



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND QUALITY

January 22, 2009

REPLY TO THE ATTENTION OF:

LR-8J

Corey Conn
ESSROC Cement Company
3084 West C.R. 225 South
Logansport, IN 46947

Re: Risk Assessment Update Request
ESSROC Cement Company
IND 005 081 542

Dear Mr. Conn:

The United States Environmental Protection Agency has reviewed the Comparative Risk Analysis contained in the Section 11 of the Part B RCRA Application, dated May 2008. The revised Part B application was submitted in August 2008. This Comparative Risk Analysis, along with Part B application, was submitted to renew the federal portion of the RCRA permit. The federal RCRA permit was expired on November 7, 2008. Since ESSROC submitted a timely and complete Part B application, the federal RCRA permit will remain in effect beyond the expiration date. A Comprehensive Performance Test (CPT) plan, dated October 2008, was submitted. It is indicated that ESSROC plans to conduct a comprehensive performance test in July 2009.

U. S. EPA decided to delay the issuance of the federal portion of the RCRA permit renewal because the Comparative Risk Analysis needs to be updated with more site-specific data and recent dispersion modeling.

Based on the review of Comparative Risk Analysis report, U.S. EPA believes that a portion of the site-specific risk assessment (SSRA) needs to be redone for the ESSROC facility as part of its RCRA permit renewal. ESSROC submitted updates to an existing risk assessment dating back to 2003. This risk assessment was updated but not rerun by ESSROC in 2008. A number of changes were made to EPA's Human Health Risk Assessment Protocol for Hazardous Waste Combustors in 2005 (HHRAP) especially as they relate the fate and transport of mercury in the environment. ESSROC attempted to address some of these changes, but the effort was not complete.

EPA believes a portion of the SSRA be redone based on the following factors from 40 CFR § 270.10(I):

(i) Particular site-specific considerations such as proximity to receptors (such as schools, hospitals, nursing homes, day care centers, parks, community activity centers, or other potentially sensitive receptors), unique dispersion patterns, etc.;

The ESSROC facility is 1.6 miles from a lake used and promoted for public fishing.

(ii) Identities and quantities of emissions of persistent, bioaccumulative or toxic pollutants [PBTs] considering enforceable controls in place to limit those pollutants;

Mercury, a PBT, has been detected in stack emissions at ESSROC.

(v) Presence of significant ecological considerations, such as the proximity of a particularly sensitive ecological area;

Nearby lakes used for public fishing present a potential for ecological bioaccumulation of mercury.

(viii) Adequacy of any previously conducted risk assessment, given any subsequent changes in conditions likely to affect risk;

Previous risk assessments did not include evaluation of mercury dry vapor deposition, a significant pathway in the fate and transport of mercury.

The October 12, 2005 Federal Register notice concerning SSRAs states that, in addition to the factors presented above, on-going uncertainty related to the fate and transport of mercury in the environment and the biological significance of mercury exposures in fish continue to be a concern and that these uncertainties stem from a lack of information regarding the behavior of mercury in the environment. The 2005 FR also says: “. . . facilities and risk assessors are free to use the most up-to-date air modeling tools and toxicity values available (i.e., they would not be bound to regulations requiring the use of obsolete tools and information).”

In order to better address uncertainties in mercury fate and transport, especially as it impacts nearby fishing resources, EPA requires that additional air-dispersion modeling be conducted in accordance with the 2005 HHRAP and that dry deposition of mercury and mercury compounds be included. Additional facility-specific information is also needed and can be obtained during upcoming compliance test burns. Particle size distribution and mercury speciation (Ontario-Hydro method) will result in more representative dispersion and deposition data. In the event that feedrate restrictions may become necessary, EPA also recommends that ESSROC document system removal efficiency (SRE) for mercury. This can be accomplished by rigorously testing actual wastes fed during the test, or by sampling the exhaust gasses prior to air pollution control equipment in addition to sampling stack gasses.

Therefore, the U.S. EPA requests ESSROC to submit:

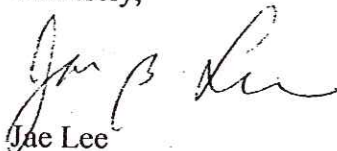
- (1) an addendum of the CPT to include a site specific particle size distribution and mercury speciation (Ontario-Hydro method) to be obtained during the upcoming comprehensive compliance test. This addendum shall include, but not be limited, specific sampling and analytical method to determine particle size distribution and mercury speciation. ESSROC should implement the approved CPT addendum during the comprehensive performance test.
- (2) a revised Comparative Risk Analysis contained in the Section 11 of the Part B RCRA Application to include an additional air-dispersion modeling to be conducted in accordance with the 2005 HHRAP and to include dry deposition of mercury and mercury compounds.
- (3) a waste analysis plan which include sampling and quality assurance project plan for the sampling and analysis of the hazardous waste to be fed for the compounds to be analyzed during the upcoming comprehensive performance test.

Please submit above three documents within 45 days of this letter for the review and approval of U.S. EPA.

The revised comparative risk analysis report, along with site-specific data (particle size distribution and mercury speciation) would enable ESSROC to better characterize the risk posed by the ESSROC's emissions. Based on the risk assessment report to be submitted by ESSROC after the comprehensive performance test, U.S. EPA will issue a RCRA permit renewal. Depend on the results of the updated risk assessment report, more stringent risk-based permit conditions would be included in the RCRA permit renewal.

If you have any questions for this request, please contact me at 312-886-3781. More specific questions can be forwarded to Todd Ramaly, Dispersion Modeling Coordinator, at 312-353-9317, or Chris Lambesis, Risk Assessment Coordinator, at 312-886-3583.

Sincerely,



Jae Lee
Permit Writer
RCRA Branch

cc: Victor Windle, IDEM