EPA did not mention that NSPS for PM will apply due to coal modification (change in method of operation with increase in emission). They did in their Dec 13 letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

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

RECEIVED
OCT 23 1989
DER - BAQM

4APT-APB-cdw

OCT 18 1989

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

RE: Tarmac Florida, Inc. (PSD-FL-142)

Dear Ms. Adams:

We have received your September 15, 1989, letter transmitting the Prevention of Significant Deterioration (PSD) application submitted by Tarmac Florida, Inc., for the conversion of kiln No. 2 to coal at the facility's existing Portland cement plant. As discussed on October 3, 1989, between Mr. John Reynolds of the Florida Department of Environmental Regulation (DER) and Mark Armentrout of my staff, we are offering the following comments.

Applicability Determination

The source has incorrectly performed PSD applicability determinations for particulate matter (PM/PM_{10}), oxides of nitrogen (NO_x), sulfur dioxide (SO_2) and volatile organic compounds (VOC). The underlying flaw in all of these determinations is in the calculation of baseline (historic actual) emissions. In the case of PM emissions, the source concluded that baseline emissions are 31.3 lb/hr. They justify this value by stating that the highest actual source test emissions, as determined by a March 1982 test, resulted in a PM emission rate of 26.3 lb/hr which is close to the current allowable of 31.3 lb/hr. As you are aware, baseline emissions must be calculated based on the two-year average of actual emissions under representative operating conditions. We request that the facility amend their application by including the results of all PM source tests during the representative two-year period, recalculating baseline emissions, and performing a PSD review, if applicable. Furthermore, and as discussed below, the applicant must submit production records for the baseline period which indicate the usage of oil and gas in the kiln and annual hours of operation. It also appears that the applicant has not included the fugitive emissions increases (new coal mill) and increases from the No. 3 kiln coal handling equipment in the PM applicability determination, i.e., in the new allowable PM emission rates.

Regarding the baseline emissions calculation for SO_2 and NO_x, the applicant again used data unrepresentative of average actual emissions. The source should be required to supply actual fuel usage data and annual hours of operation in order to properly establish baseline emissions.

The baseline emission calculations for VOC also were based on maximum, worst case conditions rather than a two-year average of actual emissions. After actual fuel usage data and plant operation data is supplied for the two-year baseline period, the baseline VOC emissions should be recalculated. If the potential VOC increase resulting from the proposed coal conversion is above 40 tpy, the nonattainment new source review regulations will apply.

BACT Determination for SO_2

The applicant has requested that best available control technology (BACT) for SO_2 be their existing electrostatic precipitator/kiln system coupled with a 400 lb/hr emission limit. This represents a 36 percent SO_2 removal efficiency based upon the potential SO_2 emissions of 623.7 lb/hr. In Appendix A, actual stack test results for the No. 2 kiln indicate that the SO_2 removal inherent in the process is 91.3 percent. Actual SO_2 emissions while burning coal are calculated to be 56.7 lb/hr or about 2.27 lb SO_2 per ton of clinker (based on rated capacity). Note also that actual testing on No. 3 kiln indicates a 98.7% SO_2 removal efficiency. The current allowable emission rate for SO_2 from the No. 3 kiln is 4.6 lb SO_2 per ton of clinker. This limit is being achieved. Since actual SO_2 removal efficiency has already been established for the No. 2 kiln, the BACT determination should be based on this degree of reduction. Further, the feasibility of utilizing lower sulfur coals should be analyzed.

Air Quality Analysis

1. On page 6-14, Building Downwash Effects, the kiln should be modeled to include effects of downwash. Alternatively, the applicant could present a detailed drawing of the ESP with supporting documentation showing why the source is not subject to a building wake effects analysis.

2. A description of the property line is needed showing the area that is fenced (precluding public access). Note: The property would not be exempt unless public access is restricted.

3. A copy of the modeling input data and output tables should be submitted.

We appreciate the opportunity to comment on this permit application. It would also be appropriate to submit this application to the Federal Land Manager since the proposed facility is only 30 km from the Everglades National Park. If you have any questions, please contact Mark Armentrout 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

cc: Scott Quaas, Environmental Specialist
Tarmac Florida Inc.
P.O. Box 2998
Hialeah, Florida 33012

John Bunyak
Air Quality - Permit Review
National Park Service
P.O. Box 25287
Denver, Colorado 80225

copied: C. Reynolds
[illegible]
[illegible]
J. Goldman
[illegible]
CHF/BT

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

I. Goldman 10/27

Revision of BACT and [illegible] Construct
Lone Star Pensacola
PSD - FL-050
Nov. 9, 1989

October 4, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Quaas
Environmental Specialist
Tarmac Florida, Inc.
P. O. Box 2998
Hialeah, Florida 33012

Dear Mr. Quaas:

Re: Proposed Modification - Kiln No. 2 Coal Conversion
PSD-FL-142 - AC 13-169901

This is to provide notice that additional information is required for preliminary review of the above application. EPA Region IV requests a reassessment of baseline emissions, fugitive emissions, redetermination of BACT for SO_2, and revision of the air quality analysis to include downwash effects. Rather than duplicating EPA's concerns in this letter, we have enclosed a faxed copy of their draft letter to DER dated October 3, 1989. In addition to the EPA's questions, the DER meteorological staff will require an air quality impact analysis for Biscayne National Park (treated as if a Class I area) including a Level I visibility analysis.

If you have any questions, please call John Reynolds at (904)488-1344 or write to me at the above address.

Sincerely,

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

CHF/JR/t

cc: M. Armentrout, EPA
I. Goldman, SE District
P. Wong, DCDERM
D. Buff, P.E., KBN
C. Shaver, NPS

enclosure

DRAFT

OCT 3 1989

4APT-APB-cdw

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

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31 lb/hr O.K. based on actual testing

tests during the representative two-year period, recalculating baseline emissions, and performing a PSD review, if applicable. Furthermore, and as discussed below, the applicant must submit production records for the baseline period which indicate the usage of oil and gas in the kiln and annual hours of operation. It also appears that the applicant has not included the fugitive emissions increases (new coal mill) and increases from the No. 3 kiln coal handling equipment in the PM applicability determination, i.e., in the new allowable PM emission rates.

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had only one test.

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are calculated to be 56.7 lb/hr or about 2.27 lb SO_2 per ton of clinker (based on rated capacity). Note also that actual testing on No. 3 kiln indicates a 98.7% SO_2 removal efficiency. The current allowable emission rate for SO_2 from the No. 3 kiln is 4.6 lb SO_2 per ton of clinker. This limit is being achieved. Since actual SO_2 removal efficiency has already been established for the No. 2 kiln, the BACT determination should be based on this degree of reduction. Further, the feasibility of utilizing lower sulfur coals should be analyzed. The applicant has also dismissed the use of a baghouse, which achieves greater SO_2 removal, based upon a conclusory statement that it is economically prohibitive. This economic showing must be included in the BACT determination.

Air Quality Analysis

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Bruce P. Miller, Chief
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John Bunyak
Air Quality - Permit Review
National Park Service
P.O. Box 25287
Denver, Colorado 80225

MARMENTROUT/CDW/10/3/89 DOC: 21-PA-BM

ARMENTROUT_____ ARONSON_____ MILLER_____