound is provided in Table 3. Table 4 presents a revised version of Table III-2, submitted in the December 1, 1989 Permit Application.

**TABLE 1**  
**ACTUAL EMISSIONS SUMMARY**

	Mean Tested Emissions Rate (lb/hr)	Standard Deviation (lb/hr)	Actual Emissions (lb/hr)
Particulate	7.31	2.75	15.56
Sulfur Dioxide	3.64	2.80	12.03
Nitrogen Dioxide (NO <sub>x</sub> )	149.70	32.35	246.76
Volatile Organic Compounds*	----	----	7.44 *
Carbon Monoxide*	----	----	79.2 *

\* Actual emissions for these compounds are based on calculations provided in the December 1, 1989 Permit Application.

**TABLE 2**  
**CALCULATED ALLOWABLE EMISSIONS FOR PSD**  
 (Actual Emissions During History of Kiln #2 with Proposed 8200 Hours per Year Operation)

<b>Parameter</b>	<b>Actual Emissions Rate (lb/hr)</b>	<b>1989 Actual Operating Hours (hrs/yr)</b>	<b>Annual Actual Emissions Rate (ton/yr)</b>	<b>PSD Significant Emissions (ton/yr)</b>	<b>Allowable Emissions Rate (ton/yr)</b>	<b>Allowable Emissions Rate (lb/hr)*</b>
Particulate	15.56	7892.7	61.41	25	86.41	21.08
Sulfur Dioxide	12.03	7892.7	47.47	40	87.47	21.33
Nitrogen Dioxide (NO <sub>x</sub> )	246.76	7892.7	973.80	40	1013.80	247.27
Volatile Organic Compounds	7.44	7892.7	29.36	40	69.36	16.92
Carbon Monoxide	79.2	7892.7	312.55	100	412.55	100.62

\* Calculated based on proposed schedule of 8200 hours/yr.  
 R5101.DOC

**TABLE 4**  
**AIRBORNE EMISSIONS COMPARISON\***

Parameter	Current Actual Emissions		Proposed Allowable Emissions		Actual Emissions Increase T/yr	Significant Net** Increase T/yr
	lb/hr	T/yr	lb/hr	T/yr		
Particulate	15.56	61.41	21	86.10	24.69	25
Sulfur Dioxide	12.03	47.47	12	49.20	1.73	40
Nitrogen Dioxide (NO <sub>x</sub> )	246.76	973.80	247	1012.7	37.92	40
Volatile Organic Compounds	7.44	29.36	7.44	30.50	1.14	40
Carbon Monoxide	79.2	312.55	79.2	324.72	12.17	100

\* Revised from Table III-2 in the December 1, 1989 Permit Application.

\*\* Based on PSD significance criteria.

**TABLE 3**  
**PROPOSED ALLOWABLE EMISSIONS**

	<b>Current Proposed Allowable Emissions (lb/hr)</b>	<b>Previous Proposed<sup>(3)</sup> Allowable Emissions (lb/hr)</b>
Particulate	21 (1)	21.6
Sulfur Dioxide	12 (2)	12.0
Nitrogen Dioxide (NO <sub>x</sub> )	247 (1)	244.0
Volatile Organic Compounds	7.44 (3)	7.44
Carbon Monoxide	79.2 (3)	79.2

(1) Calculated based on actual emissions rate, PSD significant emissions rate, and a proposed operating schedule of 8,200 hrs/yr.

(2) Based on current permit limit.

(3) As proposed in December 1, 1989 Permit Application.

R5101.Doc



**APPENDIX A**  
**OPERATING DATA**

**TABLE A-1**  
**EMISSIONS TESTING SUMMARY 1**  
**NO. 2 KILN**

Testing Date	Kiln Feed (ton/hr)	Gas Flow Rate		Stack Temp. (°F)	Particulate Emissions	
		(ACFM)	(SCFM)		(gr/dscf)	(lb/hr)
09/23/82	112	227,458	145,524	265	0.0055	6.5
10/11/82	108	225,887	147,768	249	N/A	N/A
04/16/84	111	228,166	153,810	223	0.0065	8.66
04/22/85	113	219,461	143,475	268	0.0111	13.47
04/28/86	120	217,356	148,696	231	0.0048	6.15
08/20/86	120	N/A	148,033	N/A	N/A	N/A
04/13/87	129	210,073	143,723	234	0.0031	3.83
09/23/87	120.1	220,836	149,441	234	N/A	N/A
03/28/88	124	227,058	179,642	230	0.0036	4.8
06/29/88	122.5	235,856	161,250	229	N/A	N/A
05/22/89	120	273,638	177,707	281	0.0052	7.83
05/23/89	138.5	268,282	174,255	269	0.004686	7.00
10/17/89 through 10/19/89	118.2	287,684	188,945	270	0.00468	7.51

**TABLE A-2**  
**EMISSIONS TESTING SUMMARY 2**  
**NO. 2 KILN**

Testing Date	Sulfur Dioxide Emissions (lb/hr)	Nitrogen Oxide (NO <sub>x</sub> ) Emissions (lb/hr)	Volatile Organic Compounds Emissions (lb/hr)	Carbon Monoxide Emissions (lb/hr)
09/23/82	N/A	74.75	N/A	N/A
10/11/82	3.6*	N/A	N/A	N/A
04/16/84	4.63	141.2	N/A	N/A
04/22/85	9.53	128.4	N/A	N/A
04/28/86	2.4	N/A	N/A	N/A
08/20/86	N/D	111.9	N/A	N/A
04/13/87	4.77	172.81	N/A	N/A
09/23/87	N/D	N/A	N/A	N/A
03/28/88	N/D	N/A	N/A	N/A
06/29/88	N/A	117	N/A	N/A
05/22/89	1.98	127.2	N/A	N/A
05/23/89	1.61	181.8	N/A	44.8
10/17/89 through 10/19/89	0.566**	135	4.5	37.4

\* Discarding Run No. 3 (Raw Mill down), average measured emissions = 1.00 lb/hr

\*\* Value represents average of three runs. Data for this test date previously submitted in December 1, 1989 Permit Application represented only test runs conducted while raw mill was down.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

JAN 10 1990

4APT-APB-cdw

Ms. Patricia G. Adams  
Planner  
Bureau of Air Quality Management  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Florida Mining and Materials (PSD-FL-124)

Dear Ms. Adams:

This is to acknowledge receipt of the application for a proposed amendment to the above referenced permit dated December 7, 1989. As discussed between Mr. Barry Andrews of FDER and Mr. Gregg Worley of my staff on January 8, 1990, we have the following comment.

The netting calculation performed by the applicant was incorrect. The applicant used permitted allowable emissions as actual emissions rather than using existing emissions based on the previous two years of operating data. The correct calculation should be proposed allowable emissions-existing actual emissions (based on data).

The emissions changes should be evaluated correctly to determine whether the proposed change is significant for any pollutant.

Thank you for the opportunity to review this package. Any questions or comments may be directed to Mr. Gregg Worley of my staff at (404) 347-2864.

Sincerely yours,

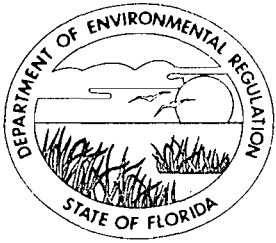
Bruce P. Miller, Chief  
Air Programs Branch  
Air, Pesticides, and Toxics  
Management Division

copied: J. Reynolds  
B. Andrews  
C. Holladay  
R. Thomas, SW Dist.  
CHF/BT

RECEIVED

JAN 12 1990

DER-BAQM



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

December 7, 1989

Mr. Wayne Aronson, Chief  
Program Support Section  
U.S. EPA, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Dear Mr. Aronson:

RE: Florida Mining & Materials  
Permit Amendment  
PSD-FL-124

Enclosed for your review and comment is the above referenced PSD permit amendment request. If you have any comments or questions, please contact John Reynolds at the above address or at (904)488-1344.

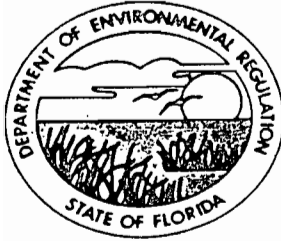
Sincerely,

*Patricia G. Adams*

Patricia G. Adams  
Planner  
Bureau of Air Regulation

/pa

Enclosure



# Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

Dr. Richard Garrity, Deputy Assistant Secretary

November 21, 1989

RECEIVED

NOV 27 1989

DER-BAQM

Mr. Joseph L. Tessitore  
Vice President  
Cross/Tessitore & Associates  
4763 South Conway Road  
Suite F  
Orlando, FL 32812

Dear Mr. Tessitore:

Re: Florida Mining & Materials  
Kiln No. 2 Permit AC27-138850

In your letter of November 3, 1987 you requested permission to use Flotite as required and to operate on occasions without the raw mill in order to develop operating parameters pursuant to submittal of an application for modification of the above referenced construction permit.

As you know we cannot authorize you to operate in a manner that is not consistent with your construction permit. However, it is possible that a test plan describing the parameters, schedule and duration can be approved.

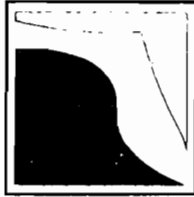
If you still wish to proceed with the described test, please submit a justifiable test plan along with available backup information.

Sincerely,

*J. Harry Kerns*  
J. Harry Kerns, P.E.  
District Air Engineer

JHK/mbq

cc: Bill Thomas, Tampa  
Clair Fancy ✓



RECEIVED  
DER - MAIL ROOM

1989 DEC -4 PM 12: 35

## FLORIDA MINING & MATERIALS

CONSTRUCTION MATERIALS DIVISION

P. O. BOX 6, BROOKSVILLE, FLORIDA 34605-0006  
TELEPHONE (904) 796-7241

November 29, 1989

C. M. COLEMAN, JR.  
VICE PRESIDENT & GENERAL MANAGER

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

Dear Mr. Fancy:

Enclosed is an application to amend the existing construction permit for Florida Mining & Materials' number two kiln at its Brooksville, Florida cement plant. The amendments are requested in order to allow this kiln to operate at maximum efficiency, with slightly higher clinker production rates.

Stack test data shows that the kiln is operating in compliance with the permit's hourly emission limits for sulfur dioxide, nitrogen dioxide and particulates. Therefore, no changes are requested in the currently permitted hourly emission rates of those pollutants. The application includes a request for increased hourly emission levels for carbon monoxide and total hydrocarbons, to accurately reflect both current operating practices and operating at increased production rates. Increases in these two parameters are explained in the text of the application.

Please note that none of the amendments requested herein pertain to Florida Mining's proposal to burn waste fuels. Florida Mining requests these amendments to reflect operations with coal and conventional fuel and to enable the plant to step up production to meet the increased demand in the market.

Sincerely,

C. M. Coleman, Jr.  
Vice President and General Manager

CMC, Jr:gm  
Enclosure

**FLORIDA MINING & MATERIALS**  
CEMENT DIVISION  
P O BOX 6  
BROOKSVILLE, FL 34605-0006

4438

November 30, 19 89

63-134  
631

PAY TO THE ORDER OF Florida Department of Environmental Regulation | \$1,000.00

The sum of \$1,000 and 00/100 DOLLARS



**Sun Bank and Trust Company**  
Brooksville Office  
P.O. Box 155  
Brooksville, FL 34603-0156

PETTY CASH ACCOUNT

FOR Modification Air Permit

*Don B. Kelly*

HARLAND



**APPLICATION TO AMEND  
AIR POLLUTION SOURCE PERMIT**

**FLORIDA MINING AND MATERIALS  
NO. 2 KILN**

**December 1, 1989**

**Volume I**

Cross/Tessitore & Associates  
4763 South Conway Road, Suite F.  
Orlando, Florida 32812  
(407) 851-1484  
F03.178/R5092.Doc

## TABLE OF CONTENTS

### PAGE

### VOLUME I

Application Form	1
Supplemental Information: Section II	13
Supplemental Information: Section III	17
Supplemental Information: Section V	28
Supplemental Information: Section VII	55

#1,000 pd.  
12-4-89  
Rept. #117680

BEST AVAILABLE COPY

RECEIVED



AC 27-19344

DEC 4 1989

DER FORM 17-1.202(1) APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Portland Cement Plant  New  Existing<sup>1</sup>  
APPLICATION TYPE:  Construction  Operation  Modification  
COMPANY NAME: Florida Mining and Materials COUNTY: Hernando

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

SOURCE LOCATION: Street U.S. Highway 98 City NW of Brooksville

UTM: East 17-356.00 North 3169.89

Latitude 28° 38' 34" N Longitude 82° 28' 25" W

APPLICANT NAME AND TITLE: C.M. Coleman, Jr., Vice President

APPLICANT ADDRESS: P.O. Box 6, Brooksville, Florida 34605-0006

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Florida Mining & Materials

I certify that the statements made in this application for a 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:   
C.M. Coleman, Jr., Vice President  
Name and Title (Please Type)

Date: 11/15/89 Telephone No. (904) 796-7241

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

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

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

Signed Joseph I. Tessitore  
Joseph I. Tessitore, P.E.  
Name (Please Type)

Cross/Tessitore & Associates, P.A.  
Company Name (Please Type)

4763 South Conway Road, Orlando, FL 32812  
Mailing Address (Please Type)

Florida Registration No. 23374 Date: 12/1/89 Telephone No. (407) 851-1484

SECTION II: GENERAL PROJECT INFORMATION

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

See Supplemental Information: Section II

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

Start of Construction \_\_\_\_\_ Completion of Construction \_\_\_\_\_

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.) The following information represents the initial costs associated with the existing baghouse system. No additional air pollution control equipment will be required for the subject modification.

Baghouse Equipment	\$2,825,000.00
Erection	\$2,800,000.00
TOTAL	\$5,625,000.00

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

See Supplemental Information: Section II

BEST AVAILABLE COPY

Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 50 ;

If power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_

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

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

a. If yes, has "offset" been applied? \_\_\_\_\_

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

c. If yes, list non-attainment pollutants. \_\_\_\_\_

2. Does best available control technology (BACT) apply to this source? YES<sup>1</sup>  
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. YES<sup>2</sup>

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

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

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

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

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

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

All supportive data is included in the Supplemental Information Sections of this Application.

1 BACT has been determined for particulate emissions under the previous Permit AC 27-30450; BACT has been determined for Sulfur Dioxide and Nitrogen Dioxide (NOx) under the previous Permit AC 27-138850. No BACT review was required for Carbon Monoxide and volatile organic compound emissions.

2 PSD compliance for particulate, Sulfur Dioxide and Nitrogen Dioxide (NOx) was established under previous Permit AC 27-138850 (PSD-FL-124).

**BEST AVAILABLE COPY**

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Limestone	Particulate	0.02	207,640	
Sand/Clay	Particulate	0.08	20,774	SEE SUPPLEMENTAL
Fly Ash	Particulate	0.14	26,182	INFORMATION: SECTION V
Saurolite	Particulate	1.40	2,704	FIGURE V-1
Mill Scale	Particulate	1.40	2,704	

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

1. Total Process Input Rate (lbs/hr): 260,000      130 TPH VS 120 TPH      8% increase  
 2. Product Weight (lbs/hr): 159,250      79.6 TPH VS 73.5 TPH      8% increase

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

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
	SEE SUPPLEMENTAL INFORMATION:			SECTION III,	TABLE III-1		

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

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

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

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

**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 Reverse Air (Variable Cycle)	Particulate	99.9%	0-60	Testing

**Fuels**

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Coal <i>17,200 (12,500)</i>	20,640 lb/hr	24,000 lb/hr <i>20% increase</i>	300 <i>vs 250</i>
Solite *	1,779 gal/hr	2,069 gal/hr	300

*20% increase*

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

Coal Analysis: See Supplemental Information: Section III, Tables III-2 and III-3.

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

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

Annual Average \_\_\_\_\_ Maximum \_\_\_\_\_

Indicate liquid or solid wastes generated and method of disposal.

Solids collected from the fabric filter during normal operation will be returned to the kiln feed and recycled through the system.

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

Stack Height: 90 ft. Stack Diameter: 16.0 ft.  
 Gas Flow Rate: 300,000 ACFM 199,000 DSCFM Gas Exit Temperature: ~386 °F.  
 Water Vapor Content: ~10 % Velocity: 24.87 FPS

**SECTION IV: INCINERATOR INFORMATION N/A**

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

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

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

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

Manufacturer \_\_\_\_\_

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

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

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

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

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

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



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

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

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

See Supplemental Information: Section V

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.  
  
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).  
  
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.

**BEST AVAILABLE COPY**

- 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**

ACT levels have been previously determined in Permit AC 27-138850 and Previous Permit AC 27-3045. A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant

Rate or Concentration


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

[ ] Yes [ ] No

Contaminant

Rate or Concentration


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

Contaminant

Rate or Concentration


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

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

Explain method of determining

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

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

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

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

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

1.

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

2.

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

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

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

BEST AVAILABLE COPY

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

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

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

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

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

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

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

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

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

Describe the control technology selected:

1. Control Device:

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

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

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

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

Explain method of determining efficiency.

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

(5) Environmental Manager:

(6) Telephone No.:

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

Contaminant

Rate or Concentration

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

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

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

Contaminant

Rate or Concentration

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

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION N/A

A. Company Monitored Data

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

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

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

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?  
[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. 5 Year(s) of data from 0 / 01 / 70 to 02 / 08 / 74  
month day year month day year

2. Surface data obtained from (location) Tampa/Station No. 12842

3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_ \*

4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_ \*

C. Computer Models Used

1. Industrial Source Complex - Short Term Modified? If yes, attach description.

2. \_\_\_\_\_ Modified? If yes, attach description.

3. \_\_\_\_\_ Modified? If yes, attach description.

4. \_\_\_\_\_ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

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

E. Emission Data Used in Modeling

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

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

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.

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.

\* For Complete output listing and modeling parameters see Supplemental Information: Section VII

**SUPPLEMENTAL INFORMATION:**

**SECTION II**

1. Project Description
2. Table II-1  
Permitting and Compliance Activities

## SECTION II

### PROJECT DESCRIPTION

The subject of this Permit Application is the revision of Florida Mining and Materials' (FM&M) current construction permit for the No. 2 Kiln (Source E-19). This application does not involve any physical modifications to the kiln. Rather, these permit amendments are requested to enable FM&M to operate at a higher rate of production to meet the market's increasing demands for cement, and to improve the efficiency of the operation. The change for the CO limit is proposed so that the parameter will cover all the CO emissions from the kiln, not merely those that result from burning coal.

The requested revisions to the permit include the following: 1) An increase in the permitted clinker production rate; 2) An increase in the permitted coal consumption rate; 3) An increase in the permitted maximum annual hours of operation; 4) The use of Flolite (a refined oil product) during start-up of the kiln; 5) Operation of the kiln without the raw mill; 6) Increases in the annual emissions for SO<sub>2</sub> and NO<sub>x</sub> (the kiln is operating in compliance with the hourly emissions limits, but the increase in the number of operating hours will result in higher annual emissions); 7) increases in the permit's limits for emissions of CO and VOC's.

The permit's current CO limit is based solely on EPA's AP-42 emissions factor for coal combustion sources. The kiln exit gases, however, also contain non-combustion related CO that is generated in the process from the chemical reactions that occur in the calcination of calcium carbonate in the kiln. Therefore, stack testing and monitoring cannot accurately determine compliance with only the combustion source limit. For that reason, a revised CO limit is proposed to accurately reflect the CO that is generated from both coal combustion and the process. In addition, the proposed CO limit includes adjustments based on operations at the higher operating hours limit.

The revised CO limit would include an actual emissions increase of 15.3 tpy from combustion sources, reflecting the increased operating hours and increased coal feed rate. Except for that incremental increase, the proposed higher limit would reflect the kiln's current CO emissions from both coal combustion and the process. The actual emissions increase resulting from increased coal consumption and greater hours of operation is, therefore, well below the 100 tpy significance threshold.

The VOC limit included in the application is based on EPA's proposed limit for industrial furnaces and is representative of good operating practices. The proposed increase in VOC limit would result in an actual annual increase of 20.6 tons of emissions, which is significantly less than the significance threshold of 40 tpy for VOC's

Estimated emissions resulting from these source revisions and relating to the current Permit Number AC27-138850, are detailed in the supporting information for Sections III and V of this Application. The baghouse currently operated with



the No. 2 Kiln will remain as the air pollution control device, thus continuing to provide Best Available Control Technology (BACT), as previously determined.

The current permit for the No. 2 Kiln specifically prohibits kiln operation when the raw mill is down. This prohibition was based on the fact that the raw mill, which receives the hot kiln exhaust gases prior to the baghouse, provides some additional scrubbing for the removal of acid gases. This was especially critical during the operation under Permit A027-65207 which limited the SO<sub>2</sub> emissions from the kiln to 3 pounds per hour. However, the recent permit allows SO<sub>2</sub> emissions of 12 pounds per hour and the dependence on the raw mill scrubbing is no longer critical. Test results, provided in Exhibit V-1, show that SO<sub>2</sub> and NO<sub>x</sub> emissions do not exceed the current allowable levels while the raw mill is down.

Further, in order to optimize the kiln productivity, it is necessary to operate the kiln when feed is available but the raw mill is inoperative due to maintenance and/or insufficient feed storage capacity. For these reasons a revision of the permit conditions is requested to allow kiln operation while the raw mill is down. A summary of the proposed permit revisions is provided below.

<u>Parameter</u>	<u>Current Limit</u>	<u>Proposed Limit</u>
1) Production Rate	120 T/hr	130 T/hr
2) Coal Consumption Rate	10.5 T/hr	12 T/hr
3) Operating Hours	7,896 hr/yr	8,400 hr/yr
4) Raw Mill	Up	Up/Down
5) Flolite * (Equivalent to No. 5 Oil Specification)	---	*250 hr/yr
6) Carbon Monoxide	8.9 lb/hr	79.2 lb/hr
7) Volatile Organic Compounds	2.7 lb/hr	7.4 lb/hr

\* Used only during start-up of kiln operations and during periods when raw materials feed is stopped and kiln temperature must be maintained. Annual usage hours are approximate.

**TABLE II-1**  
**PERMITTING AND COMPLIANCE ACTIVITIES**

<b>Activity</b>	<b>Number</b>	<b>Issued</b>	<b>Expired</b>
Construction Permit	AC27-30450	July 25, 1980	December 31, 1983
Operating Permit	A027-65207	August 16, 1983	August 16, 1988
Consent Order	OGC-86-1471	January 23, 1987	-----
Consent Order	OGC-87-1685	September 1, 1988	-----
Construction Permit	AC27-138850	November 3, 1988	January 1, 1990

## **SUPPLEMENTAL INFORMATION:**

### **SECTION III**

1. Table III-1 Regulated Air Pollutant Summary
2. Table III-2 Airborne Contaminants Emitted
3. Table III-3 Fuels Summary
4. Table III-4 Fuels Data
5. Exhibit III-1 Flolite Manufacturer's Data

**TABLE III-1**  
**AIRBORNE EMISSIONS SUMMARY**

<b>Parameter</b>	<b>Proposed Allowable Emissions</b>		<b>Allowed Emission Rate Per Rule 17-2</b>	<b>Current Allowable Emissions lbs/hr</b>	<b>Potential Emissions</b>		<b>Relate to<sup>(1)</sup> Flow Diagram</b>
	<b>lbs/hr</b>	<b>T/yr</b>			<b>lbs/hr</b>	<b>T/yr</b>	
Particulate	21.6	90.72	N/A <sup>(2)</sup>	21.6	21.6	90.72	E-19
Sulfur Dioxide	12.0	50.4	N/A <sup>(3)</sup>	12.0	12	50.4	E-19
Nitrogen Dioxide (NO <sub>x</sub> )	244.0	1025	N/A <sup>(3)</sup>	250	244.0	1025	E-19
Volatile Organic Compounds	7.44	31.3	N/A <sup>(4)</sup>	2.7	7.44	31.3	E-19
Carbon Monoxide	79.2	332.6	N/A <sup>(4)</sup>	8.9	79.2	332.6	E-19
Opacity	10 %	--	Rule 17-2.660	20 %	10 %	--	E-19

(1) See Figure V-6.

(2) Allowable emissions for particulate were established by BACT determination as stated in original Construction Permit AC27-30450.

(3) Allowable emissions for these compounds have been previously established by BACT determination as stated in existing Construction Permit AC 27-138850.

(4) Current limits for these compounds have been previously established under the original Construction Permit AC 27-30450.

**BEST AVAILABLE COPY**

**TABLE III-2  
AIRBORNE EMISSIONS COMPARISON**

Parameter	Current <sup>Need Actuals</sup> Permit Allowable		Proposed Allowable		<sup>Allowable</sup> Actual Emissions Increase	Significant Net** Increase
	lb/hr	T/yr	lb/hr	T/yr	T/yr	T/yr
Particulate	21.6	85.3	21.6	90.72	5.42	25
Sulfur Dioxide	12.0	47.4	12.0	50.4	3.0	40
Nitrogen Dioxide (NO <sub>x</sub> )	250.0	987.0	244.0	1025	38	40
Volatile Organic Compounds	2.7	10.7	7.44	31.3	20.6	40
Carbon Monoxide	8.9	35.1	79.2	332.6	52.7 *	100

\* See Calculations included in Supplemental Information: Section V of this application. Emissions of Carbon Monoxide from the process source which have not previously been considered are not included as an emissions increase.

\*\* Based on PSD significance criteria.

**TABLE III-3  
FUELS SUMMARY**

Fuel Type	Consumption		Maximum Heat Input (Btu/hr)
	Avg./hr	Max./hr	
Coal	20,640 lb/hr	24,000 lb/hr	$3.0 \times 10^8$
Flolite <sup>(1)</sup>	1,779 lb/hr	2,069 lb/hr	$3.0 \times 10^8$

- (1) Flolite will only be used during start-up of kiln operations and during periods when raw materials feed is stopped and kiln temperature must be maintained, and flolite is normally used only as a substitute for coal. In cases where flolite and coal are used cocurrently, the maximum heat input rate will not exceed  $3.0 \times 10^8$  Btu/hr.

**TABLE III-4**  
**ADDITIONAL FUELS DATA**

<u>Fuel Type</u>	<u>Heat Capacity</u>	<u>Sulfur Content</u>
Coal	12,500 Btu/lb	1.0 %
Flolite	145,000 Btu/gal	1.0 %

**EXHIBIT III-1**  
**FLOLITE MANUFACTURER'S DATA**

Flolite is a blend of "on-specification" re-refined oil and virgin fuel oils which has the physical characteristics of #5 oil. Flolite will only be used during start-up of kiln operations and during periods when raw materials feed is stopped and kiln temperature must be maintained.

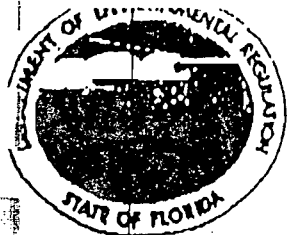
The precise formulation of Flolite is proprietary information of the International Petroleum Corporation (IPC); however, virgin fuel normally constitutes less than 50% of the blended product. The following items are presented as Flolite specifications:

- A release from the Federal EPA which states their position that IPC's finished product is equivalent to virgin fuel oil.
- A copy of a certified analysis which is indicative of IPC's typical specifications for finished product.
- A copy of the Department of Environmental Regulation's approval for use of IPC's Flolite.



EXHIBIT III-1

Page 1 of 5



*Florida Department of Environmental Regulation*

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

Bob Martinez, Governor

Dale Wachsman, Secretary

John Shearer, Assistant Secretary

January 23, 1989

Mr. A. M. Malatino, President  
International Environmental Services, Inc.  
105 S. Alexander Street  
Plant City, Florida 33566

Dear Mr. Malatino:

In reference to the analysis (enclosed) on the re-refined oil submitted on January 13, I do not have any objections to the use of this product as a phosphate flotation oil.

Phosphate companies using this re-refined oil annually would not be required to register with the Department as a used oil collection and recycling facility. Also, annual reports and recordkeeping would not be required of them.

If you have any further questions or comments, please let me know.

Sincerely,

David H. Kelley  
Environmental Specialist  
Bureau of Waste Planning  
and Regulation

DHR/ps

Enclosure

cc: Clabe Polk

EXHIBIT III-1

Page 2 of 5

INTERNATIONAL ENVIRONMENTAL SERVICES, INC.



105 South Alexander St. • Plant City, Florida 33586 • (813) 754-2373  
Tampa (813) 220-0870 • Miami Office 1-800-837-9078 • FAX (813) 754-3700  
Florida Wats 1-800-762-1104

CERTIFIED ANALYSIS

TO: INTERNATIONAL ENVIRONMENTAL SERVICES PROJECT NO. IES #5 OIL  
ATTN: MR. TONY MALATINO  
105 SOUTH ALEXANDER STREET  
PLANT CITY, FL. 33566

SAMPLED BY: IES

DATE COLLECTED: 1-04-89

IDENTIFICATION: RE-REFINED OIL

DATE COMPLETED: 1-10-89

API GRAVITY AT 60 DEGREES F	25-28
SULFUR	0.50*
VISCOSITY SSU AT 100 DEGREES F	240
POUR POINT, DEGREES F	0 DEGREES F
ASPHALTINES	<1.0*
SEDIMENT BY EXTRACTION	TRACE
WATER BY DISTILLATION *	TRACE
TOTAL BOTTOM SEDIMENT AND WATER	1.0* MAX
CADMIUM PPM	<0.3
LEAD PPM (LEACHABLE) BY E. P. TOXICITY	<5.0
ARSENIC PPM	<1.0
CHROMIUM PPM	<1.3
POLYCHLORINATED BIPHENYLS (PCB'S)	BDL*
FLASHPOINT	150 DEGREES MIN

\* BELOW DETECTION LIMIT (1.0 PPM)

Results expressed in:  mg/l (ppm)  ug/l (ppb)  
 mg/kg (ppm)  ug/kg (ppb)

Certified by:

*Anthony M. Malatino*  
(Signature)

State of Florida Certification: EB4180 and HRS 84300

METHODS:

"Standard Methods for the Examination of Water and Wastewater", Latest Edition, APHA, AWWA, and WPCF and/or other EPA approved methods which meet FOIA protocol, unless otherwise designated.

QUALITY CONTROL:

Quality Assurance Project Plan No. 8703190.  
Quality Assurance Quality Control No. 8703190

## EXHIBIT III-1

Page 3 of 5

NOTE NEXT TO LAST PARAGRAPH  
 OLD PAGES 21 AND 22. 0-12

INFORMATION BULLETIN FOR PUBLIC RELEASE:  
 EPA CONCERNS ABOUT THE USED OIL RECYCLING SYSTEM

The Environmental Protection Agency (EPA) is becoming increasingly concerned about disruptions in the used oil recycling system that are occurring because of the fall in virgin fuel oil prices and because of misunderstanding and confusion about EPA's regulations.

There are only a few presently effective requirements for used oil management. Used oil generators should not mix spent solvents with used oils. These mixtures must be managed as hazardous wastes. Used oil fuel dealers must register with EPA. They may sell off-specification used oil fuels (used oil fuels with high metals concentrations) only to industrial burners. On-specification used oil fuels may be sold to anyone. Off-specification used oil burners must register with the Agency.

### Background

In 1980 and 1984 Amendments to the Resource Conservation and Recovery Act (RCRA), Congress directed EPA to consider regulating used oils to protect human health and the environment. At the same time, however, EPA must consider the impacts of regulations on used oil recycling, on small businesses, and small generators. EPA has divided the used oil regulatory program into three stages.

(1) EPA has begun regulation of used oil recycling with a rule to

- discourage mixing hazardous wastes, such as spent solvents, into used oils; and
- ban the combustion of used oil fuels with high metals concentrations in non-industrial facilities, such as schools and apartments.

This rule was proposed on January 11, 1985; promulgated on November 29, 1985; and became fully effective on May 29, 1986.

*Hansen*  
 EPA  
 186  
 (2) We have also begun the next stage of regulating the used oil system with the proposed listing and management standards published on November 29, 1985. EPA is now evaluating the many public comments received in response to this notice (and a supplementary March 10, 1986 notice). We expect to make final decisions this fall. These final rules will be effective six months after publication.

*Hayes* - (3) In a final stage, EPA expects to control combustion devices that burn used oil fuels with high metals content. The rules are expected to be proposed this fall, at the earliest. Final decisions should be completed by the end of 1987. Again, final rules will be effective six months after that.

## EXHIBIT III-1

Page 4 of 5

Current Problems

There are two major problems in the used oil recycling system. First, generators are confused about the status of used oil. Many are surprised that they often must pay to have used oil hauled away. Second, industrial burners are confused about the status of used oil. Many have stopped burning used oil.

Used Oil Generators

Used oil is commonly produced from engine, machine, and vehicle maintenance. Used oils are typically recycled -- usually as fuel, either on-site or after sale to used oil collectors. In the past, generators were paid as much as forty cents per gallon for used oil (in mid-1985, twenty cents per gallon was most typical). The price paid to generators was high because virgin fuel prices were high. The recent fall in virgin fuel prices has depressed used oil prices. Because of this, some generators are now paying for used oil pickups.

The only Federal rule that currently applies to used oil generators is the prohibition on mixing hazardous wastes, such as spent solvents, with used oil. The resulting mixture (regardless of halogen concentrations) is regulated as a hazardous waste, and the facility has to comply with hazardous waste generator regulations. Used oil itself is not currently listed as a Federal hazardous waste. There are no other used oil rules that apply to used oil generators.

Used Oil Collectors, Processors, and Marketers

Used oil businesses have greater responsibilities under EPA's regulatory framework. When these facilities sell (or use) as fuel used oil that contains toxic metals, they are responsible for sending it to the proper type of burner. These "off-specification" used oils may be sold only to industrial burners. Used oil may be off-specification because of arsenic, cadmium, chromium, lead, inorganic halogens, or flashpoint. Facilities selling off-spec used oils must notify EPA.

Used oil fuels that are on-specification are essentially equivalent to virgin fuels. Under the used oil rules, on-spec oil is totally exempt from regulation. Facilities that are the first to claim that used oil fuels meet the specification must also notify the Agency.

Because these used oil businesses control the quality and destinations of recycled used oils, EPA's upcoming regulatory strategy focuses on these facilities. The Agency is evaluating the comments received on the proposal.

## EXHIBIT III-1

Page 5 of 5

Used Oil Burners

The final rule of November 29 required industrial facilities that wished to burn off-specification used oil to notify the Agency. We wanted to establish some accountability and a means of tracking the sale of off-specification fuels to the proper facilities. The notification is merely a one-time requirement that serves the limited purpose of aiding in implementation of the ban on burning off-specification used oil fuels in non-industrial boilers. By notifying, burners do not indicate that they are burning hazardous waste. Nor does notification bind burners to follow any particular standards for burning or storing the used oil fuel. For our convenience, we suggested that facilities notify the Agency using a modified hazardous waste notification form (Form 8700-12). Our intent was not to suggest that off-specification used oil fuels were hazardous wastes, nor that these facilities were hazardous waste facilities. Facilities are free to notify using other means, provided that all required information is provided.

The only Federal requirements from the November 29 final rule that apply to burners who purchase or receive off-specification used oil fuel are limited "paperwork" standards, namely:

1. to notify the Agency as an off-specification used oil burner (§266.44(b)) (a one-time requirement),
2. to inform used oil suppliers that the burner has notified the Agency, and will burn off-spec oil in an industrial device only (§266.44(c)), and
3. to keep invoices of shipments received (§266.44(e)).

At this time, there are no other Federal requirements that apply. Used oil is not now a Federally-listed hazardous waste. The November 29 final rule does not impose any Federal storage requirements for used oils. EPA does not require used oil facilities to obtain liability insurance for storage or burning of used oil. The November 29 final rule does not require facilities burning off-spec used oil fuel to have air pollution control devices.

Used oil fuels that meet the fuel specifications are totally exempt from regulation. Burners of on-spec oil need not notify the Agency. We judge specification used oil fuels to be essentially equivalent to virgin fuel oils. There are no plans to change this finding.

For Further Information

EPA is concerned about the current state of the used oil recycling system. We will continue to consider impacts on used oil recycling in our deliberations. If you have additional questions, please contact the RCRA/Superfund Hotline (800/424-9346 or 202/382-3000).

## SUPPLEMENTAL INFORMATION:

### SECTION V

1. Table V-1 Current and Proposed Feed and Production Rates
2. Table V-2 Emissions Summary
3. Emissions Calculations
4. Figure V-4 Process Flow Diagram
5. Figure V-5 USGS Topographical Map
6. Figure V-6 Facility Plot Plan

**TABLE V-1**  
**CURRENT AND PROPOSED FEED PRODUCTION**  
**AND HEAT INPUT RATES**

	<u>Current</u>	<u>Proposed</u>	
Kiln Minerals Feed	120 T/hr	130 T/hr	+ 8.3%
Clinker Production Rate	142,000 lb/hr 71	159,250 lb/hr 74.5	+ 12.1%
Maximum Heat Input	$2.1 \times 10^8$ Btu/hr	$3.0 \times 10^8$ Btu/hr	+ 42.8%

**TABLE V-2**  
**EMISSIONS SUMMARY**

<b>Parameter</b>	<b>Uncontrolled Emissions*</b>		<b>Basis</b>	<b>Proposed Maximum</b>	
	<b>(lb/hr)</b>	<b>(T/yr)</b>		<b>(lb/hr)</b>	<b>(T/yr)</b>
Particulate	19,502	81,908	Permit AC27-138850	21.6	90.72
Sulfur Dioxide	1,295	4,705	Permit AC27-138850	12.0	50.4
Nitrogen Dioxide (NO <sub>x</sub> )	244	1,025	Permit AC27-138850	244.0**	1,025 **
Volatile Organic Compounds	7.44	31.3	Proposed Limit	7.44**	31.3 **
Carbon Monoxide	79.2	332.6	Proposed Limit	79.2**	332.6 **

\* These emissions assume no pollution control, are for calculation purposes only, and do not reflect actual operating conditions.

\*\* It is assumed that no control is provided by the baghouse, but CO VOC's and NO<sub>x</sub> are controlled by the system combustion controls, through the use of oxygen and hydrocarbon continuous monitoring of kiln combustion gases. For the case of CO, the limit of 79.2 lb/hr actually represents only 12.0 lb/hr from the combustion source. The process source accounts for an estimated 67.2 lb/hr of emissions. A complete discussion of CO emissions is provided on Page 36 of this application.



## EMISSIONS CALCULATIONS

The calculations included in this section provide estimates of potential emissions, actual emissions, and control device removal efficiencies, where appropriate for the following parameters: 1) Particulate, 2) Sulfur Dioxide, 3) Nitrogen Dioxide (NO<sub>x</sub>), 4) Carbon Monoxide, and 5) Volatile Organic Compounds.

# EMISSIONS CALCULATIONS

(continued)

## 1. PARTICULATE

The proposed hourly actual emissions rate for particulate is the same as the currently permitted level. However, because this application includes an increase in hours of operation, the annual actual emissions rate (tons/yr) must increase proportionally. In order to determine the efficiency of the air pollution control device, the potential emission loading to the baghouse is calculated based on an emissions factor from the EPA Guidance Document AP-42, Table 8.6-1.

### Calculation of Estimated Actual Emissions:

$$\begin{aligned} \text{Estimated Actual Emissions} &= 21.6 \text{ lb/hr} \\ &\quad (\text{Permit AC27-138850}) \\ &= (21.6 \text{ lb/hr} \times 8,400 \text{ hr/yr}) \\ &\div (2,000 \text{ lb/ton}) \\ &= 90.72 \text{ T/yr} \end{aligned}$$

### Calculation of Potential Emissions:

$$\begin{aligned} \text{Potential Emissions} &= 21.6 \text{ lb/hr} \\ &= 90.72 \text{ T/yr} \end{aligned}$$

### Calculation of Control Device Removal Efficiency:

$$\begin{aligned} \text{Uncontrolled Emissions Factor} &= 245.0 \text{ lb/ton clinker} \\ \\ \text{Proposed Production Rate} &= 79.6 \text{ T/hr clinker} \\ \\ \text{Potential Emission Loading} &= (245 \text{ lb/ton}) \times (79.6 \text{ T/hr}) \\ \text{to Baghouse} &= 19,502.0 \text{ lb/hr} \\ \\ \text{Control Device Removal Efficiency} &= (19,502 \text{ lb/hr} - 21.6 \text{ lb/hr}) \\ &\div (19,502 \text{ lb/hr}) \\ &= 99.9\% \end{aligned}$$

## EMISSIONS CALCULATIONS

(continued)

### 2. SULFUR DIOXIDE

The proposed hourly actual emissions rate for Sulfur Dioxide is the same as previously permitted. However, because this application includes an increase in hours of operation, the annual actual emissions rate (tons/yr) must increase proportionally. Sulfur Dioxide is generated in the cement kiln from two sources: 1) The minerals present in the raw process feed, and 2) The combustion of fuel (coal). Uncontrolled emissions factors for Sulfur Dioxide, found in the EPA Guidance Document AP-42, are used in calculating the potential loading to the baghouse from each source.

#### Calculation of Estimated Actual Emissions:

$$\begin{aligned} \text{Estimated Actual Emissions} &= 12 \text{ lb/hr} \\ &\quad (\text{Permit AC27-138850}) \\ &= (12 \text{ lb/hr} \times 8,400 \text{ hr/yr}) \\ &\div (2,000 \text{ lb/ton}) \\ &= 50.4 \text{ T/yr SO}_2 \end{aligned}$$

#### Calculation of Potential Emissions:

$$\begin{aligned} \text{Potential Emissions} &= 12 \text{ lb/hr} \\ &= 50.4 \text{ T/yr SO}_2 \end{aligned}$$

#### Calculation of Control Device Removal Efficiency:

##### Mineral Source:

$$\begin{aligned} \text{Sulfur Dioxide Emission Factor} &= 10.2 \text{ lb SO}_2/\text{ton clinker} \\ &\quad (\text{from AP-42}) \\ \text{Clinker Production Rate} &= 79.6 \text{ T/hr} \\ \text{Uncontrolled Emissions} &= (79.6 \text{ tons clinker/hr}) \\ &\quad \times (10.2 \text{ lb sulfur/ton clinker}) \\ &= 811.9 \text{ lb/hr} \\ &= (811.9 \text{ lb/hr} \times 8,400 \text{ hr/yr}) \\ &\div (2,000 \text{ lb/ton}) \\ &= 3,410 \text{ T/yr SO}_2 \end{aligned}$$

## EMISSIONS CALCULATIONS

(continued)

### Calculation of Control Device Removal Efficiency: (continued)

#### Fuel Source:

Maximum Fuel Consumption Rate = 24,170 lb/hr

Maximum Fuel Sulfur Content = 1%

Conversion Factor = 2 lb SO<sub>2</sub>/lb S

#### Fuel Source:

Uncontrolled Emissions = (24,170 lb fuel/hr)  
x (0.01 lb sulfur/lb fuel)  
  
x (2 lb SO<sub>2</sub>/lb S)  
= 483 lb/hr SO<sub>2</sub>  
= (483 lb/hr x 8,400 hr/yr)  
- (2,000 lb/ton)  
= 2,029 T/yr SO<sub>2</sub>

Estimated Total Potential Emissions  
Loading to Baghouse = 483 lb/hr + 811.9 lb/hr  
= 1,295 lb/hr SO<sub>2</sub>  
= 3,410 T/yr + 1,295 T/yr  
= 4,705 T/yr SO<sub>2</sub>

Control Device Removal Efficiency = (1,295 lb/hr - 12 lb/hr)  
÷ (1,295 lb/hr)  
= 99.1%

## EMISSIONS CALCULATIONS

(continued)

### 3. NITROGEN DIOXIDE (NO<sub>x</sub>)

Nitrogen Dioxide (NO<sub>x</sub>) emissions are a function of the kiln combustion process only. It is assumed that no control is provided by the fabric filter.

#### Calculations of Estimated Actual Emissions:

$$\begin{aligned} \text{Estimated Actual Emissions} &= 244 \text{ lb/hr NO}_x \\ &= (244 \text{ lb/hr} \times 8,400 \text{ hr/yr}) \\ &\div (2,000 \text{ lb/ton}) \\ &= 1,025 \text{ T/yr} \end{aligned}$$

#### Calculations of Potential Emissions:

$$\begin{aligned} \text{Potential Emissions} &= 244 \text{ lb/hr} \\ \text{Control Device Removal Efficiency} &= 0\% \\ &= 1,025 \text{ T/yr} \end{aligned}$$

# EMISSIONS CALCULATIONS

(continued)

## 4. CARBON MONOXIDE

Currently, the No. 2 Kiln is permitted for allowable Carbon Monoxide emissions of 8.9 lb/hr. The intent of this application is to modify this permitted allowable level in three ways: 1) To account for Carbon Monoxide generated as a result of chemical reactions inherent in the manufacturing process, 2) To increase the emissions level to account for an increase in the coal feed rate, and 3) To increase the emissions level (in tons per year) to account for an increase in annual operating hours. Calculations addressing each of these factors were conducted by considering the Carbon Monoxide from combustion and process sources separately.

### 4.1 Combustion Source

Carbon Monoxide formation occurs within the cement kiln in two ways: 1) From the combustion source, through the combustion of fuel (coal), and 2) From the process source, as a product of the chemical reactions inherent in the manufacturing process. The existing permit limit was based on calculations which were included in the original construction permit application, and which were based only on the coal combustion source of Carbon Monoxide. Using a published emissions factor of 1 lb CO/ton coal from EPA's AP-42 Guidance Document, the theoretical actual emissions were calculated corresponding to a coal feed rate of 8.9 tons/hr, based on original Construction Permit AC 27-30450. Because the modifications proposed in this permit application include an increase in coal feed rate, an increase in Carbon Monoxide emissions due to combustion is justified. This increased level is calculated as follows:

#### Calculation of Proposed Actual Emissions from Combustion Source:

CO Emission Factor	= 1 lb/ton of coal burned (AP-42 Table 1.1-1/2)
Actual Emissions	= (1 lb CO/ton coal) x (12 T/hr)
	= 12 lb/hr
	= (12 lb/hr) x (8,400 hr/yr)
	÷ (2,000 lb/ton)
	= 50.4 T/yr

### 4.2 Process Source

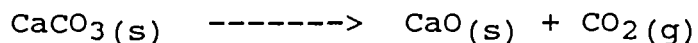
As stated before, the current limit does not account for Carbon Monoxide generated as part of the chemical process reactions. Thus, the permitted allowable level has not accurately represented the true actual emissions of Carbon Monoxide. In order to determine what quantity of emissions results from this process source, the following analysis was developed.

# EMISSIONS CALCULATIONS

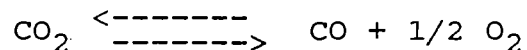
(continued)

## A. Development of Process Chemical Reactions

The basis of the cement manufacturing process is the calcination of Calcium Carbonate ( $\text{CaCO}_3$ ), which is the main constituent of the raw materials feed to the kiln. This reaction is represented by the following equation:



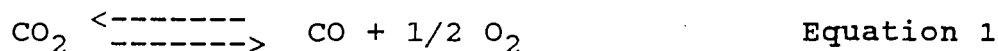
As the reaction occurs, the raw materials are processed and Carbon Dioxide is produced. However, in the high temperature kiln environment, a portion of this Carbon Dioxide decays to form Carbon Monoxide. This reaction occurs according to the following equation:



In order to determine the quantity of Carbon Monoxide formed within the cement kiln, it is necessary to determine the equilibrium constant for this reaction corresponding to the average kiln temperature. The following section provides a derivation of the equilibrium constant expression.

## B. Derivation of Equilibrium Constant ( $K_p$ ) Expression

### Theoretical Reaction



An equation for the equilibrium constant,  $K_p$ , specific to this reaction can be written:

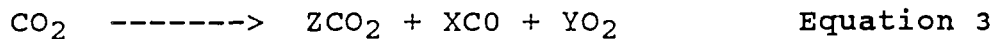
$$K_p = \frac{[\text{NCO}] [\text{NCO}]^{1/2}}{[\text{NCO}_2]} \times \frac{(P)^{1/2}}{(\text{Nm})^{1/2}} \quad \text{Equation 2}$$

Where      N = Number of moles  
             Nm = Sum of moles of each compound  
             P = Pressure in atmospheres

# EMISSIONS CALCULATIONS

(continued)

## Incomplete Reaction



Using stoichiometry, the following relations can be developed from Equation 3:

$$\text{C Balance:} \quad 1 = \text{Z} + \text{X} \quad \text{Equation 4}$$

$$\text{O Balance:} \quad 2 = 2\text{Z} + \text{X} + 2\text{Y} \quad \text{Equation 5}$$

Solving Equation 4 for Z in terms of X:

$$\text{Z} = 1 - \text{X} \quad \text{Equation 6}$$

Substituting Equation 6 for Z into Equation 5:

$$2 = 2(1-\text{X}) + \text{X} + 2\text{Y} \quad \text{Equation 7}$$

Simplifying Equation 7 to solve for Y in terms of X:

$$2\text{Y} = \text{X}$$

$$\text{Y} = \text{X}/2 \quad \text{Equation 8}$$

By definition, the following equation can be written for Nm:

$$\text{Nm} = \text{X} + \text{Y} + \text{Z} \quad \text{Equation 9}$$

Substituting Equation 6 for Z and Equation 8 for Y into Equation 9:

$$\text{Nm} = \text{X} + 1 - \text{X} - \text{X}/2 \quad \text{Equation 10}$$

Simplifying Equation 10:

$$\text{Nm} = 1 + \text{X}/2 \quad \text{Equation 11}$$



## EMISSIONS CALCULATIONS

(continued)

Substituting Equation 11 into Equation 2 and simplifying:

$$K_p = \frac{X (Y)^{\frac{1}{2}}}{Z} \times \frac{(P)^{\frac{1}{2}}}{(X + Y + Z)^{\frac{1}{2}}}$$

$$K_p = \frac{X (X/2)^{\frac{1}{2}}}{(1 - X)} \times \frac{(P)^{\frac{1}{2}}}{(1 + X/2)^{\frac{1}{2}}}$$

$$K_p = \frac{X (X/2)^{\frac{1}{2}}}{(1 - X)} \times \frac{(P)^{\frac{1}{2}}}{(2 + X/2)^{\frac{1}{2}}}$$

$$K_p = \frac{(X)^{3/2}}{(1 - X)} \times \frac{(P)^{\frac{1}{2}}}{(2 + X)^{\frac{1}{2}}}$$

Equation 12

Substituting  $P = 1$  atm into Equation 12:

$$K_p = \frac{(X)^{3/2}}{(1 - X) (2 + X)^{\frac{1}{2}}}$$

Equation 13

## EMISSIONS CALCULATIONS

(continued)

### C. Calculation of Current Actual Emissions from Process Source

In order to use the expression developed in Section B, values for  $K_p$  were obtained corresponding to a temperature range of 1,000°F to 3,500°F. Using the calcination reaction stoichiometry along with the current permitted raw material feed rate of 120 tons/hr, the following calculations were developed:

$$K_p = \frac{(X)^{3/2}}{(1 - X)(2 + X)^{1/2}} \quad \text{Equation 1}$$

X = Moles of Carbon Monoxide

$$\begin{aligned} \text{CaCO}_3 \text{ Feed Rate} &= 120 \text{ tons/hr} \\ &\quad (\text{Assume 100\% of Raw Materials}) \quad \text{No!} \quad ? \\ &= \frac{(120 \text{ tons/hr}) \times (2,000 \text{ lbs/ton})}{(100 \text{ lbs/mole})} \\ &= 2,400 \text{ moles/hr CaCO}_3 \end{aligned}$$

$$\begin{aligned} \text{Theoretical CO}_2 \text{ Generated} &= (2,400 \text{ moles CaCO}_3/\text{hr}) \\ &\quad \times (1 \text{ mole CO}_2/\text{mole CaCO}_3) \\ &= 2,400 \text{ moles/hr CO}_2 \end{aligned}$$

$$\begin{aligned} \text{CO Generated} &= (X) \times (1 \text{ mole CO/mole CO}_2) \quad \text{Equation 2} \\ &\quad \times (2,400 \text{ moles CO}_2/\text{hr}) \\ &\quad \times (28 \text{ lbs CO/mole}) \end{aligned}$$

Using the values of  $K_p$  obtained, as well as Equations 1 and 2, the graph shown in Figure V-1 was developed. This establishes the formation of Carbon Monoxide as a function of kiln temperature. Figure V-2 provides a temperature profile for the No. 2 Kiln. By calculating the mean temperature and narrowing the range to within 1,500°F and 3,000°F, the graph included in Figure V-3 was developed. This shows a Carbon Monoxide emissions rate of 62.0 lb/hr for the mean kiln temperature of 2,422°F. The emissions calculations for the current permitted conditions and this process source of Carbon Monoxide are therefore provided as follows:

## EMISSIONS CALCULATIONS

(continued)

Process Source:

$$\begin{aligned}
 \text{Kiln Mean Temperature} &= 2,422^{\circ}\text{F} \\
 \text{CO Formation @ } 2,422^{\circ}\text{F} &= 62.0 \text{ lb/hr} \\
 \text{(Figure V-3)} &= (62.0 \text{ lb/hr} \times 7,896 \text{ hr/yr}) \\
 &\div (2,000 \text{ lb/ton}) \\
 &= 244.8 \text{ T/yr}
 \end{aligned}$$

## D. Calculation of Proposed Actual Emissions from Process Source

Because the modifications proposed in this application include an increase in the raw materials feed rate, an increase in the actual emissions of Carbon Monoxide generated from the process source is therefore justified. A calculation of this increased level of actual emissions is provided below:

$$\begin{aligned}
 \text{Current Actual Emissions} &= 62.0 \text{ lb/hr} \\
 \text{(Process Source)} & \\
 \\
 \text{Proposed Actual Emissions} &= (62.0 \text{ lb/hr}) \\
 \text{(Process Source)} & \\
 &\times \frac{(130 \text{ T/hr proposed raw materials feed})}{(120 \text{ T/hr current raw materials feed})} \\
 &= 67.2 \text{ lb/hr} \\
 &= (67.2 \text{ lb/hr}) \times (8,400 \text{ hr/yr}) \\
 &\div (2,000 \text{ lb/ton}) \\
 &= 282.2 \text{ T/yr}
 \end{aligned}$$

EMISSIONS CALCULATIONS

(continued)

CARBON MONOXIDE EMISSIONS SUMMARY

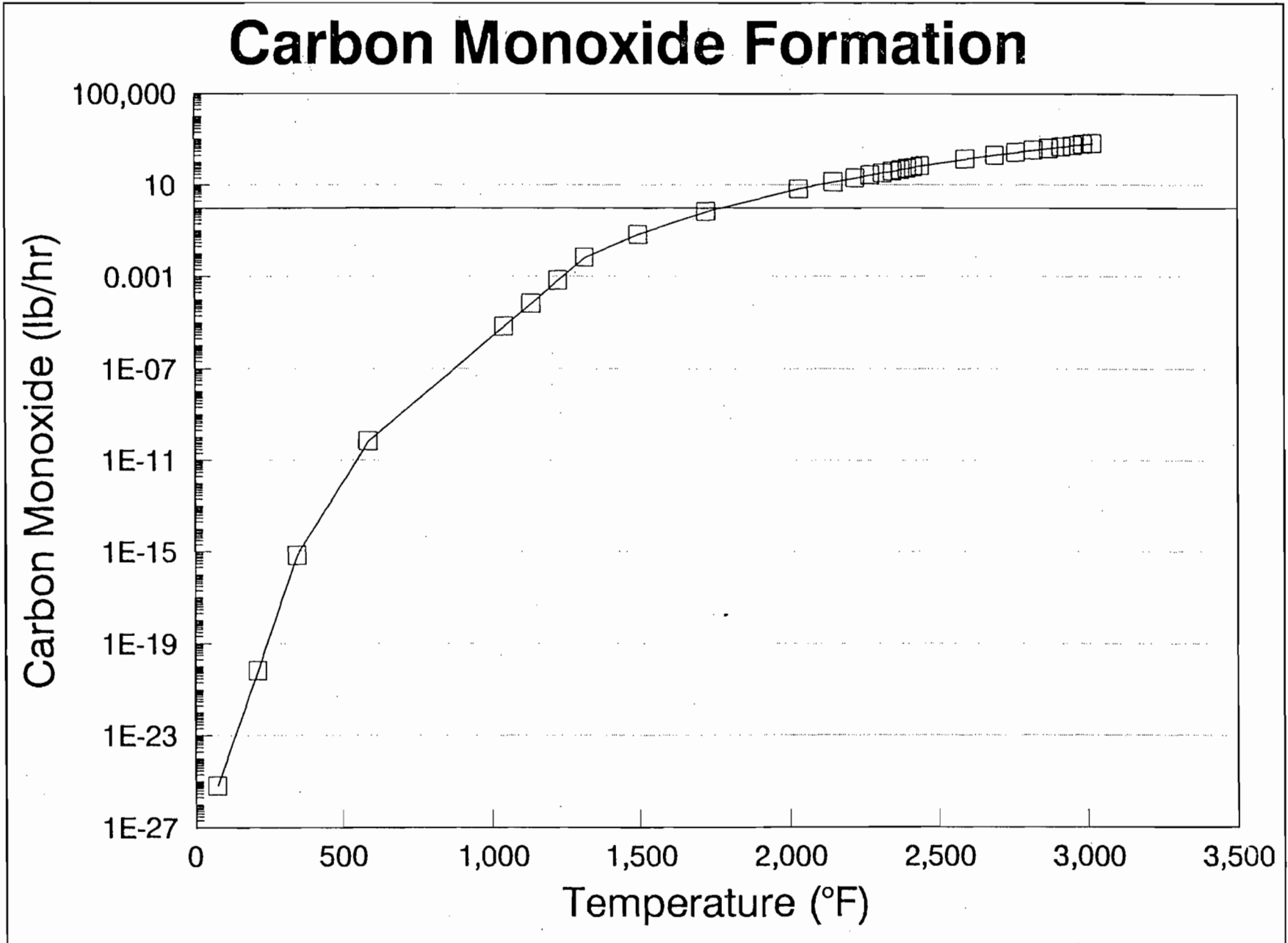
Table V-3 is provided as a summary of the emissions calculations presented for Carbon Monoxide. Estimated potential emissions are considered equal to proposed actual emissions. It is assumed that the baghouse provides no control of Carbon Monoxide emissions. A review of this table shows that, although the proposed actual emissions level of 79.2 lb/hr is significantly higher than the current permitted level, a large part of the difference between the two can be attributed to the process source of Carbon Monoxide, which has never been considered before. The net increase in actual emissions is insignificant, and is due simply to the proposed increases in coal feed rate and hours of operation.

In order to substantiate the calculated value of 79.2 lb/hr for proposed actual emissions of Carbon Monoxide, Exhibit V-1 provides a data summary sheet compiled during performance testing of the No. 2 Kiln, conducted on May 23, 1989. Exhibit V-2 provides additional data on typical levels of Carbon Monoxide emitted by a cement kiln.

Table V-4 provides a comparison of ground level concentrations, determined through air dispersion modeling, with applicable standards.

no 20  
mst  
st  
data  
He mst  
79.2 vs  
44.8

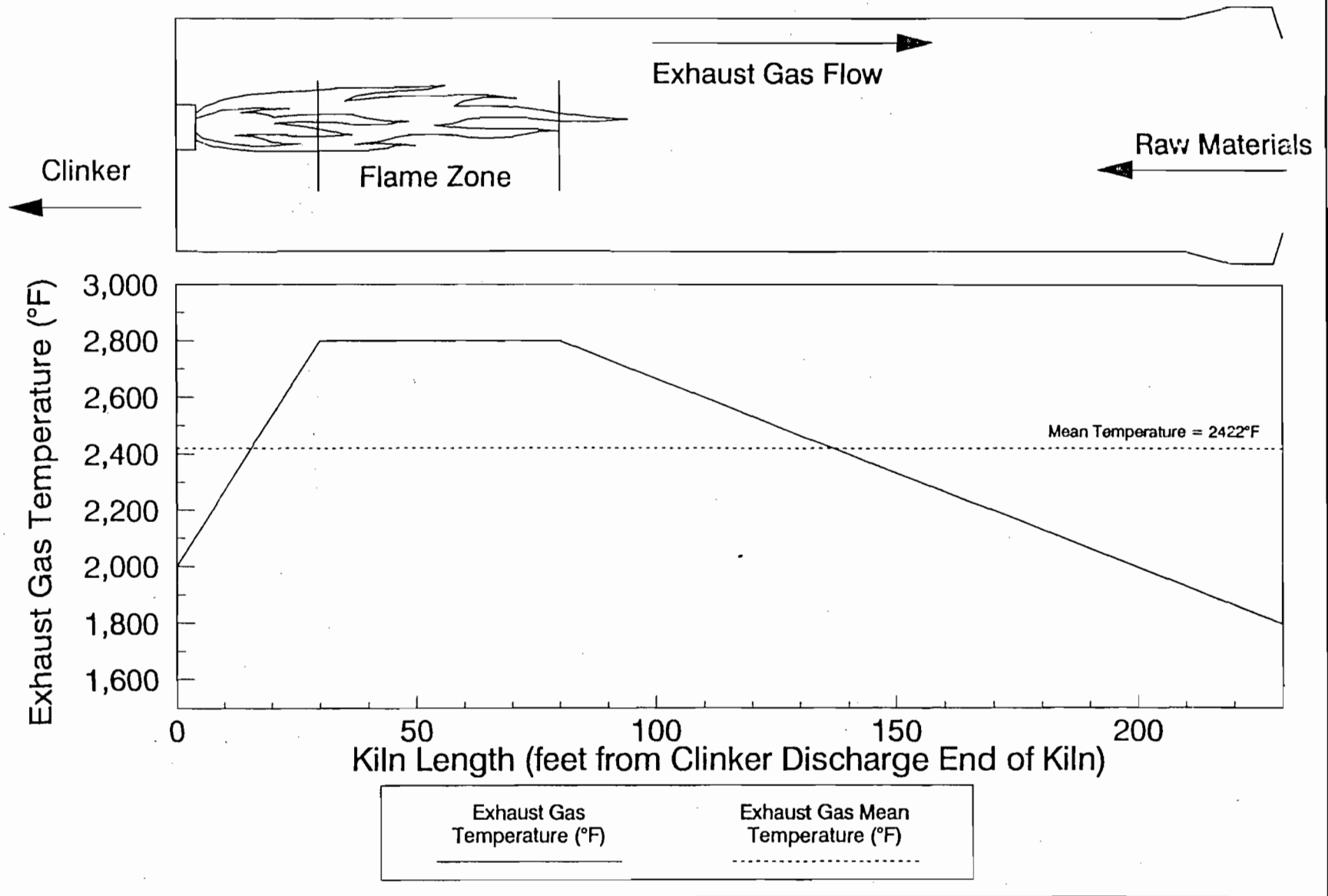
FIGURE V-1



43

FIGURE V-2

### FM&M No. 2 Kiln Temperature Profile

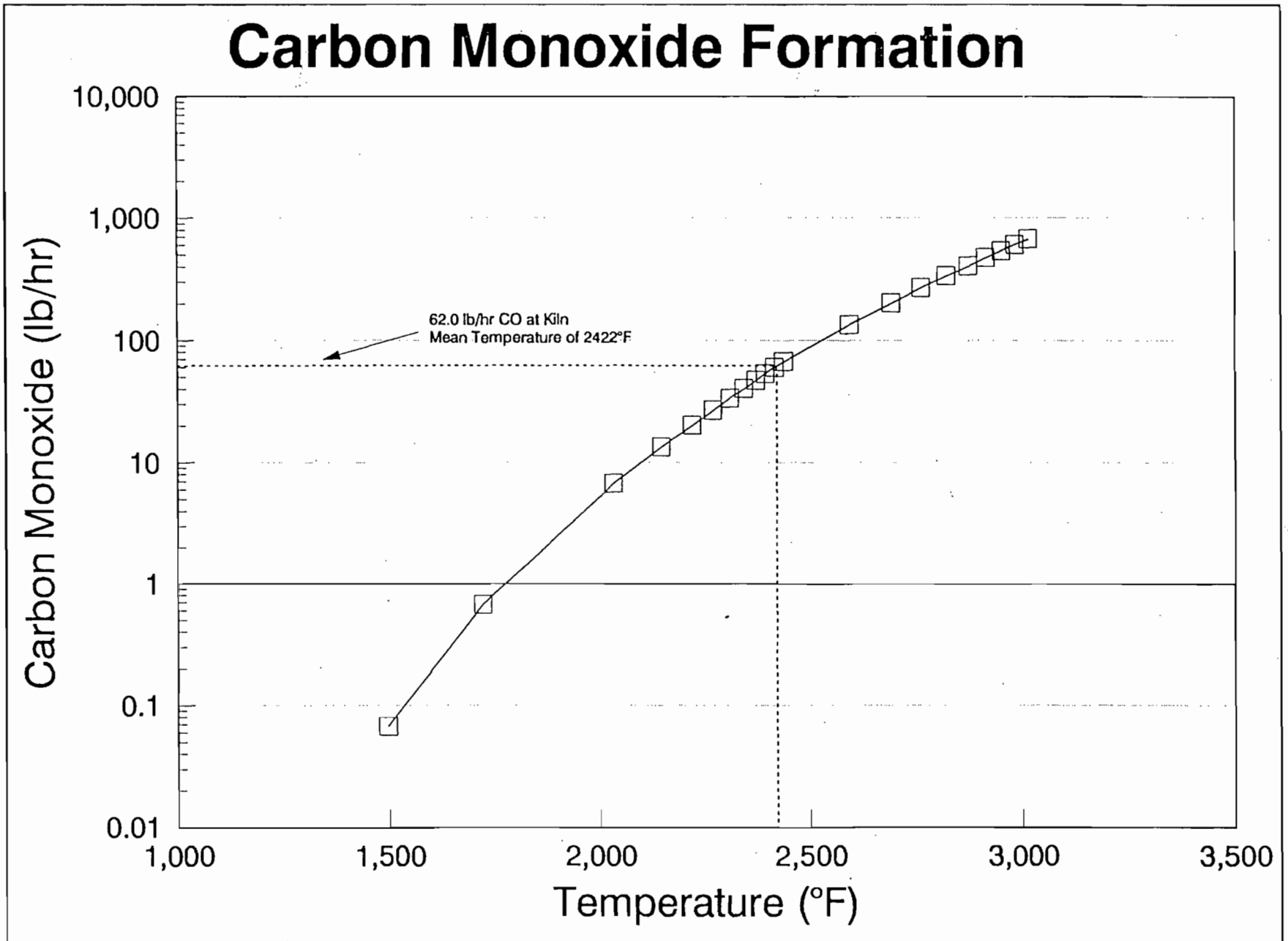


77

C  
T  
A

Cross/Tessitore & Assoc., P.A.  
Environmental Engineers Orlando, Florida

FIGURE V-3



45

**BEST AVAILABLE COPY**

**TABLE V-3  
CARBON MONOXIDE  
EMISSIONS SUMMARY**

	Current Permitted Level		Current Actual Emissions		Proposed Actual Emissions		Net Emissions Increase	
	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)
Combustion Source	8.9	35.1	8.9	35.1	12.0	50.4	3.1	15.3
Process Source	--	--	62.0	244.8	67.2	282.2	5.2	37.4
<b>TOTAL</b>	8.9	35.1	70.9 <i>41.4</i>	279.9 <i>173.7</i>	<del>79.2</del> <i>24.8</i>	<del>332.6</del> <i>182.2</i>	<del>8.3</del> <i>3.4</i>	<del>52.7</del> <i>11.5</i>



EXHIBIT V-1  
 FLORIDA MINING AND MATERIALS TESTING SUMMARY

*on py 42, samp test done on May 23*  
*10/17-19, 1989*

	Test Results		Current Allowable Emissions (lb/hr)
	Kiln Feed Rate (ton/hr)	Emissions (lb/hr)	
Particulate	130	7.51	21.6
Sulfur Dioxide	130	0.44 (1)	12.0
Nitrogen Dioxide (NO <sub>x</sub> )	130	135 (1)	250
Carbon Monoxide	130	39.5 (1)	8.9
	130	44.8	
Volatile Organic Compounds	130	5.4	2.7

*7.24*  
*8400hr*

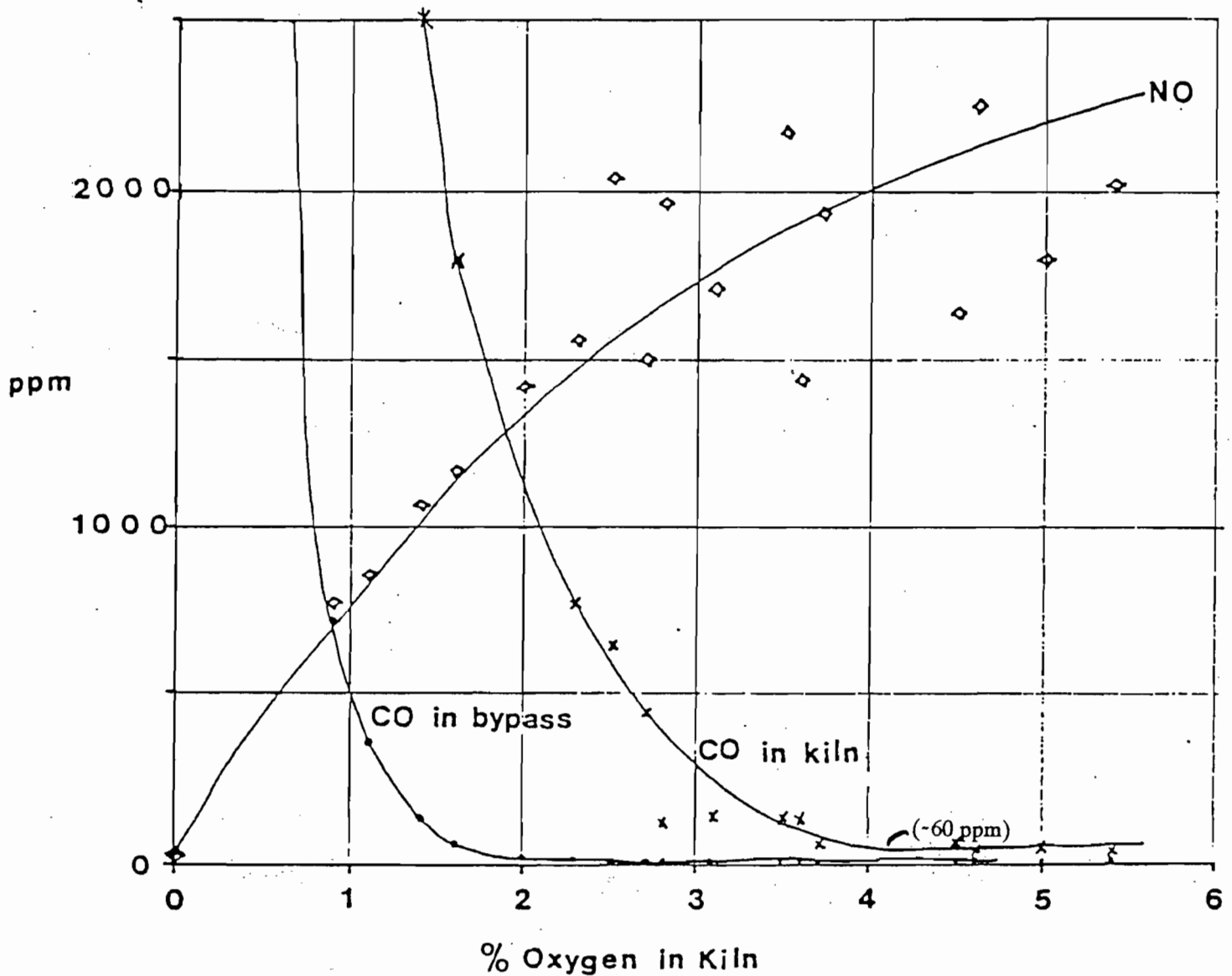
*→ 128.16*  
*- 173.62*  
*1447*

(1) These measured emissions represent kiln operation while the raw mill is down.

# EXHIBIT V-2

Page 1 of 2

Fig. 3 CO and NO vs Oxygen in Kiln



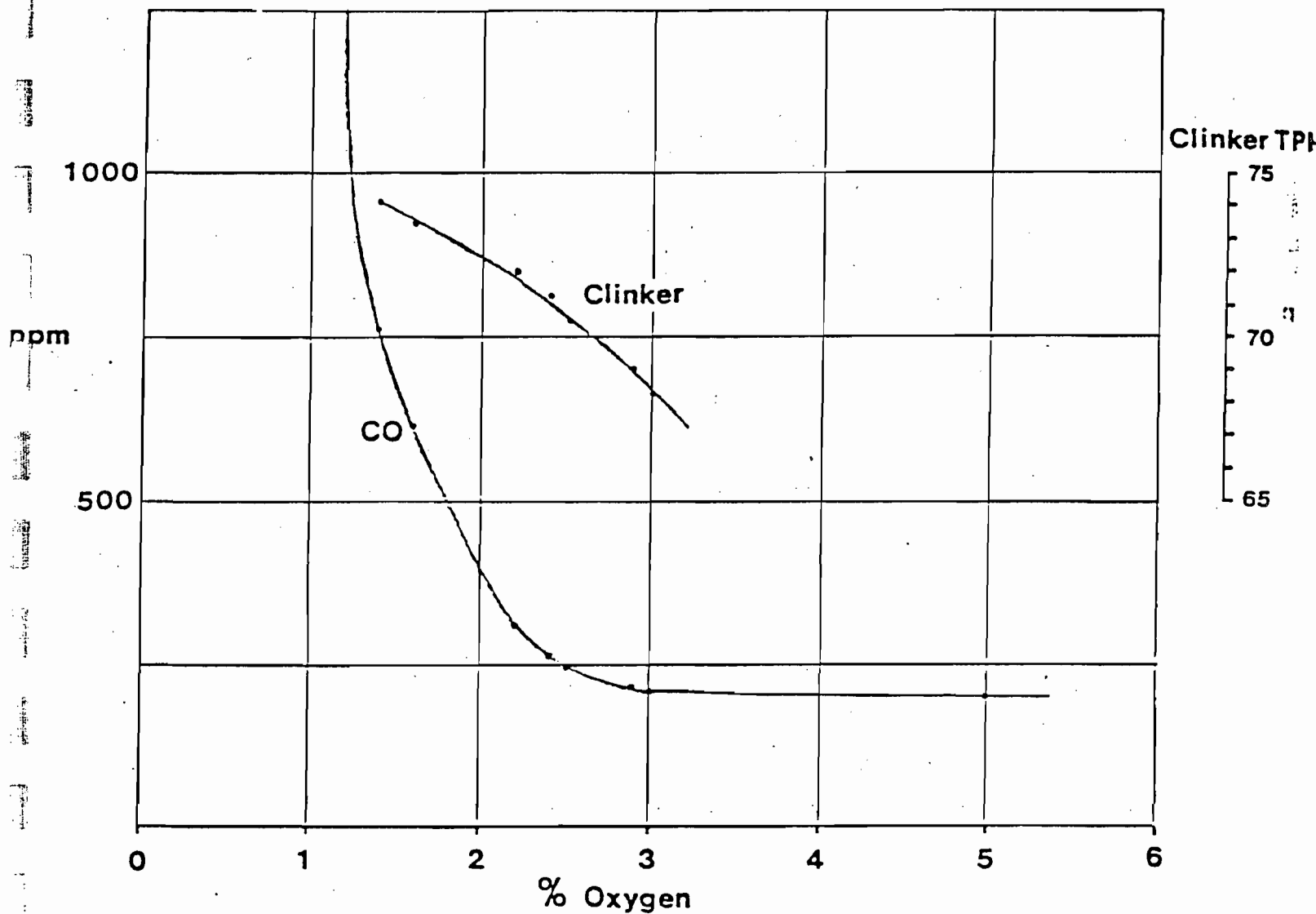
From "The Use of Carbon Monoxide and Other Gases for Process Control",  
by Eric R. Hansen. Submitted for the 1985 I.E.E.E. Conference.

NOTE: CO in bypass can be considered representative of the combustion source.  
CO in kiln can be considered representative of both the combustion and  
process sources.

EXHIBIT V-2

Page 2 of 2

Fig. 4 CO and production vs % Oxygen at ID Fan



Feed STPH	O <sub>2</sub> %	CO ppm	NO ppm	SO <sub>2</sub> ppm	Clinker TPH
111	3.0	214	516	332	68.2
112	2.9	223	498	344	69
115	2.5	248	557	413	70.5
117	2.2	313	501	440	72
120	1.6	610	403	462	73.5
121	1.4	761	370	459	74.2

Gas concentrations corrected to 3% O<sub>2</sub>

From "The Use of Carbon Monoxide and Other Gases for Process Control",  
by Eric R. Hansen. Submitted for the 1985 I.E.E.E. Conference.

TABLE V-4

COMPARISON OF CARBON MONOXIDE IMPACT LEVELS

Averaging Time	Maximum <sup>(1)</sup> Ground Level Impact (ug/m <sup>3</sup> )	Location of <sup>(2)</sup> Maximum Impact		Significant <sup>(3)</sup> Impact Levels (ug/m <sup>3</sup> )	National <sup>(4)</sup> Ambient Air Quality Standard (ug/m <sup>3</sup> )
		East	North		
1-Hour	832.79	356, 000	3, 168, 700	2,000	40,000
8-Hour	395.68	356, 000	3, 168, 700	500	10,000

(1) Calculated based on dispersion coefficients developed through ISCST dispersion modeling. For complete modeling output listing, see Volume II of this application

(2) UTM coordinates in meters (source location: East 356, 100 West 3, 168, 700).

(3) From DER 17-2.100 (180).

(4) From DER 17-2.300.

## EMISSIONS CALCULATIONS

(continued)

## 5. VOLATILE ORGANIC COMPOUNDS (TOTAL HYDROCARBONS)

It is estimated that an achievable actual emissions concentration for the No. 2 Kiln is 20 ppm (as carbon). This level is consistent with the EPA's proposed level for industrial furnaces and believed to be representative of good operating procedures. Control of volatile organic compounds (hydrocarbons) is achieved through properly maintained combustion conditions within the kiln system. It is assumed that no control is provided by the fabric filter. The following provides a calculation of the estimated potential and actual emissions rate based on the EPA's proposed levels.

## Estimated Potential Emissions

$$\begin{aligned}
 &= \frac{(20 \text{ ppm}) \times (12 \text{ g/mole}) \times (199,000 \text{ cu. ft/min}) \times (60)}{(385 \text{ ft}^3) \times (10^6)} \\
 &= 7.44 \text{ lb/hr} \\
 &= \frac{(7.44 \text{ lb/hr}) \times (8,400 \text{ hr/yr})}{(2,000 \text{ lb/ton})} \\
 &= 31.3 \text{ T/yr}
 \end{aligned}$$

## Control Device Removal Efficiency

$$= 0\%$$

## Estimated Actual Emissions

$$\begin{aligned}
 &= 7.44 \text{ lb/hr} && 0.4 \\
 &= 31.3 \text{ T/yr} && 27.7
 \end{aligned}$$

Figure V-4  
 FM&M Kiln No. 2 Process Flow Diagram

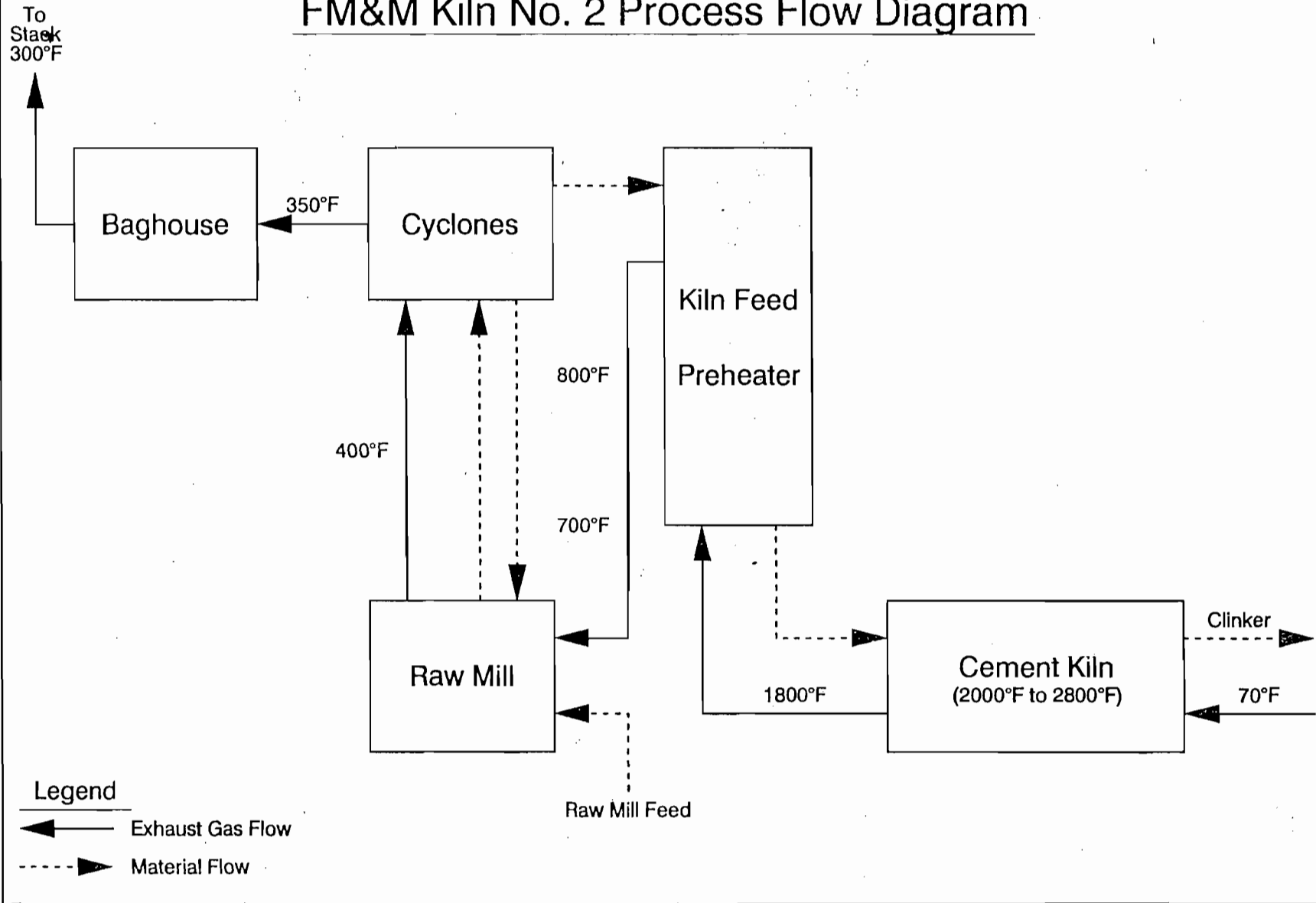
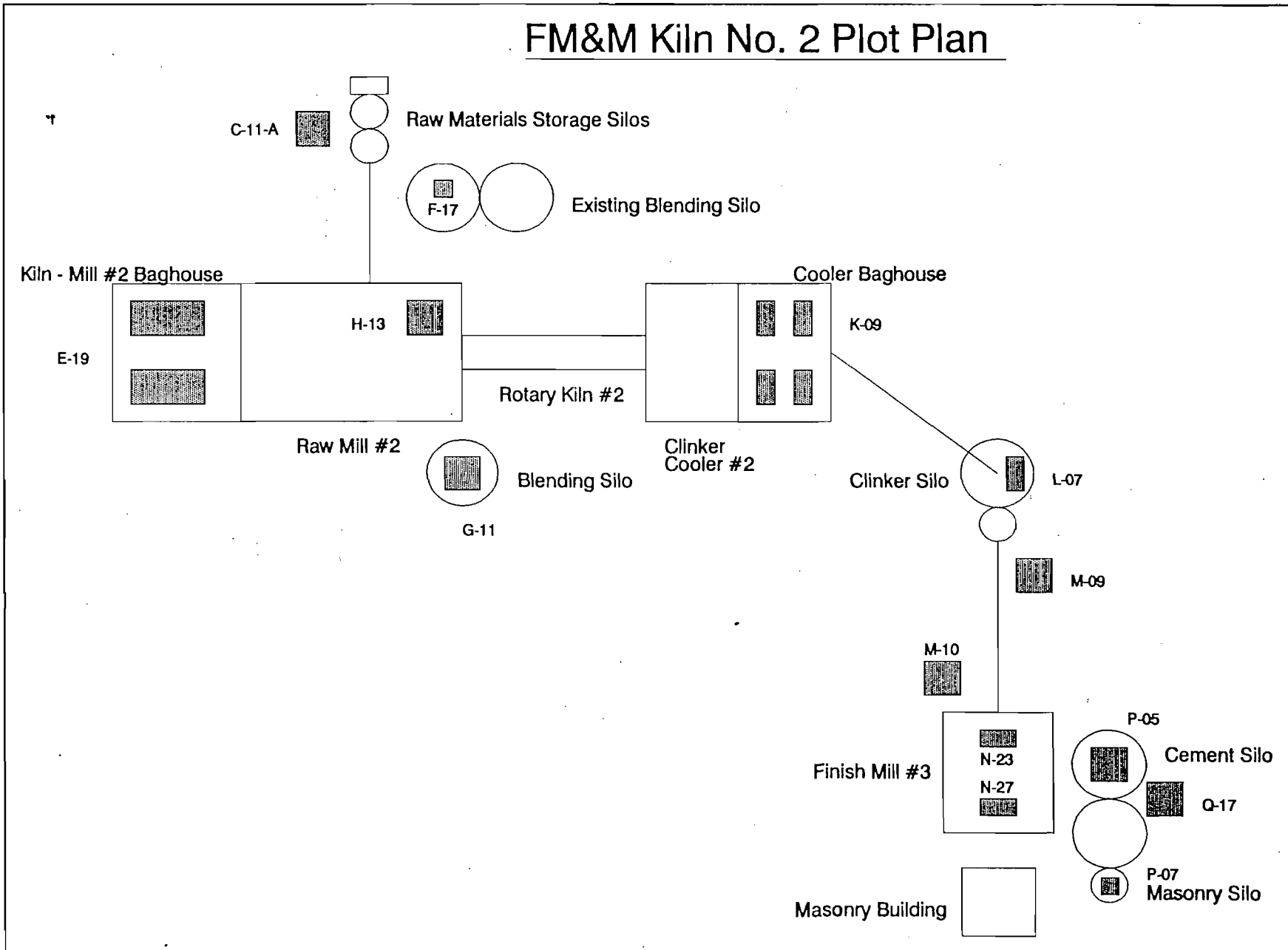


FIGURE V-6

FM&M Kiln No. 2 Plot Plan



54

**FIGURE V-5**

**USGS TOPOGRAPHICAL MAP**



**SUPPLEMENTAL INFORMATION:**  
**SECTION VII**

BEST AVAILABLE COPY

P 256 396 119

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

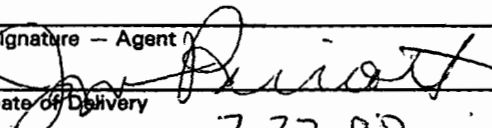
U.S.G.P.O. 1989-234-555

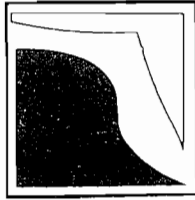
PS Form 3800, June 1985

Sent to	Henry E. Andre
Street and No.	FLA Mining & Mat.
P.O., State and ZIP Code	P.O. Box 6
Postage	Brooksville, FL
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	7-25-90
	AC 27-173474

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.  
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. (Extra charge)  
2.  Restricted Delivery (Extra charge)

3. Article Addressed to: Henry E. Andre, V.P. Fla. Mining & Materials P.O. Box 6 Brooksville, FL 34605-0006	4. Article Number P 256 396 119
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
	Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature - Address X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X 	
7. Date of Delivery 7-27-90	



## FLORIDA MINING & MATERIALS

A SOUTHDOWN COMPANY

P. O. BOX 6, BROOKSVILLE, FLORIDA 34605-0006  
TELEPHONE (904) 796-7241

July 11, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. C.H. Fancy, P.E. Chief  
Bureau of Air Regulations  
Florida Dept. of Environmental Regulations  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Dear Mr. Fancy:

Attached is the Affidavit of Legal Publication, published in the Sun Journal on June 22, 1990. This Intent to Issue was for the modification to Florida Minings' #2 Kiln Permit.

Sincerely,

Ralph E. Shepard  
Manager Environmental Affairs

RES/jp

cc: Hank Andre  
Don Kelly  
Joe Tessitore

RECEIVED

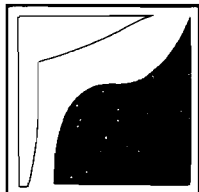
JUL 16 1990

DER-BAQA

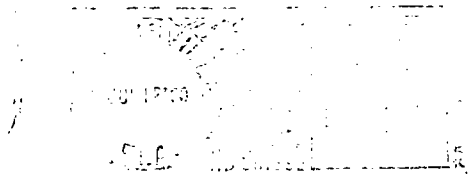
BEST AVAILABLE COPY

**FLORIDA MINING & MATERIALS**

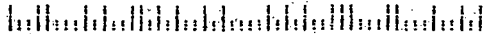
P. O. BOX 6, BROOKSVILLE, FLORIDA 34605-0006



**CERTIFIED**  
P 237 527 210  
**MAIL**



Mr. C.H. Fancy, P.E. Chief  
Bureau of Air Regulations  
Florida Dept. of Environmental Regulations  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400



**AFFIDAVIT OF LEGAL PUBLICATION**

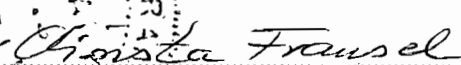
**The Sun-Journal**  
**Published Tuesday thru Saturday**  
**Brooksville, Hernando, Florida**  
**STATE OF FLORIDA**  
**COUNTY OF HERNANDO**

Before the undersigned authority personally appeared David Poole, who on oath says he is General Manager of the Sun-Journal, a daily newspaper published at 703 Lamar Ave., Brooksville in Hernando County, Florida; that the attached copy of advertisement, being a legal advertisement in

the matter of Notice of Intent  
in the \_\_\_\_\_ Court  
was published in said newspaper in the issues of \_\_\_\_\_  
6-22

Affiant says that the said Sun-Journal is a newspaper published at 703 Lamar Ave., Brooksville, in said Hernando County, Florida, and that said newspaper has heretofore been continuously published in said Hernando County, Florida, each Tuesday thru Saturday and has been entered as second-class mail matter at the post office in Brooksville, in said Hernando County, Florida, for a period of 1 year next preceding the first publication of the attached copy of advertisement; and further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

  
\_\_\_\_\_  
**David Poole,**  
**General Manager, The Sun-Journal**

Sworn to and subscribed before me this 22nd day of June, 1990 A.D.  
BY:   
\_\_\_\_\_  
My Commission Expires Mar. 2, 1992 Notary Public

Filed.....19..... at.....O'clock.....M. and Recorded in.....  
Book No....., Page.....  
Record Verified.....  
Clerk,.....Court, Hernando County, FL  
By.....D.C.

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

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Florida Mining and Materials, Post Office Box 6, Brooksville, Florida 34605-0006, to modify Kiln No. 2 at their Brooksville cement plant. The modification involves increasing operation rate by approximately 8 percent and operating hours by about 6 percent. The modification also provides for operation of the No. 2 kiln without operating the raw mill and the use of re-refined oil for kiln startup. This permit does not involve processing or combustion of hazardous wastes or toxic materials. A determination of Best Available Control Technology (BACT) was not required. The applicant's facility is located off U.S.-Highway 98 northwest of Brooksville, Hernando County, Florida. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes. The Petition shall contain the following information:  
(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;  
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;  
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;  
(d) A statement of the material facts disputed by Petitioner, if any;  
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;  
(f) A statement of which rules or statutes petitioner contends

require reversal or modification of the Department's action or proposed action; and  
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.  
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.  
The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Department of Environmental Regulation  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
Department of Environmental Regulation  
Southwest District  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347  
Any person may send written comments on the proposed action to Mr. C. H. Fancy at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.  
PUBLISH: June 22, 1990

P 938 762 878

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, June 1985

Sent to <b>Henry E Andre</b>	
Street and No. <b>P.O. BOX 6 - FLA ME MAT.</b>	
P.O., State and ZIP Code <b>Brooksville FL</b>	
Postage	S
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	S
Postmark or Date <b>4-26-90</b> <b>AC 27-173474</b>	

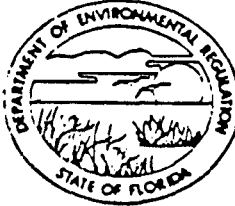
**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. (Extra charge)      2.  Restricted Delivery (Extra charge)

3. Article Addressed to: <b>Henry E. Andre, VP Fla. Mining &amp; Materials P.O. BOX 6 Brooksville, FL 34605-0006</b>	4. Article Number <b>P 938 762 878</b>
5. Signature - Address <b>X</b>	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
6. Signature - Agent <b>[Signature]</b>	Always obtain signature of addressee or agent and DATE DELIVERED.
7. Date of Delivery <b>[Signature]</b>	8. Addressee's Address (ONLY if requested and fee paid) <b>BROOKSVILLE, FL 34605 APR 30 1990 DOWNTOWN</b>

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

RECEIVED

MAR 29 1990

DER-BAQM.

WAIVER OF 90 DAY TIME LIMIT  
UNDER SECTIONS 120.60(2) AND 403.0876, FLORIDA STATUTES

License (Permit, Certification) Application No. AC 27-173474

Applicant's Name: Florida Mining & Materials

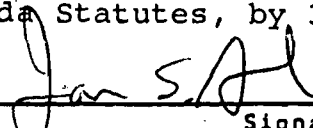
The undersigned has read Sections 120.60(2) and 403.0876, Florida Statutes, and fully understands the applicant's rights under that section.

With regard to the above reference license (permit, certification) application, the applicant hereby with full knowledge and understanding of (his) (her) (its) rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right under Sections 120.60(2) and 403.0876, Florida Statutes, to have the application approved or denied by the State of Florida Department of Environmental Regulation within the 90 day time period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes. Said waiver is made freely and voluntarily by the applicant, is in (his) (her) (its) self-interest, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Regulation.

This waiver shall expire on the 3rd day of May 19 90.

The undersigned is authorized to make this waiver on behalf of the applicant.

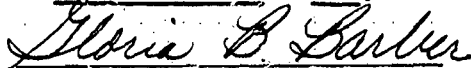
This waiver is intended only to extend the 90 day period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes, by 30 days.

  
\_\_\_\_\_  
Signature  
James S. Alves  
Hopping Boyd Green & Sams

\_\_\_\_\_  
Please Type Name of Signee  
P. O. Box 6526, Tallahassee, FL 32314  
March 28, 1990

\_\_\_\_\_  
Date

Sworn to and subscribed  
before me this 28th day  
of March 19 90.

  
\_\_\_\_\_  
Notary Public

My commission expires:

Notary Public, State of Florida  
My Commission Expires May 17, 1990  
Bonded thru Troy Fain - Insurance, Inc.

DER Form 17-1.201(8)

Effective November 30, 1982

Page 1 of 2

Patly -  
Glad we got this -  
I'll talk to Peter on  
what they intend to do.

Clan



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

JAN 10 1990

4APT-APB-cdw

RECEIVED

JAN 12 1990

DER-BAQM

Ms. Patricia G. Adams  
Planner  
Bureau of Air Quality Management  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Florida Mining and Materials (PSD-FL-124)

Dear Ms. Adams:

This is to acknowledge receipt of the application for a proposed amendment to the above referenced permit dated December 7, 1989. As discussed between Mr. Barry Andrews of FDER and Mr. Gregg Worley of my staff on January 8, 1990, we have the following comment.

The netting calculation performed by the applicant was incorrect. The applicant used permitted allowable emissions as actual emissions rather than using existing emissions based on the previous two years of operating data. The correct calculation should be proposed allowable emissions-existing actual emissions (based on data).

The emissions changes should be evaluated correctly to determine whether the proposed change is significant for any pollutant.

Thank you for the opportunity to review this package. Any questions or comments may be directed to Mr. Gregg Worley of my staff at (404) 347-2864.

Sincerely yours,

*Bruce P. Miller*

Bruce P. Miller, Chief  
Air Programs Branch  
Air, Pesticides, and Toxics  
Management Division

*copied: G. Kinnaird  
B. Andrews  
C. Holladay  
R. Thomas, SW Dist  
CHF/BT*