

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
KATHLEEN BLIZZARD
ELIZABETH C. BOWMAN
WILLIAM L. BOYD, IV
RICHARD S. BRIGHTMAN
PETER C. CUNNINGHAM
THOMAS M. DEROSE
WILLIAM H. GREEN
WADE L. HOPPING
FRANK E. MATTHEWS
RICHARD D. MELSON
WILLIAM D. PRESTON
CAROLYN S. RAEPPL
GARY P. SAMS
ROBERT P. SMITH, JR.
CHERYL G. STUART

RICHARD W. MOORE
ANGELA R. MORRISON
MARIBEL N. NICHOLSON
DIANA M. PARKER
LAURA BOYD PEARCE
GARY V. PERKO
MICHAEL P. PETROVICH
DAVID L. POWELL
DOUGLAS S. ROBERTS
CECELIA C. SMITH

OF COUNSEL
MR. ROBERT FOKES

RECEIVED

July 29, 1991

JUL 29 1991

Bureau of
Air Regulation

BY HAND DELIVERY

Mr. Steve Smallwood
Director, Division of Air Resources
Management
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Florida Mining & Materials;
Request For Approval of New Stack at
Brooksville Cement Plant Kiln No. 1
Permit No. AC 27-186923

Dear Steve:

I am writing on behalf of Florida Mining & Materials (FMM) to clarify a statement made in your letter of June 25, 1991 to Mr. Don Kelly, Manager of the Brooksville Cement Plant, regarding the referenced matter. Your letter indicated that the Department does not object to FMM's request to construct a new stack for Kiln No. 1, but noted that "you will not be able to take credit for the increased plume rise by combining the 16 baghouse system flues (i.e., in any future modeling demonstrations)."

Joe Tessitore and I contacted Tom Rogers of the Bureau of Air Monitoring and Assessment to discuss this statement, and based upon that conversation we understand that it is intended solely to acknowledge that provisions of the Department's stack height rule (Florida Administrative Code Rule 17-2.270) may, in some cases, prohibit taking credit for certain "dispersion techniques" in modeling demonstrations. Mr. Rogers agreed that credit can be taken for the new stack height (150 feet), and that the referenced rule only precludes modeling credit for any increased "plume rise" that is associated with a new stack configuration. The attached letter from Mr. Tessitore sets forth pertinent facts about the new stack proposed for Kiln No. 1 which


Mr. Steve Smallwood
July 29, 1991
Page 2

demonstrate that there will be no increase in exhaust gas temperature and no increase (in fact a reduction) in exhaust gas exit velocity. Consequently, FMM understands that full modeling credit may be taken for the new stack parameters, which is the approach taken in the modeling analysis presented in the pending application (dated June 7, 1991) for approval of a test burn of solid hazardous waste fuel at Kiln No. 1.

In reliance upon this understanding, FMM intends to commence construction of the new stack for Kiln No. 1, at a cost of approximately \$1.3 million, within one week of the date of this letter unless the Department advises of any disagreement with FMM's analysis regarding the modeling credit allowable for the new stack.

The Department's continued consideration in this matter is much appreciated. Should you or members of your staff have any questions, please do not hesitate to call me.

Sincerely,


Peter C. Cunningham

/kkm:Smallwood

cc: Clair Fancy
Tom Rogers
Diane Schenke, Esquire
Don Kelly
Joe Tessitore
B. Mitchell
Attachment



CROSS/TESSITORE & ASSOCIATES, P.A.

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

RECEIVED

JUL 23 1991

Hopping Boyd
Green & Sams

July 22, 1991

Mr. Peter C. Cunningham
Hopping Boyd Green & Sam
123 South Calhoun Street
Post Office Box 6526
Tallahassee, Florida 32314

Subject: Florida Mining & Materials
(C/TA # F03.360)

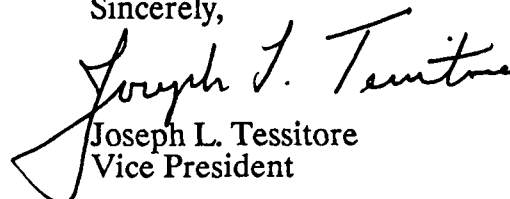
Dear Mr. Cunningham:

This letter is to address the statement contained in the June 25 letter from Mr. Steve Smallwood (FDER) regarding increased plume rise resulting from the proposed No. 1 Cement Kiln Stack modification. This modification will consist of combining the exhaust gas flows currently exiting 16 baghouse vents to one common stack. The letter from Mr. Smallwood states that credit cannot be taken for increased plume rise resulting from this modification. I have reviewed DER 17-2.270 Stack Height Policy which provides the relevant regulation and provides a description of dispersion techniques to effect such plume rise. I have concluded that there would be no increase in plume rise, associated with the proposed stack modification, as disallowed by the referenced regulation. The following facts support this conclusion:

- 1) The proposed stack height (150 ft) is less than 65 meters.
- 2) The proposed stack modification will not affect the exhaust gas flow temperature.
- 3) The proposed stack modification will effect a reduction in exhaust gas exit velocity, thus resulting in a decrease in plume rise due to the velocity component. The attached analysis provides supporting calculations for comparing current and proposed exit velocities.

Should you have any questions or comments regarding this information, please do not hesitate to contact me.

Sincerely,


Joseph L. Tessitore
Vice President

JLT/slw
cc: Diane Schenke, Southdown
C3576.Doc

REGISTERED PROFESSIONAL ENGINEERS

Federal ID # 59-1638534

NO. 1 CEMENT KILN

Current Velocity: (16 Baghouse Vents)

Total Exhaust Flow = 275,000 ACFM

Existing Baghouse Vent Dimensions = 35" x 22"

Existing Baghouse Vent Cross Sectional Area = 5.35 sf (per vent 16 total)

$$\begin{aligned}\text{Velocity} &= \frac{(275,000 \text{ CF/M})}{(60 \text{ S/M} (16) (5.35 \text{ sf}))} \\ &= 53.5 \text{ FPS}\end{aligned}$$

Proposed Velocity: (Single Common Stack)

Total Exhaust Flow = 275,000 ACFM

Proposed Baghouse Stack Diameter = 13.0 ft

Proposed Baghouse Stack Cross Sectional Area = 132.73 sf

$$\begin{aligned}\text{Velocity} &= \frac{(275,000 \text{ CF/M})}{(60 \text{ S/M} (132.73 \text{ sf}))} \\ &= 34.5 \text{ FPS}\end{aligned}$$

Current Velocity > Proposed Velocity

Thus no increase in Plume Rise due to Velocity Change from Stack Modification