

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



November 6, 1998

9651002

Administrator, New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED

NOV 09 1998

BUREAU OF
AIR REGULATION

Attention: Mr. A. A. Linero, P.E.

RE: KILN NO. 2 INDIRECT FIRING MODIFICATION
TARMAC FLORIDA, INC.
PENNSUCO PLANT

Dear Mr. Linero:

Tarmac Florida, Inc., has received the Department's letters dated March 5, 1998 and September 21, 1998, regarding the conversion of Kiln No. 2 at Pennsuco to indirect firing. This correspondence is in response to those letters.

Tarmac is currently under a consent order with the Dade County Department of Environmental Resources Management (DERM). The consent order requires compliance with the existing Kiln No. 2 permit limit for NO_x, or that the kiln cease burning coal.

The Department's letter dated March 5 alludes to a new construction permit for this conversion, since the expiration date of permit no. AC13-169901 has passed. However, we believe that permit no. AC13-169901 is still in effect. This permit was extended by the Department until May 31, 1996 (see attached correspondence). According to Rule 2-213.420(1)(a)4, the expiration dates of all air construction permits for Title V sources that expire between September 1, 1995 and November 1, 1996, are extended to the later of November 1, 1996, or 240 days after commencing operations. Since the subject permit expiration date of May 31, 1996, was between these two dates, and the kiln conversion has not yet been completed (commenced operations), the permit is automatically extended until 240 days after commencing operations under the indirect firing conversion. Therefore, the original air construction permit should still be in effect. The Department can simply amend the original construction permit, as necessary, to require performance tests after the retrofit is completed.

In so far as providing additional information regarding complete pollutant information, drawings, and a detailed description of the work to be performed, this is also considered unnecessary. All pollutant allowable emission rates and maximum emissions reflected in the current construction permit and previous application remain unchanged. In this regard, it is unnecessary to once again provide this same information. All that was being addressed in Tarmac's February submittal was a new coal bin and baghouse, plus the physical change to indirect firing on Kiln No. 2.

The physical change to indirect firing is portrayed in the attached flow diagrams. In the present direct firing method (Figure 1), coal from the coal mill is sent directly to Kiln No. 2 via the primary air fan. The primary air volume, which is a high volume flow, is determined by the amount of air needed to pneumatically convey the coal through the coal mill. The

primary air cannot be adjusted to result in lower emissions. Secondary air for the kiln is drawn from the clinker cooler.

In the proposed indirect firing method (Figure 2), a pulverized coal bin (new) is added downstream of the coal mill. The air from the coal mill is exhausted through a baghouse (new) serving the coal bin. Pulverized coal from the coal bin is then sent to the kiln, separate from the primary combustion air. Although some air is needed for transporting the coal to the kiln, it is small compared to the air entering the kiln with the coal in the direct firing method. Primary air enters the kiln independently, and is controlled independently of the coal input or the secondary air input. Secondary air continues to be drawn from the clinker cooler. This greater control over the primary air to the kiln should result in substantial NO_x reductions.

No detailed engineering information is yet available for the proposed indirect firing method. However, the attached flow diagrams show the major changes.

The conversion of Kiln No. 2 to indirect firing will clearly lower NO_x emissions, but may not lower NO_x emissions enough to meet the current permit limits. The most relevant NO_x emissions information upon which to base a judgement are data from Kiln No. 3 at Pennsuco. Although Kiln No. 3 is much larger than Kiln No. 2, it is an indirect coal-fired kiln. An indirect firing system installed on Kiln No. 2 would be very similar in nature and operation to the Kiln No. 3 system. Historic NO_x emissions data from Kiln No. 3 demonstrate NO_x emissions in the range of 0.6 to 2.3 lb/MMBtu, with an average of about 1.2 lb/MMBtu. This level of NO_x emissions is higher than would be allowed under Tarmac's construction permit (0.70 lb/MMBtu, with provisions to raise up to 1.0 lb/MMBtu). As a result, there is no guarantee that conversion to indirect firing will result in compliance with the NO_x emissions limit. Additional control measures may be required, or Tarmac may have to cease coal firing in Kiln No. 2.

A corrected page III.Part 9b-1 is attached. Thank you for consideration of this information. Please call if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.



David A. Buff, P.E.
Principal Engineer
Florida P.E. #19011
SEAL

DB/tyf

cc: Scott Quaas
Jim Alves
File (2)

J:\DPA\PROJECTS\9651\9651002A\05\051tr.doc

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 2
Coal Handling System

Pollutant Potential Estimated Emissions: Pollutant 1

1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	0.94 lb/hour 3.70 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr	
6. Emission Factor: Reference: BACT of 4/8/80	
7. Emissions Method Code: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): 10,914 dscfm x 0.01 gr/dscf x 60 min/hr ÷ 7,000 gr/lb = 0.94 lb/hr; 0.94 lb/hr x 7,884 hr/yr ÷ 2,000 lb/ton = 3.70 TPY	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):	

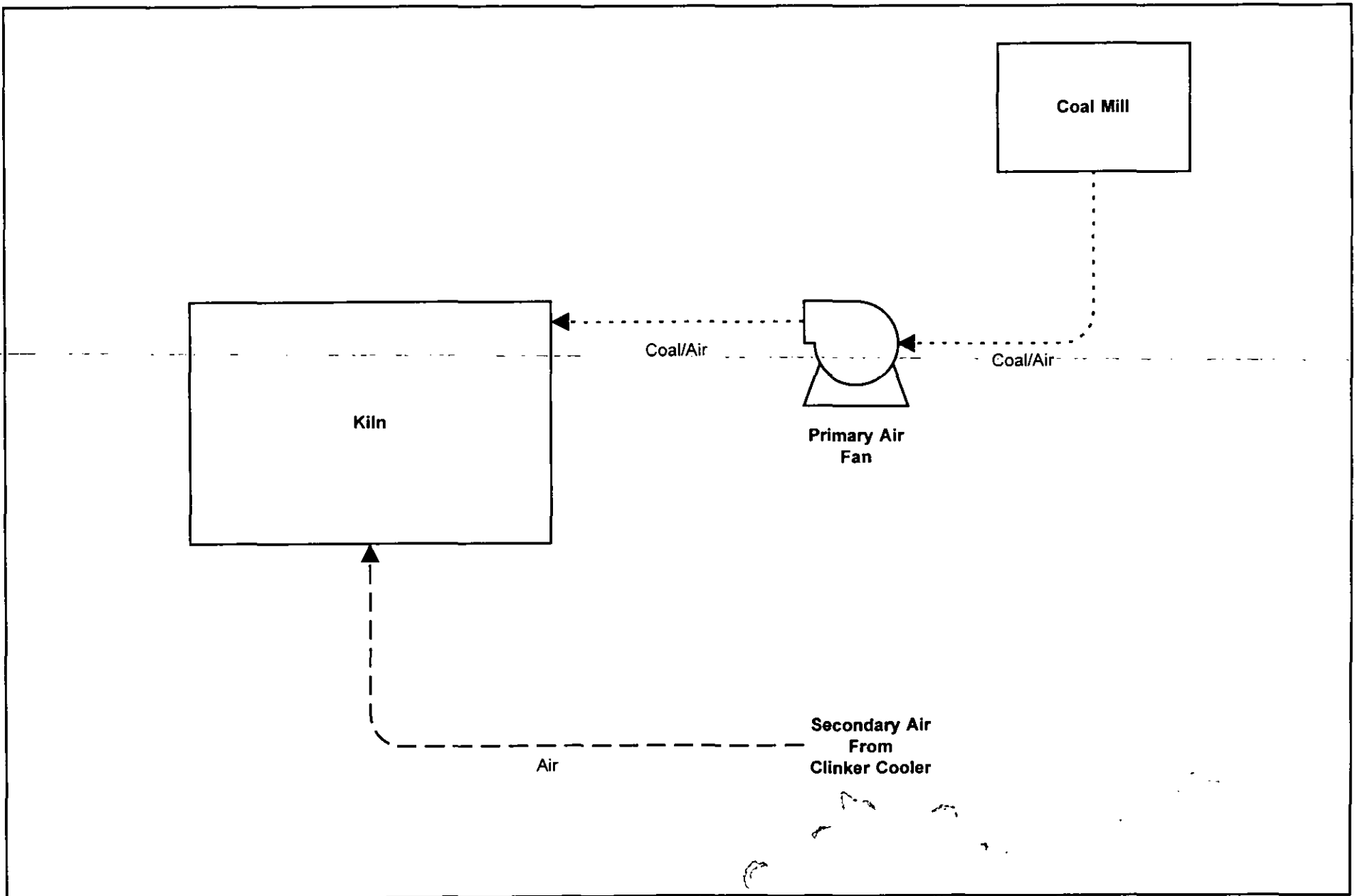


Figure 1: Direct Firing

Process Flow Legend:	
Air	----->
Coal	----->
Air/Coal	----->

Flow Diagram of Kiln #2	
Filename:	KILNFLOW.VSD
Latest Revision Date:	10/27/98



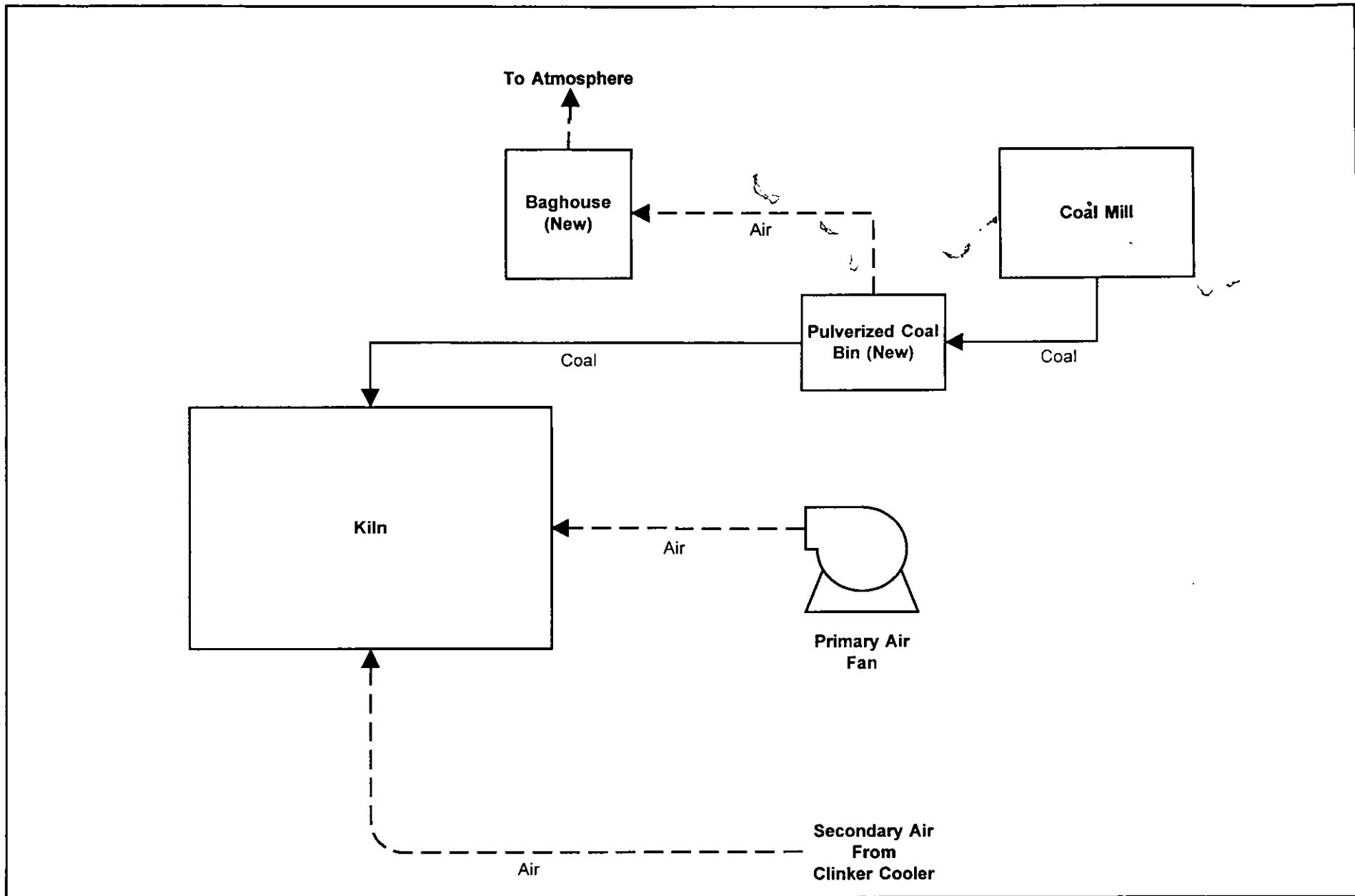


Figure 2: Indirect Firing

Process Flow Legend:	
Air	----->
Coal	=====>
Air/Coal->

Flow Diagram of Kiln #2	
Filename:	KILNFLOW.VSD
Latest Revision Date:	10/27/98





Department of Environmental Protection

Lawton Chiles
Governor

September 21, 1998

Virginia B. Wetherell
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Quaas, Environmental Manager
Tarmac America, Inc.
455 Fairway Drive
Deerfield Beach, Florida 33441

Re: Kiln No. 2 Indirect Firing Modification
DEP File 0250020-007-AC (PSD-FL-142A)

Dear Mr. Quaas:

On March 5 the Department requested submittal of additional information to process the referenced application request. To-date we have not received a response. Please note that per Rule 62-5055(1):

"The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department. If an applicant requires more than ninety days in which to respond to a request for additional information, the applicant may notify the Department in writing of the circumstances, at which time the application shall be held in active status for one additional period of up to ninety days. Additional extensions shall be granted for good cause shown by the applicant. A showing that the applicant is making a diligent effort to obtain the requested information shall constitute good cause. Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."

Over two ninety-day periods have transpired since our request for additional information. Because the rule provision was not in-effect when we requested the additional information, it will not be used at this time to deny the permit request. The nature of the information is such that a diligent effort would have yielded it by now and would certainly yield it in the next thirty days. Therefore, we are providing Tarmac a period of an additional 30 days from today to provide the requested information or show good cause that an extension is required.

If you have any questions regarding this matter, please call me at 850/921-9523 or John Reynolds at 850/921-9536.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/aal

cc: Isidore Goldman, DEP/SED
Patrick Wong, DERM
Sharon Crabtree, DERM
David Buff, Golder Assoc.



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

March 5, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Quaas, Environmental Manager
Tarmac America, Inc.
455 Fairway Drive
Deerfield Beach, Florida 33441

Re: Permit Application for Kiln No. 2 Indirect Firing Modification (0250020-007-AC)

Dear Mr. Quaas:

The Department's Bureau of Air Regulation in Tallahassee will be processing Tarmac's application to install a pulverized coal bin with associated transfer equipment and a baghouse for the conversion of Kiln No. 2 to indirect firing.

According to the agreement between Metro-Dade DERM and Tarmac, the BACT limits in permit AC 13-169901 (PSD-FL-142) will apply when the indirect firing retrofit project has been completed. Therefore, there is no need to do another BACT determination and the emission limits will be the same as before. An event that would trigger a PSD application and a new BACT determination would be a modification such as a production increase resulting in PSD-significant increases in emissions. The new coal bin baghouse emissions will be well below PSD-significant levels.

Since the expiration date of AC 13-169901 has passed, the new construction permit should encompass the entire Kiln No. 2 operation (i.e., more than just the new coal bin and baghouse) so that performance tests are required to demonstrate compliance after the retrofit is done. This means that the application must show complete pollutant information and should contain more drawings and a detailed description of the work to be performed. We note a minor error in the calculation of emissions on page III. Part 9b-1 field 8 (3.94 lb/hour should be 0.94 lb/hour). Amendments to the Title V permit will be required as well. As far as the fee is concerned, it is sufficient for the new baghouse emission increase (less than five tons per year) and since we are not requiring a new BACT review there is no need for a higher fee.

Processing of the application will be continued upon receipt of the requested information. If any further input is required we will advise you by March 17. If there are any further questions, please contact me or John Reynolds at 850/488-1344.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/JR

c: I. Goldman, SED

B. Beals, EPA

D. Buff, Golder Assoc.

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

METROPOLITAN DADE COUNTY, FLORIDA



ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
SUITE 900
33 S.W. 2nd AVENUE
MIAMI, FLORIDA 33130-1540
(305) 372-6925

March 5, 1998

Mr. John Reynolds
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Mail Station 5505

File No.: 0250020-007-AC
County: Miami-Dade
Project: Tarmac America, Inc.
Modify Coal Handling for Klin # 2
from Direct Firing to an Indirect Fired
System

RE: Transfer of Permit Application to Tallahassee

Dear Mr. Reynolds:

As per your memo dated March 4, 1998, we are sending you the requested materials:

- Hard copy of the application,
- Original signatures
- Original diskette "ELSA".
- In addition, a copy of the letter sent to Mr. Scott Quaas of Tarmac America, Inc. notifying him of the transfer of the Permit Application

If you have any questions, please contact Eva Kunath at (305) 372-6926. When referring to this project, please use the file number indicated.

Sincerely,

A handwritten signature in black ink, appearing to read "Eva Kunath".

M. Eva Kunath, Engineer I
Air Facilities Section
Air Quality Management Division

cc: SED

RECEIVED

MAR 11 1998

BUREAU OF
AIR REGULATION



Department of Environmental Protection

Lawton Chiles
Governor

September 21, 1998

Virginia B. Wetherell
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Quaas, Environmental Manager
Tarmac America, Inc.
455 Fairway Drive
Deerfield Beach, Florida 33441

Re: Kiln No. 2 Indirect Firing Modification
DEP File 0250020-007-AC (PSD-FL-142A)

Dear Mr. Quaas:

On March 5 the Department requested submittal of additional information to process the referenced application request. To-date we have not received a response. Please note that per Rule 62-5.055(1):

"The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department. If an applicant requires more than ninety days in which to respond to a request for additional information, the applicant may notify the Department in writing of the circumstances, at which time the application shall be held in active status for one additional period of up to ninety days. Additional extensions shall be granted for good cause shown by the applicant. A showing that the applicant is making a diligent effort to obtain the requested information shall constitute good cause. Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."

Over two ninety-day periods have transpired since our request for additional information. Because the rule provision was not in-effect when we requested the additional information, it will not be used at this time to deny the permit request. The nature of the information is such that a diligent effort would have yielded it by now and would certainly yield it in the next thirty days. Therefore, we are providing Tarmac a period of an additional 30 days from today to provide the requested information or show good cause that an extension is required.

If you have any questions regarding this matter, please call me at 850/921-9523 or John Reynolds at 850/921-9536.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/aal

cc: Isidore Goldman, DEP/SED
Patrick Wong, DERM
Sharon Crabtree, DERM
David Buff, Golder Assoc.

"Protect, Conserve and Manage Florida's Environment and Natural Resources"



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

March 5, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Quaas, Environmental Manager
Tarmac America, Inc.
455 Fairway Drive
Deerfield Beach, Florida 33441

Re: Permit Application for Kiln No. 2 Indirect Firing Modification (0250020-007-AC)

Dear Mr. Quaas:

The Department's Bureau of Air Regulation in Tallahassee will be processing Tarmac's application to install a pulverized coal bin with associated transfer equipment and a baghouse for the conversion of Kiln No. 2 to indirect firing.

According to the agreement between Metro-Dade DERM and Tarmac, the BACT limits in permit AC 13-169901 (PSD-FL-142) will apply when the indirect firing retrofit project has been completed. Therefore, there is no need to do another BACT determination and the emission limits will be the same as before. An event that would trigger a PSD application and a new BACT determination would be a modification such as a production increase resulting in PSD-significant increases in emissions. The new coal bin baghouse emissions will be well below PSD-significant levels.

Since the expiration date of AC 13-169901 has passed, the new construction permit should encompass the entire Kiln No. 2 operation (i.e., more than just the new coal bin and baghouse) so that performance tests are required to demonstrate compliance after the retrofit is done. This means that the application must show complete pollutant information and should contain more drawings and a detailed description of the work to be performed. We note a minor error in the calculation of emissions on page III. Part 9b-1 field 8 (3.94 lb/hour should be 0.94 lb/hour). Amendments to the Title V permit will be required as well. As far as the fee is concerned, it is sufficient for the new baghouse emission increase (less than five tons per year) and since we are not requiring a new BACT review there is no need for a higher fee.

Processing of the application will be continued upon receipt of the requested information. If any further input is required we will advise you by March 17. If there are any further questions, please contact me or John Reynolds at 850/488-1344.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/JR

c: I. Goldman, SED
B. Beals, EPA
D. Buff, Golder Assoc.

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

METROPOLITAN DADE COUNTY, FLORIDA



ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
SUITE 900
33 S.W. 2nd AVENUE
MIAMI, FLORIDA 33130-1540
(305) 372-6925

CERTIFIED MAIL P 343 639 725
RETURN RECEIPT REQUESTED

Date: March 5, 1998

Mr. Scott Quaas
Environmental Manager
Tarmac America, Inc.
455 Fairway Drive
Deerfield Beach, Florida 33441

File No.: 0250020-007-AC
County: Miami-Dade
Project: Tarmac America, Inc.
Modify Coal Handling for Klin # 2
from Direct Firing to Indirect Fired
System

RE: Transfer of Permit Application to Tallahassee

Dear Mr. Quaas:

We have reviewed your application for a permit to modify Klin # 2 from direct firing to an indirect firing system. It was determined that your construction is subject to Prevention of Significant Deterioration (PSD). We have forwarded the application to the Department of Environmental Protection in Tallahassee for processing.

If you have any questions, please contact Eva Kunath at (305) 372-6926. When referring to this project, please use the file number indicated.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Eva Kunath', with a long horizontal line extending to the right.

M. Eva Kunath, Engineer I
Air Facilities Section
Air Quality Management Division

cc: David A. Buff, P.E., Golder Associates