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

IN THE MATTER OF:	)	
	)	
VULCAN CONSTRUCTION MATERIALS, LP	)	PSD APPEAL NO. 10-11
	)	
PERMIT NO. 91806 AAB	)	

The State Of Illinois ("Illinois"), by and through Illinois Attorney General Lisa Madigan, hereby files this Response ("Response") to the SIERRA CLUB's ("Petitioner" or "Sierra Club") Petition for Review ("Petition") of the above-referenced Clean Air Act permit issued to VULCAN CONSTRUCTION MATERIALS, INC., LP ("Vulcan") by the Illinois Environmental Protection Agency ("Illinois EPA"). Illinois respectfully requests that the Environmental Appeals Board ("Board") deny the Petition for Review for the reasons set forth within this Response.

I.

INTRODUCTION

The Petition challenges the Construction Permit/Prevention of Significant Deterioration ("PSD") Approval issued on April 9, 2010 to Vulcan pursuant to § 165 of the Clean Air Act (42 U.S.C. §7475) and §39.5(f) of the Illinois Environmental Protection Act (the "Act") 415 ILCS 5/39.5(f)(2008).

A. Relevant Case History

On October 27, 2003, Vulcan applied for a revised air pollution control construction permit for its lime plant at its existing limestone quarry located south of Manteno, Kankakee County, Illinois. (*See Petitioner's Exhibit 5, pg.* 1). Lime is manufactured in kilns by high-temperature roasting or "calcinations" of limestone. (*Id. at* 1). The principal source of emissions

at a lime plant is the kiln. (*Id. at* 1). Vulcan proposes to enhance the emission control for the lime kiln by among other revisions, by installing a dry scrubber system. (*Id. at* 1).

After preliminary review of the application, Illinois EPA prepared a draft permit for public notice and comment. Public notice was placed in the Kankakee Daily Journal on April 17, 2009, April 24, 2009 and May 1, 2009, as well as in the Manteno News on April 23, 2009, April 30, 2009 and May 7, 2009. (*Petitioner's Exhibit 6, pg.* 2). A public hearing was held at the Manteno High School on the evening of June 4, 2009 to receive comments and address questions from the public on the permit application and draft permit. (*See generally, Petitioner's Exhibit 3, Transcript of the Public Hearing*). The written comment period was scheduled to remain open until July 6, 2009. However, this was extended with the comment period closing on July 22, 2009. (*Petitioner's Exhibit 6, pg.* 3).

Illinois EPA issued a state Construction Permit and PSD Approval Permit No. 91806AAB to Vulcan on April 9, 2010, hereinafter "Permit". (*Petitioner's Exhibit* 1). The Permit authorizes Vulcan to construct emission source(s) and/or air pollution control equipment consisting of one 600 ton/day rotary lime kiln preheater tower controlled by a spray dryer absorber and fabric filter, limestone storage and handling, coal and petroleum coke storage and handling, fabric filter dust handling, and lime storage, handling and loadout. (*Id. at 1*).

Petitioner filed a Petition for Review with the Board on or about May 9, 2010. The Petitioner challenges the Illinois EPA's permitting determination on grounds relating to the PSD approval.

B. Statutory Background

The federal PSD program under the Clean Air Act ("CAA") principally regulates proposed new major sources and major modifications to existing sources in areas of the Nation

that are deemed attainment or unclassifiable with respect to the National Ambient Air Quality Standards ('NAAQS"). See, 42 U.S.C. §7170 et seq. Among other things, the PSD regulations require a pre-construction review of a violation of the NAAQS or applicable PSD ambient air quality increments, 40 C.F.C. §52.21(k), and a demonstration that subject sources will employ the Best Available Control Technology ("BACT") to minimize emissions for all PSD pollutants emitted in major or significant amounts. *See,* 40 C.F.R. §52.21(j).

Illinois EPA administers the PSD program for the State of Illinois, pursuant to a delegation agreement with the USEPA/Region V. See, 46 Fed. Reg. 9,580 (January 29, 1981). For purposes related to this petition, Illinois EPA is a delegated state permitting authority that "stands in the shoes" of the Administrator of the USEPA when implementing the federal PSD program. See, 46 Fed. Reg. 9,580 (January 29, 1981); *In re Zion Energy, LLC,* 9 E.A.D. 701, 701-702, fn.1 (EAB, 2001). A PSD permit issued by the Illinois EPA is subject to review by the Board in accordance with40 C.F.R. §124.19 Id.

II

STANDARD OF REVIEW

The Board's review of final PSD permit decisions is governed by the procedural requirements of 40 C.F.R. Part 124. Review is warranted where the permit decision involves "an exercise of discretion or an important policy consideration." 40 C.F.R. §124.199(a) (1) and (2). In construing these requirements, the Board has consistently recognized that its review authority is exercise "sparingly" and that the scope of such review is carefully circumscribed. See, 45 Fed. Reg. 33,290, 33,412 (May 19, 1980); accord, *In re Knauf Fider Glass*, 8 E.AD. 121,127, (EAB, March 27, 2001).

It is a long-standing Board policy to favor final adjudication of most permitting decisions

at the Regional or appropriate state level. See, *In re MCN Oil & Gas Company*, UIC Appeal NO 02-03, slip op at 6 (EAB, September 4, 2002) 2002 WL 31030985. In the absence of clear error or other compelling reason warranting review, the Board defers to the Regional or delegated state permitting authorities. *In re Metcalf Energy Center*, PSD Appeal Nos. 01-07 and 01-08, slip op. at 12 (EAB, August 10, 2001). Nowhere is the Board's deference more evident than in matters that are "quintessentially technical" in nature. Id.; *In re Three Mountain Power, LLC*, 10 E.A.D. 39 (EAB, May 30, 2001).

A petitioner is obligated to "explain why the permitting authority's response to those objections is clearly erroneous of otherwise merits reveiw." *In re Zion Energy, LLC*, 10 E.A.D. 701(EAB, May 27, 2001), citing *In re Knauf Fiber Glass, GmbH,* supra. A petitioner cannot simply repeat or restate the arguments presented during the public notice period but must, instead, supply information or technical grounds in its petition that demonstrate the merits of administrative review. See, *In re Steel Dynamics, Inc.*, 9 E.A.D. 165 (EAB June 22, 2000), citing *In re Maui Electric Company*, 8 E.A.D. 1 (EAB, September 10, 1998).

The Board also requires that a petitioner, in identifying its objections to a permit make its allegations both "specific and substantiated," especially where the objection involves "technical judgments" of the permit authority. See *In re Avon Custom Mixing Services, Inc.*, 10 E.A.D. 700 (EAB, August 27, 2002). This burden ensures that the issues and/or arguments on appeal are well defined and actually represent a "bona fide" disagreement between the petitioner and the permit authority. If expert opinions or data are in conflict, the Board examines the record of the proceeding to determine whether the permit authority had adequately considered the issue and whether its decision is "rational in light of all the information in the records, including the conflicting opinions and data." *In re Three Mountain Power, LLC*, PSD Appeal No. 10-05, slip

op. at 17 (EAB, May 30, 2001), citing, *In re Steel Dynamics, Inc.*, 9 E.A.D. 165 (EAB June 22, 2000).

The foregoing standard necessitates that the Board deny Petitioner's review of the Illinois EPA's permit decision. Petitioner may believe that the Permit "raises important policy considerations", unfortunately that is not a basis for review and remand. Additionally, the arguments raised by Petitioner are highly technical and as such require that the arguments be "specific and substantiated" and they are not. Illinois EPA offers a reasoned response to Petitioner's arguments and therefore the Permit decision was not clearly erroneous and must stand.

III.

ARGUMENT

Petitioner raises four issues in its Petition for Review: (1) Illinois EPA failed to include specific BACT limits for $PM_{2.5}$; (2) Illinois EPA failed to require proper preconstruction ambient air quality monitoring, and did not include justification for use of regional monitoring data; (3) Illinois EPA failed to establish BACT for carbon monoxide ("CO") and nitrogen oxides NO_x; and (4) Illinois EPA failed to ensure the facility would not violate the new 1-hour NO_x NAAQS. Additionally, Petitioner requests that the Board order the Illinois EPA include CO_2 limits if the Permit is not "final" by January 2, 2011.

A. Illinois EPA's Permit Decision Did Include BACT for Emissions of $PM_{2.5}$

As set forth above, the CAA and the PSD regulations require, among other things, that new major stationary sources and major modifications of such sources employ BACT to minimize emissions of regulated pollutants. CAA §165 (a)(4), 42 U.S.C. §7475(a)(4); 40 C.F.R. §52.21(j)(2). The PSD regulations define BACT in part as follows:

> "Best Available Control Technology" means an emissions limitation...based on the maximum degree of reduction for each pollutant subject to regulation under the CAA which would be emitted from any proposed major stationary source... which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for the source...

40 C.F.R. §52.21(b)(12). Under the rules governing the PSD permitting process, the permit applicant is responsible for proposing emission limitations that constitute BACT for each regulated pollutant and for providing information on the control alternatives that can be used to achieve it. 40 C.F.R. §52.21(n)(1)(iii). The ultimate BACT decision is made by the permit-issuing authority. *In Re RockGen Energy Center* 8 E.A.D. 536, 541 (EAB 1999).

As set out by the Board in *In Re Desert Rock Energy Co.*, PSD Appeals Nos. 08-03, 08-04, 08-05 & 08-06, slip op. at pg. 50 (Sept. 29, 2009) (14 E.A.D. ____), A petitioner challenging an issue that is fundamentally technical in nature bears a particularly heavy burden because the Board generally defers to the permit issuer on questions of technical judgment. *E.g., Dominion*, 12 E.A.D. at 510; *Peabody*, 12 E.A.D. at 33. Nevertheless, the Board has stated that BACT determinations, which are generally technical in nature, are one of the most critical elements in the PSD permitting process and thus "should be well documented in the record, and any decision to eliminate a control option should be adequately explained and justified." *Indeck*, slip op. at 11, 13 E.A.D. at __ (citing *In re Knauf Fiber Glass GmbH*, 8 E.A.D. 121, 131(EAB 1999)); *accord In re Newmont Nev. Energy Inv., LLC*, 12 E.A.D. 429, 442 (EAB 2005); *In re Gen. Motors, Inc.*, 10 E.A.D. 360, 363 (EAB 2002). Consequently, in evaluating a BACT determination on appeal, the Board looks at whether the determination "reflects 'considered judgment' on the part of the permitting authority," as documented in the record. *Knauf*, 8 E.A.D. at 132; *accord In re Masonite Corp.*, 5 E.A.D. 551, 566-69 (EAB 1994) (analyses incomplete); *In re Austin Powder Co.*, 6 E.A.D. 713, 720 (EAB 1997); *GSX Servs.*, 4 E.A.D. at 454. Petitioner argues that the

Illinois EPA by not including a specific $PM_{2.5}$ emission limit in the Permit has committed an error requiring remand. Petitioner has not met the heavy burden set out by the Board for this argument to succeed.

The Illinois EPA in considering this issue in its Responsive Summary stated that, Particulate Matter ("PM") emissions serve as a surrogate for $PM_{2.5}$ BACT provisions expressed in terms of PM also ensure adequate $PM_{2.5}$ controls. PM limits require proper operation filters, which control the process units. Filters are the "best devices" for controlling fine particulate matter. For other operations that are controlled by work practices, PM requirements reflect "best practices" for emissions of PM, PM_{10} and $PM_{2.5}$. PM requirements provide more certainty and better practical enforcement because they are readily implemented. Because USEPA has not finalized an adequate reference test for $PM_{2.5}$ and there is a dearth of data on $PM_{2.5}$ emissions based on actual testing, $PM_{2.5}$-specific BACT requirements would be less stringent and less effective. (*Petitioner's Exhibit 6, pg. 37*).

Illinois EPA further stated that, the Vulcan plant is an ideal situation in which to use PM as a surrogate. PM and $PM_{2.5}$ are directly correlated so decreased emissions in PM means decreased emissions in $PM_{2.5}$. PM requirements do not require different control technology than do $PM_{2.5}$ requirements. Filtration is commonly recognized as the most effective control technology for filterable particulate matter, when filtering is feasible. This technology is applicable to lime kilns. Such is evidenced by the fact that the technology underlies the particulate limit set to address emissions of particulate hazardous air pollutants from lime kilns set by National Emissions Standards for Hazardous Air Pollutants for the lime manufacturing industry. *Id at 37.*

The BACT determination for the kiln includes a limit for total emissions of particulate,

including filterable and condensable, because the plant was subject to PSD before USEPA issued a moratorium on including condensable particulate in $PM_{2.5}$ and PM_{10} emissions. Control measures for PM also address $PM_{2.5}$ for areas of the plant that do not involve combustion. The baghouse on the kiln must be refitted and operated with filter bags that have a Teflon membrane. Dry scrubbing must be used to control the emissions of SO_2 and add-on controls will be used to control SO_3 emissions. Given the nature of these operations it would be impractical to set requirements that only target the $PM_{2.5}$ fraction of emissions. SO_2 and NOx are both subject to PSD and thus to BACT. Therefore, both are controlled, as they constitute precursors to $PM_{2.5}$ in the atmosphere. *Id at 38.*

In its May 2008 proposed rulemaking USEPA stated the $PM_{2.5}$ PSD program would no longer use PM_{10} as a surrogate once the propose rule on increments, SILs and SMC is finalized. *See Implementation of New source Review Program for Particulate Matter Less Than 2.5 Micrometers,* 73 FR 28,321, May 16, 2008. This proposed rule has not yet been finalized. The fact that USEPA is engaged currently in rulemaking to repeal the grandfathering provision in the PSD also suggests that a modified form of either the grandfathering provisions or the PM_{10} surrogate policy might be adopted on an interim basis. Moreover, USEPA's formal PM_{10} surrogate policy is an embodiment of a broader technical approach to the control of emissions. This approach allows control requirements to be adopted and set in terms of a surrogate pollutant when the surrogate pollutant reasonably stands in place of the pollutant of concern. Illinois EPA has determined that for the proposed plant $PM_{2.5}$ limits are most appropriately addressed in terms of PM. This does not mean that the rates of PM, PM_{10} and $PM_{2.5}$ are assumed to be the same. The mere adoption of a NAAQS for $PM_{2.5}$ does not mean that emissions standards must be set in terms of $PM_{2.5}$. *See In Re Louisville Gas and Electric Co., Trimble County,* Petition No. IV -

2008-03, Order (August 12, 2009).

The assessment of the impact of the plant on $PM_{2.5}$ air quality, using results from the analysis for PM_{10} impacts, demonstrates the plant will not result in exceedances of $PM_{2.5}$ NAAQS. This conclusion is consistent with the general nature of $PM_{2.5}$ air quality in Illinois, in which air quality is generally correlated with the urban or rural nature of an area. Illinois EPA followed USEPA guidance on this issue, conducting further assessments to address $PM_{2.5}$ after the grandfather clause, which applied to a previous version of the PSD, was stayed by USEPA. The $PM_{2.5}$ analysis shows that the plant's emissions of $PM_{2.5}$ should not be a threat to human health or the environment. (*Petitioner's Exhibit 6, pgs. 39-40*).

The Pollution Control Board, not Illinois EPA, establishes air quality standards through rulemaking. Illinois EPA cannot set a $PM_{2.5}$ standard applicable specifically to this one plant. Moreover, in Illinois, $PM_{2.5}$ levels that pose a threat to human welfare are associated with urban areas, not rural ones like the site of this plant. The maximum annual ambient concentrations of $PM_{2.5}$ in the plant area should be significantly lower than15 $\mu g/m^3$. Reductions of $PM_{2.5}$ in urban areas will have the secondary effect of also improving air quality throughout the state.

On this highly technical issue the Illinois EPA did a detailed analysis of Vulcan's $PM_{2.5}$ impacts. (*Petitioner's Exhibit 6, pgs. 39-40*). Illinois EPA, after this analysis and using its considered judgment determined that controlling $PM_{2.5}$ emissions in terms of PM will not result in a violation of the $PM_{2.5}$ NAAQS. Petitioner has failed in its burden and has not demonstrated that Illinois EPA's analysis was improper or in other ways erroneous. For these reasons the Board should deny Petitioner's request for review on this issue.

B. Illinois EPA Utilized Appropriate Monitoring Data

Petitioner next argues that Illinois EPA failed to follow EPA guidelines in issuance of PSD

permits by utilizing regional air monitoring data instead of site specific data. This argument is not consistent with the CAA or prior EAB decisions. Section 165(a)(7) of the CAA states that a permit applicant must "...conduct such monitoring as may be necessary to determine the effect which emissions from such facility may have, or is having on air quality..." This is in contrast with Section 165(e)(2) of the CAA which provides that a PSD applicant may be required to conduct site-specific pre-construction ambient monitoring for up to one year to support the air quality analysis for a proposed project, the relevant criteria for the actual extent of any continuous ambient monitoring is whether such monitoring is needed for a complete and adequate analysis of the impacts of the proposed project. This position is supported by the Board's decision in the matter *In Re Northern Michigan University Ripley Heating Plant,* PSD Appeal No. 08-02, 14 E.A.D.____ (February 18, 2009), in which the Board stated, At the outset, we reject Sierra Club's contention that the plain language of the CAA and implementing regulations mandate the use of site-specific, sole-purpose preconstruction ambient air quality data. *See* Pet'n at 46-48 (quoting CAA § 165(a)(7), (e)(1)-(2), 42 U.S.C. § 7475(a)(7), (e)(1)-(2); 40 C.F.R. § 52.21(m)(1)(i), (iii)-(iv)); Reply to MDEQ at 25-26. In so arguing, Sierra Club overlooks statements of congressional intent to the contrary. H.R. Rep. No. 95-294, at 171 (1977) ("preconstruction, onsite air quality monitoring may be for less than a year if the basic necessary information can be provided in less time, or it may be waived entirely if the necessary data [are] already available"); H.R. Rep. No. 95-564, at 152 (1977) (Conf. Rep.) (one-year monitoring requirement "may be waived by the [s]tate"). EPA has long implemented the PSD program pursuant to the understanding that representative data may be substituted where circumstances warrant, *see, e.g.*, NSR Manual at C.18-.19; *Ambient Monitoring Guidelines* § 2.4, at 6-9, and the Board and its predecessors have long upheld the Agency's guidance to that effect.

E.g., *Knauf*, 8 E.A.D. at 145-48; *Haw. Elec.*, 8 E.A.D. at 97-105; *Hibbing*, 2 E.A.D. at 850-52. *In Re Northern Michigan University Ripley Heating Plant,* PSD Appeal No. 08-02, 14 E.A.D.__, (February 18, 2009), Slip Op. pgs. 61-62.

The ambient monitoring stations operated by IEPA provide the necessary data to support the air quality analysis. Therefore, there is no need for Vulcan to conduct on-site preconstruction monitoring. Section 165(e)(7) of the CAA states that permit applicants must conduct such monitoring as *may be* necessary to determine the effect the facility's emissions will have on air quality. 165(e)(2) provides only that an applicant may be required to conduct site-specific monitoring depending upon whether such monitoring is needed for a complete and adequate analysis of air quality impacts.

Furthermore, the ambient air quality stations have been in operation for many years, thus the stations are in compliance with CAA 165(e)(2)'s 12-month monitoring requirement. The stations also provide better data on background ambient air quality than would be provided by a project-specific monitoring program.

USEPA guidance provides that project-specific monitoring is not needed when other acceptable ambient air quality data is available. The NSR Manual, page C-19, states that if existing data is not available, or determined not to be representative, then a project-specific monitoring program must be implemented. In this case, Illinois EPA found the data from the stations to be representative, of appropriate quality and current, per USEPA requirements. Ambient monitoring stations in Illinois are sited to provide representative data in order to support air quality planning and management. The stations are also operated in accordance with quality assurance procedures so that data collected may be relied upon for these purposes.

The "waiver process," as it is addressed in the NSR Manual, also demonstrates that it is

common practice to use regional monitoring stations in place of site-specific monitoring data. A single value for ambient background air quality can be considered representative for all three areas as laid out in USEPA's Ambient Monitoring Guidelines, which are (1) location of maximum concentration increase from proposed project, (2) location of maximum air concentration from existing sources, and (3) location of the maximum impact area. The monitoring stations provide data to meet these criteria.

As the number and nature of existing sources of air pollution in the vicinity of the project are not significant, existing impacts can be accurately assessed based on a combination of selected background monitors and modeling. Therefore, use of the first scenario in section 2.4.1 of USEPA's Ambient Monitoring Guidelines, is appropriate. The first scenario allows the use of data from a regional monitoring station when the data is representative of air quality across the region.

Moreover, under section 8.2 of the Guidelines on Air Quality Models, it is not certain that these provisions in the Guidelines apply here. When regional monitors are used to determine background concentrations, the background impacts of existing major sources in the vicinity must be conservatively evaluated using dispersion modeling rather than data from monitoring. In addition, general background data for the area is evaluated in an appropriate form of maximum monitored air quality.

It was appropriate to use data from the three monitoring stations used to judge ambient air quality because they meet the Ambient Monitoring Guidelines criteria. The Braidwood station is situated in an area very similar to the project area at Manteno, while the Joliet and Midlothian stations are in significantly more developed areas and provide conservative representations of background air quality. The stations also meet the applicable "quality

requirements" for ambient monitoring. The stations are relied upon for designations as attainment and non-attainment areas. The USEPA conducts periodic audits of the stations as well.

The time period during which the data was collected meets USEPA's Ambient Monitoring Guidelines standards. Air quality in Illinois has improved in recent years. For example, since 2002 background concentration of PM_{10} has gone down by about 10%. Accordingly, the time period of data collection should not be a factor for modeling for the proposed plant.

The Illinois EPA conclusion that the plant would not significantly impact air quality or violate NAAQS was based on a combination of background monitoring data and a site-specific dispersal model. The background data included emissions from sources both upwind of and in the vicinity of the Vulcan project. Illinois EPA also assumed the maximum modeled impacts for the project and that any existing emissions were equal and additional to the background amount, to be conservative. The project's overall impact was consistently found to be below NAAQS, as well as PSD requirements. *See Generally Petitioner's Exhibit 6, pgs. 72-84.*

Illinois EPA has provided a sound basis for its reliance on regional monitoring for this project and its analysis and conclusion that the project would not cause or contribute to violation of the NAAQS is supported in the Record. For these reasons the Board should deny the Petitioner's request for review and find that the Illinois EPA's conclusions were not clearly erroneous.

C. Illinois EPA Conducted a Proper BACT Analysis for NO_x and CO

Petitioner next argues that Illinois EPA erred in setting BACT limits for NOx and CO. Illinois EPA in setting these limits allows for a "compliance margin", which Petitioner claims is

erroneous because these limits are less stringent than those detected during earlier stack testing. *See Petitioner's Petition for Review, pgs. 33*-34. However, in setting BACT limits the permitting authority retains a certain amount of discretion and can set limits that while not the highest, do allow the permit holder to achieve compliance on a consistent basis. *See Steel Dynamics, Inc.*, 9 E.A.D. 165, 188 (June 22, 2000). The Board in the past has permitted the use of "compliance margins" or "safety factors" to meet permit limits. In fact the Board has stated that, "There is nothing inherently wrong with setting an emission limitation that takes into account a reasonable safety factor. ... The inclusion of a reasonable safety factor in the emission limitation calculation is a legitimate method of deriving a specific emission limitation that may not be exceeded. *In Re Knauf Fiberglass,* 9 E.A.D. 1, 15 (March 14, 2000). Sierra Club refers to a memo from 2000 that identified several kilns with NOx emissions rates below 4.5 lb/ton. 4.5 lb/ton is the BACT limit set for the current project. This memo was composed in response to a Vulcan proposal in 2000 to set the NOx BACT limit at 9.7 lb/ton. The proposal was rejected by IEPA. The permit that was eventually issued set the limit at 4.5 lb/ton. This memo also listed test results from lime plants whose specific circumstances are not fully known. Thus, those test results cannot be correlated to the present Vulcan lime kiln project and cannot be used to set a NOx BACT limit for it. The memo did not propose that a certain limit be set for NOx or CO emissions.

Tests performed in the kiln at issue here, when it operated in the past, showed that NOx emissions were 3.45 lb/ton of stone feed. At least initially, a higher limit must be set to provide an operating margin to address normal variation in the operation of the kiln.

In addition, the memo cited by Sierra Club was a pre-decisional document prepared by an IEPA staff member, and was not an IEPA action. Contrary to Sierra Club's interpretation of the

memo, it does not conclude that the BACT determination is flawed or that conventional low-NOx burners should be retrofit and used on this kiln.

Contrary to Sierra Club's contention, a top-down BACT analysis was performed for CO (for example, refer to the Updated BACT Analyses, Nov. 2008.) The analysis considered various approaches to controlling CO. IEPA determined that good combustion practices should be used to control CO, as opposed to other methods, due to concerns over increasing emissions of other pollutants and the general feasibility of further reducing CO. The CO BACT was set based on historic measurements for the kiln at issue in 1999, which showed emissions of 4.76 lb/ton. The BACT limit was set at 11.48 lb/ton to allow a significant margin for compliance since CO emissions will be controlled by good combustion practices. The rate was also set at 11.48 lb/ton to provide for the relationship between NOx and CO. To reduce NOx emissions, the kiln must be operated with lower amounts of excess air, which may be accompanied by higher levels of CO. Finally, the CO BACT limit set here is consistent with the limit imposed on certain other new lime kilns. Two kilns in Pennsylvania were recently set at 13.25 and 19 lb/ton.

As previously stated, the ultimate BACT decision is made by the permit-issuing authority. *In Re RockGen Energy Center* 8 E.A.D. 536, 541 (EAB 1999). Illinois EPA's decision is well grounded, (*See Gennerally Petitioner's Exhibit 6, pgs. 65-69*), and is accorded technical deference. Petitioner has failed in its burden to show that the Illinois EPA decision on this issue was clearly erroneous and accordingly the Board should not grant Petitioner's request for review.

D. Petitioner's Request for Compliance with the 1-Hour NO_2 NAAQS Was Not Properly Preserved for Review; If Reviewed Illinois EPA Action was Not Clearly Erroneous

Petitioner argues that the Illinois EPA failed to ensure that Vulcan's facility will not violate the 1-hour NO_2 NAAQS[1]. Petitioner further argues that it did not raise this issue during the public comment period because it was not "reasonably ascertainable". (*Petitioner's Petition, pg. 36*). When evaluating a petition for review of a PSD permit, the Board first considers whether the petitioner has met the threshold pleading requirements, including preservation of issues for review. *See* 40 C.F.R.§ 124.19; *In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 5 (EAB 2000) (*Knauf II*). Among other things, in order to demonstrate that an issue has been preserved for appeal, a petitioner must show "that any issues being raised were raised during the public comment period." 40 C.F.R. §§ 124.13, 124.19(a); *In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 249 (EAB 1999). Moreover, this burden rests squarely with the petitioner — "It is not incumbent upon the Board to scour the record to determine whether an issue was properly raised below." *Encogen*, 8 E.A.D. at 250 n.10. Petitioner argues that by generally discussing NAAQS it has preserved this issue for review. The case law is clear that a general discussion is not sufficient to allow review. This argument is not a basis for review and remand.

Petitioner also places great weight on the fact that this rule became effective the day after Vulcan's permit was issued by the Illinois EPA and includes a discussion on when a permit is final versus issued. (*Petitioner's Petition, pg. 36*). It is the issuance date that controls in terms of what the permitting agency must consider. The Board in *Phelps Dodge, 10 E.A.D. at pg. 478, n. 10, (EAB 2002)*, stated that, the Region's obligation, as the permit issuer, is to apply the ... statute and implementing regulations in effect at the time the final permit decision is made, not as the statute or regulations may exist at some point in the future. Illinois EPA was under no compunction to retroactively apply the 1-hour NO_2 NAAQS that became effective after the

1 Petitioner refers to both a 1-hour NAAQS for nitrogen dioxide(NO_2) and 1-hour NAAQS for oxides of nitrogen(NO_x), in this brief both will be referred to as "1-hour NO_2 NAAQS.

issuance of the permit. Illinois EPA's decision to apply the regulations and only the regulations that were in effect on the date of permit issuance was not clearly erroneous. Petitioner's request for review and remand should be denied.

E. Petitioner's Request for BACT Limits for CO_2 Emissions Was Not Properly Preserved for Review

By its own admission Petitioner states that, "Sierra Club's immediate petition does not raise the issue of CO_2 BACT before the Board" (*Petitioner's Petition, pg. 39*). The Board stated in *Conocophillips Co., 13 E.A.D. 768, 775 (EAB 2008),* the burden of demonstrating that review is warranted rests with the petitioner challenging the permit condition. To obtain review, a petitioner must describe each objection it is raising and explain why the permit issuer's previous response to each objection was clearly erroneous or otherwise deserving of review. *In re Indeck-Elwood*, 13 E.A.D. 126, 143 (EAB 2006) (citing *Tondu Energy*, 9 E.A.D. at 714; *Encogen*, 8 E.A.D. at 252). For this reason the Board should not even consider this issue.

Additionally, as with the previous issue, there is no basis for including any type of limits that were not in effect on the date that the permit was issued. In fact the limits Petitioner is raising do not become effective until January 2, 2011. *See Reconsideration of Interpretation of Regulations that Determine Pollutants Covered by Clean Air Act Permitting Programs, Final Action on Reconsideration of Interpretation, 75 Fed. Reg. 17,004 (April 2, 2010)* ("Reconsideration of Johnson Memo"). Petitioner posits that if Vulcan's permit is not final until after January 2, 2011, then Illinois EPA must apply CO_2 BACT limits if the Board remands the Permit for any reason. Again, Vulcan's PSD permit was issued on April 9, 2009, at that time PSD did not apply to greenhouse gases ("GHGs"). Illinois EPA was correct in not imposing CO_2

BACT limits. Nor does the Board have authority to impose future regulations. Review and remand on this issue should be denied.

IV.

CONCLUSION

For the reasons set forth herein, the Illinois EPA respectfully requests that the Board deny review of all avenues of appeal sought by the Petitioner or, in the alternative, order such relief that is deemed just and appropriate.

Respectfully submitted,

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