UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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CHICAGO, IL 60604-3590

MAR 26 2007

REPLY TO THE ATTENTION OF:

(AR-18J)

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46204

Re: Essroc Plant-wide Applicability Limitation Permit (No. 019-21450-00008)

Dear Ms. Sizemore:

On November 29th, 2006 we completed a review of and submitted comments on a draft Plant-wide Applicability Limitation (PAL) permit for Essroc Cement Corporation in Speed, Indiana (permit # 21450). After further discussions with your staff and Essroc, we would like to clarify our concerns originally provided to you in November.

As you are aware, the proposed permit would establish plant-wide emission limitations for nitrogen oxides (NOx) and sulfur dioxide (SO2), with a baseline period starting August 1, 1995, and ending July 31, 1997. The facility listed two "major" emission units (or stacks), as defined by 40 C.F.R. § 52.21(aa)(2)(iv), that would be covered by the PAL: Kiln #1 and Kiln #2. Based on our discussions and further review, we have two concerns that should be addressed prior to issuance of the final permit.

First, we are concerned that the proposed PAL limit for NOx for Kiln #2 does not consider all federally enforceable limitations. The definition of baseline actual emissions states that the PAL "shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply...." (40 C.F.R. § 52.21 (b)(48)(ii)(c) and 326 IAC 2-2-1(e)(2)(C)). The Technical Support Document (TSD) for the new source review (NSR) Reform rules clarifies that sources must adjust their baseline actual emission rates to account for all legally enforceable operational restrictions that have been imposed on the sources since the baseline period (see page I-3-8 and 9 of the November 22, 2002 TSD for the Prevention of Significant Deterioration and Non-attainment Area New Source Review Regulations). IDEM established the proposed PAL limit utilizing the allowable emission limitation of 4.4 pounds per ton of clinker, required by 326 IAC 10-1-4(b)(1) of Indiana's State Implementation Plan (SIP). However, it appears that IDEM did not adjust the baseline actual emissions rate downward to account for additional emission reductions required since the proposed baseline period.

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The permitting record shows that two applicable requirements have taken effect since the chosen 1995-1997 baseline period. The first is a requirement to comply with the 4.4 pounds per ton of clinker emission limit contained in 326 IAC 10-1-4. Essroc complied with this requirement by installing an indirect firing system and a low-NOx burner in 1997. The second applicable requirement is the Nitrogen Oxide Reduction Program contained in 326 IAC 10-3-3 of the SIP. Having a choice of three options to demonstrate compliance with this program, Essroc chose to comply by operating a low-NOx burner (see Condition D.3.7(a) of Essroc's June 15, 2004 Part 70 Operating Permit). Since the operation of a low-NOx burner is required by a federally enforceable permit limitation, Indiana Department of Environmental Management (IDEM) must consider any emission reduction that result from the operation of the low-NOx burner in establishing the PAL baseline actual emission rate for NOx.

We therefore do not agree that Essroc can set its PAL baseline actual emissions rate based on the 4.4 pounds per ton SIP allowable emission limitation. The PAL limit must be adjusted to recognize the operation of the low-NOx burners.

Secondly, the SO2 PAL proposed in the permit is based on two separate stack tests completed on Kilns #1 and #2 in 2001 and 1996, respectively, each of which lasted less than 24 hours. We do not believe that these tests are adequate to establish the PAL in accordance with the definition of "baseline actual emissions" which states "the average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions" (40 C.F.R. § 52.21(b)(48)(ii)(e)). Sulfur dioxide emissions from cement kilns are highly variable, as is evidenced by our review of continuous emission monitoring (CEM) data for this type of facility. We find that the establishment of a PAL based on less than one day of data from a facility with highly variable emissions, without sufficient information pertaining to the sulfur content of the raw material, is not adequate for the establishment of a PAL.

We ask that IDEM resolve the concerns above prior to permit issuance. If you have any questions regarding these comments, please feel free to contact Ethan Chatfield, of my staff, at (312) 886-5112.

Sincerely yours,

Pamela Blakley

Pamela Blakley, Chief
Air Permits Section