



# 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"



BEST AVAILABLE COPY

# 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.

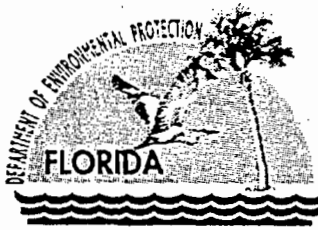
Sincerely,  
  
A. A. Linero, P.E. Administrator  
New Source Review Section

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

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

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008E  
on a return receipt card, I will be...  
RETURN RECEIPT REQUESTED adjacent to the number.  
4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse RESTRICTED DELIVERY on the front of the article.  
Leave space for the address requested in the appropriate spaces on the front of this



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

February 10, 1999

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: DEP File No. 0250020-007-AC (PSD-FL-142A)  
Tarmac Pennsuco Portland Cement Plant, Miami-Dade County  
Modification of Coal Conversion Project - Kiln No. 2

Dear Mr. Quaas:

The Department reviewed the application received on February 18, 1998 by the Miami-Dade Department of Environmental Resources Management (DERM). By agreement with DERM, the Department is acting on your request.

Kiln No. 2 was previously converted from gas to *direct-fired* coal burning. Tarmac proposes to switch to *indirect firing* for the purpose of reducing nitrogen oxides emissions. Primary air will be introduced to the kiln independently of the coal or secondary air. Secondary air will continue to be drawn from the clinker cooler. This greater control over the primary air to the kiln is expected by Tarmac to result in substantial NO<sub>x</sub> reductions for the purpose of complying with the original permit conditions applicable to the conversion of Kiln No. 2 to coal burning.

A new pulverized coal bin will be added downstream of the coal mill. Air from the coal mill will be exhausted through a new baghouse serving the coal bin. Pulverized coal from the coal bin and a small portion of air will be conveyed to the kiln, separately from the primary combustion air.

The existing coal handling system for the cement plant will be utilized for the Kiln No. 2 indirect system, including the coal mill. New screw feeders, weigh feeders, coal blower, and burner pipe will also be installed for the proposed modification. Particulate emissions from the pulverized coal bin will be controlled by a new baghouse.

The existing construction permit numbered AC13-169901 (PSD-FL-142) is hereby modified (amended) as follows:

**Permit Expiration:** Permit PSD-FL-142 (AC13-169901) is hereby extended to July 1, 2000.

### NEW SPECIFIC CONDITIONS

- 16. Nitrogen Oxides Emissions:** Nitrogen oxides emissions shall be controlled by combustion controls including implementation of indirect-firing. [Tarmac - DERM Agreement signed January 30 and February 2, 1998]

17. Construction: Construction related to the implementation of indirect firing, including the new coal bin and baghouse, shall be completed within 12 months after issuance of this permit modification.  
[Tarmac - DERM Agreement signed January 30 and February 2, 1998]
18. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]
19. Coal Bin and Baghouse Emissions: The maximum permitted allowable particulate emission rate from the new coal bin and baghouse shall not exceed 0.94 pounds per hour and 3.7 tons per year.  
[Applicant, Rule 62-4.070(3) F.A.C.]
20. Coal Bin and Baghouse Opacity: The permittee may demonstrate compliance with the allowable permitted emission rate by adhering to an opacity limit of 5% or less in lieu of particulate stack tests. If the Department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it may require that compliance be demonstrated by the test method specified in the applicable rule. [Rule 62-297.620(4), F.A.C.]
21. Test Methods: Compliance with the allowable emission limiting standards listed in Specific Condition 20 and 21 shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1997, version) adopted by reference in Chapter 62-204, F.A.C.  
**Method 9** Visual Determination of the Opacity of Emissions from Stationary Sources initially and annually thereafter.  
**Method 5** Determination of Particulate Matter Emissions from Stationary Sources (if required).

This permit modification is issued pursuant to Chapter 403, Florida Statutes. Any party to this order (permit modification) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., 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 Legal Office; 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 (thirty) days from the date this Notice is filed with the Clerk of the Department.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Sincerely,



Howard L. Rhodes, Director  
Division of Air Resources  
Management

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 2-12-99 to the person(s) listed:

Scott Quaas, Tarmac\*  
Hardy Johnson, Tarmac  
Gregg Worley, EPA  
Isidore Goldman, DEP SED  
H. Patrick Wong, DERM  
Donna Edwards, DERM  
David Buff, P.E., Golder Associates

Clerk Stamp

**FILED AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kenn Johnson      2-12-99  
(Clerk)                      (Date)

## FINAL DETERMINATION

Tarmac America Inc.  
Portland Cement Manufacturing Facility  
Modification of Kiln No. 2 Coal Conversion Project  
Miami-Dade County  
DEP File No. 0250020-007-AC (PSD-FL-142A)

An Intent to Issue an air construction permit, authorizing the modification of Kiln No.2 at the Tarmac America Inc facility was distributed on December 22, 1998. This facility is located at 455 Fairway Drive, Deerfield Beach in Miami, Dade County, Florida.

The Public Notice of Intent to Issue Air Construction Permit was published in the Miami Daily Business Review on January 13, 1999.

No comments were received as a result of the public notice.

The final action of the Department will be to issue the permit as noticed.

P 265 659 421

US Postal Service  
**Receipt for Certified Mail**

No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to	
Scott Quaas	
Street & Number	
Jamaica America	
Post Office, State, & ZIP Code	
Deerfield Beach, FL	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	2-12-99
0250020-007-AC	
PSD-FI-142A	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

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

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

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
Mr. Scott Quaas, Em. Mgr.  
Jamaica America, Inc  
455 Journey Drive  
Deerfield Beach, FL  
33441

4a. Article Number  
P265 659 421

4b. Service Type

Registered  Certified  
 Express Mail  Insured  
 Return Receipt for Merchandise  COD

7. Date of Delivery  
2/16/99

5. Received By: (Print Name)

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



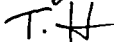
6. Signature: Addressee or Agent  
X *[Signature]*

Thank you for using Return Receipt Service.

Florida Department of  
Environmental Protection

Memorandum

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TO: Howard L. Rhodes  
THRU: Clair Fancy   
Al Linero  2/9  
FROM: Teresa Heron   
DATE: February 9, 1999  
SUBJECT: Tarmac Pennsucco Cement Plant  
Kiln No. 2 Coal Conversion Project Modification  
DEP File 0250020-007-AC (PSD-FL-142A)

Attached is a construction permit modification for Kiln No. 2 at the Tarmac's Portland Cement Manufacturing facility in Medley, Miami-Dade County. This permit modification addresses revisions to Permit PSD-FL-142 (AC13-169901) that allowed conversion from gas to coal burning. The modification is to install a new coal bin, baghouse, and ducting to convert Kiln No. 2 from direct to indirect firing.

Conversion to indirect firing is one of three options available to Tarmac in order to comply with an Agreement with Miami-Dade DERM. The Agreement required payment of approximately \$200,000 as well as achievement of the permit NO<sub>x</sub> limits by indirect firing, conversion to dry pyroprocessing, or shutdown of Kiln No. 2.

Tarmac also submitted an application to convert to dry pyroprocessing. DERM is acting on the non-PSD request with the Department's assistance on MACT requirements. Tarmac is pursuing permitting of two options and has not made a final determination on which one will be implemented.

We recommend your approval and signature.

AAL/th

Attachments



RECEIVED Tarmac 7

CERTIFIED MAIL  
Z 256 490 202

FEB 08 1999

BUREAU OF  
AIR REGULATION

**Tarmac America, Inc.**

455 Fairway Drive  
Deerfield Beach, FL 33441  
(954) 481-2800  
Fax (954) 421-0296  
URL [www.tarmacamerica.com](http://www.tarmacamerica.com)

**Environmental Department**  
Direct line (954) 425-4167  
Direct fax (954) 480-9352

4 February 1999

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

RE: Proof of Publication  
DEP File No. 0250020-007-AC (PSD-FL-142A)  
Modification of Coal Conversion Project

Dear Mr. Fancy,

Please find enclosed a newspaper affidavit regarding the publication of the Public Notice of Intent to Issue Air Construction Permit Modification. If any further information is necessary, please feel free to call.

Sincerely,



Julie Bethke  
Assistant Environmental Administrator  
Tarmac America, Inc.

EPA  
SEP  
Dade Co.



**PUBLIC NOTICE OF INTENT TO ISSUE  
AIR CONSTRUCTION PERMIT  
MODIFICATION  
STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION  
DEP FILE NO. 0250020-007-AC  
(PSD-FL-142A)  
TARMAC AMERICA INC.  
PORTLAND CEMENT MANUFACTURING  
FACILITY  
MODIFICATION OF KILN NO. 2 COAL  
CONVERSION PROJECT  
MIAMI-DADE COUNTY**

**MIAMI DAILY BUSINESS REVIEW**

Published Daily except Saturday, Sunday and  
Legal Holidays  
Miami, Dade County, Florida.

STATE OF FLORIDA  
COUNTY OF DADE:

Before the undersigned authority personally appeared Ocelma V. Ferbeyre, who on oath says that she is the Supervisor, Legal Notices of the Miami Daily Business Review f/k/a Miami Review, a daily (except Saturday, Sunday and Legal Holidays) newspaper, published at Miami in Dade County, Florida; that the attached copy of advertisement, being a Legal Advertisement of Notice in the matter of

**NOTICE OF INTENT TO ISSUE AIR  
CONSTRUCTION PERMIT MODIFICATION  
DEP FILE NO. 0250020-007-AC  
(PSD-FL-142A) TARMAC AMERICA INC.**

in the XXXXX Court,  
was published in said newspaper in the issues of  
Jan 13, 1999

Affiant further says that the said Miami Daily Business Review is a newspaper published at Miami in said Dade County, Florida, and that the said newspaper has heretofore been continuously published in said Dade County, Florida, each day (except Saturday, Sunday and Legal Holidays) and has been entered as second class mail matter at the post office in Miami in said Dade County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she 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.

*Ocelma V. Ferbeyre*

13 Sworn to and subscribed before me this 13 January 1999

day of \_\_\_\_\_, A.D. 19\_\_\_\_  
*Wanda Hoover*

(SEAL)  
Ocelma V. Ferbeyre personally known to me  
**OFFICIAL NOTARY SEAL  
MARIELA ROMERO  
COMMISSION NUMBER  
CC777419  
MY COMMISSION EXPIRES  
SEPT 22, 2002**

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Tarmac America Inc. The permit is to modify the previously approved natural gas to coal conversion project for Kiln No. 2 at Tarmac's portland cement manufacturing facility in Medley, Miami-Dade County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Tarmac America, Inc. 455 Fairway Drive, Deerfield Beach, Florida 33441.

The modification includes installation of a new coal bin, baghouse, and ducting to support indirect firing to reduce nitrogen oxides emissions from Kiln No. 2. Kiln No. 2 already burns coal through direct firing and Tarmac is required by an agreement with the Miami-Dade Department of Environmental Resources Management to implement this project modification.

The Department will issue the FINAL permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the FINAL permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that 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 such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection	Miami-Dade Department of Environmental Resources Mgt.	Department of Environmental Protection
Bureau of Air Regulation	Air Quality Division	Southeast District Office
111 S. Magnolia Drive, Suite 4	33 SW Second Avenue, Suite 900	400 North Congress Avenue
Tallahassee, Florida, 32301	Miami, Florida 33130-1540	West Palm Beach, Florida 33401
Telephone: 850/488-0114	Telephone: 305/372-6925	Telephone: 407/681-6600
Fax: 850/922-6979	Fax: 305/372-6954	Fax: 407/681-6755

The complete project file includes the application, Draft Permit Modification, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

December 21, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: DEP File No. 0250020-007-AC (PSD-FL-142A)  
Modification of Coal Conversion Project

Dear Mr. Quaas:

Enclosed is one copy of the Draft Air Construction Permit Modification for Tarmac America's coal conversion project at 11000 NW 121 Way, Medley, Miami-Dade County. The Department's Intent to Issue Air Construction Permit Modification, the DRAFT Permit Modification, and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" must be published as soon as possible in a newspaper of general circulation in the area affected (NW Dade County). Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (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.

Please note that Tarmac is required to implement this project in accordance with its Agreement with the Miami-Dade Department of Environmental Resources Management (DERM). This permit modification was already delayed largely by the time it took Tarmac to respond to the Department's Request for Additional Information in March as well as to the reminder sent to Tarmac in September. We urge the prompt publication of the Notice, followed by implementation of the project to comply with both the Agreement and the Department's BACT Determination.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any questions, please contact Ms. Teresa Heron at 850/921-9529 or Mr. Linero at 850/921-9523.

Sincerely,

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

CHF/th

Enclosures

In the Matter of an  
Application for Permit Modification by:

Tarmac America, Inc.  
1151 Azalea Garden Road  
Norfolk, VA 23502

DEP File No. 0250020-007-AC (PSD-FL-142A)  
Portland Cement Manufacturing Plant  
Modification of Coal Conversion Project  
Dade County

### INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Permit Modification attached) for the proposed permit revisions, detailed in the application specified above, for the reasons stated below.

The applicant, Tarmac America Inc, applied on February 18, 1998 to the Miami-Dade Department of Environmental Resources Management (DERM) for modification of its existing air construction permit for the conversion of Kiln No. 2 to coal burning at the Tarmac facility in Medley, Miami-Dade County. The request is to install further equipment and perform modifications to accomplish the approved coal burning by indirect firing. By agreement with DERM, the Department is acting on this request.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that a permit modification is required to perform the described work at Tarmac's facility.

The Department intends to issue this air construction permit modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION". The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "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. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the FINAL Permit Modification, in accordance with the conditions of the enclosed DRAFT Permit Modification unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed DRAFT Permit Modification issuance action for a period of 14 (fourteen) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION." Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the DRAFT Permit Modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available for this action.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that 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 such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

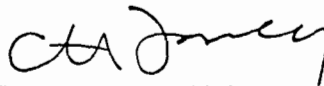
In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.



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


CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION (including the PUBLIC NOTICE, and the DRAFT Permit Modification) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 12-22-98 to the person(s) listed:

- Scott Quaas, Tarmac\*
- Hardy Johnson, Tarmac
- Gregg Worley, EPA
- Isidore Goldman, SED
- H. Patrick Wong, DERM
- Donna Edwards, DERM
- David Buff, P.E., Golder Associates

Clerk Stamp

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

  
(Clerk)

12-22-98  
(Date)

Z 333 612 576

US Postal Service  
**Receipt for Certified Mail**

No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

PS Form 3800, April 1995

Sent to	Scott Quass	
Street & Number	Iarmac America	
Post Office, State, & ZIP Code	Deerfield Bch, FL	
Postage	\$	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date	0250020-007-AC 12-22-98 PSD-FI-142A	

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

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

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

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
 Mr. Scott Quass, EM  
 IARMAC America  
 455 Fairway Dr.  
 Deerfield Bch, FL  
 33441

4a. Article Number  
 7 333 612 576

4b. Service Type  
 Registered  Certified  
 Express Mail  Insured  
 Return Receipt for Merchandise  COD

7. Date of Delivery

5. Received By: (Print Name)

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

6. Signature: (Addressee or Agent)

*Shu Meant*

Thank you for using Return Receipt Service.



10/11/2017  
10:23:11 AM  
10/11/2017

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0250020-007-AC (PSD-FL-142A)

Tarmac America Inc.  
Portland Cement Manufacturing Facility  
Modification of Kiln No. 2 Coal Conversion Project  
Miami-Dade County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Tarmac America Inc. The permit is to modify the previously approved natural gas to coal conversion project for Kiln No. 2 at Tarmac's portland cement manufacturing facility in Medley, Miami-Dade County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Tarmac America, Inc. 455 Fairway Drive, Deerfield Beach, Florida 33441.

The modification includes installation of a new coal bin, baghouse, and ducting to support indirect firing to reduce nitrogen oxides emissions from Kiln No. 2. Kiln No. 2 already burns coal through direct firing and Tarmac is required by an agreement with the Miami-Dade Department of Environmental Resources Management to implement this project modification.

The Department will issue the FINAL permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the FINAL permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station # 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of

the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that 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 such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection Bureau of Air Regulation 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida, 32301 Telephone: 850/488-0114 Fax: 850/922-6979	Miami-Dade Department of Environmental Resources Mgt. Air Quality Division 33 SW Second Avenue, Suite 900 Miami, Florida 33130-1540 Telephone: 305/372-6925 Fax: 305/372-6954	Department of Environmental Protection Southeast District Office 400 North Congress Avenue West Palm Beach, Florida 33401 Telephone: 407/681-6600 Fax: 407/681-6755
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The complete project file includes the application, Draft Permit Modification, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

January XX, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: DEP File No. 0250020-007-AC (PSD-FL-142A)  
Tarmac Pennsuco Portland Cement Plant, Miami-Dade County  
Modification of Coal Conversion Project - Kiln No. 2

Dear Mr. Quaas:

The Department reviewed the application received on February 18, 1998 by the Miami-Dade Department of Environmental Resources Management (DERM). By agreement with DERM, the Department is acting on your request.

Kiln No. 2 was previously converted from gas to *direct-fired* coal burning. Tarmac proposes to switch to *indirect firing* for the purpose of reducing nitrogen oxides emissions. Primary air will be introduced to the kiln independently of the coal or secondary air. Secondary air will continue to be drawn from the clinker cooler. This greater control over the primary air to the kiln is expected by Tarmac to result in substantial NO<sub>x</sub> reductions for the purpose of complying with the original permit conditions applicable to the conversion of Kiln No. 2 to coal burning.

A new pulverized coal bin will be added downstream of the coal mill. Air from the coal mill will be exhausted through a new baghouse serving the coal bin. Pulverized coal from the coal bin and a small portion of air will be conveyed to the kiln, separately from the primary combustion air.

The existing coal handling system for the cement plant will be utilized for the Kiln No. 2 indirect system, including the coal mill. New screw feeders, weigh feeders, coal blower, and burner pipe will also be installed for the proposed modification. Particulate emissions from the pulverized coal bin will be controlled by a new baghouse.

The existing construction permit numbered AC13-169901 (PSD-FL-142) is hereby modified (amended) as follows:

Permit Expiration: Permit PSD-FL-142 (AC13-169901) is hereby extended to July 1, 2000.

#### NEW SPECIFIC CONDITIONS

16. Nitrogen Oxides Emissions: Nitrogen oxides emissions shall be controlled by combustion controls including implementation of indirect-firing. [Tarmac - DERM Agreement signed January 30 and February 2, 1998]

17. Construction: Construction related to the implementation of indirect firing, including the new coal bin and baghouse, shall be completed within 12 months after issuance of this permit modification.  
[Tarmac - DERM Agreement signed January 30 and February 2, 1998]
18. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]
19. Coal Bin and Baghouse Emissions: The maximum permitted allowable particulate emission rate from the new coal bin and baghouse shall not exceed 0.94 pounds per hour and 3.7 tons per year.  
[Applicant, Rule 62-4.070(3) F.A.C.]
20. Coal Bin and Baghouse Opacity: The permittee may demonstrate compliance with the allowable permitted emission rate by adhering to an opacity limit of 5% or less in lieu of particulate stack tests. If the Department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it may require that compliance be demonstrated by the test method specified in the applicable rule. [Rule 62-297.620(4), F.A.C.]
21. Test Methods: Compliance with the allowable emission limiting standards listed in Specific Condition 20 and 21 shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1997, version) adopted by reference in Chapter 62-204, F.A.C.  
**Method 9** Visual Determination of the Opacity of Emissions from Stationary Sources initially and annually thereafter.  
**Method 5** Determination of Particulate Matter Emissions from Stationary Sources (if required).

This permit modification is issued pursuant to Chapter 403, Florida Statutes. Any party to this order (permit modification) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., 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 Legal Office; 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 (thirty) days from the date this Notice is filed with the Clerk of the Department.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Sincerely,

Howard L. Rhodes, Director  
Division of Air Resources  
Management

Mr. Scott Quaas  
DEP File No. 0250020-007-AC (PSD-FL-142A)  
January XX, 1999  
Page 3 of 3

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on \_\_\_\_\_ to the person(s) listed:

Scott Quaas, Tarmac\*  
Hardy Johnson, Tarmac  
Gregg Worley, EPA  
Isidore Goldman, DEP SED  
H. Patrick Wong, DERM  
Donna Edwards, DERM  
David Buff, P.E., Golder Associates

Clerk Stamp

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

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Date)


DRAFT

2/22/1998

Florida Department of  
Environmental Protection

Memorandum

---

TO: Clair Fancy  
THRU: Al Linero  12/21  
FROM: Susan DeVore-Fillmore  
DATE: December 17, 1998  
SUBJECT: Tarmac Pennsocco Cement Plant  
Kiln No. 2 Coal Conversion Project Modification  
DEP File 0250020-007-AC (PSD-FL-142A)

Attached is a construction permit modification for Kiln No. 2 at the Tarmac's Portland Cement Manufacturing facility in Medley, Miami-Dade County. This permit modification addresses revisions to Permit PSD-FL-142 (AC13-169901) that allowed conversion from gas to coal burning. The modification is to install a new coal bin, baghouse, and ducting to convert Kiln No. 2 from direct to indirect firing.

Conversion to indirect firing is one of three options available to Tarmac in order to comply with an Agreement with Miami-Dade DERM. The Agreement required payment of approximately \$200,000 as well as achievement of the permit NO<sub>x</sub> limits by indirect firing, conversion to dry pyroprocessing, or shutdown of Kiln No. 2.

Tarmac also submitted an application to convert to dry pyroprocessing. DERM is acting on the non-PSD request with the Department's assistance on MACT requirements. Tarmac is pursuing permitting of two options and has not made a final determination on which one will be implemented.

I recommend your approval and signature.

AAL/sd

Attachments

**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<sub>x</sub>, 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<sub>x</sub> 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<sub>x</sub> emissions, but may not lower NO<sub>x</sub> emissions enough to meet the current permit limits. The most relevant NO<sub>x</sub> 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<sub>x</sub> emissions data from Kiln No. 3 demonstrate NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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:\ADP\PROJECTS\96\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: <b>PM</b>
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):

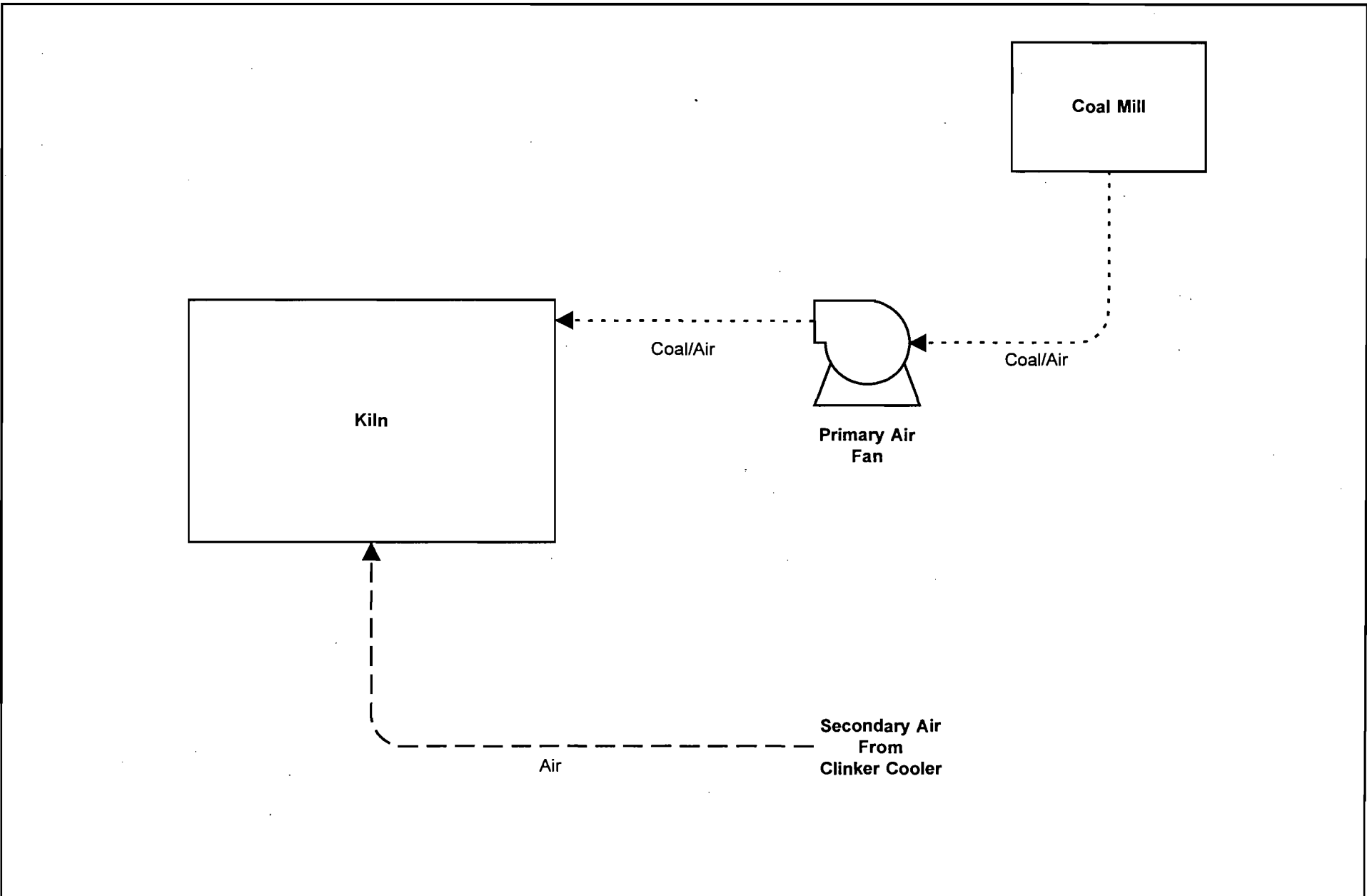


Figure 1: Direct Firing

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

Flow Diagram of Kiln #2

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*Filename:* KILNFLOW.VSD

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*Latest Revision Date:* 10/27/98



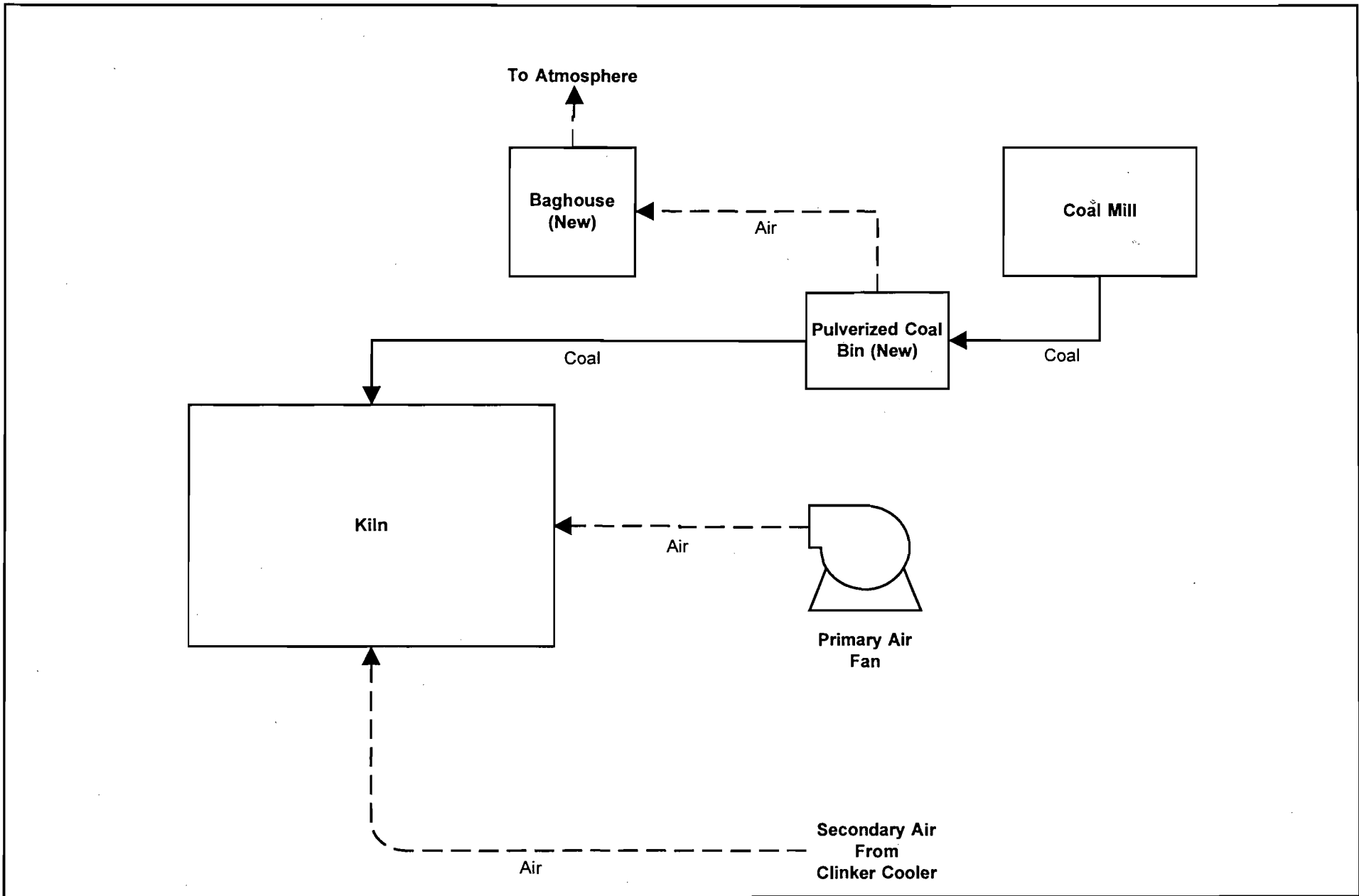


Figure 2: Indirect Firing

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-~~5~~<sup>4</sup>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.



# 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,

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

cc: SEO

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

RECEIVED  
FEB 18 1998

Tarmac

VIA AIRBORNE EXPRESS

Management Division

13 February 1998

**Tarmac America, Inc.**

455 Fairway Drive  
Deerfield Beach, FL 33441  
(954) 481-2800  
Fax (954) 421-0296  
<http://www.tarmacamerica.com>

**Environmental Department**

Direct line (954) 425-4165  
Direct fax (954) 480-9352

H. Patrick Wong, Chief  
Air Section  
Metro-Dade County Environmental Resources Management  
33 SW 2<sup>nd</sup> Avenue — Suite 900  
Miami, Florida 33130-1540

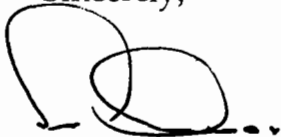
RE: **Pennsuco Cement**  
**Dade County - AP**  
**Facility ID# 0250020**

---

Dear Mr. Wong:

In accordance with the *Agreement* executed February 2, 1998 between Tarmac and the DERM and specifically paragraph 20, please find enclosed an *Application For Air Permit—Long Form*. The application is submitted on one (1) 3½" diskette [ELSA ver 1.3b] along with two (2) each signature pages, attachments, and figures to convert the coal handling system for kiln #2 to indirect firing. A check in the amount of \$250.00 [check# 119960] is also enclosed for the application processing fee. Should you have any questions or need further information please call me at the number above.

Sincerely,



Scott Quaas  
Environmental Manager  
Technical Services—Florida Region

cc: R. Pluta  
M. Unger  
J. Alves  
S. Crabtree-DERM

4. Professional Engineer Statement :

*I, the undersigned, hereby certified, except as particularly noted herein\*, that :*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ X ] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

David A. Buff  
Signature

2/13/98  
Date

\* Attach any exception to certification statement.

I. Part 6 - 1

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : Scott Quaas  
Title : Environmental Manager

2. Owner or Authorized Representative or Responsible Official Mailing Address :


Organization/Firm : Tarmac America, Inc.  
Street Address : 455 Fairway Drive  
City : Deerfield Beach  
State : FL Zip Code : 33441-\_\_\_\_

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (954)425-4165 Fax : (954)480-9352

4. Owner/Authorized Representative or Responsible Official Statement :

*I, the undersigned, am the owner or authorized representative\* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*

  
\_\_\_\_\_  
Signature

FEB 13 1998  
\_\_\_\_\_  
Date

\* Attach letter of authorization if not currently on file.

I. Part 2 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96


## ATTACHMENT A

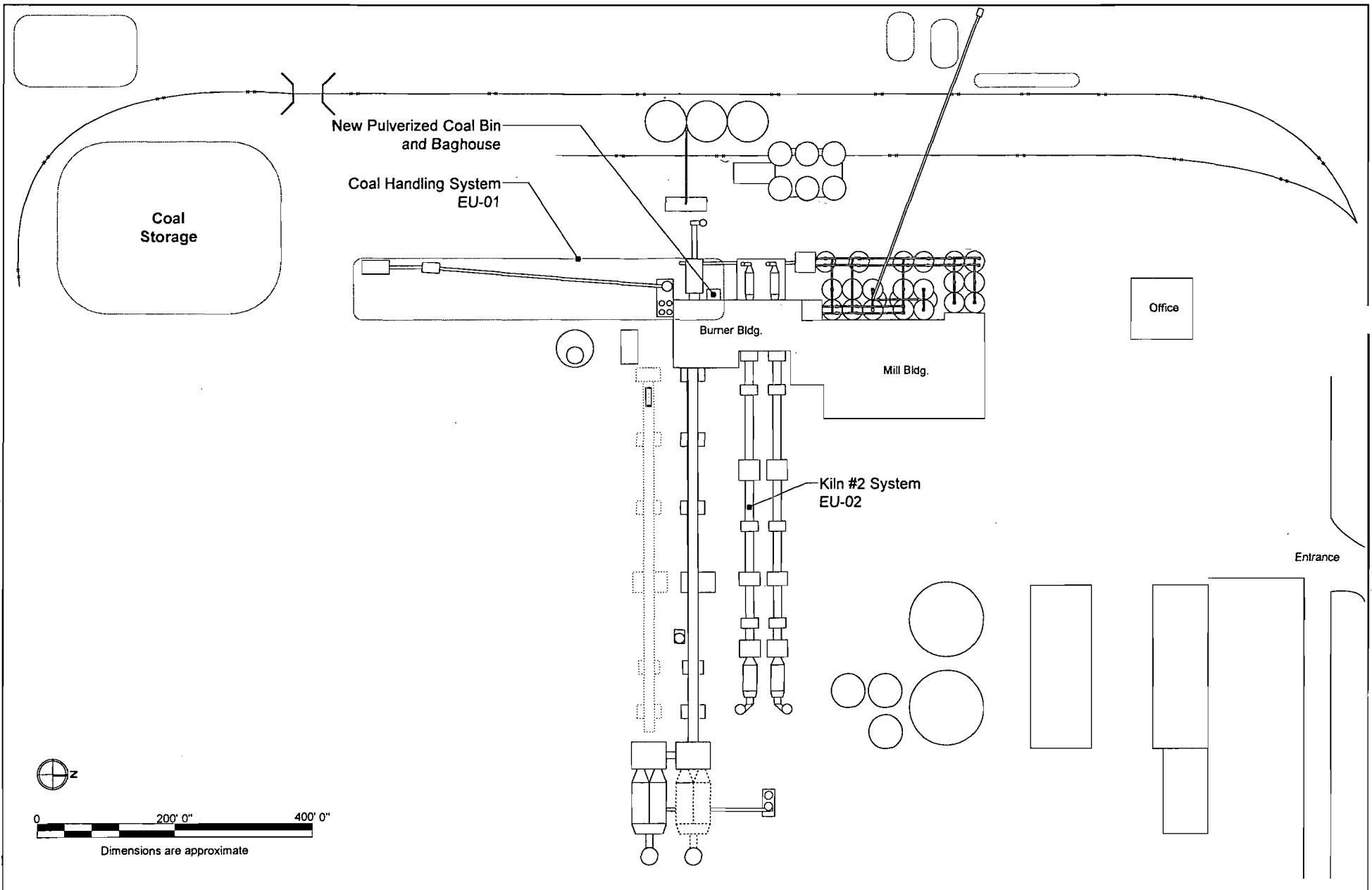
### PROJECT DESCRIPTION

Tarmac America, Inc. (Tarmac) is proposing to modify the coal handling system for kiln #2 from the existing direct fired system to an indirect fired system. The existing coal handling system for the cement plant will be utilized for the kiln #2 indirect system, including the coal mill. A new pulverized coal bin, screw feeders, weigh feeders, coal blower, and burner pipe will be installed for the proposed modification. Particulate emissions from the pulverized coal bin will be controlled by a new baghouse. Pertinent data for the proposed baghouse is described below.

## ATTACHMENT B

Air flow rate: 12,000 acfm (10,900 dscfm)  
Gas temperature: 77°F  
Cloth area: 2,400 ft<sup>2</sup>  
Air/cloth ratio: 5:1

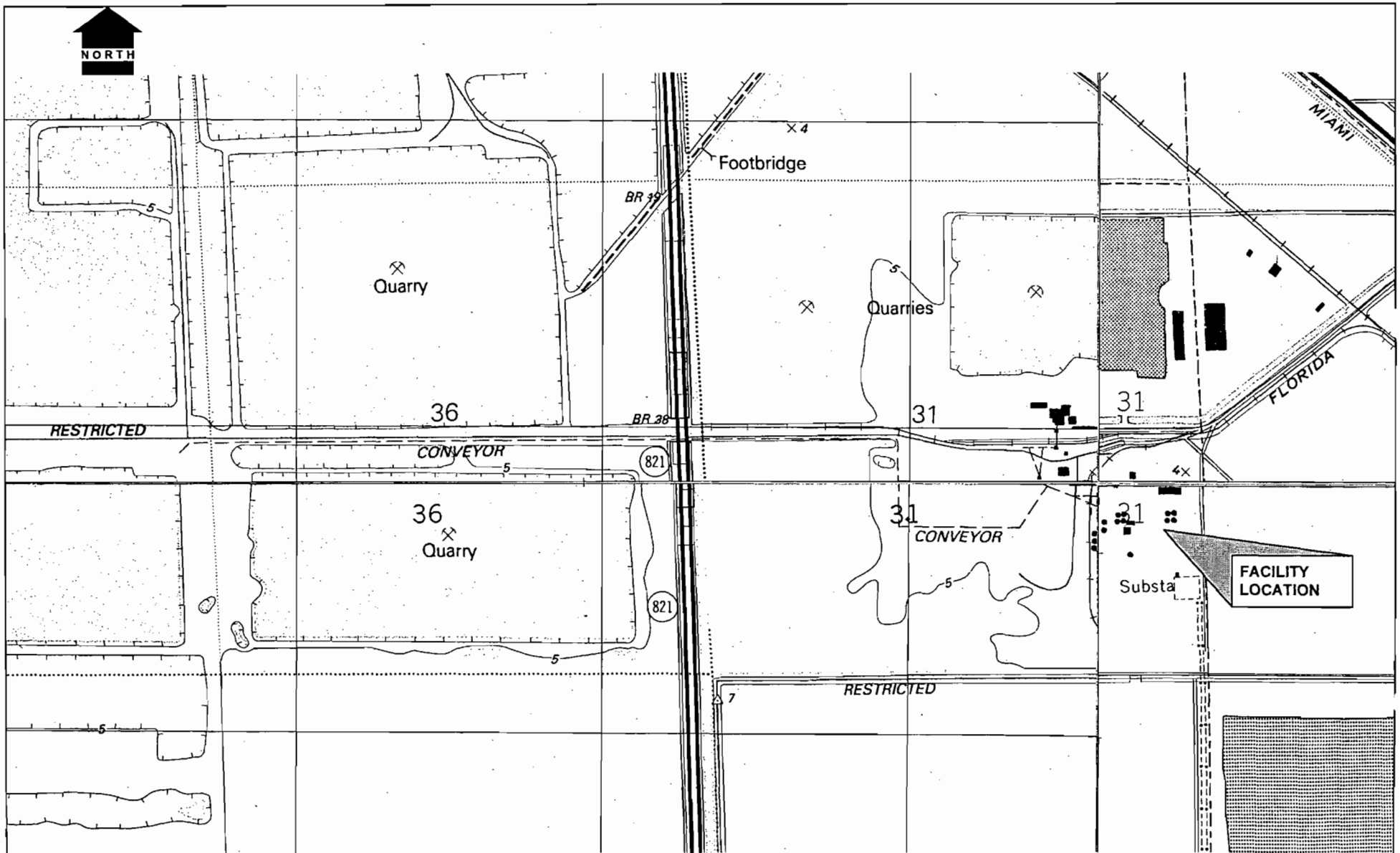
Attachment A  Kiln #2 Indirect Fire	FACILITY			<b>Tarmac</b>  Tarmac America, Inc. 455 Fairway Drive Deerfield Beach, FL 33441
	Pennsuco Cement			
	ID#	FacID#	DATE	
	0250020	FL007-04	FEB98	



**FIGURE 2-2**  
**Kiln #2 Indirect Fire**  
**Facility Plot Plan**

FACILITY: <b>Pennsuco Cement</b>		
ID # <b>0250020</b>	FacID # <b>FL007-04</b>	DATE <b>FEB98</b>

**Tarmac**   
 Tarmac America, Inc.  
 455 Fairway Drive  
 Deerfield Beach, FL 33441



Source: USGS Quadrangles 1962 & 1988

**Figure 2-1  
Kiln #2 Indirect Fire  
Area Map**

FACILITY:

**Pennsuco Cement**

ID #

0250020

FactID#

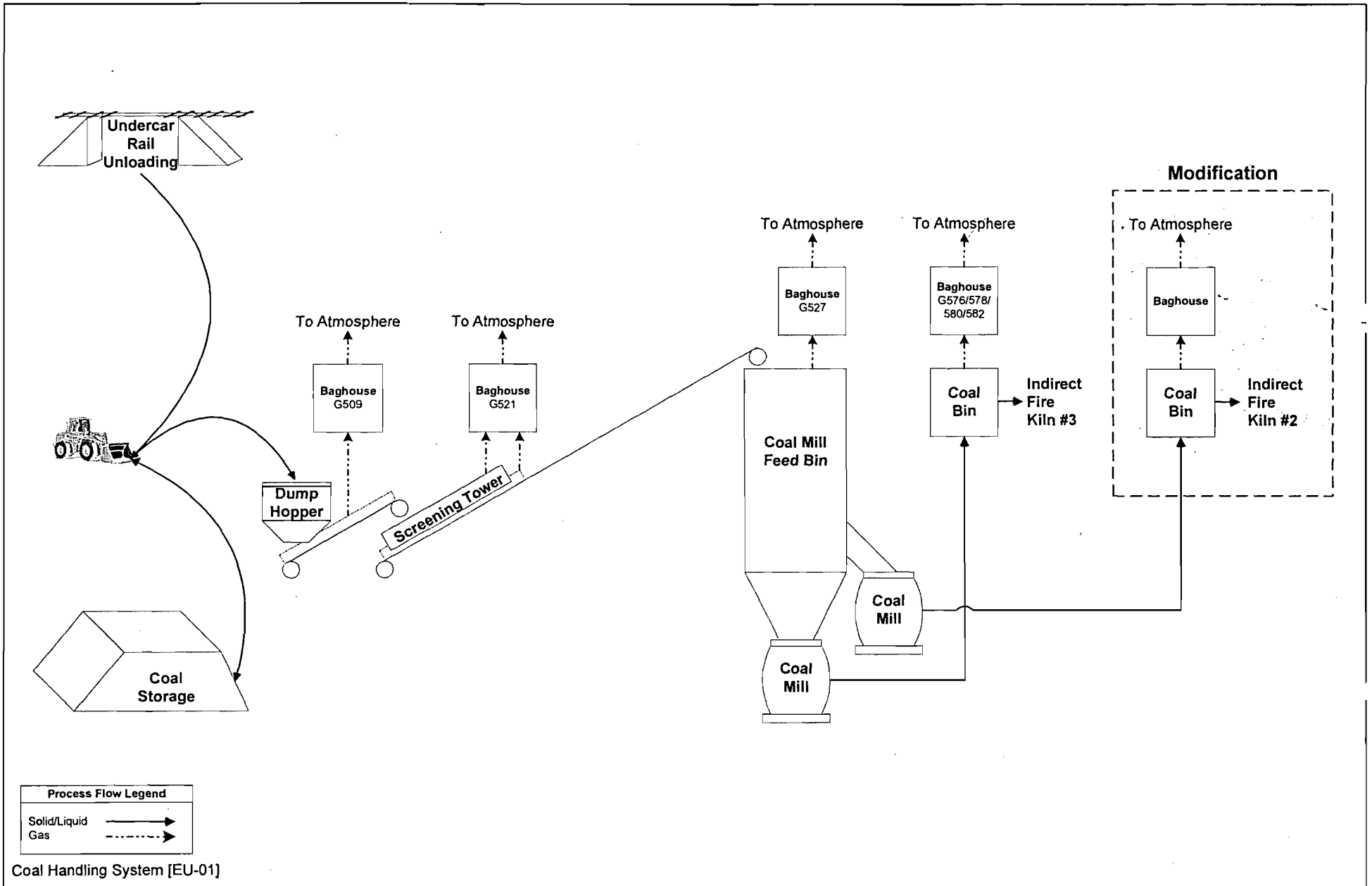
FL007-04

DATE

FEB98

**Tarmac** 

Tarmac America, Inc.  
455 Fairway Drive  
Deerfield Beach, FL 33441



**Figure 2-3  
 Kiln #2 Indirect Fire  
 Process Flow Diagram**

FACILITY: <b>Pennsuco Cement</b>		
ID # <b>0250020</b>	FacID# <b>FL007-04</b>	DATE <b>FEB98</b>

**Tarmac** 

Tarmac America, Inc.  
 455 Fairway Drive  
 Deerfield Beach, FL 33441



**Department of  
Environmental Protection**

**DIVISION OF AIR RESOURCES MANAGEMENT  
APPLICATION FOR AIR PERMIT - LONG FORM**

**I. APPLICATION INFORMATION**

**Identification of Facility Addressed in This Application**

1. Facility Owner/Company Name : Tarmac America, Inc.	
2. Site Name : Tarmac Pennsuco	
3. Facility Identification Number : 0250020	* <input type="checkbox"/> Unknown
4. Facility Location : Pennsuco Cement  Street Address or Other Locator : 11000 NW 121 Way City : Medley County : Dade Zip Code : 33178-	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

I. Part 1 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : Scott Quaas  
Title : Environmental Manager

2. Owner or Authorized Representative or Responsible Official Mailing Address :

Organization/Firm : Tarmac America, Inc.  
Street Address : 455 Fairway Drive  
City : Deerfield Beach  
State : FL Zip Code : 33441-\_\_\_\_

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (954)425-4165 Fax : (954)480-9352

4. Owner/Authorized Representative or Responsible Official Statement :

*I, the undersigned, am the owner or authorized representative\* of the non-Title V source*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\* Attach letter of authorization if not currently on file.

I. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

**Scope of Application**

<b>Emissions Unit ID</b>	<b>Description of Emissions Unit</b>	<b>Permit Type</b>
No Id *	Coal Handling System	+ AC1F

I. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

**Purpose of Application and Category**

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to ob

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

I. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

- Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

- Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

- Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

- Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

*[Faint, illegible text]*

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

- Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any :

AO13-238048

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

- Air construction permit for one or more existing, but unpermitted, emissions units.

I. Part 4 - 3

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

Category IV : All Non-Federally Enforceable Air Operation

This Application for Air Permit is submitted to ob

Initial air operation permit for one or more existing, but previously unpermitted, emissions units.

Initial air operation permit for one or more newly constructed or modified

Current construction permit number :

Air operation permit revision to address one or more newly constructed or modified emissions units.

Current construction permit number :

Operation permit to be revised :

Air operation permit renewal.

Operation permit to be renewed :

**Application Processing Fee**

Check one :

Attached - Amount : \$250.00                       Not Applicable.

**Construction/Modification Information**

1. Description of Proposed Project or Alterations :	
Modify coal handling system for Klin # 2	
2. Projected or Actual Date of Commencement of Construction :	01-Jul-1998
3. Projected Date of Completion of Construction :	01-Jul-1999

**Professional Engineer Certification**

1. Professional Engineer Name :     David A. Buff Registration Number :     19011	
2. Professional Engineer Mailing Address :	
Organization/Firm : Golder Associates	
Street Address : 6241 NW 23 Street	
City : Gainesville	State : FL Zip Code : 32653-1500
3. Professional Engineer Telephone Numbers :	
Telephone : (352)336-5600	Fax : (352)336-6603

I. Part 5 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96



4. Professional Engineer Statement :

*I, the undersigned, hereby certified, except as particularly noted herein\*, that :*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ ] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

\_\_\_\_\_  
Signature

(seal)

\_\_\_\_\_  
Date

I. Part 6 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

\* Attach any exception to certification statement.

I. Part 6 - 2

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**Application Contact**

1. Name and Title of Application Contact :

Name : Scott Quaas  
Title : Environmental Manager

2. Application Contact Mailing Address :

Organization/Firm : Tarmac America, Inc.  
Street Address : 455 Fairway Drive  
City : Deerfield Beach  
State : FL                      Zip Code : 33441-

3. Application Contact Telephone Numbers :

Telephone : (954)425-4165                      Fax : (954)480-9352

**Application Comment**

This application involves modification of the kiln #2 coal handling system to a indirect coal fired system. The structure of this application compliments the Title V Operating Permit application submitted in June 1996. The emission points and units are consistent with the Title V application.

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility, Location, and Type

1. Facility UTM Coordinates : Zone : 17 East (km) : 562.80 North (km) : 2861.70			
2. Facility Latitude/Longitude : Latitude (DD/MM/SS) : 25 52 30 Longitude (DD/MM/SS) : 80 22 30			
3. Governmental Facility Code : 0	4. Facility Status Code : A	5. Facility Major Group SIC Code : 32 +	6. Facility SIC(s) :
7. Facility Comment :			
DEP Facility Comment			

#### Facility Contact

1. Name and Title of Facility Contact : Scott Quaas Environmental Manager	
2. Facility Contact Mailing Address : Organization/Firm : Tarmac America, Inc. Street Address : 455 Fairway Drive City : Deerfield Beach State : FL Zip Code : 33441-____	
3. Facility Contact Telephone Numbers : Telephone : (954)425-4165 Fax : (954)480-9352	

II. Part 1 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility, Location, and Type

1. Facility UTM Coordinates : Zone : East (km) : North (km) :			
2. Facility Latitude/Longitude : Latitude (DD/MM/SS) : Longitude (DD/MM/SS) :			
3. Governmental Facility Code :	4. Facility Status Code :	5. Facility Major Group SIC Code : +	6. Facility SIC(s) :
7. Facility Comment :			
DEP Facility Comment :  +			

#### Facility Contact

1. Name and Title of Facility Contact :			
2. Facility Contact Mailing Address : Organization/Firm : Street Address : City : State : Zip Code :			
3. Facility Contact Telephone Numbers : Telephone : Fax :			

**Property Boundary**

**UTM Coordinates :**

Zone :                    +    East :                    km +    North :                    km +

**Building Identification**

Identification of Building on Plot Plan or Flow Diagram :

Building Height :

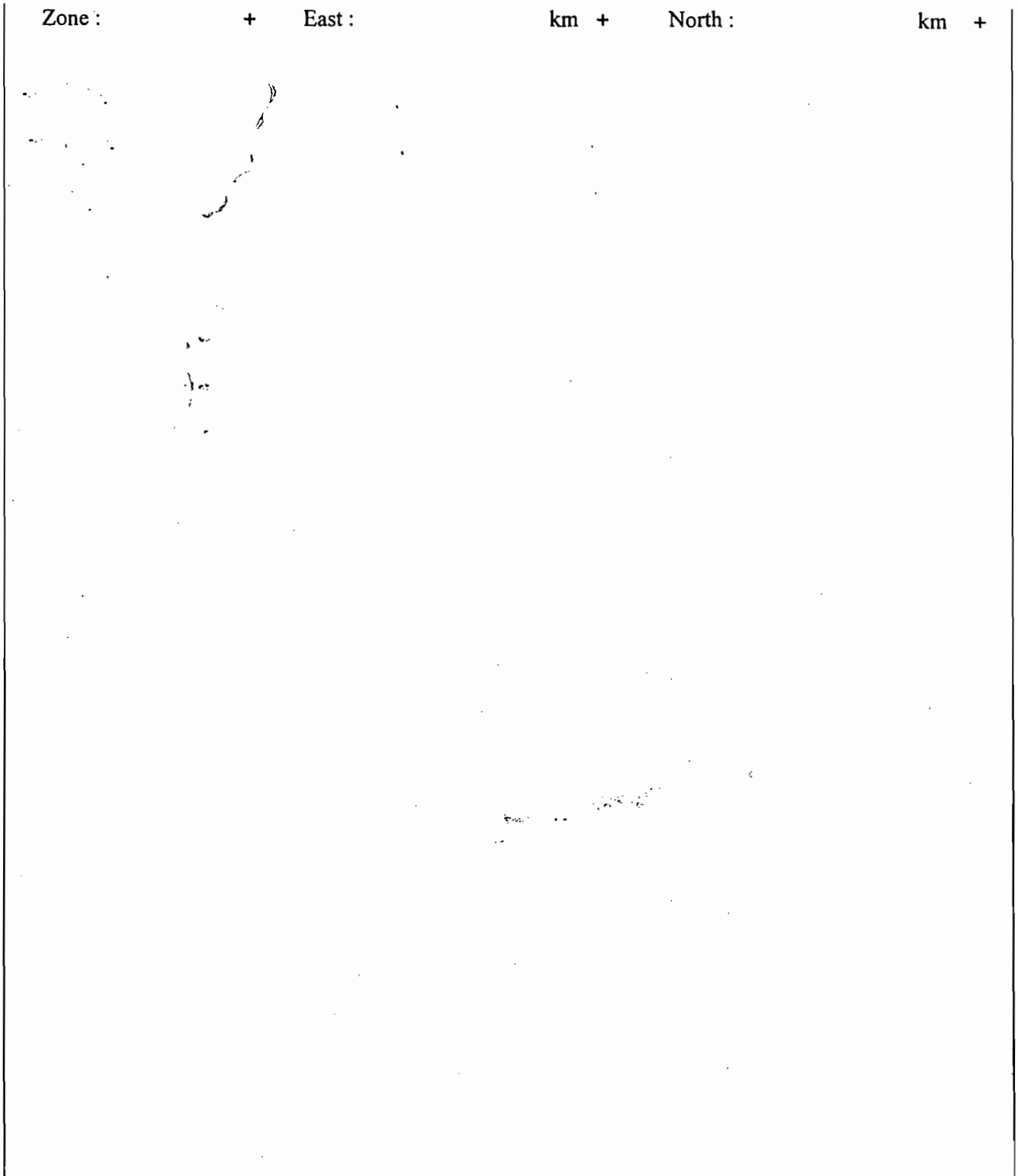
FT +

+

**Building Boundary**

**UTM Coordinates :**

Zone :                    +    East :                    km +    North :                    km +





**Facility Contact**

**1. Name and Title of Facility Contact :**

Name : Scott Quaas  
Title : Environmental Manager

**2. Facility Contact Mailing Address :**

Organization/Firm : Tarmac America, Inc.  
Street Address : 455 Fairway Drive  
City : Deerfield Beach  
State : FL                      Zip Code : 33441-\_\_\_\_

**3. Facility Contact Telephone Numbers :**

Telephone : (954)425-4165                      Fax : (954)480-9352

II. Part 2 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**Facility Regulatory Classifications**

1. Small Business Stationary Source?	N
2. Title V Source?	Y
3. Synthetic Non-Title V Source?	N
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	Y
5. Synthetic Minor Source of Pollutants Other than HAPs?	N
6. Major Source of Hazardous Air Pollutants (HAPs)?	Y
7. Synthetic Minor Source of HAPs?	N
8. One or More Emissions Units Subject to NSPS?	Y
9. One or More Emission Units Subject to NESHAP?	N
10. Title V Source by EPA Designation?	N
11. Facility Regulatory Classifications Comment :	
Ozone SIP Facility :	+
Annual Operating Report Required :	+

II. Part 2 - 1

## B. FACILITY REGULATIONS

### Rule Applicability Analysis

Not Applicable

II. Part 3a - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

## B. FACILITY REGULATIONS

### List of Applicable Regulations

Not Applicable

II. Part 3b - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

## C. FACILITY POLLUTANTS

### Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
PM	A
PM10	A
NOX	A
SO2	A
SAM	A
VOC	A
CO	A
H106	A

II. Part 4 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**D. FACILITY POLLUTANT DETAIL INFORMATION**

**Facility Pollutant Information**

Pollutant 1

1. Pollutant Emitted	PM	
2. Requested Emissions Cap :	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code :		
4. Facility Pollutant Comment :		

II. Part 4b - 1

## D. FACILITY POLLUTANT DETAIL INFORMATION

### Facility Pollutant Information

Pollutant 2

1. Pollutant Emitted PM10		
2. Requested Emissions Cap :		
	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code :		
4. Facility Pollutant Comment :		

II. Part 4b - 2

**D. FACILITY POLLUTANT DETAIL INFORMATION**

**Facility Pollutant Information**

Pollutant 3

1. Pollutant Emitted NOX
2. Requested Emissions Cap : (lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :
4. Facility Pollutant Comment :

II. Part 4b - 3



## D. FACILITY POLLUTANT DETAIL INFORMATION

**Facility Pollutant Information**

Pollutant 4

1. Pollutant Emitted	SO2
2. Requested Emissions Cap :	(lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment :	

II. Part 4b - 4

**D. FACILITY POLLUTANT DETAIL INFORMATION**

**Facility Pollutant Information**

Pollutant 5

1. Pollutant Emitted	SAM	
2. Requested Emissions Cap :	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code :		
4. Facility Pollutant Comment :		

II. Part 4b - 5

## D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information

Pollutant 6

1. Pollutant Emitted	VOC
2. Requested Emissions Cap :	(lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :	
4. Facility Pollutant Comment :	

II. Part 4b - 6

## D. FACILITY POLLUTANT DETAIL INFORMATION

### Facility Pollutant Information

Pollutant 7

1. Pollutant Emitted CO
2. Requested Emissions Cap : (lbs/hour) (tons/year)
3. Basis for Emissions Cap Code :
4. Facility Pollutant Comment :

II. Part 4b - 7

**D. FACILITY POLLUTANT DETAIL INFORMATION**

**Facility Pollutant Information**

Pollutant 8

1. Pollutant Emitted H106
2. Requested Emissions Cap : (lbs/hour) (tons/year)
3. Basis for Emissions Cap Code : —
4. Facility Pollutant Comment :

II. Part 4b - 8

## E. FACILITY SUPPLEMENTAL INFORMATION

### Supplemental Requirements for All Applications

1. Area Map Showing Facility Location :	Fig.2-1
2. Facility Plot Plan :	Fig.2-2
3. Process Flow Diagram(s) :	Fig.2-3
4. Precautions to Prevent Emissions of Unconfined Particulate Matter :	Attachment A
5. Fugitive Emissions Identification :	NA
6. Supplemental Information for Construction Permit Application :	NA

### Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities :	NA
8. List of Equipment/Activities Regulated under Title VI :	NA
9. Alternative Methods of Operation :	NA
10. Alternative Modes of Operation (Emissions Trading) :	NA
11. Identification of Additional Applicable Requirements :	NA
12. Compliance Assurance Monitoring Plan :	NA
13. Risk Management Plan Verification :	NA
14. Compliance Report and Plan :	NA
15. Compliance Certification (Hard-copy Required) :	NA

### III. EMISSIONS UNIT INFORMATION

#### A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1

Coal Handling System +

#### Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

- [ X ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- [ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

- [ X ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- [ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- [ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96





**Emissions Unit Information Section**      1  
Coal Handling System

**Emissions Unit Control Equipment**      1

1. Description :

Baghouse

2. Control Device or Method Code :      17      \*

III. Part 3 -      1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**C. EMISSIONS UNIT DETAIL INFORMATION**  
**(Regulated Emissions Units Only)**

**Emissions Unit Information Section**      1  
 Coal Handling System

**Emissions Unit Details**

1. Initial Startup Date :		
2. Long-term Reserve Shutdown Date :		
3. Package Unit :		
Manufacturer :		Model Number :
4. Generator Nameplate Rating :		MW
5. Incinerator Information :		
Dwell Temperature :		Degrees Fahrenheit
Dwell Time :		Seconds
Incinerator Afterburner Temperature :		Degrees Fahrenheit
Emissions Unit Type Code :	32 +	
Ozone SIP Base Emissions Unit :	+	

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate :		mmBtu/hr
2. Maximum Incinerator Rate :		lb/hr                      tons/day
3. Maximum Process or Throughput Rate :		7                              tons/hour
4. Maximum Production Rate :		
5. Operating Capacity Comment :		
maximum process rate of 6.5 tons/hour represents kiln #2 firing rate		

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week

52 weeks/year

7,884 hours/year

III. Part 4 - 2

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**D. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**Emissions Unit Information Section**      1  
Coal Handling System

**Rule Applicability Analysis**

Not Applicable

III. Part 6a - 1

**List of Applicable Regulations**

- 62-296.320(4)(a) Process Weight Table
- 40 CFR 60.11(b) General NSPS Requirements
- 40 CFR 60.11(c) General NSPS Requirements
- 40 CFR 60.11(d) General NSPS Requirements
- 40 CFR 60.12 General NSPS Requirements
- 40 CFR 60.19 General NSPS Requirements
- 40 CFR 60.7 General NSPS Requirements
- 40 CFR 60.8 General NSPS Requirements
- 40 CFR 60.252(c) Subpart Y
- 40 CFR 254(a)
- 40 CFR 254(b)(2)

### C. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 1

Coal Handling System

**Emission Point Description and Type :**

1. Identification of Point on Plot Plan or Flow Diagram :	EU01
2. Emission Point Type Code :	3 *
3. Descriptions of Emission Points Comprising this Emissions Unit :	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	
5. Discharge Type Code :	V
6. Stack Height :	100 feet
7. Exit Diameter :	2.00 feet
8. Exit Temperature :	77 °F *
9. Actual Volumetric Flow Rate :	12,000 acfm
10. Percent Water Vapor :	7.50 %
11. Maximum Dry Standard Flow Rate :	10,914 dscfm
12. Nonstack Emission Point Height :	feet
13. Emission Point UTM Coordinates :	
Zone :	East (km) :                      North (km) :
Good Engineering Practice Height :	+
14. Emission Point Comment :	
Percent water vapor reflects typical coal analysis	



**F. SEGMENT (PROCESS/FUEL) INFORMATION**

**Emissions Unit Information Section**      1

Coal Handling System

**Segment Description and Rate :**      Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Mineral Products; Bulk Material Conveyors; Coal	
2. Source Classification Code (SCC) :      3-05-101-03      *	
3. SCC Units :      Tons Processed	
4. Maximum Hourly Rate :      6.50	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur : Percent Sulfur Limit :      +	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96



**G. EMISSIONS UNIT POLLUTANTS  
(Regulated and Unregulated Emissions Units)**

**Emissions Unit Information Section**         1      
Coal Handling System

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM *	017 *		EL
2 - PM10 *	017 *		EL

III. Part 9a - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

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

**Emissions Unit Information Section**                      1  
Coal Handling System

**Pollutant Detail Information :**                                      Pollutant                      1

1. Pollutant Emitted :    PM                      *				
2. Total Percent Efficiency of Control :		%		
3. Potential Emissions :	0.94	lb/hour	3.69	tons/year
4. Synthetically Limited? [ ] Yes                      [ ] No				
5. Range of Estimated Fugitive/Other Emissions:   to                      tons/year				
6. Emissions Factor : Reference :    BACT of 4/8/80 Unit Code :    gr/dscf                      **				
7. Emissions Method Code :                      *				
8. Calculations of Emissions :  (10,914 dscfm x 0.01 gr/dscf)/7000 gr/lb x 60 min/hour = 3.94 lb/hour				
9. Pollutant Potential/Estimated Emissions Comment :				



Emissions Unit Information Section 1  
Coal Handling System

Pollutant Information Section 1

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER	*
2. Future Effective Date of Allowable Emissions :		
3. Requested Allowable Emissions and Units :	0.01	* gr/dscf *
Allowable Emissions Unit :		
4. Equivalent Allowable Emissions :		
	0.00 lb/hour	3.70 tons/year
5. Method of Compliance :		
EPA Method 9 Test		
Compliance Method Code :	++	Compliance Test Frequency : ++
Frequency Base Date :	+	
Regulation :		++
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :		
	Emission limit pursuant to BACT determination (4/8/80) for other baghouses associated with EU01	

III. Part 9c - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**Emissions Unit Information Section**  
Coal Handling System

1

**Pollutant Information Section**

1

**Allowable Emissions**

2

1..Basis for Allowable Emissions Code :	RULE	*		
2. Future Effective Date of Allowable Emissions :				
3. Requested Allowable Emissions and Units :	3.59	*	p <sup>0.62</sup>	*
Allowable Emissions Unit :				
4. Equivalent Allowable Emissions :				
	11.50	lb/hour	45.20	tons/year
5. Method of Compliance :				
EPA Method 9 Test				
Compliance Method Code :	++	Compliance Test Frequency :		++
Frequency Base Date :	+			
Regulation :				++
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :				
Process weight table applies by Rule 62-296.320(4)(a) to grinding processes only.				

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**Emissions Unit Information Section** \_\_\_\_\_

**Pollutant Information Section** \_\_\_\_\_

**Allowable Emissions Information Section** \_\_\_\_\_

**Test Methods**

[Empty rectangular box for Test Methods content]

III. Part 11 - 1

Effective : 3-21-96

**I. VISIBLE EMISSIONS INFORMATION**  
**(Regulated Emissions Units Only)**

**Emissions Unit Information Section**       1    
 Coal Handling System

**Visible Emissions Limitation :** Visible Emissions Limitation       1  

1. Visible Emissions Subtype :	05	*	
2. Basis for Allowable Opacity :	OTHER	*	
3. Requested Allowable Opacity :			
	Normal Conditions :		%
	Exceptional Conditions :		%
	Maximum Period of Excess Opacity Allowed :	5	min/hour
4. Method of Compliance :			
EPA Method 9			
5. Visible Emissions Comment :			
Emission limit pursuant to BACT determination (4/8/80)			
Compliance Test Frequency :	0 +	Frequency Base Date :	+
COM Required :	+		
Regulation :	++		

III. Part 10 - 1

**I. VISIBLE EMISSIONS INFORMATION  
(Regulated Emissions Units Only)**

Emissions Unit Information Section 1  
Coal Handling System

**Visible Emissions Limitation :** Visible Emissions Limitation 2

1. Visible Emissions Subtype :	20	*	
2. Basis for Allowable Opacity :	RULE	*	
3. Requested Allowable Opacity :			
	Normal Conditions :		%
	Exceptional Conditions :		%
Maximum Period of Excess Opacity Allowed :	5		min/hour
4. Method of Compliance :	EPA Method 9		
5. Visible Emissions Comment :	Coal grinding baghouse subject to 40 CFR 60 Subpart Y		
Compliance Test Frequency :	0 +	Frequency Base Date :	+
COM Required :	+		
Regulation :	+*		

III. Part 10 - 2



**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Information Section**      1    
Coal Handling System

**Continuous Monitoring System :**    Continuous Monitor      1  

1. Parameter Code :	*	2. Pollutant(s):	
3. CMS Requirement		CMS Requirement Code :	+
4. Monitor Information Manufacturer : Model Number : Serial Number			
5. Installation Date :			
6. Performance Specification Test Date :			
7. Continuous Monitor Comment : Not Applicable			
Performance Specification Test Status :		+	
Certification Date (DD-MON-YYYY) :		+	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION**

**Emissions Unit Information Section**

1

Coal Handling System

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

2. Increment Consuming for Nitrogen Dioxide?

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :			
PM :	SO2 :	NO2 :	
4. Baseline Emissions :			
PM :	lb/hour	tons/year	
SO2 :	lb/hour	tons/year	
NO2 :		tons/year	
5. PSD Comment :			
Not Applicable			

## L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

### Emissions Unit Information Section

1

Coal Handling System

### Supplemental Requirements for All Applications

1. Process Flow Diagram :	Fig.2-3
2. Fuel Analysis or Specification :	
3. Detailed Description of Control Equipment :	Attachment B
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown :	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statue :	NA

### Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

12. Identification of Additional Applicable Requirements :	NA
13. Compliance Assurance Monitoring Plan :	NA
14. Acid Rain Application (Hard-copy Required) :	
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. Part 13 - 2

METROPOLITAN DADE COUNTY, FLORIDA



BUREAU OF  
AIR REGULATION

ENVIRONMENTAL RESOURCES MANAGEMENT  
ENFORCEMENT SECTION  
33 SOUTHWEST 2nd AVENUE  
SUITE 1100  
MIAMI, FLORIDA 33130-1540  
(305) 372-6902

FEB 11 1998

RECEIVED

February 3, 1998

Richard D. Pluta, Director  
Technical Services  
Tarmac America, Inc.  
1151 Azalea Garden Road  
Norfolk, Virginia 23502

CERTIFIED MAIL NO. Z165003834  
RETURNED RECEIPT REQUESTED

Re: Tarmac, Pennsuco Portland Cement Plant located at, near, or in the vicinity of 11000 N.W. 121 Way, Medley, Florida 33178.

Enclosed you will find an original Consent Agreement for the referenced facility which was executed on February 2, 1998. Be advised that the date of execution initiates specific time frames within the Agreement with which you must comply.

If you have any questions concerning the above please contact me at 372-6902.

Sincerely,

Sharon Crabtree  
Code Enforcement Officer

cc: Jim Alves  
Mike Unger

SC:ocv

cc: J. Reynolds, BAR  
A. Unero, BAR

AGREEMENT

☞☞  
DADE COUNTY DEPARTMENT OF )  
ENVIRONMENTAL RESOURCES MANAGEMENT )  
Complainant, )  
 )  
VS. )  
Tarmac America, Inc. )  
Respondent )  
 )  
\_\_\_\_\_ )

THIS AGREEMENT, entered into by and between MIAMI-DADE COUNTY DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT (hereinafter referred to as DERM), and Tarmac America, Inc. (hereinafter referred to as Tarmac or Respondent) pursuant to Section 24-5(15)(c) Miami-Dade County Environmental Protection Ordinance, shall serve to redress the alleged violations of Section 24-55 of the Code of Miami-Dade County as set forth in a June 17, 1997 Notice of Violation and Orders for Corrective Action, concerning the site located at 11000 NW 121 Way, Medley, DADE County, Florida (Folio #30-2031-001-0030).

☞☞  
The DERM finds the following:

FINDINGS OF FACT

1. The DERM is an agency of Miami-Dade County, a political subdivision of the State of Florida which is empowered to control and prohibit pollution and protect the environment within Dade County pursuant to Article VIII, Section 6 of the Florida Constitution, the Dade County Home Rule Charter and

Section 403.182 of the Florida Statutes.

2. Tarmac is a Delaware corporation that has its principal place of business in Norfolk, Virginia. Tarmac owns and operates a portland cement manufacturing plant located in Dade County, Florida, under the authority of DEP permit no. AC 13-169901. Tarmac is currently doing business in the State of Florida and is a person within the meaning of section 403.031(5), Florida Statutes.
3. Tarmac's cement plant (Pennsuco Plant) in Dade County includes kiln # 2, a wet process, direct-fired cement kiln that originally was constructed in 1969. In wet process cement manufacture, a slurry of filtrate of crushed limerock containing between 20% and 40% moisture content is introduced into an inclined kiln for calcination into quicklime (calcium oxide) clinker by the application of high thermal energies. At Tarmac's kiln # 2, this thermal energy currently is provided primarily by the direct firing of crushed coal. Flow from the coal mill both conveys the crushed coal to the kiln and serves as the primary combustion air for the kiln.
4. On July 8, 1980 the United States Environmental Protection Agency (EPA) issued Final Determination PSD-FL-050 for proposed fuel conversions of the Pennsuco kilns 1,2 and 3 from natural gas to coal. Condition #8 of the Final Determination limited coal-fired NOx emissions from kiln # 2 to 118 lb/hr at the maximum operating rate or 4.73 lb/ton of clinker produced



at lesser operating rates. These limiting emission rates were proposed by Respondent to ensure validity of the exemption from further Prevention of Significant Deterioration (PSD) review (no net increase in emissions). The PSD permit and accompanying regulatory materials specifically contemplated the possibility, based on published emission rate information for large utility boilers and site-specific variables that could not be quantified in advance, that actual NOx emissions while firing coal could be higher than predicted. However, Tarmac produced published test data which reported that "emissions of NOx are less using coal than when using gas or oil as a fuel for cement kilns" due to the "characteristics of the flame". Also, the EPA concurred with Tarmac "that operating conditions can be found which will result in reduced emissions or at least no net increased emissions" when utilizing coal instead of gas.

5. The conversion to coal for kiln # 2 was deferred for several years, and that kiln was never converted under PSD-FL-050. On August 21, 1989 Respondent again submitted an application to the Florida Department of Environmental Regulation (FDER, now known as the Florida Department of Environmental Protection, DEP) to convert kiln # 2 to coal. In this application Respondent requested, based on NOx emission rate data associated with a dissimilar kiln, a maximum allowable NOx emission rate of 169.25 lbs/hr for kiln # 2.

6. On February 27, 1991 DEP issued Construction Permit No. AC 13-169901 (exhibit A attached) to convert kiln # 2 to coal firing. Specific Condition # 5 of said permit limited NOx emissions to 113.8 lbs/hr. Additionally Specific Condition # 12 in DEP permit no. AC 13-169901 required that after the commencement of operation while firing coal, Tarmac shall conduct NOx emissions tests every two months for up to one year. In the event that the required compliance testing resulted in NOx emissions in the range of 113.8 lbs/hr to 169.3 lbs/hr, Specific Condition #12 of said permit provided Tarmac with the opportunity to request DEP to re-evaluate BACT and consider adjustment of the NOx emissions limitations upward from 113.8 lbs/hr to a maximum of 169.3 lbs/hr. The permit stated that DEP would not initiate enforcement proceedings while evaluating an adjustment of the NOx limitation, provided Tarmac made reasonable efforts to limit air emissions.

≡

7. Tarmac did not convert kiln # 2 to coal for an extended period of time after issuance of permit no. AC 13-169901 in 1991 due to reported variabilities in demand for cement and fuel prices. Accordingly, the performance tests were delayed until coal-firing actually commenced. On April 24, 1994 Respondent initiated the bi-monthly compliance testing for a one year period ending April 1995. By letter dated July 21, 1995, Tarmac provided DEP with data from six stack emission tests performed while firing coal in kiln # 2. NOx emissions

exceeded permittable levels at every testing event. Tarmac requested in its July 21, 1995 letter to DEP that the NOx limit be re-evaluated and, based on a statistical analysis of the test results, be adjusted to 445 lbs/hour. DEP's August 24, 1995 response stated that Tarmac's request was "not representative of BACT under PSD rules and that the NOx test results were beyond the range of values for re-evaluation, set by Tarmac."

8. Thereafter, there were several discussions and exchanges of correspondence through which Tarmac, attempted to initiate DEP re-evaluation of the NOx emission limitation. DEP declined to re-evaluate the NOx emission limitation and ultimately expressed its preference that Tarmac evaluate and then implement physical improvements that would result in continuous compliance with the original NOx emission projections (113.8 lbs/hr).

9.

9. On May 28, 1996 Respondent's consulting firm submitted a plan for testing NOx emission levels using a modified coal burner nozzle installed on kiln # 2. Testing was to commence by early June 1996 and test data was to be submitted to DEP by early August 1996.

10. On October 16, 1996 DEP issued a letter to Respondent stating that DEP had not received NOx emissions testing data as stated in the May 28, 1996 letter. DEP requested that Tarmac provide

immediate assessment of the NOx emission using the modified burner nozzle. Resolution of the NOx emission violation was to be achieved by the end of 1996.

11. Resolution of the elevated NOx emissions issue was not achieved and pursuant to the FDEP/DERM air permitting delegation agreement, on April 14, 1997, FDEP referred the continuing NOx emissions violation at the subject site to DERM for follow-up enforcement action.
12. On June 17, 1997 DERM issued a Notice of Violation (NOV) and Orders for Corrective Action and Settlement for exceedances of permitted NOx emission rates. Said NOV ordered Respondent to submit a written plan detailing proposed corrective actions to ensure that the allowable limits for emissions are not exceeded.
13. Tarmac has reported that its analysis indicates that the level of NOx emissions demanded by DEP can be achieved at kiln #2 while firing coal only by developing alternatives that require very substantial expenditures, such as converting kiln # 2 to indirect firing (or other alternative technology), or modernizing its existing wet process system by converting it to employ dry process technology.
14. Tarmac has expressed a willingness to adopt whichever NOx emission reduction option is most cost-effective, taking into

consideration the age of the existing equipment and the degree of reduction in NOx and other criteria pollutant emissions achievable by each alternative. Due to the reported costs involved, the substantial preliminary engineering work required, as well as the need to design for the integration of new systems into existing operations, Tarmac has stated its need for additional time in which to select and implement its best alternative method. If no economically feasible alternative can be developed, Tarmac will cease operating kiln # 2 on coal.

15. Tarmac hereby consents to the terms of this Agreement without either admitting or denying the factual or legal allegations made by DERM in this Agreement or in the Notice of Violation and Orders for Corrective Action and Settlement; and
16. In an effort to insure continued protection of the health and safety of the public and the environment of Dade County and to insure compliance with Chapter 24, Miami-Dade County Environmental Protection Ordinance and to avoid time-consuming and costly litigation, the parties hereto stipulate and agree to the following, and it is ordered:
17. Upon execution of this Consent Agreement Respondent shall, on an interim basis, meet the NOx emission limit monthly average of 220 lbs/hr for kiln # 2 with 240 lbs/hr being the maximum limit on an instantaneous basis. This NOx emission limit shall

remain in effect until the applicable requirements set forth in paragraphs # 21, 22 or 23 of this Agreement are implemented. Respondent shall then meet NOx emission limitations for kiln # 2 as required.

18. In order to verify compliance with paragraph # 17 of this Agreement, Respondent shall install and have operational a continuous emission monitor on kiln #2 by June 1, 1998. Respondent shall obtain DERM concurrence of the system prior to installation. Until the aforementioned continuous emission monitoring system is operational, Respondent shall conduct monthly NOx emission verification testing. Additionally, beginning in July 1, 1998, respondent shall submit to DERM a written Nox emission monitoring report including the monthly Nox emissions chart from kiln #2. This report shall be due by the fifteenth of the month and shall contain the information obtained from the preceding month. The first report is due to DERM by July 15, 1998. Report submittals shall continue until the expiration of this Agreement in accordance with paragraph 38 of this Agreement.

19. On or before January 31, 1998, Respondent shall provide in writing to DERM its method for eliminating exceedances of the NOx emission limitations as stipulated in permit no. AC 13-169901 for kiln # 2. The method provided shall correspond with the applicable requirements set forth below in paragraphs 21, 22 or 23 of this Agreement.

20. If Respondent chooses to implement the requirements set forth in paragraph 22, Respondent shall submit applications by completing forms designated by agency regulations, signed by the appropriate company representative and sealed by a Florida registered professional engineer, with the appropriate fee, for the required air construction permits and/or permit modifications to the FDEP or Dade County DERM, as appropriate. Said application shall be submitted by February 15, 1998. Additional information requested by the appropriate agencies shall be provided by Respondent within fourteen (14) days of the date Respondent receives the request, unless the reviewing agency determines that additional time is necessary due to the scope of its request. If Respondent chooses to implement the requirements set forth in paragraph 23 of this Agreement, these same permitting procedures shall apply, except that the deadline for submitting the applications shall be June 30, 1998. In all cases Respondent shall diligently apply for and seek in a timely manner to obtain any other necessary approvals to perform the work within the same applicable timeframes stipulated above.

21. If Respondent relinquishes its authorization to burn coal in kiln # 2, it shall notify DEP and DERM in writing by January 31, 1998, that it surrenders permit no. AC 13-169901, and within 90 days thereafter shall cease utilizing coal, and operate kiln # 2 only on those fuels currently authorized

under DEP permit no. AO 13-238048 provided that emissions levels for NOx do not exceed the previously established RACT limitation and SO2 emissions do not exceed the current regulations.

22. Alternatively to the requirements set forth in paragraph # 21 of this Agreement, if kiln # 2 is converted to indirect firing or other DERM and DEP accepted technology that meets the NOx limits in permit no. AC 13-166901, construction shall be completed within 12 months after receiving the construction permit modifications referenced in paragraph #20, above, and any other required permits, and then Respondent shall meet the same BACT NOx emission limitations and all other emission limitations as set forth in construction permit NO. AC 13-169901.
23. Alternatively to the requirements set forth in paragraphs # 21 and # 22 of this Agreement, if the plant's manufacturing process is changed to dry process technology, construction shall be completed within 36 months after the required permits have been issued and then Respondent shall meet the permitted emission limitations.
24. Commencing at the next time at which such fees are due under DEP's regulations, Respondent shall pay to FDEP the Title V permitting fee for kiln # 2 NOx emissions based on the monthly interim average of 220 lbs/hr. This fee shall be effective



upon execution of this Consent Agreement and shall remain in effect until Respondent is in compliance with kiln # 2 permitted NOx emissions limitations.

#### SAFETY PRECAUTIONS

25. The Respondent shall maintain the subject site, during the pendency of this Agreement, in a manner which shall not pose a hazard or threat to the public at large or the environment and shall not cause a nuisance or sanitary nuisance as set forth in Chapter 24, Miami-Dade County Environmental Protection Ordinance.

#### VIOLATION OF REQUIREMENTS

26. This Agreement constitutes a lawful order of the Director of the Department of Environmental Resources Management and is enforceable in a civil or criminal court of competent jurisdiction pursuant to Chapter 24, Miami-Dade County Environmental Protection Ordinance. Violation of any requirement of the Agreement may result in enforcement action by DERM. Each violation of any of the terms and conditions of this Agreement by the Respondent shall constitute a separate offense.

SETTLEMENT COSTS

27. The Respondent hereby certifies that ~~he~~<sup>it</sup> has the financial ability to comply with the terms and conditions stipulated herein and to comply with the payments specified in this Agreement.
28. DERM has determined, that due to DERM's Administrative costs incurred to bring the subject facility into compliance and other sums recoverable pursuant to Section 24-57(e) of the Miami-Dade County Code, an environmental remediation fee of \$200,000.00 is appropriate. DERM will allow \$50,000 (25%) of the required \$200,000.00 environmental remediation fee to be used towards offsetting the costs of continuous emission monitoring equipment installation at kiln #2 (Pennsuco Plant). If for any reason Respondent fails to install the required continuous emission monitoring system Respondent shall pay DERM the full environmental remediation fee of \$200,000.00. The Respondent shall within thirty (30) days of the effective date of this Agreement, submit to DERM a certified check in the amount of \$150,000.00, for environmental remediation as set forth in Section 24-57(e) for the purpose of the enforcement of environmental laws in Dade County. The check shall be made payable to DERM and sent to the Department of Environmental Resources Management, c/o Sharon Crabtree, Suite 1100, 33 SW 2nd Avenue, Miami, Florida, 33130.

29. Except as otherwise provided under paragraph 33 below, in the event Respondent fails to submit, modify, implement, obtain, provide, operate, comply and or complete those items listed in paragraphs 17,18,19,20,21,22 or 23 (as applicable) herein, the Respondent shall pay DERM a civil penalty of one hundred dollars (\$100.00) per day for each day of non-compliance and the Respondent shall be subject to enforcement action in a civil or criminal court of competent jurisdiction for such failure pursuant to the provisions set forth in Chapter 24, Miami-Dade County Environmental Protection Ordinance. Said payment shall be made by Respondent to DERM within ten (10) days of receipt of written notification and shall be sent to the Department of Environmental Resources Management, c/o Sharon Crabtree, at 33 S.W. 2nd Avenue, Miami, Florida 33130.

#### GENERAL PROVISIONS

30. Respondent shall allow authorized representatives of DERM access to the property at reasonable times for purposes of determining compliance with this Consent Agreement and the rules and regulations set forth in Chapter 24, Miami-Dade County Environmental Protection Ordinance.

31. The DERM expressly reserves the right to initiate appropriate legal action to prevent or prohibit the future violations of applicable statutes or the rules promulgated thereunder.

32. Entry into this Consent Agreement does not relieve Respondent of the responsibility to comply with applicable federal, state or local laws, regulations and ordinances.

33. If any event occurs which causes delay, or the reasonable likelihood of delay, in complying with the requirements or deadlines of this Agreement, Respondent shall have the burden of demonstrating to DERM, that the delay was, or will be, caused by circumstances beyond the control of Respondent. Upon occurrence of the event(s) causing delay, or upon becoming aware of a potential for delay, Respondent shall promptly notify DERM orally within twenty four (24) hours and shall, within five (5) days of oral notification to the DERM, notify DERM in writing of the anticipated length and cause of the delay, the measures taken or to be taken to prevent or minimize the delay, and the timetable by which Respondent intends to implement these measures. If DERM determines that the delay has been or will be caused by circumstances beyond the reasonable control of Respondent, the time for performance hereunder shall be extended for as reasonable a period as may be determined based on such circumstances. Excessive Emissions pursuant to Florida Administrative Code (F.A.C.) 62-210.700 may be considered a reasonable delay in emissions compliance with this Agreement provided Respondent complies with the requirements of this paragraph. The Respondent shall adopt all reasonable measures necessary to avoid or minimize delay.

Failure of Respondent to comply with the notice requirements of this paragraph in a timely manner shall constitute a waiver of Respondent's right to request an extension of time for compliance with the requirements or deadlines of this Agreement.

34. This Agreement shall neither be evidence of a violation of this Chapter or other environmental laws nor shall it be deemed to impose any limitation upon any investigation or action by DERM in the enforcement of Chapter 24, Miami-Dade County Environmental Protection Ordinance.
35. In consideration of the complete and timely performance by the Respondent of the obligations contained in the Agreement, DERM waives its rights to seek judicial imposition of damages or criminal or civil penalties for the matters alleged in this Agreement and the June 17, 1997 Notice of Violations and Orders for Correction Action.
36. This Agreement shall become effective upon the date of execution by the Director, Environmental Resources Management.
37. This Agreement shall expire upon written concurrence by The DERM, at such time as Respondent ceases to utilize coal in kiln #2 and has shown to be in compliance with paragraph 21 of this agreement or files with DEP and DERM a certificate of compliance documenting that it has commenced commercial

operation and has shown to be in compliance with the prescribed requirements of paragraphs 22 or 23.

11

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1

STATE OF VIRGINIA  
CITY OF NORFOLK

1-30-98

*[Handwritten signature]*

Date

John D. Carr, President  
Tarmac America, Inc.

BEFORE ME, the undersigned authority, personally appeared

JOHN D. CARR who after being duly sworn, deposes and says that he has read and agrees to the foregoing.

Sworn to and subscribed before me this 30th day of

January, 1998 by

JOHN D. CARR  
(name of affiant)

Personally Known  or Produced Identification   
(Check one)

Type of Identification Produced: \_\_\_\_\_

My Commission Expires August 31, 1999

*[Handwritten signature]*  
Notary Public

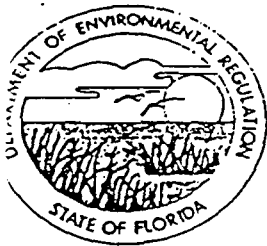
2-2-98  
Date

*[Handwritten signature]*  
John W. Renfrow, P.E., Director  
Environmental Resources Management

*[Handwritten signature]*  
Witness

*[Handwritten signature]*  
Witness

DERM  
Complainant  
VS.  
Tarmac America, Inc.  
Respondent



# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:  
Tarmac Florida, Inc.  
P. O. Box 2998  
Hialeah, Florida 33012

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992  
County: Dade  
Latitude/Longitude: 25°52'30"N  
80°22'30"W  
Project: Kiln No. 2 Coal Conversion

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code 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 conversion of kiln No. 2 to coal firing. The project will be located at the permittee's existing facility in Medley, Dade County, Florida. The UTM coordinates are Zone 17, 562.8 km East and 2861.7 km North.

The source shall be constructed 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. Application to construct received September 5, 1989.
2. DER's letter of incompleteness dated October 4, 1989.
3. EPA's letter dated October 18, 1989.
4. KBN's response (to incompleteness letter) dated November 13, 1989.
5. Dade County DERM's letter dated November 17, 1989.
6. EPA's letter dated December 13, 1989.
7. KBN's letter dated December 21, 1989.
8. KBN's letter dated January 15, 1990.
9. KBN's letter dated January 30, 1990.
10. EPA's letter dated March 20, 1990.
11. EPA's letter dated April 13, 1990.
12. Dade County DERM's letter dated April 30, 1990.
13. NPS's letter dated May 30, 1990.



PERMITTEE:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142

Expiration Date: June 30, 1992

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:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

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 construction and operation of the subject modification of kiln No. 2 shall be in accordance with the capacities and specifications stated in the application.
2. The maximum clinker production rate of kiln No. 2 shall not exceed 25 tons per hour and 197,100 tons per year. Kiln No. 2 shall operate only on coal firing for up to 7,884 hours per year at a maximum firing rate of 162.5 MMBtu per hour. The coal used for firing kiln No. 2 shall have a maximum sulfur content of 2.0 percent by weight, with the rolling 30-day average sulfur content not exceeding 1.75 percent by weight.
3. Sulfur dioxide emissions from kiln No. 2 shall not exceed 7.8 lbs/ton of clinker produced, 195.0 lbs/hr, 768.7 tons/yr.

PERMITTEE:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

**SPECIFIC CONDITIONS:**

of 5.86 to 8.25 lbs/hr (up to 0.33 lbs/ton clinker, 32.52 TPY), the Department, if requested by the permittee, shall re-evaluate BACT and consider upward adjustments of the emission limitations for the indicated constituents based on available data. During this testing and evaluation period, the permittee shall make reasonable efforts to limit air emissions, and the Department shall not initiate enforcement proceedings. Any upward adjustment of emission limitations pursuant to this paragraph shall be the subject of public notice in a local newspaper pursuant to Department rules. The Department's determination based on the data produced under this paragraph shall be a point of entry for purposes of Section 120.57, Florida Statutes.

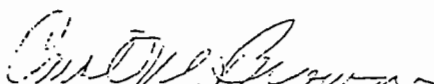
13. The compliance tests shall be conducted within 30 days after operation on coal begins. The Department's Southeast District office and the Dade County Department of Environmental Resources Management (DCDERM) shall be notified in writing at least 15 days prior to source testing and at least 5 days prior to initial startup. Written reports of the tests shall be submitted to those offices within 45 days of test completion.

14. 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).

15. An application for an operation permit must be submitted to the Department's Southeast District office and the DCDERM 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 25 day  
of September, 1991

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
\_\_\_\_\_  
Carol M. Browner, Secretary

JR  
Kien # 2



RECEIVED



JUN 24 1997

BUREAU OF  
AIR REGULATION

June 17, 1997

ENVIRONMENTAL RESOURCES MANAGEMENT  
ENFORCEMENT SECTION  
33 SOUTHWEST 2nd AVENUE  
SUITE 1100  
MIAMI, FLORIDA 33130-1540  
(305) 372-6902

John D. Carr, President  
Tarmac Florida, Inc.  
1151 Azalea Garden Rd.  
Norfolk, Va. 23502

CERTIFIED MAIL NO:P333150717  
RETURN RECEIPT REQUESTED

Michael R. Kane, Vice President  
Tarmac Florida, Inc.  
11000 NW 121 Way  
Medley, FL 33178

CERTIFIED MAIL NO:P333150723  
RETURN RECEIPT REQUESTED

RE: Exceedances of permitted emissions at Tarmac/  
Pennsuko portland Cement plant located at, near or in  
the vicinity of 11000 NW 121 Way, Medley, Florida,  
33178.

Dear Messrs Carr and Kane:

NOTICE OF VIOLATION  
AND  
ORDERS FOR CORRECTIVE ACTION AND SETTLEMENT

A departmental review of reports for emission tests conducted  
on May 31, 1995 and December 17-20, 1996 revealed exceedances  
of allowable pollutants as follows:

<u>Test Date</u>	<u>Emission Unit</u>	<u>Pollutant Test</u>	<u>Result</u>	<u>Allowable Emissions</u>
5/31/95	kiln #2	Nitrogen Oxide	328.4 lbs/hr	113.8 lbs/hr
12/17/96	cooler #3	Particulate Matter	0.49 lbs/ton	0.1 lbs/ton
12/18/96	cooler #2	Particulate Matter	41.99 lbs/hr	23.71 lbs/hr
12/18/96	kiln #2	Particulate Matter	20.46 lbs/hr	14.40 lbs/hr
12/18/96	kiln #2	Nitrogen Oxide	307.2lbs/hr	113.8 lbs/hr
12/19/96	kiln #3	Sulfur Dioxide	6.98 lbs/ton	4.6 lbs/ton

Additionally, you have failed to submit the 1995 Annual  
Operating Report (AOR) for the referenced facility.

Be advised that the above constitute violations of the  
facility's Annual Operating Permits # AP-00604 and #AP-00368

issued by the Department of Environmental Resources Management (DERM) and specific conditions 5 and 8 of the Construction Permit AC 13-169901 and specific conditions 2 and 7 of the Operating Permit AO 13-238048 issued by the Florida Department of Environmental Protection (DEP).

Furthermore, said operations constitute violations of Section 62-296.320, 62-296.407 and 62-297.415 of the Florida Administrative Code and Sections 24-35.1, 24-54 and 24-55 of the Metropolitan Dade County Environmental Protection Ordinance.

Based on the above, and pursuant to the authority granted to me under Chapter 24, I am ordering you to submit to this Department the following items within thirty (30) days of receipt of this Notice:

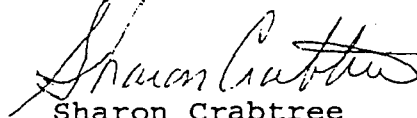
- (1) A complete written plan detailing proposed corrective actions to ensure that the allowable limits for emissions are not exceeded.

Be further advised that the above-referenced violations are subject to mandatory civil penalties which have been calculated at the amount of one hundred ninety two thousand dollars (\$192,000). This case penalty calculation represents a settlement offer which shall remain open for thirty (30) days from your receipt of this letter.

Failure to resolve this matter within the thirty (30) day time period may result in this case being referred to the Office of the County Attorney for further enforcement action in a court of competent jurisdiction.

If you have any questions regarding the above please contact this office at (305) 372-6902 or the Air Facilities Section at (305) 372-6925.

Sincerely,



Sharon Crabtree  
Code Enforcement Officer

CC: A.A. Linero, DEP  
CC: Tom Tittle, DEP  
CC: Albert Townsend, Tarmac PBC  
SC:kjb



Tarmac America, Inc.

455 Fairway Drive  
Deerfield Beach, FL 33441

Telephone: 305.481.2800  
Facsimile: 305.480.9352

CERTIFIED MAIL - RRR  
Z 056 630 740

17 July 1995

Ms. Stephanie Brooks, P.E.  
Air Resources Management  
Fla. Dept. Of Environmental Regulation  
P.O. Box 15425  
W. Palm Beach, Florida 33416

RECEIVED

JUL 24 1995

Bureau of  
Air Regulation

RE: Pennsuco Cement Plant  
Dade County - AP  
Kiln No. 2 Coal Conversion  
FDEP Permit No. AC13-169901

Dear Ms. Brooks:

Please find enclosed stack a emission test report in accordance with the test protocol specified in the above referenced permit. The protocol required a series of compliance tests every two months for one year and the enclosed test conducted on May 31, 1995 is the last in that series. The table below summarizes the series test results.

Test Date	Clinker Production	Sulfur Dioxide	Sulfuric Acid Mist	Nitrogen Oxides	Carbon Monoxide	VOC's	Particulate Matter	PM10
4/26-27/94	24.08	0.36	0.07	417.32	9.73	1.00	13.26	11.27
6/28-29/94	23.80	48.85	*	279.08	-	-	-	-
8/31/94	19.30	7.89	3.60	204.53	-	-	-	-
10/27-28/94	24.7	5.94	*	287.92	-	-	-	-
1/3/95	23.0	0.77	0.91	335.71	-	-	-	-
5/31/95	24.0	4.43	2.27	328.4	-	-	-	-
AVERAGE	23.15	11.37	1.71	308.83	9.73	1.00	13.26	11.27

[all test results in lbs/hr]

\* interference problems - see report

Copies of this letter and the enclosed test reports have been forwarded to the DERM. In accordance with the permit protocol, a request will be prepared and submitted for modification of the emission

Ms. Stephanie Brooks  
Fla. Dept. of Environmental Protection

RE: Pennsuco Cement Plant  
Kiln No. 2 Coal Conversion

17 July 1995

Page -2-

limits for NO<sub>x</sub> and SO<sub>2</sub> relative to the test results. Should you have any questions at this time regarding the enclosed reports please call me at (800) 330-3380 x4165.

Sincerely,



Scott Quaas  
Environmental Manager  
Technical Services-Florida Region

cc: A. Townsend  
R. Pluta  
E. Anderson - DERM  
C. Fancy - FDEP, Tallahassee ✓



# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:  
Tarmac Florida, Inc.  
P. O. Box 2998  
Hialeah, Florida 33012

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992  
County: Dade  
Latitude/Longitude: 25°52'30"N  
80°22'30"W  
Project: Kiln No. 2 Coal Conversion

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code 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 conversion of kiln No. 2 to coal firing. The project will be located at the permittee's existing facility in Medley, Dade County, Florida. The UTM coordinates are Zone 17, 562.8 km East and 2861.7 km North.

The source shall be constructed 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. Application to construct received September 5, 1989.
2. DER's letter of incompleteness dated October 4, 1989.
3. EPA's letter dated October 18, 1989.
4. KBN's response (to incompleteness letter) dated November 13, 1989.
5. Dade County DERM's letter dated November 17, 1989.
6. EPA's letter dated December 13, 1989.
7. KBN's letter dated December 21, 1989.
8. KBN's letter dated January 15, 1990.
9. KBN's letter dated January 30, 1990.
10. EPA's letter dated March 20, 1990.
11. EPA's letter dated April 13, 1990.
12. Dade County DERM's letter dated April 30, 1990.
13. NPS's letter dated May 30, 1990.



PERMITTEE:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

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:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

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:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

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 prescribed 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 a Determination of Best Available Control Technology (BACT) and Determination of Prevention of Significant Deterioration (PSD).

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:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

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 construction and operation of the subject modification of kiln No. 2 shall be in accordance with the capacities and specifications stated in the application.
2. The maximum clinker production rate of kiln No. 2 shall not exceed 25 tons per hour and 197,100 tons per year. Kiln No. 2 shall operate only on coal firing for up to 7,884 hours per year at a maximum firing rate of 162.5 MMBtu per hour. The coal used for firing kiln No. 2 shall have a maximum sulfur content of 2.0 percent by weight, with the rolling 30-day average sulfur content not exceeding 1.75 percent by weight.
3. Sulfur dioxide emissions from kiln No. 2 shall not exceed 7.8 lbs/ton of clinker produced, 195.0 lbs/hr, 768.7 tons/yr.

PERMITTEE:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

SPECIFIC CONDITIONS:

4. Sulfuric acid mist emissions from kiln No. 2 shall not exceed 0.23 lb/ton of clinker produced, 5.86 lbs/hr, 23.06 tons/yr.
5. Nitrogen oxides emissions from kiln No. 2 shall not exceed 4.55 lbs/ton of clinker produced, 113.8 lbs/hr, 448.4 tons/yr.
6. Carbon monoxide emissions from kiln No. 2 shall not exceed 346 lbs/hr, 1363.9 tons/yr.
7. VOC emissions from kiln No. 2 shall not exceed 28.8 lbs/hr, 113.5 tons/yr.
8. Particulate matter emissions from kiln No. 2 shall not exceed 14.40 lbs/hr, 56.76 tons/yr.
9. PM<sub>10</sub> emissions from kiln No. 2 shall not exceed 12.24 lbs/hr, 48.25 tons/yr. Compliance for PM<sub>10</sub> shall be determined by applying a factor of 0.85 to the measured particulate matter emissions.
10. All reasonable precautions that apply under F.A.C. Rule 17-2.610(3) shall be implemented to limit unconfined emissions of particulate matter from any activity associated with this project. Adequate watering of the coal pile area shall be conducted whenever visible emissions occur in that area. The frequency of watering shall be no more than every half hour.
11. Initial and annual compliance tests shall be conducted using the following test methods:
  - EPA Method 5 for particulate matter
  - EPA Method 7 for nitrogen oxides
  - EPA Method 8 for sulfur dioxide and acid mist
  - EPA Method 25 for VOC
  - EPA Method 10 for carbon monoxide
12. Tarmac shall conduct a series of compliance tests for SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub> mist, and NO<sub>x</sub> emissions every two months for up to one year to allow representative sampling during different times of the year. The tests shall be performed in accordance with the compliance test methods specified in this permit. In the event that this series of tests results in SO<sub>2</sub> emissions in the range of 195 to 275 lbs/hr (up to 11 lbs/ton clinker, 1,084.1 TPY), NO<sub>x</sub> emissions in the range of 113.8 to 169.3 lbs/hr (up to 6.77 lbs/ton clinker, 667.2 TPY), or H<sub>2</sub>SO<sub>4</sub> mist emissions in the range

PERMITTEE:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

SPECIFIC CONDITIONS:

of 5.86 to 8.25 lbs/hr (up to 0.33 lbs/ton clinker, 32.52 TPY), the Department, if requested by the permittee, shall re-evaluate BACT and consider upward adjustments of the emission limitations for the indicated constituents based on available data. During this testing and evaluation period, the permittee shall make reasonable efforts to limit air emissions, and the Department shall not initiate enforcement proceedings. Any upward adjustment of emission limitations pursuant to this paragraph shall be the subject of public notice in a local newspaper pursuant to Department rules. The Department's determination based on the data produced under this paragraph shall be a point of entry for purposes of Section 120.57, Florida Statutes.

13. The compliance tests shall be conducted within 30 days after operation on coal begins. The Department's Southeast District office and the Dade County Department of Environmental Resources Management (DCDERM) shall be notified in writing at least 15 days prior to source testing and at least 5 days prior to initial startup. Written reports of the tests shall be submitted to those offices within 45 days of test completion.

14. 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).

15. An application for an operation permit must be submitted to the Department's Southeast District office and the DCDERM 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 25 day  
of February, 1991

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
\_\_\_\_\_  
Carol M. Browner, Secretary

Best Available Control Technology (BACT) Determination  
Tarmac Florida, Inc.  
Dade County

The applicant proposes to convert an existing natural gas/No. 6 fuel oil kiln to coal firing at their portland cement manufacturing plant in northwest Dade County. The kiln (No. 2) is one of three cement kilns at the facility. Each of the kilns was permitted to convert to coal in 1984, however kiln No. 2 was never converted. In addition, it is expected that the permit limit that was established for sulfur dioxide is not adequate based on experience with burning coal in kiln No. 3.

The applicant has indicated the maximum net total annual tonnage of regulated air pollutants emitted from the fuel conversion project based on 197,100 tons per year clinker production to be as follows:

<u>Pollutant</u>	<u>Max. Net Increase in Emissions (TPY)</u>	<u>PSD Significant Emission Rate (TPY)</u>
TSP	18.6	25
PM <sub>10</sub>	14.8	15
SO <sub>2</sub>	1,563	40
NO <sub>x</sub>	270.5	40
CO	98.1	100
VOC	39.8	40
Pb	1.46	0.6
H <sub>2</sub> SO <sub>4</sub> Mist	46.9	7
Be	0.03	0.0004

Rule 17-2.500(2)(f)(3) of the Florida Administrative Code (F.A.C.) requires a BACT review for all regulated pollutants emitted in an amount equal to or greater than the significant emission rates listed in the previous table.

BACT Determination Requested by the Applicant

<u>Pollutant</u>	<u>Determination</u>
SO <sub>2</sub>	16.0 lb/ton of clinker
H <sub>2</sub> SO <sub>4</sub> Mist	0.48 lb/ton of clinker
NO <sub>x</sub>	8.02 lb/ton of clinker

Date of Receipt of a BACT Application

September 5, 1989

Review Group Members

This determination was based upon comments received from the applicant and the Permitting and Standards Section.

### BACT Determination Procedure

In accordance with Florida Administrative Code Chapter 17-2, Air Pollution, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

### BACT Analysis

A review of the BACT/LAER clearinghouse for portland cement manufacturing facilities indicates a wide range of SO<sub>2</sub> limitations. The BACT determinations have been established in terms of percent reduction, mass emissions per ton of feed, per ton of product (clinker), and per unit of time (hour). In some cases determinations have been expressed in terms of pounds per million Btu heat input, or parts per million.



For percent SO<sub>2</sub> reduction BACT determinations have ranged from a low of 20 percent to a high of 90 percent for coal fired facilities.

For mass emissions as a function of heat input, previous BACT determinations from coal fired facilities range from 0.488 to 2.41 pounds per million Btu. Although the BACT/LAER Clearinghouse has several determinations which have been expressed in terms of throughput (lbs/ton), it is not clear as to whether or not the emissions rate given is based on raw materials, feed or clinker produced. As this is the case, these determinations will not be used in evaluating the proposed emission rate of 16 pounds per ton of clinker produced.

The applicant has proposed a SO<sub>2</sub> emission rate of 400 lbs/hr (16 lb/ton of clinker). This emission is based on an inherent removal efficiency of 36 percent, considering that the coal for firing the kiln will have a maximum sulfur content of 2.0 percent. Taking into consideration the kiln's maximum heat input of 162.5 MMBtu/hr, the proposed emission rate can also be equated to 2.46 lb/MMBtu.

The proposed SO<sub>2</sub> emission rate reduction can be compared to previous BACT determinations as follows:

Previous BACT Determinations			
Basis	Least Stringent	Most Stringent	Applicant's Proposal
Percent SO <sub>2</sub> Reduction	20	90	36
lbs/MMBtu	2.41	0.488	2.46

A review of the SO<sub>2</sub> emission rate/reduction summary indicates that the applicant's proposal is not representative of what BACT should be in terms of pounds emitted per million Btu heat input and is marginal for percent SO<sub>2</sub> reduction. In fact, the least stringent BACT determinations (20% reduction and 2.41 lb/MMBtu) were established for a source which was permitted in 1981 and is not representative of today's "top down" BACT evaluations.

The sulfur dioxide emissions from coal fired portland cement production facilities can be reduced or controlled by restricting the coal's sulfur content, add on control equipment, and inherent removal attributed to the limestone feed which is dependent upon the kiln's design.

Several of the more stringent BACT determinations have been based on the use of low sulfur coal, with the lowest level indicated being 0.8 percent. In other cases the determinations have established that control be achieved by using lime injection and/or fabric filters as BACT, or have based BACT on the inherent SO<sub>2</sub> removal that is provided only by the limestone component of the feed to produce clinker. Each of these alternatives will be evaluated in greater detail below.

The applicant has proposed to use coal with a sulfur content not to exceed 1.75 percent on a monthly average with the maximum sulfur content not to exceed 2.0 percent. Given these maximums, a cost/benefit analysis of switching to a lower sulfur content coal can be conducted. The applicant has indicated that the cost of switching to coal with a sulfur content of 1.5 and 1.0 percent would be an additional \$3.80 and \$4.90 per ton of coal, respectively. Given the sulfur dioxide reductions that would be achieved using the lower sulfur coals the costs per ton of SO<sub>2</sub> controlled would be \$1,784 and \$983 for 1.5 and 1.0 percent sulfur coal, respectively. Each of these costs is below the New Source Performance Standard (NSPS) guideline of \$2,000 per ton of SO<sub>2</sub> controlled that is used for establishing NSPS.

Several of the portland cement manufacturing facilities listed in the BACT/LAER Clearinghouse achieve part of the overall SO<sub>2</sub> control by using a baghouse as the particulate control device. The applicant stated that a baghouse would inherently provide greater removal (in the range of 20 to 45 percent) than the proposed ESP due to the filter cake formed on the bags. The clearinghouse lists some facilities in which the level of control has been additionally enhanced by incorporating lime/limestone injection.

The applicant has indicated that the additional removal which might be obtained from using a baghouse does not warrant the expense. In 1983 dollars, the cost of purchasing and operating a baghouse is estimated to be 1.9 million and 0.6 million, respectively. These costs are not justified since an efficient particulate control device (ESP) is already in place.

The BACT/LAER Clearinghouse lists facilities that provide SO<sub>2</sub> reductions up to 90 percent based on the inherent control that is provided only by the alkaline content of the cement dust and the particulate control device. The applicant stated that the proposed inherent SO<sub>2</sub> removal efficiency of 36 percent is based upon experience with burning coal in kiln No. 3. Testing of kiln No. 3 has shown an average SO<sub>2</sub> removal efficiency of approximately 75 percent. The applicant does not expect the same efficiency, however, for kiln No. 2 since kiln No. 2 is smaller, shorter, and less energy efficient. Being shorter, the applicant states that there would be less retention time of the gases in the kiln, thereby having less time for absorption into the

clinker. In addition, the operating conditions (temperature, excess air, etc.) may be different in kiln No. 2 than kiln No. 3. As a result, the inherent SO<sub>2</sub> removal efficiency is expected to be less than that achieved in kiln No. 3 and is proposed to be 36 percent.

The applicant has indicated that the amount of sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) emissions will be equivalent to approximately 3 percent of the SO<sub>2</sub> emissions. As this is the case, BACT for H<sub>2</sub>SO<sub>4</sub> will be established at 3 percent of the BACT emission limit for SO<sub>2</sub>.

Like SO<sub>2</sub>, a review of the BACT/LAER Clearinghouse indicates a wide range of limitations for nitrogen oxides. For NO<sub>x</sub>, previous BACT determinations have been established in terms of pounds emitted per ton of feed, pounds per million Btu heat input and parts per million.

In terms of pounds per ton of feed, previous BACT determinations for NO<sub>x</sub> range from a low of 1.6 pounds to a high of 2.9 pounds. For BACTs that were expressed as pounds per million Btu heat input, the clearinghouse indicates a range of 0.32 to 0.7 lb/MMBtu.

The applicant has proposed a NO<sub>x</sub> emission rate of 169.3 lb/hr. Taking into consideration the kiln's raw material feed rate of 81,000 lb/hr and heat input of 162.5 MMBtu/hr, the proposed emission rate equates to 4.2 lb/ton of feed and 1.04 lb/MMBtu, respectively.

The proposed NO<sub>x</sub> emission rate can be compared to previous BACT determinations as follows:

#### Previous BACT Determinations

<u>Basis</u>	<u>Least Stringent</u>	<u>Most Stringent</u>	<u>Applicant's Proposal</u>
lbs/ton feed	2.9	1.6	4.2
lb/MMBtu	0.7	0.32	1.04

A review of the NO<sub>x</sub> emission rate summary indicates that the applicant's proposal is not representative of what BACT should be both in terms of pounds emitted per ton of feed and pounds emitted per million Btu heat input. Here again, the least stringent of these BACT determinations were established for sources which were permitted several years ago, and hence is not representative of today's "top down" BACT evaluation.

The emissions of nitrogen oxides result from the oxidation of nitrogen in the fuel (fuel NO<sub>x</sub>) as well as in incoming combustion air (thermal NO<sub>x</sub>). Based on these principles, the formation of NO<sub>x</sub> is dependent upon the type of fuel, its nitrogen content, and the combustion parameters of the kiln. Although cement kilns are

limited as to what can be done to limit NOx emissions, previous BACT determinations indicate that most, if not all, facilities are controlling NOx emissions to levels which are lower than proposed by the applicant.

### Environmental Impact Analysis

A review of the maximum ambient impacts associated with the coal conversion of kiln No. 2 indicates that the increase in SO<sub>2</sub> emissions will contribute significantly to the present background concentrations. Based on the applicant's proposal for BACT, the impacts associated with the increase in SO<sub>2</sub> emissions are estimated to be 162 ug/m<sup>3</sup>, 3-hour; 54 ug/m<sup>3</sup>, 24-hour; and 3.6 ug/m<sup>3</sup>, annual average. These impacts are well in excess of the present background concentrations of 15 ug/m<sup>3</sup>, 3-hour; 8 ug/m<sup>3</sup>, 24-hour; and 3 ug/m<sup>3</sup>, annual average.

Based on this impact review, the Department has determined that Tarmac's proposal to convert kiln No. 2 to coal firing has the potential to contribute substantially to the SO<sub>2</sub> concentration in that area. As this is the case, the Department believes that a BACT determination which would reduce the proposed SO<sub>2</sub> impacts is justified. Although BACT has also been required for NOx emissions, the maximum annual impact associated with the conversion of kiln No. 2 is below the significant impact level of 1.0 ug/m<sup>3</sup>. As this is the case, the increase in NOx impact due to the proposal will not be a major factor in the BACT determination.

In addition to the increased emissions of criteria pollutants, the conversion to coal has the potential to generate hazardous air pollutants which are not associated with oil firing. These pollutants (zinc, phenol, and pyridine) should be controlled to some degree by the existing control equipment, and hence should not have an effect on the BACT determination. The conversion may also result in increases of other noncriteria pollutants. Here again, these increases would be minimal and would not affect the BACT determination.

### Potential Sensitive Concerns

The applicant has indicated that any level of control which would result in higher costs to the facility such as switching to a lower sulfur content coal would affect the company's ability to be competitive with other cement suppliers. For example, the additional cost of switching to a coal with a 1.5 or 1.0 percent sulfur content would increase the cost of production by 8 and 9%, respectively. This would limit Tarmac's ability to be competitive with other cement manufacturers since Tarmac is currently just marginally competitive in this industry. In addition, Tarmac as well as other domestic cement producers, competitiveness is being currently strained by the importing of cement from Mexico.

Since 1983, Mexican producers have been importing gray portland cement and cement clinker into Arizona, New Mexico, Texas, and Florida. This cement, which has been allegedly sold at less than fair value and in some cases below production costs, has led to decreased sales by domestic producers, and resulted in the closure of 2 cement plants in Florida. As this is the case, any control measures that result in higher production costs would be economically burdensome to the applicant.

#### BACT Determination by DER

#### Discussion

Based on the information provided by the applicant and the studies conducted as part of the Department's review, the levels of control proposed by the applicant are not representative of BACT.

For sulfur dioxide the level of control proposed by the applicant (36% control and 2.46 lb/MMBtu) is only equivalent at best to the least stringent BACT determinations for other portland cement manufacturing facilities. Although the Department recognizes the economic hardship that could result from switching to a lower sulfur coal, there is evidence to suggest that a lower SO<sub>2</sub> emission rate can be achieved without switching.

In 1984 Tarmac applied for and received a modification of their 1980 federal Prevention of Significant Deterioration (PSD) permit to convert kiln Nos. 1, 2, and 3 to coal firing. An excerpt from the BACT determination for that PSD permit provides information on the expected level of control as follows:

"The applicant submitted test data while firing residual oil containing 2.38 percent sulfur to determine kiln product absorption of SO<sub>2</sub>. The data indicated that 91.3% of the potential SO<sub>2</sub> was absorbed by the aggregate processed in kiln Nos. 1 and 2 and 98.7% in kiln No. 3. A BACT determination was made based upon the applicant's data.

After one of the kilns [kiln 3] had been converted to fire coal, the exhaust gases were tested for SO<sub>2</sub> content. The data indicated the absorption of SO<sub>2</sub> in the kiln product was 75 to 80 percent, not the reduction originally anticipated. The coal fired in the kiln during the test contained two percent sulfur."

This information indicates that for kiln No. 3 the efficiency of SO<sub>2</sub> absorption decreased by a maximum of 24 percent when coal was fired instead of residual oil. Although the data indicate that the efficiency of absorption was higher for kiln No. 3 (98.7% for kiln No. 3 compared to 91.3% for kiln Nos. 1 and 2) when firing residual oil, it is expected that the differential efficiency

decrease for firing coal instead of residual oil should be similar for all three kilns. Based on this the expected efficiency of SO<sub>2</sub> absorption when firing coal would be a minimum of 69.4% instead of the proposed 36 percent for kiln 2.

A sulfur dioxide reduction of 69.4 percent is more representative of previous BACT determinations. In terms of pounds emitted per heat input, a 69.4 percent reduction equates to 1.18 lb/MMBtu which also better represents BACT. In addition, 1.18 lb/MMBtu is consistent with the New Source Performance Standard (NSPS) for fuel burning equipment of similar size. For coal fired industrial-commercial-institutional steam generating units with heat input capacities between 100 and 250 million Btu per hour the least stringent NSPS requires that SO<sub>2</sub> emissions not exceed 1.2 lb/MMBtu.

For nitrogen oxides the level of control proposed by the applicant also exceeds what has been previously established as BACT. Here again, the Department believes that there is evidence to suggest that cement kilns can meet a lower than proposed emission limitation.

Taking into consideration the applicant's proposed NO<sub>x</sub> emission rate of 169.3 lb/hr with the proposed clinker production rate of 25 tons per hour, the NO<sub>x</sub> emissions are equivalent to 6.77 pounds per ton of clinker produced. This level greatly exceeds the uncontrolled NO<sub>x</sub> emission factor of 2.8 lb/ton of clinker that is given in EPA AP-42 for both dry and wet process kilns.

The AP-42 emission factor, equivalent to 1.74 lb/ton of feed, is more representative of previous BACT determinations. In terms of heat input, the AP-42 emission factor equates to 0.43 lb/MMBtu. This emission level is within the range of previous BACT determinations, though it is on the stringent side.

By comparison, the least stringent NSPS for NO<sub>x</sub> from coal fired (except lignite) industrial-commercial-institutional steam generating units is 0.70 lb/MMBtu. This level, equivalent to a 2.84 lb/ton of feed for the Tarmac facility is representative of the least stringent BACT determination both in terms of emission per ton of feed and lb/MMBtu. As this is the case, this level (0.7 lb/MMBtu) does not appear to be unreasonable as BACT for the Tarmac facility.

### Conclusion

Based on the information presented, the Department has determined that BACT for the Tarmac facility is equivalent to limiting the sulfur dioxide and nitrogen oxide emissions to the least stringent NSPS for coal fired industrial-commercial-institutional steam generating units. This decision is consistent with the requirements that all BACT determinations be at least as

stringent as any applicable NSPS. Although kilns are not steam generating units, emission limitations for fuel burning equipment should be consistent where possible. As this is the case, an emission limitation based on the least stringent NSPS limitation for another type of coal fired equipment is judged to be reasonable as a "top-down" BACT determination. In fact, any emission limitation which would exceed the least stringent NSPS would be judged to be unrepresentative of today's "top-down" BACT procedure.

The Department has determined that these levels are consistent with previous BACT determinations for portland cement manufacturing facilities and the information available suggests that these levels are reasonable for the Tarmac facility. The BACT emission levels are thus established as follows:

<u>Pollutant</u>	<u>Emission Limit</u>	<u>Equivalent Limit</u>
SO <sub>2</sub>	1.20 lb/MMBtu	7.80 lbs/ton of clinker produced
NO <sub>x</sub>	0.70 lb/MMBtu	4.55 lbs/ton of clinker produced
H <sub>2</sub> SO <sub>4</sub> Mist	0.036 lb/MMBtu	0.23 lbs/ton of clinker produced

In accordance with the Department's Final Order issued on December 7, 1990, (DOAH Case No. 90-3852, OGC File No. 90-0954), appended hereto is Attachment A reflecting the amount and percentage of SO<sub>2</sub> increment consumed in Class I and Class II areas in conjunction with SO<sub>2</sub> emission rates of 195 lbs/hr and 275 lbs/hr, respectively.

Details of the Analysis May be Obtained by Contacting:


Barry Andrews, P.E., BACT Coordinator  
Department of Environmental Regulation  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Recommended by:

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

January 21, 1991  
Date

Approved by:

  
\_\_\_\_\_  
Carol M. Browner, Secretary  
Dept. of Environmental Regulation

February 25, 1991  
Date

CONTENTS

[ AC PERMIT ⇒ 0250020-007-AC, PSD-FL-142A ]

- 2-26-91 ORIGINAL PERMIT (AC13-169931, PSD-FL-142) FOR MILN 2 COAL CONVERSION
- 2-13-98 TARMAC APPLICATION (TO DERM) FOR INDIRECT FIRWG
- 3-5-98 DERM TRANSFERRAL LETTERS, APPLICANT & DEPT (X2)
- 3-5-98 DEP LETTER TO APPLICANT RE: TRANSFERRAL & WFO REQUEST
- 9-21-98 DEP LETTER TO APPLICANT RE: SUBMIT INFO IN TIMELY MANNER
- 11-8-98 TARMAC RESPONSE TO 3-5-98 INFO REQUEST
- 9-21-98 DRAFT AC PERMIT FOR INDIRECT FIRWG
- 2-4-99 PROOF OF PUBLICATION
- 2-10-99 FWAL AC PERMIT FOR INDIRECT FIRWG

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**VIA ELECTRONIC MAIL**

8 August 2002

**Environmental Services**  
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Email [squaas@titanamerica.com](mailto:squaas@titanamerica.com)

Mr. H. Patrick Wong, Chief  
Air Quality Management Division  
Miami-Dade County Environmental Resources Management  
33 SW 2<sup>nd</sup> Avenue  
Miami, Florida 33130-1540

RE: **Pennsuco Cement**  
**Dade County B AP**  
**Facility ID# 0250020**  
**Kiln #2 - Consent Agreement**

0250020 - 007 AC  
PSD-FL-142#

Dear Mr. Wong:

Please accept this letter as a proposal for a new interim NOx emission limit and a request for consideration of changes to the Consent Agreement between Tarmac and the DERM. Tarmac met with you and other DERM staff on November 8, 2001, to discuss an extension of the Consent Agreement under which kiln No. 2 operates regarding NOx emission limits. The DERM was responsive to possible changes and felt they could support such a request dependent on a reduction of NOx emission limits.

As a matter of historical content, Tarmac had opted to pursue §23. of the Agreement, i.e., to change the manufacturing process to dry process technology. Construction of the new system was to be completed within 36 months after the required permits were issued. An air source construction permit was issued October 21, 1999. Subsequent to the permit issuance, Tarmac was sold and the project was placed on hold pending the completion of the sale. Titan Cement Company completed the sale in October 2000. Titan additionally requested revisions to the air source construction permit in November 2000 and the new permit was issued in May 2001. A letter of intent was signed with FLS/Fuller in August 2001 to supply the major equipment and related engineering for the new plant. Tarmac has expended \$15.0 million to date on engineering, equipment, and site preparation. An additional \$55.0 million is allocated for this year. Site development zoning and permitting along with infrastructure permitting is complete and the first phase of construction is slated for late August.

After the November 2001 meeting, Tarmac retained Environmental Quality Management, Inc. (EQM) to develop an engineering study on the feasibility of reducing NOx emission from the kiln No. 2 system. That study has looked at 57 existing wet process kilns and analyzed NOx

emission factors from those kilns and has compiled options for NO<sub>x</sub> emission reductions. The Eric Hansen Group, an expert on combustion technologies in kiln systems, has also been retained to review kiln No.2 process conditions and variables. Additionally, EPA data sources and technical literature was reviewed, most notably, the September 2000 Final Report from the Office of Air Quality Planning and Standards *NO<sub>x</sub> Control Technologies for the Cement Industry*. Two (2) key NO<sub>x</sub> control approaches applicable to wet process cement kiln operations are identified in the EQM study and the EPA report:

1. PROCESS CONTROL MODIFICATION

These modifications focus on increased energy efficiency and kiln operational stability with the emphasis on reducing NO<sub>x</sub> formation. NO<sub>x</sub> formation is directly related to the amount of energy consumed in the cement making, and improving fuel efficiency, and concurrently productivity, will reduce NO<sub>x</sub> emissions. The EQM study discusses the feasibility and applicability of process modifications specific to the kiln No. 2 system.

2. COMBUSTION CONTROL

These modifications focus on reducing NO<sub>x</sub> formation in the kiln system. The EQM study discusses the feasibility and applicability of process modifications specific to the kiln No. 2 system.

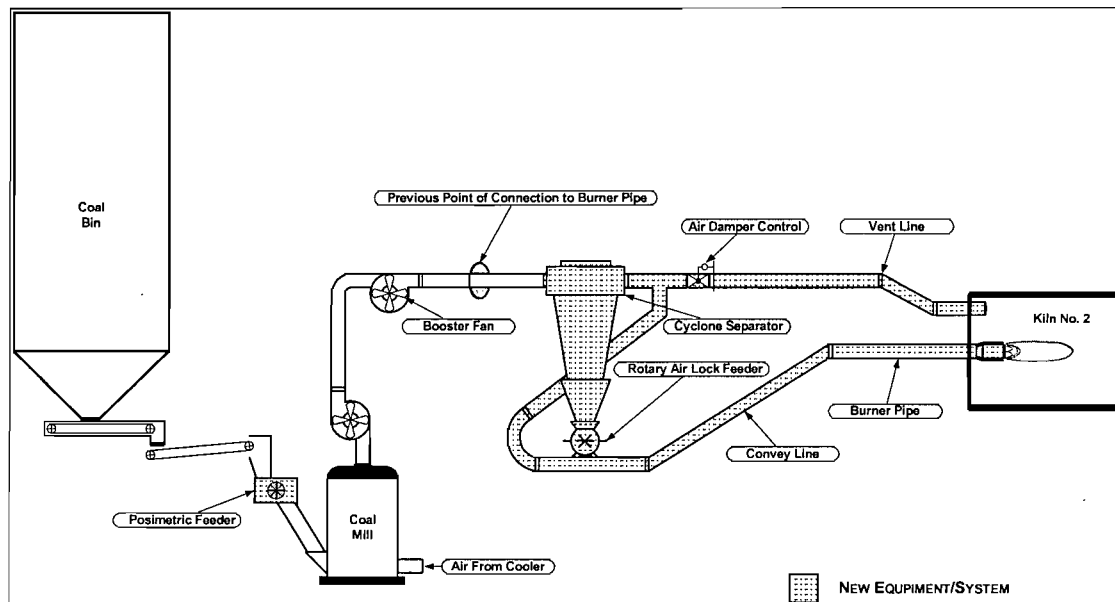
Based on these NO<sub>x</sub> control approaches, EQM and the Eric Hanson Group have formulated the following recommendations to reduce the NO<sub>x</sub> emission levels from the kiln No. 2 system:

1. PROCESS MODIFICATIONS

- 1.1 Changes in mix burnability – a hard burning mix requires a higher thermal threshold to promote the reaction of the mix components necessary for the formation of clinker. The burnability is hard due mainly to the crystalline silica (quartz) in the major component of the mix B limestone. Tarmac has implemented a tandem grinding process to reduce the size of crystalline silica in the mix.
- 1.2 Reduction in primary air – high concentrations of primary air to the kiln provides excess oxygen and increased thermal NO<sub>x</sub>. Kiln No. 2 is a direct-fired kiln where air is used for conveying pulverized coal from the coal mill to the kiln. The coal mill sweep volume is high primarily to prevent build-up on the mill table and control coal conveying gas temperatures to MSHA imposed limits. Tarmac has been able to decrease primary air and when coupled with item 2.2 below will further reduce NO<sub>x</sub> formation.
- 1.3 Changes in fuel properties – low volatile coal can increase NO<sub>x</sub> production in the kiln by lengthening the flame characteristics. A review of the volatility of the current coal supply indicates it to be a low volatile coal [“20%]. Tarmac has ordered shipments of coal from a new supplier. The new coal supply is now on-site and the new coal has a volatility of “30%.

## 2. COMBUSTION MODIFICATIONS

- 2.1 Replace the existing burner pipe – low-NOx burners are designed to change flame characteristics for initial combustion and reduce thermal NOx formation. Tarmac has replaced the previous burner with an “Annular-Nozzle Burner” designed by the Eric Hanson Group. The burner will facilitate a reduction of NOx by maintaining the primary combustion area in a reducing atmosphere.
- 2.2 Mill air reduction/semi in-direct firing – as noted in item 1.2, high concentrations of primary air to the kiln provides excess oxygen and therefore increases thermal NOx. Separating the pulverized coal from the coal mill sweep air using a cyclone separator can reduce the amount of primary air. This system has similarities to both a mill air recirculation system and an in-direct fired coal system. The benefits are derived from a reduced volume of primary air from the exhaust of the cyclone being used to transport the coal from the cyclone separator to the burner pipe. The remainder of the coal mill sweep air bypasses the burner pipe and is directly vented to the kiln hood. Tarmac has installed the semi in-direct firing system as shown in the diagram.



Coupling the low-NOx burner with the semi in-direct firing, and operating the kiln with the process modifications, should reduce NOx emissions up to 50%. It is important to note that the installed system is un-demonstrated new technology with certain equivalence to the mill air recirculation systems noted in the EQM study. The installed system could represent the best available control for a wet process cement kiln. Initial CEM data for the new system has shown encouraging results, but a larger data set needs to be gathered.

Both the EPA *NOx Control Technologies for the Cement Industry* Final Report and the EQM study provide for comparison NOx emission factors for wet process cement kilns.

Cement Kiln Type	Heat Input Requirement (MM Btu/ton clinker)	Average NOx Emissions (lb/ton clinker)		Range of NOx Emissions (lb/ton clinker)	Kiln No. 2 Average NOx Emissions
		EPA Report	EQM Study		
Wet Kiln	6.0	9.7	9.1	3.6 -19.5	9.4
Long Dry Kiln	4.5	8.6	B	6.1 -10.5	
Preheater Kiln	3.8	5.9	B	2.5 -11.7	
Precalciner Kiln	3.3	3.8	B	0.9 -7.0	

I have included from the EPA Report data for other kiln types to show the correlation between NOx emission rates and heat input requirements. This is important to recognize in that the difference in NOx emission rates is attributed to the difference in the energy consumption rates of the types of kilns.

Further combining the process and combustion modifications in place, along with the understanding of potential NOx emissions correlated to the energy input of Kiln No. 2, Tarmac is proposing a new interim NOx emission limit of 150 lb/hour based on a monthly average. The new limit correlates to 6.0 lb/ton of clinker, which is significantly below the average NOx emissions of >9.0 lb/ton of clinker shown for wet process cement kilns. The new limit also represents over a 30% reduction from the current limit and achieves the desire of the DERM for a reduction of the NOx limit contained in the Consent Agreement. This new limit is requested for the duration of the operation of Kiln No. 2 through start-up of the new cement plant.

Tarmac respectfully requests the DERM review this proposal and asks for a meeting be set the week of August 19<sup>th</sup> to discuss this matter. Should you have any questions or need further information please contact me at the telephone number on the cover page.

Sincerely,



Scott Quaas  
Environmental Manager  
Environmental ServicesBFlorida Business

cc: A. Townsend  
R. Ferguson  
R. Hawks, EQM  
E. Hanson, Eric Hanson Group

Attachments

1. Battye, R., EC/R Incorporated, Chapel Hill, NC. *NOx Control Technologies for the Cement Industry*. Prepared for the U.S. EPA, RTP, NC, under contract No. 68-D98-026, work assignment No. 2-28. September 19, 2000
2. Environmental Quality Management, Inc. *Engineering Study on the Feasibility of Reducing NOx Emissions from No. 2 Kiln*. Prepared by Environmental Quality Management, Inc., Durham, NC for Tarmac America, Deerfield Beach, FL. August 6, 2002.

## Memorandum

# Florida Department of Environmental Protection

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TO: Mallika Muthiah, P.E., Chief  
Air Facilities Section  
Miami-Dade County DERM

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

DATE: August 27, 2002

SUBJECT: Tarmac/Pennsuco Kiln No. 2

We received a copy of the letter dated August 8, 2002 from Tarmac to Miami-Dade DERM requesting a new interim NO<sub>x</sub> emission limit and changes to a 1998 Consent Agreement between Tarmac and DERM. Yesterday we received a copy of the report by EQM evaluating for Tarmac the feasibility of options to reduce NO<sub>x</sub> emissions from the No. 2 Kiln.

There are a number of overlapping issues affecting this facility. Most of them will not be reviewed here. The issues include:

1. Applicability of the Cement Plant NESHAP that went into effect in June of this year.
2. A determination of Best Available Control Technology (BACT) for nitrogen oxides (NO<sub>x</sub>) issued in 1992 for Kiln 2, which Tarmac has not met.
3. A construction permit issued by the Department in 1999 to implement "indirect firing" on Kiln 2 for the purpose of NO<sub>x</sub> control.
4. A Title V Permit that requires compliance with the mentioned NESHAP and includes a NO<sub>x</sub> compliance plan with "dates certain" that would be affected by the proposal.
5. The inability of the clinker cooler serving Kiln 2 to comply with the particulate emission limit given in the NESHAP.
6. A permit issued by DERM to modernize the entire facility by shutting down the wet process kilns and installing a larger and more efficient dry process kiln.
7. The Consent Order between Tarmac and Miami-Dade DERM that Tarmac seeks to modify.

Because of the complexity of the issues, this analysis is primarily limited to a review of the technical details contained in the letter and how they square with the state of the technology for NO<sub>x</sub> control for wet process cement manufacturing.

According to Tarmac, the two key approaches applicable to wet process cement kiln operations (identified in the EQM study and the EPA report) are Process Control Modification and Combustion Control. We believe that there are additional measures available under the overall heading of combustion controls as well as other measures beyond combustion control.

In early 1999, the Department issued a permit to Tarmac to convert the kiln to "indirect firing." We note that according to the EQM Study (Page 47), the "modified indirect-firing" strategy can reduce NO<sub>x</sub> emissions by 830 tons in a little over one year. Because the strategy was not implemented soon after the permit was issued, it is now claimed that it is not cost-effective because it will take time to construct and will be used for only about one year until the new kiln begins operation.

The revised proposal is for a conversion to "semi-indirect firing" that has apparently already been undertaken. We note that Tarmac did not advise the Department of this change in strategy. The proposed combustion modifications consisting of semi-indirect firing coupled with the described "Annular Nozzle Burner" represent an improvement compared with historical operation.

The proposed semi-indirect firing is not theoretically as effective as the previously approved indirect firing scheme. The indirect firing scheme would not reinject the separated "primary" air back into the kiln. Instead the loss would be made up by using more of the hotter and less humid air from the kiln hood/clinker cooler area. This means that the indirect scheme previously approved by the Department would tend to further reduce NO<sub>x</sub> because less fuel would be needed.

Whether semi-indirect or indirect firing is implemented, these arrangements represent "primary" measures to effect NO<sub>x</sub> emissions at old existing kilns. It is hard to see how these "primary" measures described will actually lead to the claimed reduction of 50 percent in NO<sub>x</sub> emissions (given in the letter) based on the literature. Usually it takes additional measures to achieve such a level of reduction at an existing kiln.

We do not agree with the statement given in Tarmac's letter that "the installed system could represent the best available control for a wet process cement kiln." It appears to be a better candidate for a Reasonable Available Control Technology (RACT) proposal such as might be implemented pursuant to a typical Attainment Maintenance Plan.

The EPA report and the bulk of the literature describe additional measures that are feasible at wet or dry kilns. For example, virtually all new precalciner kiln projects incorporate some kind of sub-stoichiometric combustion at some point in the calciner. The proposed new kiln at Tarmac will include the so-called "stageless combustion" whereby the fuel in the calciner is burned under reducing conditions to convert NO<sub>x</sub> from the kiln burner to molecular nitrogen. Additional "tertiary" air is staged in afterwards to effect complete burnout.

The "analogue" for a wet kiln is mid-kiln firing of fuel such as tires, lump coal, etc. One of the most interesting variations is described by one of Tarmac's consultants, Mr. Eric Hansen.<sup>1</sup> In this case, introduction of fuel at mid-kiln in a wet process kiln would have the same effect as burning fuel under reducing conditions in the dry process calciner. The additional air to promote burnout would be added "uphill" of mid-kiln in the wet process. Most interestingly, according to Hansen's data, the scheme greatly reduces sulfur dioxide (SO<sub>2</sub>) emissions. This type of arrangement might even be a candidate for a BACT determination at an existing wet kiln project.

---

<sup>1</sup> Paper. Hansen, E.R., Cadence Environmental Energy. "Staged Combustion for NO<sub>x</sub> Reduction Using High Pressure Air Injection. IEEE Conference. May 2002.

A final measure mentioned in the EPA report is the possibility of selective non-catalytic reduction (SNCR). SNCR involves addition of some form of ammonia into the pyroprocessing system within a temperature window favoring conversion of the ammonia and NO<sub>x</sub> to nitrogen and water. The technology has been demonstrated at dry process preheater and precalciner kilns.

Although the EPA report did not cite SNCR as a technique applicable to long kilns such as wet process kilns, there is at least one long kiln in Canada that practices (or practiced) SNCR by adding urea via dust scoops. Also, in theory, Hansen's description of high-pressure air injection could be modified to introduce ammonia into the kiln at the correct temperatures and the requisite oxidizing conditions to effect NO<sub>x</sub> removal.

The point of this discussion is not to propose SNCR at Tarmac, but rather to point out that their proposal is very basic compared to the possible measures. We do not agree with the statement in EQM's report that "minimal NO<sub>x</sub> reduction would be expected" by SNCR. Also it is possible that claimed kiln opacity problems could be avoided, especially if Hanson's mid-kiln air injection process also ties up the SO<sub>2</sub>.

We also point out that SCR was demonstrated at a full-sized cement plant in Solnhofen, Germany. Perhaps EQM is not yet aware of that development. According to the head of the section in the German Umwelt Bundesamt that regulates the cement industry, "the SCR in Solnhofen works in an excellent manner." Again, this is not to suggest SCR is needed at Tarmac. However it is closer to "proven technology" than claimed by EQM.

The final comment is to note that Tarmac has ordered shipments of coal with a higher volatility from a new supplier. They believe it will help reduce NO<sub>x</sub> emissions and we do not dispute that claim. However different coals have different properties for other constituents (besides volatile matter) such as chlorides.

The type of coal used ties in with Issue 1 above that will be specifically addressed by the Department under separate correspondence. We understand that Rinker used to have a plugging problem at their new dry process kiln related to high chlorides in their fuel supply. If Tarmac uses the same type of coal that Rinker used, hydrogen chloride (HCl) emissions might be higher than reported by Tarmac during recent tests. For that reason, it is important to know the characteristics of the coal used during testing when reviewing the results of recent HCl testing at Tarmac.

Obviously our preference is that Tarmac meets the BACT NO<sub>x</sub> limits given in the relevant permits. This should have occurred already regardless of modernization plans. Thank you for providing us with the opportunity to comment on the letter. If you have any questions, please call me at 850/921-9523.

Cc: Patrick Wong, DERM  
Clair Fancy, DEP BAR  
Jim Pennington, DEP BAR  
Tom Tittle, DEP SED  
Sharon Crabtree, DERM

Summary of Maximum Sulfur Dioxide Air Quality Impacts<sup>a</sup>, Kiln 2 Coal Conversion

Averaging Time	SO <sub>2</sub> Emission Rate				Ambient Air Quality Standard	
	lb/hr	400	321	275	195	Dade Florida County
	lb/ton	16.0	12.84	11.0	7.80	
	lb/MWh Btu	2.46	2.14	1.83	1.20	
<u>Kiln 2 Only Maximum Impact</u>						
Annual Average ( $\mu\text{g}/\text{m}^3$ )	4.1	3.2	2.8	2.0	-	-
24-hour maximum ( $\mu\text{g}/\text{m}^3$ )	61	49	42	30	-	-
3-hour maximum ( $\mu\text{g}/\text{m}^3$ )	183	147	126	89	-	-
<u>Florida AAQS<sup>b</sup></u>						
Annual Average ( $\mu\text{g}/\text{m}^3$ )	14	13	12	12	60	25
24-hour maximum ( $\mu\text{g}/\text{m}^3$ )	73	66	66	66	260	110
3-hour maximum ( $\mu\text{g}/\text{m}^3$ )	254	254	254	254	1,300	350
<u>PSD Class II Increments<sup>c</sup></u>						
Annual Average ( $\mu\text{g}/\text{m}^3$ )	5.1	4.8	4.0	3.3	20	-
24-hour maximum ( $\mu\text{g}/\text{m}^3$ )	55	53	46	33	91	-
3-hour maximum ( $\mu\text{g}/\text{m}^3$ )	162	126	105	69	512	-
<u>PSD Class I Increments<sup>c</sup></u>						
Annual Average ( $\mu\text{g}/\text{m}^3$ )	0.6	0.5	0.5	0.5	2	-
24-hour maximum ( $\mu\text{g}/\text{m}^3$ )	4.7	4.4	4.3	4.2	5	-
3-hour maximum ( $\mu\text{g}/\text{m}^3$ )	18	18	18	18	25	-

<sup>a</sup>Results are maximums based on maximum emission rate occurring every hour of every year.

<sup>b</sup>Includes impacts due to all sources, plus background.

<sup>c</sup>Includes impacts due to all increment consuming sources.



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89025A1/TST/SC  
09/24/90Source Contribution to Maximum 24-Hour Impacts ( $\mu\text{g}/\text{m}^3$ ) in Class I Area

Source	Tarmac Kiln 2 SO <sub>2</sub> Emission Rate (lb/hr)			
	400	321	275	195
Tarmac Kiln 2	1.31	0.49	0.37	0.26
Tarmac Kiln 3	0.70	0.43	0.40	0.43
Metro Dade Resource Recovery	2.29	3.38	3.44	3.38
South Broward Resource Recovery	0.26	0.05	0.05	0.05
North Broward Resource Recovery	0.01	0.01	0.01	0.01
FPL Lauderdale Cts (proposed)	2.87	0.72	0.78	0.72
FPL Units 4 and 5 Offset (proposed)	-2.73	-0.68	-0.75	-0.68
Total	4.7	4.4	4.3	4.2

Note: Class I PSD increment is 5.0  $\mu\text{g}/\text{m}^3$  for 24-hour averaging time.

decrease for firing coal instead of residual oil should be similar for all three kilns. Based on this the expected efficiency of SO<sub>2</sub> absorption when firing coal would be a minimum of 69.4% instead of the proposed 36 percent for kiln 2.

A sulfur dioxide reduction of 69.4 percent is more representative of previous BACT determinations. In terms of pounds emitted per heat input, a 69.4 percent reduction equates to 1.18 lb/MMBtu which also better represents BACT. In addition, 1.18 lb/MMBtu is consistent with the New Source Performance Standard (NSPS) for fuel burning equipment of similar size. For coal fired industrial-commercial-institutional steam generating units with heat input capacities between 100 and 250 million Btu per hour the least stringent NSPS requires that SO<sub>2</sub> emissions not exceed 1.2 lb/MMBtu.

For nitrogen oxides the level of control proposed by the applicant also exceeds what has been previously established as BACT. Here again, the Department believes that there is evidence to suggest that cement kilns can meet a lower than proposed emission limitation.

Taking into consideration the applicant's proposed NO<sub>x</sub> emission rate of 169.3 lb/hr with the proposed clinker production rate of 25 tons per hour, the NO<sub>x</sub> emissions are equivalent to 6.77 pounds per ton of clinker produced. This level greatly exceeds the uncontrolled NO<sub>x</sub> emission factor of 2.8 lb/ton of clinker that is given in EPA AP-42 for both dry and wet process kilns.

The AP-42 emission factor, equivalent to 1.74 lb/ton of feed, is more representative of previous BACT determinations. In terms of heat input, the AP-42 emission factor equates to 0.43 lb/MMBtu. This emission level is within the range of precious BACT determinations, though it is on the stringent side.

By comparison, the least stringent NSPS for NO<sub>x</sub> from coal fired (except lignite) industrial-commercial-institutional steam generating units is 0.70 lb/MMBtu. This level, equivalent to a 2.84 lb/ton of feed for the Tarmac facility is representative of the least stringent BACT determination both in terms of emission per ton of feed and lb/MMBtu. As this is the case, this level (0.7 lb/MMBtu) does not appear to be unreasonable as BACT for the Tarmac facility.

### Conclusion

Based on the information presented, the Department has determined that BACT for the Tarmac facility is equivalent to limiting the sulfur dioxide and nitrogen oxide emissions to the least stringent NSPS for coal fired industrial-commercial-institutional steam generating units. This decision is consistent with the requirements that all BACT determinations be at least as

METROPOLITAN DADE COUNTY, FLORIDA



MAY 11 1990  
ENVIRONMENTAL RESOURCES MANAGEMENT  
SUITE 1310  
111 N.W. 1st STREET  
MIAMI, FLORIDA 33128-1971  
(305) 375-3376

April 30, 1990

C.H. Fancy, P.E.  
Bureau of Air Regulations  
Florida Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399

RE: Tarmac Florida, Inc., Kiln 2 Coal Conversion AC-13-169901; PSD-FL-142

Dear Mr. Fancy:

DERM has reviewed Tarmac's comments to the Best Available Control Technology Determination for the subject application issued by FDER. On April 26, 1990 Barry Andrews, FDER and Ewart Anderson of our staff discussed Tarmac's rebuttal points contained in their comments and was in general agreement with the significant positions outlined in the determination.

Our primary areas of disagreement with the applicant's arguments are as follows:

1. Tarmac has not provided documentation to demonstrate that Kilns 2 and 3 are different from each other, nor have their arguments substantiated this assertion. Tarmac is now challenging the FDER position that Kiln 2 can achieve a 69 percent SO<sub>2</sub> reduction efficiency when burning coal, however this was a basic ingredient in the Kiln 3 permit review when that unit was converted to coal fuel.
2. In order to support their claim that the most stringent alternative(s) pursuant to Top-Down Best Available Control Technology is unreasonable and can therefore be set aside, Tarmac must provide a detailed analysis, economic or otherwise, to establish a basis for DER's reversal of its current determination.
3. Finally, the proposal by Tarmac to conduct a 1-year testing program to collect data in order to determine the BACT limit is inconsistent with the BACT process. We feel that Kiln 3's performance can in fact be used as the basis for this determination. EPA, FDER and other authorized agencies are empowered to make educated appraisals and determinations of BACT.

With regard to the BACT determination for Nitrogen Oxides, DERM fully agrees with the determination of the FDER and the emission levels established.

If you should have further questions regarding the information provided in this letter, please call Mr. Ewart Anderson or myself of the Air Section at (305) 858-0601.

Sincerely,

H. Patrick Wong  
Chief, Air Section  
Environmental Monitoring Division

PERMITTEE:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

**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 construction and operation of the subject modification of kiln No. 2 shall be in accordance with the capacities and specifications stated in the application.

2. The maximum clinker production rate of kiln No. 2 shall not exceed 25 tons per hour and 197,100 tons per year. Kiln No. 2 shall operate only on coal firing for up to 7,884 hours per year at a maximum firing rate of 162.5 MMBtu per hour. The coal used for firing kiln No. 2 shall have a maximum sulfur content of 2.0 percent by weight, with the rolling 30-day average sulfur content not exceeding 1.75 percent by weight.

3. Sulfur dioxide emissions from kiln No. 2 shall not exceed 7.8 lbs/ton of clinker produced, 195.0 lbs/hr, 768.7 tons/yr.

PERMITTEE:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

SPECIFIC CONDITIONS:

4. Sulfuric acid mist emissions from kiln No. 2 shall not exceed 0.23 lb/ton of clinker produced, 5.86 lbs/hr, 23.06 tons/yr.
5. Nitrogen oxides emissions from kiln No. 2 shall not exceed 4.55 lbs/ton of clinker produced, 113.8 lbs/hr, 448.4 tons/yr.
6. Carbon monoxide emissions from kiln No. 2 shall not exceed 346 lbs/hr, 1363.9 tons/yr.
7. VOC emissions from kiln No. 2 shall not exceed 28.8 lbs/hr, 113.5 tons/yr.
8. Particulate matter emissions from kiln No. 2 shall not exceed 14.40 lbs/hr, 56.76 tons/yr.
9. PM<sub>10</sub> emissions from kiln No. 2 shall not exceed 12.24 lbs/hr, 48.25 tons/yr. Compliance for PM<sub>10</sub> shall be determined by applying a factor of 0.85 to the measured particulate matter emissions.
10. All reasonable precautions that apply under F.A.C. Rule 17-2.610(3) shall be implemented to limit unconfined emissions of particulate matter from any activity associated with this project. Adequate watering of the coal pile area shall be conducted whenever visible emissions occur in that area. The frequency of watering shall be no more than every half hour.
11. Initial and annual compliance tests shall be conducted using the following test methods:
  - EPA Method 5 for particulate matter
  - EPA Method 7 for nitrogen oxides
  - EPA Method 8 for sulfur dioxide and acid mist
  - EPA Method 25 for VOC
  - EPA Method 10 for carbon monoxide
12. Tarmac shall conduct a series of compliance tests for SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub> mist, and NO<sub>x</sub> emissions every two months for up to one year to allow representative sampling during different times of the year. The tests shall be performed in accordance with the compliance test methods specified in this permit. In the event that this series of tests results in SO<sub>2</sub> emissions in the range of 195 to 275 lbs/hr (up to 11 lbs/ton clinker, 1,084.1 TPY), NO<sub>x</sub> emissions in the range of 113.8 to 169.3 lbs/hr (up to 6.77 lbs/ton clinker, 667.2 TPY), or H<sub>2</sub>SO<sub>4</sub> mist emissions in the range

PERMITTEE:  
Tarmac Florida, Inc.

Permit Number: AC 13-169901  
PSD-FL-142  
Expiration Date: June 30, 1992

SPECIFIC CONDITIONS:

of 5.86 to 8.25 lbs/hr (up to 0.33 lbs/ton clinker, 32.52 TPY), the Department, if requested by the permittee, shall re-evaluate BACT and consider upward adjustments of the emission limitations for the indicated constituents based on available data. During this testing and evaluation period, the permittee shall make reasonable efforts to limit air emissions, and the Department shall not initiate enforcement proceedings. Any upward adjustment of emission limitations pursuant to this paragraph shall be the subject of public notice in a local newspaper pursuant to Department rules. The Department's determination based on the data produced under this paragraph shall be a point of entry for purposes of Section 120.57, Florida Statutes.


13. The compliance tests shall be conducted within 30 days after operation on coal begins. The Department's Southeast District office and the Dade County Department of Environmental Resources Management (DCDERM) shall be notified in writing at least 15 days prior to source testing and at least 5 days prior to initial startup. Written reports of the tests shall be submitted to those offices within 45 days of test completion.

14. 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).

15. An application for an operation permit must be submitted to the Department's Southeast District office and the DCDERM 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 25 day  
of February, 1991

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Carol M. Browner, Secretary

CONTENTS

TARMAC KILN NO. 2 (ENF) FILE

2-26-91	ORIGINAL AC PERMIT (AC 13-169901, PSD-FL-142) TO CONVERT KILN NO. 2 TO COAL FIRING <ul style="list-style-type: none"> <li>• COVER</li> <li>• FINAL DETERMINATION</li> <li>• FINAL PERMIT</li> <li>• BACT DETERMINATION</li> <li>• FINAL ORDERS</li> </ul>
7-24-95	STACK TEST EMISSION REPORT (ONCE/TWO MONTHS AS PER PSD-FL-142)
8-9-95	MEMO TO PAT COMER RE: OBLIGATIONS WRT THE "WINDOW"
10-3-95	TARMAC REQUEST FOR EXTENSION OF AC PERMIT & FOR NEW BACT (TO BE DETERMINED) ↗
2-16-96	KBN REPORT RE: HIGH NO <sub>x</sub> AT KILN 2
5-28-96	"
6-4-96	"
10-16-96	DEP LETTER REQUESTING TEST RESULTS PROMISED IN 5/28/96 REPORT
1-21-97	GOLDER RESPONSE TO ↗
4-15-97	DEP MEMO TO DERM ENFORCEMENT (COVER, W/OUT ATTACHMENTS)
6-17-97	NOV
7-28-97	DEP MEMO TO DERM ENFORCEMENT (HISTORY, SUMMARY)
2-3-98	CONSENT AGREEMENT

CONTENTS

CONT.

10-21-99

AC PERMIT (DERM, 0250020-008-AC) FOR DRY KIWS

~ 7/00

DRAFT TITLE V PERMIT

8-18-00

DEP COMMENTS ON DRAFT TITLE V

~ 9/00

SUMMARY OF TARMAC KIWN NO. 2 COMPLIANCE  
(DRAFT TITLE V COMPLIANCE PLAN)

12-13-00

DERM INCOMPLETENESS LETTER RE: INCOMPLETENESS

↳ WHAT APPLICATION? SOMETHING DATED NOV 2000

12-29-00

RESPONSE TO INC. LETTER

8-8-<sup>02</sup>~~00~~

TARMAC REQUEST FOR NEW INTERIM NO<sub>x</sub> LIMIT &  
EXPLANATION OF THEIR SEMI-DIRECT MODIFICATIONS

~ 8/02

DEP COMMENTS (LIMITED TO TECH BASIS OF SEMI-DIRECT)