Florida Department of Environmental Protection

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March 1, 2007

Electronically sent – Received Receipt requested.

michaelanthony.gonzales@cemexusa.com

Mr. Michael Gonzales, Plant Manager
CEMEX Cement, Inc.
16301 Ponce De Leon Boulevard
Brooksville, Florida 34614-0849

Re: Request for Additional Information
DEP File No. 0530010-030-AC
Best Available Retrofit Technology (BART) for Kiln No. 1

Dear Mr. Gonzales:

On January 31, 2007 we received your application for an air construction permit to incorporate Best Achievable Retrofit Technology (BART) requirements for Kiln No. 1 at the existing Brooksville cement plant in Hernando County.

Pursuant to Rules 62.296.340 (2), 62-4.055, and 62-4.070 F.A.C., Permit Processing, the Department requests submittal of the additional information prior to processing the application. 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.

PARTICULATE MATTER (PM/PM_{10})

1. Please provide more specific details about the baghouses controlling the Kiln No. 1 operation. Pursuant to Rules 62.296.340 (2), propose a BART emission limit for each baghouse and provide more specific details about their function. The application lists a total of 13 baghouses controlling the whole cement process from Kiln No. 1. Please confirm that this represents the number of actual baghouses (or possibly baghouse systems) as recent applications suggest many more are typically used in a modern kiln.
2. For ease of understanding, please categorize the existing baghouses under the process system that they control (i.e. Raw Materials Handling, Pyroprocessing and Raw Mill System, Clinker Handling System, Finish Mill System, Cement Products, Packaging/Loadout System).
3. Provide a Table showing visible emissions and measured or estimated PM/PM_{10} (lb/hr and TPY) data for the last 5 years for each baghouse associated with Kiln No. 1.

4. Submit the Top/Down cost assessments to lower PM/PM_{10} emissions and/or exhaust visible emissions from the baghouse systems at the plant. This could include upgrades in the baghouse systems; use of different bags; implementation of baghouse maintenance and replacement programs; fan improvements to support same, etc.
5. Please reassess the 20% opacity limit for the main particulate matter control device (PMCD), i.e. the main kiln baghouse.

NITROGEN OXIDES (NO_X)

6. What NO_X emission limit was considered in the modeling? Did the modeling for NO_X consider the new permitted emission limit of 1.21 lb/ton of preheater feed (2.02 lb/ton of clinker) stated in Permit 0530010-026-AC?
7. Consider the effect of the proposed new Kiln 3 project on visibility when assessing the possible reductions and mitigation due to potential reductions at the existing kilns.
8. Submit NO_X continuous emission monitoring systems (CEMS) data for the last two years and stack test results for the last 5 years. Include ammonia (NH_3) injection rates. Note the time during which the CEMS had not yet been calibrated in accordance with the respective performance standards.
9. The control technology proposed is selective non catalytic reduction (SNCR) and Low NO_X burners (LNB). How this technology compare in terms of efficiency (%) with the other technologies presented (refer to Table in page 28 of application).
10. Please evaluate and submit information about selective control reduction (SCR) technology application for this kiln including: BART limit; analysis of the cost of compliance; the energy and non-air quality environmental impacts (including NH_3 emissions); and the degree of visibility improvement in affected Class I areas resulting from the use of this control technology.

SULFUR DIOXIDE (SO_2)

11. Submit a Table showing sulfur dioxide emissions (lb/hr and TPY) for the last 5 years.

MODELING

12. The BART application concludes that visibility impacts are greater then 0.5 deciview (with the older IMPROVE equation). The conclusion states that additional modeling will be submitted with the newer IMPROVE equation to re-evaluate the modeling modifications. The use of the new IMPROVE versus the use of the older IMPROVE equation should not provide a result that is much different since you are comparing changes from one control strategy to another. Regardless, please submit the modeling as stated in the application and please verify that the same IMPROVE equation was used for the modeling before and after BART.
13. Please verify that all modeling done showing visibility impacts prior to BART was done with the highest actual emission rates, not permitted limits.

14. The BART application includes one table of the modeling results showing the visibility impact rankings at the Chassahowitzka. Which pollutant is this table representing? Please submit tables showing results of all BART analyses, including visibility impacts before and after BART for all pollutants subject to BART for all control strategies.

15. Please verify the BKSOIL concentration that should be used for the Chassahowitzka with the Department. The application states that 14.61 micrograms per cubic meter was used. According to Appendix B of the Haze Guidance document, it should be 11.45.

16. The modeling disk submitted to the Department has no input files for CALPUFF. Please submit all files regarding the modeling analyses for this BART application. This includes files for all pollutants subject to BART, exemption and determination files.

We will forward any comments received from other agencies as soon as we receive them. 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. Please advise the professional engineer to make sure he/she uses the correct seal in compliance with the applicable requirements of the Florida Board of Professional Engineers.

Permit applicants are advised that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days. If there are any questions, please call Teresa Heron at 850/921-9529. Matters regarding modeling issues should be directed to Debbie Nelson at 850/921-9537.

Sincerely,

A.A. Linero, Program Administrator
Bureau of Air Regulation
Permitting South

AAL/th

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