

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

In re:)	
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Mississippi Lime Co.)	PSD Appeal No. 11-01
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Permit No. 157683AAC)	
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MISSISSIPPI LIME COMPANY'S RESPONSE TO THE PETITION FOR REVIEW

Mississippi Lime Company (Mississippi Lime), for its response to the Petition for Review, states as follows:

Mississippi Lime agrees with the Response to Petition for Review filed by Illinois EPA on all points.

In addition, on the issue of the appropriate safety margin, it is clear that the Environmental Appeals Board recognizes that permit writers have the discretion to allow permittees to achieve compliance on a consistent basis. *In re Steel Dynamics, Inc.*, 9 E.A.D 165, 188 (EAB 2000). Specifically, a "safety factor" can be used in the emission limit calculation to take into account the variability in expected performance of the pollution control measures. *In re Vulcan Construction Materials, LP*, Slip Opinion, March 2, 2011 (EAB 2011). Where the technology's efficiency at controlling pollutant emission is known to fluctuate, setting the emission limits to reflect the highest control efficiency would make violations of the permit limits unavoidable. *Id.*

It is clear from the record that the proposed lime kilns with "natural scrubbing," start up and cool down cycles, variations in fuel characteristics, and other operational variabilities, are

known to have fluctuations in emissions. Therefore, it is appropriate to set the emissions limitations higher than the measured emission rate. *See Vulcan* at 31.

The determination of the emission limitation using a "safety factor" is "fact-specific and unique to the particular circumstances of the selected technology, the context in which it will be applied, and available data regarding achievable emission limits." *In re Prairie State*, 13 E.A.D. 1, 55 (EAB 2006). A compliance or safety margin only becomes impermissible where it is excessively large or is not sufficiently supported. *Id.* The issue, then, is whether Illinois EPA properly exercised and explained the use of its judgment in determining the emission limits including any "safety factors."

Like *In re Russell City Energy Cntr.*, PSD Appeal Nos. 10-01 through 10-05, (EAB Nov. 18, 2010), Illinois EPA properly determined that the "safety margin" used was appropriate. There is ample evidence in the record supporting the permit decision. For example, Illinois EPA considered the lower emission rates for the Green Bay, Wisconsin facility. Illinois EPA stated that because of expected fluctuations and variability for lime kilns, the permit limits that varied from the Green Bay limits by 20%, were reasonable. This is similar to the reasoning of the agency in the *Russell City* matter. Illinois EPA went on to explain that because the proposed kilns have continuous emission monitoring systems, the difference was justified and reasonable. *Response to Comment 49, Petitioner's Exhibit 3, p. 22.*

Illinois EPA also pointed out that a lower particulate matter testing level at the Graymont kiln was not dispositive because it was appropriate to set the permit limits to account for normal variations in the control of particulate emissions. *Response to Comment 53, Petitioner's Exhibit 3, p. 24.* Specifically, Illinois EPA explained

For an emission unit controlled by a fabric filter it is certainly reasonable that considerations of a safety factor lead to an emission

limit that is twice the emission rate measured in any particular test that is representative of proper operation of such unit and associated filter.

In addition to the usual consideration for the "safety factor" that should be reflected in these limits, another factor is that a limit is being set for total particulate, including both filterable and condensable particulate. This raises uncertainty as to the test method used to measure condensable particulate in that test as compared to revised test method for measurement of condensable particulate recently adopted by USEPA.

Response to Comment 53, Petitioner's Exhibit 3, p. 24, footnotes 28 and 29.

The record also supports the modest margin of safety used by Illinois EPA. As explained in its Response to Petition for Review, Illinois EPA was aware that emissions of some lime kilns had tested emission levels that were lower than the BACT limits set for the proposed kilns. In response, it clearly and appropriately explained why those measurements have little value for determining BACT because kiln limits are set by considering many factors that vary from kiln to kiln. The calculations used in the present permit were performed applying the factors and methodologies that were appropriate for the proposed kilns that were subject to the permit.

When specific BACT limits for other kilns were pointed out in the comments, Illinois EPA properly pointed out the differences between those kilns and the proposed kilns. For example, Illinois EPA explained why the SO₂ BACT limit proposed for the Western Lime kiln was actually significantly more than the BACT limit set for the proposed kilns, even with the "margin of safety." *See, Response to Petition for Review, p. 19.* Illinois EPA also explained that other key factors are important to determining the SO₂ limits and that Petitioner did not support its argument that the Western Lime BACT was relevant.

Illinois EPA addressed why the Green Bay, Wisconsin test data could not be considered because critical data was missing. *Response to Comments 39 and 40, Petitioner's Exhibit 3, pages 17 and 18.* Petitioner alleges that much of the data was supplied to Illinois EPA at the

time of the comment and submitted the information as Exhibits 8 and 9 of its Petition. The btu value and sulfur content of the fuel, however, are missing from the test data submitted. Since the SO₂ emission rate is largely determined by the sulfur content of the fuel, this information is critical. The SO₂ emission factors in AP-42, Section 1.1, “Bituminous and Sub-bituminous Coal Combustion,” require the sulfur content of the fuel. Without the missing information, the data submitted was useless. Illinois EPA also points out in the footnote that a mass balance calculation may yield a more representative emission factor for a specific facility. *Response to Comment 39, Petitioner's Exhibit 3, page 17, footnote 19.* Illinois EPA was correct in dismissing the data.

No data presented by Petitioner suggests that the "safety factor" used by IEPA to account for natural variability is excessively large or is not supported. In addition, unlike the record in *Vulcan*, IEPA specifically discussed the need for a safety margin, explained the justification for its margins and sufficiently distinguished the data from other facilities.

Therefore, even if it is determined that Petitioner properly raised the issue during the comment period, Illinois EPA exercised its discretion appropriately in setting the BACT levels. Remand on that issue is not appropriate.

Petitioner also claims that the Illinois EPA failed to provide “a response to comments that identifies the fuel sulfur content that contradicts the assumptions underlying the permit’s BACT limit for SO₂ and requires a lower BACT limit.” *Petition for Review, page 3, issue (3)(c).* Petitioner, in its original comments, essentially argued that the BACT analysis for SO₂ was too vague. *Petitioner's Exhibit 2, pages 5-7.* Illinois EPA’s response agreed that the analysis presented did not correctly portray the cost-effectiveness of the use of a lower sulfur coal and presented a cost effectiveness analysis between Illinois High Sulfur Coal (3.2% sulfur), Illinois

Low Sulfur Coal (1.4% sulfur) and Western Coal (0.6% coal). *Response to Comment 59, Petitioner's Exhibit 2, pages 26 and 27.* Petitioner, for the first time in its Petition for Review, raises the argument that there is “no basis for the 3.5% sulfur coal underlying the BACT limit.” *Petition for Review, page 31.* This “no basis for the 3.5% sulfur coal” was not raised in Petitioner's comments. Specifically, petitioner commented that (1) lower sulfur fuels should be considered, (2) that the analysis was too vague, (3) that the SO₂ emissions for each coal type in the application was not supported by the record, and (4) a cost-effectiveness analysis was needed. *Petitioner's Exhibit 2, pages 5-7.* Since the issue was not raised during the comment period, it has not been preserved for review.

Even if the issue was properly raised and preserved, Petitioner wrongly assumes, as explained by Illinois EPA in its Response, that the fuel proposed in the permit was 3.5% sulfur coal. The fuel used for the permit calculations was a mix of coal and petroleum coke with a 3.5% sulfur content. *See Response to Petition for Review, page 22.* Calculations were provided as part of the permit process using the sulfur fuel content of 3.5%. The purported BACT limit calculations in Petitioner's Petition for Review, therefore, are of no consequence. Remand on this point is not appropriate.

For the reasons stated in Illinois EPA's Response to Petition for Review, the reasons stated above, and based on the entire record, the Petition for Review should be denied.

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CERTIFICATE OF SERVICE

I hereby certify that on May 6, 2011, I electronically filed foregoing with the Clerk of the Environmental Appeals Board and on the same day mailed a copy by First Class Mail to:

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