



Jeb Bush  
Governor

# Department of Environmental Protection

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

Colleen M. Castille  
Secretary

November 15, 2005

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Michael A. Gonzales  
Plant Manager  
CEMEX Cement, Inc.  
Post Office Box 6  
Brooksville, Florida 34605-0006

Re: DEP File 0530010-018-AC, PSD-FL-362  
Projects at CEMEX Brooksville Plant

The Department received your permit application on October 14<sup>th</sup> and key meteorological and modeling information on October 18. The application is to conduct various projects at the CEMEX Brooksville Plant. The requests include:

- Use of up to 100% petroleum coke (petcoke) as a fuel in Kilns 1 and 2;
- Use of tire-derived fuel (TDF) in both kilns;
- Installation of new kiln burners;
- Installation of an ammonia injection system in the lower preheater of each kiln; and
- Increase transfer/production rates for various emissions units.

The Department has determined that the application is incomplete. This letter is a request for additional information (RAI) in accordance with Rule 62-4.055, F.A.C. and the Standards of Issuing or Denying permits at Rule 62-4.070, F.A.C.

According to the rule, the applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department. Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application.

In order to continue processing your application, the department will need the additional information requested below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

*"More Protection. Less Process"*

*Printed on recycled paper.*

The following information is required to complete the application:

1. Please describe any work conducted or that will be conducted with respect to the burning of 100% petcoke. Describe the work items conducted that were excluded from Pillard's quotation submitted as Attachment 1. This includes work to convert the system from direct to semi-direct firing.
2. Describe how 100% petcoke can be used given the lack of volatile fraction to support combustion and flame.
3. Provide the procedures for receiving and storing petcoke as well as controlling dust from handling. Provide procedures related to groundwater protection.
4. Are the coal mills capable of grinding petcoke to the specifications needed and to supply a 100% petcoke fuel stream for the two kilns?
5. Petcoke contains more sulfur than coal contains. With the low alkali levels in the native limestone, how will CEMEX compensate with the greater alkali requirements inherent in burning petcoke? Will it be necessary for CEMEX to use even more of the 16% LOI fly ash and less bauxite or sand or clay?
6. Please provide information on the effects of additional vanadium and nickel found in petcoke upon the formation of sulfuric acid mist.
7. Please describe any work conducted or that will be conducted with respect to burning TDF. This should include any modifications made or to be made to the existing tire burning system on Kiln 1 and the proposed system on Kiln 2. Describe the handling and feeding system.
8. Given the lack of a tertiary air duct, how will CEMEX insure that sufficient air will be available in the area of the kiln riser to insure proper combustion of TDF and burn out of CO?
9. Describe the combustion zone within the riser and lower preheater including the residence time to insure maximum burnout of CO.
10. Please describe CEMEX experience using the 16% LOI fly ash described on Page 50 with respect to CO emissions. Has CEMEX been able to use this fly ash and comply with the present CO limit of approximately 2 lb/ton clinker and the dioxin/furan limits of 0.2 ng/dscm (or 0.4 ng/dscm)?
11. How will burning TDF and petcoke affect the heat balance as well as conditions related to dioxin formation and control?
12. Provide continuous emission monitoring system (CEMS) data from the recently installed systems for both kilns on an hour-by-hour basis. Include ammonia injection rates and process data as well as the parameters needed to calculate CO and NO<sub>x</sub> emissions in terms of lb/ton of feed or lb/ton of clinker.
13. Please provide the certification documentation for the recently installed CEMS.
14. If the CEMS have not yet been calibrated, please detail how the amount of ammonia necessary to maintain compliance with the NO<sub>x</sub> is determined ?

15. Provide information from other CEMEX projects where petcoke or TDF have been used and summarize the resulting emission changes.
16. Provide information showing what the effects of ammonia injection (SNCR) have been to-date on emissions of CO. It is possible to separate the effects of SNCR on CO from the effects of petcoke, TDF, and 16% LOI fly ash. This is needed to allow a thorough BACT analysis.
17. Please provide a summary for the past two years of the required daily sampling and recording of baghouse dust thallium concentration described in Condition B.20 of the facility Title V Operation Permit.
18. Does CEMEX waste baghouse dust in general or to meet the mentioned thallium requirements in particular?
19. Where is the dust stored or where is it disposed or sold?
20. Has CEMEX or its affiliates had any violations (or warning letters) related to any Department or EPA regulations at any of their facilities in Florida and the United States? Have officers of CEMEX also been officers of other companies that have had violations (or warning letters) of Department regulations at any facilities? Please provide all documentation in relation to any such violations.
21. The coordinates in the application for Kiln 1 and Kiln 2 are 356250 m E, 3168370 m N and 356300 m E, 3168380 m N respectively. In the modeling for Kiln 1 and Kiln 2, 356007 m E, 3169248 m N and 356052 m E, 3169261 m N is used. Please verify which coordinates are correct. If the modeling coordinates are incorrect, please update the modeling.

Basically, we need better descriptions of the petcoke and TDF projects besides the very basic descriptions provided. Please submit test protocols for trial tests using petcoke and TDF. This information is needed to determine the effects and develop procedures to minimize emissions increases such as for CO and evaluate the effects on other pollutants such as dioxin and VOC.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature.

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

Sincerely,



A. A. Linero, P.E.  
Program Administrator  
South Permitting Section

Cc: Fawn Bergen, P.E.  
Mara Nasca, DEP SWD  
Charles Walz, CEMEX

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature <input checked="" type="checkbox"/> Agent  <input checked="" type="checkbox"/> Addressee  <i>X Inge Parrish</i></p> <p>B. Received by (Printed Name) <i>Inge Parrish</i></p> <p>C. Date of Delivery</p>
<p>1. Article Addressed to:</p> <p>Mr. Michael A. Gonzoles  Plant Manager  CEMEX Cement, Inc.  Post Office Box 6  Brooksville, Florida 34605-0006</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  <input checked="" type="checkbox"/> No  If YES, enter delivery address below:</p> <p><b>BROOKSVILLE FLORIDA</b>  NOV 21 2005</p>
<p>2. Article Number  (Transfer from service label) <i>7001 0320 0001 3692 4071</i></p>	<p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express  <input type="checkbox"/> Registered Mail <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

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Mr. Michael A. Gonzoles  
Plant Manager  
CEMEX Cement, Inc.  
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PS Form 3811, February 2004 for instructions

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