IN RE POWER HOLDINGS OF ILLINOIS, LLC

PSD Appeal No. 09-04

ORDER DENYING PETITION FOR REVIEW

Decided August 13, 2010

Syllabus

This case involves a petition for review filed by the Sierra Club challenging certain conditions of a prevention of significant deterioration ("PSD") permit issued by the Illinois Environmental Protection Agency ("IEPA"), under delegated federal authority, to Power Holdings of Illinois, LLC ("Power Holdings") for construction of a synthetic natural gas ("SNG") manufacturing plant in Jefferson County, Illinois. The Sierra Club raises three issues on which it seeks review by this Board. These are:

(1) The permit fails to include a flare minimization plan ("FMP") as part of the final permit and allows Power Holdings to develop such a plan without full public participation. The Sierra Club asserts that any FMP must be made part of the permit and subject to applicable public participation requirements. In support of this argument, the Sierra Club cites to the Board's decision in *In re RockGen Energy Ctr.*, 8 E.A.D. 536 (EAB 1999).

(2) The permit allows SNG or natural gas to be used to fire "superheaters" at the plant without addressing emissions associated with the manufacture of SNG. The Sierra Club argues that, although IEPA may have correctly identified SNG and natural gas as the top control alternatives for selection as best available control technology ("BACT"), IEPA was still required to consider whether collateral impacts would justify selection of an alternative control option. The Sierra Club argues that had such collateral emissions been considered, SNG would have been eliminated as a permissible fuel for the superheaters.

(3) The permit fails to regulate greenhouse gases (CO_2 and methane), thus violating a State emissions limitation at Ill. Admin. Code tit. 35 § 201.141 incorporated into Illinois' approved state implementation plan ("SIP"). The Sierra Club argues that because IEPA, as a delegated state, stands in the shoes of EPA and administers the federal PSD program, IEPA was required to comply with all applicable regulatory provisions, including 40 C.F.R. § 52.21(j) which requires, in part, that major stationary sources "meet each applicable emissions limitation under the State Implementation Plan."

Held: The petition for review is denied in its entirety.

(1) The Board finds nothing erroneous in IEPA's treatment of the FMP. The permit contains numerous and detailed requirements for control of emissions from flaring during startup, shutdown, and malfunction events. These requirements are not affected by, and cannot be changed by, the disputed FMP requirement. Rather, the FMP requirements are in addition to the permit's BACT emissions limitations and to an extensive set of design and

operations requirements designed to assure compliance with these limits. Thus, unlike the permit provision this Board rejected in *RockGen*, the FMP requirement in this case does not operate in lieu of BACT emissions limitations. Rather, the FMP provision supplements these limitations and requires Power Holdings to develop methods to reduce emissions from flaring events based on actual operating experience. In addition, unlike in *RockGen*, IEPA modeled certain emissions associated with flaring events and determined that the permit is protective of both the National Ambient Air Quality Standards and applicable PSD ambient air quality increments even if flaring events were not reduced as a result of flare minimization planning. Nothing in the record before the Board demonstrates that the startup, shutdown, and malfunction requirements, even without the disputed FMP condition, would be insufficient to satisfy BACT and the Board is satisfied that, unlike *RockGen*, IEPA gave ample consideration to appropriate measures to minimize or eliminate such emissions.

(2) The Board concludes that the Sierra Club has failed to demonstrate the presence of collateral environmental impacts that would justify eliminating SNG as a fuel for the superheaters. Specifically, the Sierra Club has not demonstrated that the use of SNG results in emissions of any unregulated pollutant. Further, the alleged collateral impact in this case, *i.e.*, emissions resulting from the production of SNG for use in the superheaters, is already regulated under the permit and subject to enforceable BACT limitations. Under these circumstances, the Board concludes that this case does not involve significant or unusual circumstances justifying the rejection of SNG as BACT.

(3) The Board concludes that irrespective of whether the Sierra Club is correct that section 201.141 of the Illinois Administrative Code constitutes an "applicable emissions limitation" within the meaning of 40 C.F.R. § 52.21(j), the Sierra Club has failed to establish that section 201.141 is applicable to greenhouse gases. Because the State of Illinois has interpreted the disputed provision of its state SIP as inapplicable to greenhouse gases, and because this interpretation does not strike the Board as so unreasonable as to not be entitled to the substantial deference afforded state interpretations of their own laws, the Board declines to substitute its judgment for that of the IEPA.

Before Environmental Appeals Judges Edward E. Reich, Kathie A. Stein, and Anna L. Wolgast.

Opinion of the Board by Judge Reich:

I. *STATEMENT OF THE CASE*

The Sierra Club seeks review by the Environmental Appeals Board ("Board") of certain conditions of a prevention of significant deterioration ("PSD") permit issued by the Illinois Environmental Protection Agency ("IEPA") to Power Holdings of Illinois, LLC ("Power Holdings") for construction of a synthetic natural gas ("SNG") manufacturing plant in Jefferson County, Illinois. Both IEPA and Power Holdings have filed responses asserting that the Sierra Club has failed to demonstrate that review is warranted.

II. *ISSUES ON APPEAL*

Resolution of the Sierra Club's petition requires the Board to address the following three issues: (1) has the Sierra Club demonstrated that IEPA clearly erred by failing to include in the permit a flare minimization plan and allowing Power Holdings to develop such a plan without full public participation; (2) has the Sierra Club demonstrated that the permit impermissibly allows the permittee to combust SNG or natural gas in the "superheaters" at the plant without addressing emissions associated with the manufacture of SNG; and (3) has the Sierra Club demonstrated that the permit erroneously fails to ensure that carbon dioxide and methane emissions comply with an emissions limitation in Illinois' state implementation plan.[1]

III. *SUMMARY OF DECISION*

The Board concludes that the Sierra Club has not demonstrated that review is warranted. The Board therefore denies review for the reasons explained below.

IV. *STANDARD OF REVIEW*

Under the rules governing this proceeding, a PSD permit ordinarily will not be reviewed unless it is based on a clearly erroneous finding of fact or conclusion of law, or involves an important matter of policy or exercise of discretion that warrants review. *See* 40 C.F.R. § 124.19(a); Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,412 (May 19, 1980). The Board's analysis of PSD permits is guided by the preamble to section 124.19, which states that the Board's power of review "should be only sparingly exercised" and that "most permit conditions should be finally determined at the [permit issuer's] level." 45 Fed. Reg. at 33,412; *accord In re Cardinal FG Co.*, 12 E.A.D. 153, 160 (EAB 2005). The burden of demonstrating that review is warranted rests with the petitioner, who must raise objections to the permit and explain why the permit issuer's previous response to those objections is clearly erroneous or otherwise warrants review.

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[1] The Sierra Club also raises a fourth issue in its Petition for Review. In particular, the Sierra Club asserts that the permit in this case must be remanded because it fails to include BACT limits for greenhouse gases. The Sierra Club argues that the permit must include a BACT limitation for emissions of methane and carbon dioxide. *See* Petition at 17-39. However, in light of the Agency's recent determination stating that greenhouse gases are not subject to regulation until January 2, 2011, *see* Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 Fed. Reg. 17,004 (Apr. 2, 2010), and the Sierra Club's acknowledgment that "this case is now controlled by" the Agency's determination in this regard, Petitioner's Reply at 33, review is denied on this issue.

In re BP Cherry Point, 12 E.A.D. 209, 217 (EAB 2005); *In re Steel Dynamics, Inc.*, 9 E.A.D. 740, 744 (EAB 2001).

V. *PROCEDURAL AND FACTUAL HISTORY*

On October 18, 2007, Power Holdings applied for a PSD permit to construct an SNG plant in Jefferson County, Illinois. The facility is designed to gasify Illinois Basin coal to create pipeline quality gas that would then be sold to natural gas suppliers. *See* Project Summary for a Construction Permit Application from Power Holdings of Illinois LLC for a Synthetic Natural Gas Plant near Waltonville, Illinois ("Project Summary") at 2. The coal would be processed in gasifiers to produce a "synthesis gas" or "syngas." This syngas would then undergo further processing to remove contaminants and then a process of "methanation" to produce the final product: SNG. *Id*. Heat energy generated during the process of gasification, syngas cleaning, and methanation would be recovered as steam. Two superheaters would then raise the temperature of the recovered steam to power steam turbine-driven electrical generators used to provide electricity for the plant. *Id*. at 3.

On January 17, 2009, the IEPA issued a draft permit for the plant and made it available for public review and comment. *Id*. at 1, 21-22. IEPA also held a public hearing on the draft permit on March 3, 2009. Numerous parties, including the Sierra Club, participated in the public hearing and/or submitted written comments on the draft permit. The IEPA issued its final permit determination on October 26, 2009, (see Construction Permit – PSD Approval NSPS Emissions Units) (Oct. 26, 2009) ("Final Permit"), along with a document responding to comments submitted during the public comment period. *See* Responsiveness Summary for the Public Comments Period on a Construction Permit Application from Power Holdings of Illinois, LLC for a Proposed Synthetic Natural Gas Plant in Blissville Township, Jefferson County, Illinois (Oct. 2009) ("Response to Comments").

The Sierra Club filed its petition for review with this Board on November 25, 2009. Petition for Review ("Petition"). The IEPA filed a response to the Petition on March 4, 2010. Response to Petition for Review ("IEPA Response"). Power Holdings filed a response to the Petition on February 26, 2010. Permittee's Response to Petition for Review ("Power Holdings Response"). With the Board's permission, the Sierra Club then filed a reply to the responses and Power Holdings and IEPA filed sur-replies. *See* Petitioner's Reply (Apr. 5, 2010); Sur-Reply of the State of Illinois ("IEPA Sur-Reply") (Apr. 20, 2010); Permittee's Sur-Reply ("Power Holdings Sur-Reply") (Apr. 19, 2010). Finally, as invited by the Board, the Sierra Club filed a limited response to IEPA's Sur-Reply. Sierra Club's Response to the Sur-Reply of the State of Illinois ("Sierra Club's Sur-Reply") (May 5, 2010).

VI. *ANALYSIS*

A. *Relevant Statutory and Regulatory Provisions*

The Clean Air Act's PSD program serves to regulate air pollution in areas of the country deemed to be in "attainment" or "unclassifiable" with respect to federal air quality standards called "national ambient air quality standards" or "NAAQS." *See* CAA §§ 161, 165, 42 U.S.C. §§ 7471, 7475. NAAQS are "maximum concentration 'ceilings' measured in terms of the total concentration of a pollutant in the atmosphere." Office of Air Quality Planning and Standards, U.S. EPA, *New Source Review Workshop Manual* at C.3 (draft Oct. 1990) ("NSR Manual").[2] Congress charged EPA with developing NAAQS for air pollutants whose presence in the atmosphere above certain concentration levels could "reasonably be anticipated to endanger public health and welfare."[3] CAA § 108(a)(1)(A), 42 U.S.C. § 7408(a)(1)(A); *see* CAA § 109, 42 U.S.C. § 7409. In geographical areas deemed to be in "attainment" for any of these pollutants, the ambient air quality meets the NAAQS for that pollutant. CAA § 107(d)(1)(A)(ii), 42 U.S.C. § 7407(d)(1)(A)(ii). In areas designated as "unclassifiable," air quality cannot be classified on the basis of available information as meeting or not meeting the NAAQS. CAA § 107(d)(1)(A)(iii), 42 U.S.C. § 7407(d)(1)(A)(iii).[4] Parties who wish to construct "major emitting facilities"[5] in attainment or unclassifiable areas must obtain preconstruction approval in the form of PSD permits to build such facilities. CAA § 165, 42 U.S.C. § 7475.

As part of the permit issuance process, the PSD regulations at 40 C.F.R. § 52.21 require, among other things, that new major stationary sources of air pollution, and major modification of such sources, be carefully reviewed prior to construction to ensure that emissions from such facilities will not cause an ex-

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[2] The NSR Manual has been used as a guidance document in conjunction with new source review workshops and training and as a guide for state and federal permitting officials with respect to PSD requirements and policy. Although it is not a binding Agency regulation, the Board has looked to the NSR Manual as a statement of the Agency's thinking on certain PSD issues. *E.g.*, *In re ConocoPhillips Co.*, 13 E.A.D. 768, 772 (EAB 2008); *In re RockGen Energy Ctr.*, 8 E.A.D. 536, 542 n.10 (EAB 1999); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 129 n.13 (EAB 1999).

[3] NAAQS have been established for six criteria pollutants: sulfur dioxide, particulate matter, nitrogen dioxide, carbon monoxide, ozone, and lead. *See* 40 C.F.R. §§ 50.4 – 50.13.

[4] Areas may also be designated as "nonattainment," meaning that the concentration of a pollutant in the ambient air does not meet the NAAQS for that pollutant. CAA § 107(d)(1)(A)(i), 42 U.S.C. § 7407(d)(1)(A)(i). The PSD program is not applicable, however, in non-attainment areas. *See* CAA § 161, 42 U.S.C. § 7471.

[5] A "major emitting facility" is a stationary source in any of certain listed stationary source categories that emits or has the "potential to emit" 100 tons per year ("tpy") or more of any air pollutant, or any other source that has the potential to emit 250 tpy or more of any air pollutant. *See* CAA § 169(1), 42 U.S.C. § 7479(1).

ceedance of the NAAQS or applicable PSD ambient air quality "increments."[6] These permits must also require compliance with emissions limits constituting the "best available control technology available" or "BACT" to minimize emissions of regulated pollutants.[7] CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4); 40 C.F.R. § 52.21(b)(23), (j)(2)-(3).

When PSD permits are issued by a state pursuant to a delegation of the federal PSD program, as is the case here, such permits are considered EPA-issued permits and, therefore, are subject to administrative appeal to the Environmental Appeals Board ("Board") in accordance with 40 C.F.R. § 124.19.[8] *See, e.g.*, *In re Hillman Power Co.*, 10 E.A.D. 673, 675 (EAB 2002). In general, the Board's jurisdiction to review PSD permits issued by delegated states is limited to those elements of the permit that find their origin in the federal PSD program. In contrast, the Board lacks authority to review conditions of a state-issued permit, even if issued by a delegated state, that are adopted solely pursuant to state law. *See In re Sutter Power Plant*, 8 E.A.D. 680, 688, 690 (EAB 1999) (explaining that "[t]he Board has jurisdiction to review issues directly related to permit conditions that implement the federal PSD program," (citing *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 161 (EAB 1999)), and that "[t]he Board may not review, in a PSD appeal, the decisions of a state agency made pursuant to non-PSD portions of the CAA or to state or local initiatives and not otherwise relating to the permit conditions implementing the PSD program" (citing *Knauf I*, 8 E.A.D. at 167-68)).

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[6] A PSD "increment" refers to "the maximum allowable increase in concentration that is allowed to occur above a baseline concentration for a pollutant." NSR Manual at C.3; *see also* 40 C.F.R. § 52.21(c) (setting forth increments for regulated pollutants).

[7] BACT is defined, in part, as follows:

> [BACT] means an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under [the] Act which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

40 C.F.R. § 52.21(b)(12).

[8] IEPA administers the PSD program in Illinois pursuant to a delegation of authority from U.S. EPA Region 5 ("Region"). *See* Delegation of Authority to State Agencies, 46 Fed. Reg. 9580 (Jan. 29, 1981) (setting forth Delegation Agreement between State of Illinois and U.S. EPA); *In re Zion Energy, LLC*, 9 E.A.D. 701, 701 n.1 (EAB 2001).

B. *Petition for Review*

1. *Flare Minimization Plan*

As stated above, the proposed plant would process coal in gasifiers to produce a "synthesis gas," or "syngas," that would be processed further to produce the end product, SNG. As explained in the permit:

> The gasification block would have six identical gasifiers to convert coal into a synthesis gas or "syngas." The raw syngas from the gasifiers would then undergo a series of processes to remove contaminants from the gas and prepare it for conversion into synthetic natural gas (SNG). These cleanup processes would remove: 1) particulate matter; 2) mercury; and 3) sulfur compounds, primarily hydrogen sulfide (H_2S) from the raw syngas. The gasification block would also include the methanation units in which cleaned syngas would be converted into methane, which is the principal constituent of natural gas. * * * The gasification block would have two parallel gas processing trains, each designed to handle the raw syngas output from three gasifiers. During maintenance or other outage of one gas processing train, the plant would continue to operate at half capacity with the other train. In each gas processing train, a carbon bed would remove mercury from the raw syngas. Sulfur compounds would be removed in Acid Gas Removal (AGR) units.

Final Permit, Condition 4.1.1 (Description of Emission Units). During normal operation, the main emissions point would be from the AGR units. *Id*. However, during startup, shutdown, or malfunction events, "off specification" syngas is produced which cannot be processed into SNG. Project Summary at 9. This gas is vented to a flare system where it is disposed of through combustion. *See id*. The permit therefore establishes BACT requirements to address emissions occurring during such flaring events.[9]

In particular, the permit establishes numeric BACT emissions limitations that apply to emissions from all flares in the gasification block during startup,

[9] The Board notes that the Permit does not allow flaring during normal operation. *See* Final Permit Condition 4.1.2(b)(iii).

shutdown, and malfunction events. *See* Final Permit, Conditions 4.1.2.d, 4.1.6.[10] In addition, the permit contains numerous conditions relating to work practices and operating conditions designed to minimize emissions from flaring events and to ensure compliance with these limitations. *See id.*, Condition 4.1 (Unit Specific Conditions for the Gasification Block).[11] The permit also requires that the permittee engage in flare minimization planning as part of the permit's BACT work practices requirements. *See id.*, Condition 4.1.5-3.a.; *see also id.*, Condition 4.1.2.c.iii. In particular, the permit requires "the preparation and maintenance of Flare Minimization Plans [("FMPs")]for the gasification block." *Id.*, Condition 4.1.5-3.a. The FMPs must include detailed information, including technical information for the gasification block (*id.*, Condition 4.1.5-3.a.i), a general description of the permit's written procedures for operation of the gasification block (*id.*, Condition 4.1.5-3.a.ii), a description of the permittee's procedures for minimizing flaring during startup and shutdown (*id.*, Condition 4.1.5-3.a.iv), and an evaluation of preventative measures to reduce the occurrence and magnitude of flaring (*id.*, Condition 4.1.5-3.a.viii). The permit requires that the FMP be submitted to IEPA at least 90 days prior to startup of the gasification block and reviewed and revised on an annual basis. *See id.*, Condition 4.1.5-3.c. The permit also requires that the permittee conduct an "event-specific investigation or 'Root-Cause Analysis' into each 'Flaring Incident'" at the Plant and submit a report to IEPA for each Root-Cause Analysis along with an assessment of any measures available to reduce the likelihood of a recurrence of a flaring incident. *Id.* at 4.1.5-3.d, d.ii.

In its Petition, the Sierra Club asserts that "because the Flare Minimization Plan is not part of the permit, is not subject to public participation procedures, and will be changed annually outside the PSD permit revisions process, IEPA's decision [to include this permit condition] is clear legal error." Petition at 7. The Sierra Club argues that any FMP must be made part of the permit and subject to applicable public participation requirements under 40 C.F.R. part 124. In support of this

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[10] As noted in Permit Condition 4.1.2.d, "[t]hese conditions set 'secondary' BACT limits for the units in the gasification block to accompany the permit's equipment and work practice requirements established as BACT in Condition 4.1.2(a), (b), and (c)."

[11] As stated in the Project Summary accompanying the draft permit:

> Work practices requirements and secondary emissions limits are proposed as BACT to address startup, shutdown and malfunction. The required BACT work practices for startup, shutdown and malfunction are intended to assure that appropriate measures are taken to minimize emissions from startup, shutdown and malfunction. For this purpose, the * * * permit establishes certain basic measures that must be used to minimize emissions. It also establishes a general approach to minimization of emissions through formal operating and maintenance procedures * * * .

Project Summary at 9.

argument, the Sierra Club cites to the Board's decision in *In re RockGen Energy Ctr.*, 8 E.A.D. 536 (EAB 1999) (holding that a permit exempting a facility from BACT limits during startup and shutdown, and requiring the post-construction development of a plan for limiting emissions during startup and shutdown, violated the requirement that BACT limits be established prior to construction).

The Sierra Club submitted comments on this issue during the public comment period. In response, IEPA stated, in part:

> The material cited in this comment does not support the premise that Flaring Minimization Plans should have been developed and submitted as part of the application for the proposed plant. 40 CFR 124.10(d)(vi) merely addresses the availability of the administrative record relied upon by a permitting authority for the processing of a permit application. It does not specify that documents such as Flaring Minimization Plans for the proposed plant must be part of that record. The circumstances and type of plan addressed by the EAB in *In re RockGen Energy Center* are different from the Flaring Minimization Plans that must be periodically prepared for the proposed plant. In that case, the Plan would have served as an exception to BACT limits set in the PSD permit.
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> Moreover, Flaring Minimization Planning, as addressed by this comment, is an activity that cannot be conducted at this time. First, the detailed design of the plant, which would be necessary for the preparation of the initial Flaring Minimization Plan, has not yet occurred. In addition, the Plan addresses operation and maintenance procedures, which while important to the prevention of flaring, cannot be prepared until after the plant is designed and equipment is selected[.] Accordingly, the permit addresses requirements or specifications that the plant will have to meet. Then, as routine flaring is not allowed by the permit, the focus of Flaring Minimization Planning is to track and address flaring events that could not be foreseen and addressed during the construction and development of the proposed plant. It is inherent that such events will be identified by their actual occurrence and must then be addressed on an event-specific basis.

Response to Comments at 21-22 (footnotes omitted).

In its Petition, the Sierra Club again argues that any FMP should have been prepared prior to permit issuance and been subject to notice and comment. Petition at 2-5. According to the Sierra Club, IEPA "misses the point of the [Board's] *RockGen* holding and the applicable public process requirement." *Id*. at 5 (discussing objections to IEPA's response to comments). Upon an examination of the record, the Board finds nothing erroneous in IEPA's determination on this issue and concludes that the facts of this case are clearly distinguishable from those in *RockGen*.

In *RockGen*, the Board remanded a permit condition allowing a facility to exceed the permit's BACT emissions limitations during startup and shutdown. 8 E.A.D. at 554. The permit condition in *RockGen* also provided for the submission of a startup and shutdown plan after permit issuance which, after approval by the permit issuer, would require the permittee to operate in accordance with the "conditions, schedules, reporting, record keeping and all other requirements of the approved plan." *Id*. at 551. In rejecting this permit provision, the Board held that a permit condition exempting the facility from BACT limits during startup and shutdown and requiring the post-construction development of a plan for limiting emissions during startup and shutdown violated the requirement that BACT limits be established prior to construction. *Id.* at 553-55. As the Board stated, "although the permit appears to contemplate that emissions in excess of the limits established in the permit may well occur during startup and shutdown, it does not appear as if [the permit issuer] gave sufficient consideration to appropriate measures to minimize or eliminate such emissions. As currently drafted, the permit 'could effectively shield excess emissions from poor operation and maintenance or design, thus precluding attainment.'" *Id*. at 553-54 (quoting Memorandum from John B. Rasnic, Director, Stationary Source Compliance Division, Office of Air Quality Planning and Standards, U.S. EPA, to Linda M. Murphy, Director, Air, Pesticides and Toxics Management Division, U.S. EPA Region I at 2 (Jan. 28, 1993)).

In contrast, the instant permit contains BACT limits on emissions from flaring events that apply during startup, shutdown, or malfunction. *See generally* Final Permit, Condition 4.1. As Power Holdings points out in its reply, the permit contains "over 20 pages of requirements pertaining to the design, control and operation of the flares and associated gasification block equipment, including both primary and secondary BACT emissions limitations and an extensive set of requirements designed to reduce foreseeable causes of startup, shutdown and malfunction events and associated emissions and thereby assure compliance with the normal operating and secondary emissions limitations." Power Holdings Reply at 11; *see* Final Permit, Condition 4.1. These requirements are not affected by, and cannot be changed by, the disputed FMP requirement. Rather, the FMP requirements are in addition to the permit's BACT emissions limitations and to an extensive set of design and operations requirements designed to assure compliance with

these limits.[12] *See* Final Permit, Conditions 4.1.1 – 4.1.12. Thus, unlike the permit provision this Board rejected in *RockGen*, the FMP requirement in this case does not operate in lieu of BACT emissions limitations. Rather, the FMP provision supplements these limitations and requires Power Holdings to develop methods to reduce emissions from flaring events based on actual operating experience.

The disputed FMP condition requires that Power Holdings prepare and maintain flare minimization plans and, in consultation with IEPA, evaluate and employ appropriate methods to reduce the occurrence and magnitude of flaring events. The condition contemplates that the number of flaring events and emissions from such events will diminish over time by allowing for refinements in performance of the equipment based on actual operating experience and, as stated in IEPA's response to comments, "works to reduce flaring by evaluating the reasons for flaring that actually occurs and identifying actions that can and should be taken to reduce or eliminate subsequent flaring due to similar causes." Response to Comments at 21. The Board finds nothing unreasonable in this condition. *See RockGen*, 8 E.A.D. at 554 (allowing permit issuer to require that once a facility is operational, "any permit provisions designed to reduce emissions during startup and shutdown be refined over time so as to increase their efficiency and effectiveness"). Further, the condition is consistent with permit conditions allowing for permit revisions based on post-construction operating experience which this Board has upheld in other contexts. *See, e.g., In re AES Puerto Rico, L.P.*, 8 E.A.D. 324, 348-50 (EAB 1999) (allowing the use of an adjustable emissions limit after obtaining actual stack test data); *In re Pennsauken County*, 2 E.A.D. 768, 771 (Adm'r 1989) (permit with an optimization clause requiring efforts to minimize emissions based on tests conducted after permit issuance).

The Board notes further, as stated in the response to comments, that IEPA modeled certain emissions associated with flaring events and determined that the permit is protective of both the NAAQS and applicable PSD ambient air quality increments even if flaring events were not reduced as a result of flare minimization planning. *See* Response to Comments at 17-21. The Sierra Club's Petition does not dispute this determination or IEPA's response to comments which rely on this determination. No such analysis was done in *RockGen*.

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[12] Among the conditions designed to reduce emissions from flaring are the following: (1) Condition 4.1.2.b.v. requiring the use of natural gas to preheat gasifiers prior to the introduction of feedstock, the use of alcohol during start up to bring the gasifier up to normal operating pressure prior to the introduction of coal, and coordination with the startup and operation of the gas processing train. (*See also* Permit Condition 4.1.1); (2) Condition 4.1.2.b.vi. Requiring that flares operate in compliance with 40 C.F.R. § 60.18 (General control device requirements). Among the requirements of section 60.18 are that flares "be designed for and operated with no visible emissions" (§ 60.18(c)(1)), and that "owners and operators of flares * * * monitor these control devices to ensure that they are operated and maintained in conformance with their designs." (§ 60.18(d)); and (3) Condition 4.1.2.b.vii mandating that only natural gas or SNG be used as fuel for pilot burners for the flares.

The Sierra Club's Petition argues that, because the FMP condition is part of the permit's BACT requirements, any change to the FMP must be included in the permit and subject to public review in the same manner as the permit's other BACT requirements. *See* Petition at 2-4. As stated above, however, the permit contains numerous and detailed requirements for control of emissions from flaring during startup, shutdown and malfunction events. Nothing in the record before the Board demonstrates that these requirements, even without the disputed FMP condition, would be insufficient to satisfy BACT, and the Board is satisfied that, unlike *RockGen*, IEPA gave ample consideration to appropriate measures to minimize or eliminate such emissions. In fact, IEPA characterizes flare minimization as an enhancement to BACT to ensure compliance with secondary BACT limits rather than as an element of BACT itself. *See* IEPA Sur-Reply at 3. Moreover, as IEPA stated in its response to comments, and which the Sierra Club does not dispute, flare minimization planning is "an activity that occurs after the design and construction of the plant is complete, when the proposed plant begins operation and thereafter * * * [and] is an activity that cannot be conducted [prior to construction]." Response to Comments at 22. Under these circumstances, the Board is concerned that unnecessarily making implementation of the FMP unduly burdensome might discourage inclusion of such valuable provisions, or at least delay implementation of the benefits of the analyses contemplated by such provisions, to the ultimate detriment of air quality, and contrary to the purposes of the PSD program.

For the reasons stated above, the Sierra Club has failed to sustain its burden of proving that IEPA's permitting decision was clearly erroneous or otherwise warrants Board review. The Board therefore denies review on this issue.

2. *BACT Analysis for Superheaters*

As stated above, the facility would recover the heat energy generated during the process of gasification, syngas cleaning and methanation as steam. Two superheaters would then raise the temperature of the steam to power steam turbine-driven electrical generators used to provide electricity for the plant. The draft permit in this case provided that either "syngas," SNG, or natural gas would be used to fuel the two superheaters. In its comments on the draft permit, the Sierra Club asserted the IEPA's BACT analysis for the superheaters omitted consideration of cleaner fuels. The Sierra Club argued that a proper top-down BACT analysis must consider, among other things, the use of only natural gas or "waste biomass" in the superheaters. Response to Comments at 29. In responding to the Sierra's Club's comments, IEPA appears to have conducted a BACT analysis addressing the fuels to be used in the superheaters. *See id.* at 30. In the final permit, IEPA restricted the fuel used in the superheaters to either SNG or natural gas. In explaining its rationale for this determination, IEPA stated, in part, as follows:

> In response to this comment, the issued permit restricts the superheaters to use of only natural gas, rather than syngas or natural gas as would have been provided by the draft permit. (See Condition 4.2.5(a) of the issued permit.) Note that use of either "natural" natural gas or product synthetic natural gas (SNG) from the plant is allowed. This is because the properties of SNG as related to emissions, i.e., the heat content, sulfur content and ash content of SNG, are and must be essentially identical to those of natural gas.
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> The superheaters have been restricted to use of only natural gas because the application does not explicitly address the difference in the composition and properties of natural gas and syngas and the resulting difference in emissions of SO_2 and other pollutants. While there should not be a significant difference in the composition of syngas and natural gas, given the effectiveness of the Acid Gas Cleanup System, in the absence of an explicit evaluation, it must be assumed that natural gas contains less sulfur and ash than syngas, which does not undergo processing in a methanation unit. In addition, the application does not demonstrate that the use of syngas in the superheaters would be accompanied by lower overall emissions from the proposed plant.

Response to Comments at 30 (footnotes omitted). Thus, IEPA determined that BACT for the superheaters included the use of SNG or natural gas. IEPA further concluded that the use of either of these would result in virtually identical emissions from the superheaters. The Sierra Club objects to IEPA's BACT analysis as not being consistent with the "top-down" review process set forth in the NSR Manual for determining BACT for a particular regulated pollutant. The issue before this Board is whether IEPA erred by failing to consider collateral emissions from the production of SNG in determining BACT for the superheaters.[13]

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[13] Both IEPA and Power Holdings assert that the Sierra Club failed to preserve this issue for review because the Sierra Club did not raise the issue during the comment period. *See* IEPA Response at 14; Power Holdings Response at 29-32; 40 C.F.R. § 124.13 (in order for an issue to be preserved for consideration on appeal, a petitioner must demonstrate that "all reasonably ascertainable issues and * * * all reasonably available arguments" were raised by the close of the public comment period). The Board disagrees. As stated above, in commenting on the draft permit, the Sierra Club argued that IEPA failed to conduct a proper BACT analysis regarding the appropriate fuel for use in the superheaters. *See* Response to Comments at 29. In response, IEPA modified its BACT analysis. *See id.* Only then did IEPA articulate the equivalence of natural gas and SNG as BACT. Thus, in essence, this appeal represents the Sierra Club's first opportunity to challenge the adequacy of the IEPA's final

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The Sierra Club argues that had such collateral emissions been considered, SNG would have been eliminated as a permissible fuel for the superheaters. Petition at 9. For the following reasons, the Board finds nothing erroneous in IEPA's BACT analysis.

The NSR Manual sets forth a "top-down" process for determining BACT for a particular regulated pollutant. The process includes five steps, the first four of which are: (1) identifying all available control options for a targeted pollutant; (2) analyzing the control options' technical feasibility; (3) ranking feasible options in order of effectiveness; and (4) evaluating their energy, environmental, and economic impacts. NSR Manual at B.5-.9. Step four of the "top-down" process includes an evaluation of whether "collateral impacts" would justify the selection of an alternative control option. NSR Manual at B.26. The purpose of step 4 of the analysis is to validate the suitability of the top control option identified, or provide a clear justification as to why the top control option should not be selected as BACT. *Id*. If there are no outstanding issues regarding collateral impacts, the analysis ends. *Id*. Step five concludes the process. In this step, the permit issuer selects as BACT a pollutant emission limit achievable by the most effective control option not eliminated in a preceding step. NSR Manual at B.9, .53-.54; *see In re N. Mich. Univ.*, 14 E.A.D. 283, 294 (EAB 2009) (explaining steps in top-down analysis); accord In re Three Mountain Power, LLC, 10 E.A.D. 39, 42-43 n.3 (EAB 2001); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 129-31 (EAB 1999); *In re Haw. Elec. Light Co., Inc.*, 8 E.A.D. 66, 84 (EAB 1998).

The Sierra Club argues that IEPA's selection of SNG or natural gas as BACT for the superheaters was flawed because IEPA "failed to account for the additional emissions related to SNG manufacturing when comparing the relative emission profiles of SNG and [natural gas]."[14] Petition at 9. The Sierra Club does not dispute that emissions from the superheaters would be identical whether SNG or natural gas were used as fuel. Similarly, the Sierra Club does not dispute IEPA's determination that use of SNG or natural gas would result in the lowest emissions from the superheaters when compared to other fuels such as biomass.

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BACT analysis. Under these circumstances, the Board rejects as unpersuasive the assertion that the Sierra Club waived its right to raise alleged deficiencies in the BACT analysis before this Board. *See In re ConocoPhillips Co.*, 13 E.A.D. 768, 787 (EAB 2008).

[14] It is clear that consideration of clean fuels must be part of the BACT analysis. The Board notes that the statutory BACT definition provides that the emissions limits for a facility are to be based on the maximum emissions reduction achievable "through application of production processes and available methods, systems and techniques, including fuel cleaning, *clean fuels*, or treatment or innovative fuel combustion techniques." CAA § 169(3), 42 U.S.C. § 7479(3) (emphasis added); *see also In re Prairie State Generating Co.*, 13 E.A.D. 1, 17 (EAB 2006), *aff'd sub nom. Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007); *In re Inter-Power of N.Y., Inc.*, 5 E.A.D. 130, 145 (EAB 1994) (a proper BACT analysis must consider cleaner forms of fuel).

See Response to Comments at 30. Rather, the Sierra Club argues that, although IEPA may have correctly identified SNG and natural gas as the top control alternatives for selection as BACT in step 1 of the analysis, IEPA was "still required to 'consider whether collateral impacts * * * would justify selection of an alternative control option.'" Petitioner's Reply at 18 (quoting NSR Manual at B.26). According to the Sierra Club, the IEPA's analysis was incomplete because "there was no comparison between the relative emissions, costs, energy and environmental impacts of SNG and natural gas." *Id*. at 19.

As stated above, under step four of the "top-down" analysis, once a control option is identified as a top alternative for selection as BACT, the permit applicant must, among other things, consider whether collateral environmental impacts, such as emission of unregulated air pollutants or impacts in other media, would justify selection of an alternative control option. NSR Manual at B.8, .26. This is because certain control options can potentially have significant collateral impacts. "Scrubber effluent, for example, may affect water quality and land use. Similarly, emissions of water vapor from technologies using cooling towers may effect local visibility." *Id*. at B.47. As the NSR Manual makes clear, however, the existence of collateral environmental impacts will not necessarily result in the selection of an alternative control option as BACT. *Id*. Rather, elimination of a top control option will occur only where it is established that "unusual circumstances at the proposed facility create greater problems than experienced elsewhere." *Id*. As this Board has stated, the consideration of collateral impacts in step 4 of the BACT analysis will only result in the rejection of the most effective technology in limited and unusual circumstances and acts "primarily as a safety valve whenever unusual circumstances specific to the facility make it appropriate to use less than the most effective technology." *In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 117 (EAB 1997) (quoting *In re Columbia Gulf Transmission Co.*, 2 E.A.D. 824, 827 (Adm'r 1989)); *see also In re Hillman Power Co.*, 10 E.A.D. 673, 688 (EAB 2002) (collateral impacts analysis need only address control alternatives with "significant or unusual" impacts); *Kawaihae Cogeneration*, 7 E.A.D. at 117 n.12 (noting that the NSR Manual emphasizes the limited circumstances under which a technology that would otherwise be BACT could be rejected on the basis of collateral environmental impacts).

In the present case, the Sierra Club has failed to demonstrate that collateral environmental impacts justify the elimination of SNG as a fuel for the superheaters. Specifically, the Sierra Club has not demonstrated that the use of SNG results in emissions of any unregulated pollutant. *See* NSR Manual at B.26 (emissions or unregulated air pollutants may justify rejection on control alternative). Further, the alleged collateral impact in this case, i.e., emissions from the gasification block resulting from the production of SNG for use in the superheaters, is regulated under the permit and subject to enforceable BACT limitations. *See* Final Permit, Section 4. Indeed, the whole purpose of the plant is the production of SNG, and the purpose of the Permit is to control emissions from that process. The

Sierra Club does not contend that the selected control options for the gasification block do not constitute BACT, nor does the Sierra Club dispute that the use or production of SNG results in emission of pollutants not already regulated under the permit. Further, the Sierra Club does not allege, and the record does not demonstrate, that use of SNG would result in any significant emissions impacts in other media. *See* NSR Manual at B.8, .26 (collateral impacts includes impacts in other media such as water or solid waste).

Under these circumstances, the Board concludes that the Sierra Club has failed to meet its burden[15] of showing that this case involves significant or unusual circumstances justifying the rejection of SNG as BACT.[16] *See* NSR Manual at B.49-.50 (generally, absent an overriding concern over the formation and impact of pollutants other than those the technology was designed to control, a collateral impact would not affect the BACT determination); *see also Hillman Power*, 10 E.A.D. at 688 (denying review of collateral impact analysis where petitioner failed to demonstrate significant or unusual impacts); *Kawaihae Cogeneration*, 7 E.A.D. at 117 (declining further consideration of collateral impacts based on a hypothetical catastrophic event where petitioner failed to offer any information suggesting unusual circumstances predisposing facility to such an event), *id.* & n.14 (citing *In re Foster Wheeler Passaic, Inc*, PSD Appeal No. 89-1, 1989 PSD LEXIS 18 (Adm'r 1989) (unpublished) (rejecting collateral impacts challenge to selective non-catalytic reduction technology where there was no showing that ammonia safety concerns were "unusual or unique" to a facility)).

Review is therefore denied on this issue.[17]

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[15] *See Prairie State*, 13 E.A.D. at 10 (the burden of demonstrating that review is warranted rests with the petitioner).

[16] The Board notes the Sierra Club's argument on this issue is premised on the speculative assertion that production of SNG (and the resulting emissions) would decrease if SNG were not used as fuel in the superheaters. *See* Petition at 10-11. However, the Sierra Club has provided no evidence supporting such an assertion, nor does the record before the Board contain evidence supporting this assertion. Indeed, as Power Holdings states, it is just as likely that if natural gas rather than SNG were used in the superheaters, Power Holdings would simply export more SNG to the marketplace rather than reduce production. Power Holdings' Response at 39.

[17] The Board notes that, pursuant to the NSR Manual, in assessing the existence of any collateral energy impacts of a control option in step 4 of the BACT analysis, consideration is generally given only to the *direct* energy consumption impacts from a particular emissions unit rather that to the indirect energy impacts. NSR Manual at B.30. The NSR Manual makes clear that "indirect energy impacts (*such as energy to produce raw materials for construction of control equipment*) generally are not considered" unless the impact is unusual or significant. *Id* (emphasis added). The Sierra Club has not presented evidence demonstrating unusual or significant indirect impacts justifying removal of SNG as a permissible fuel for the superheaters.

3. *Compliance With Emission Standard Under Illinois State Implementation Plan*

The Sierra Club argues that by failing to regulate greenhouse gases (CO_2 and methane), the permit violates an emission standard in an approved Illinois state implementation plan ("SIP"). Petition at 11. The emissions standard at issue states as follows:

> No person shall cause or threaten or allow the discharge or emission of any contaminant into the environment in any State so as, either alone or in combination with contaminants from other sources, to cause or tend to cause air pollution in Illinois, or so as to violate the provisions of this Chapter, or so as to prevent the attainment or maintenance of any applicable ambient air quality standard.

Ill. Admin. Code tit 35 § 201.141. According to the Sierra Club, greenhouse gases constitute "contaminants" causing or contributing to "air pollution," and IEPA is therefore required to assure compliance with this provision when it issues PSD permits in the State. Petition at 11 (citing CAA § 7475(a)(3) (requiring that a facility demonstrate compliance with any applicable emission standard) and 40 C.F.R. § 52.21(j)(1) (requiring that major stationary sources meet "each applicable emissions limitations" under the SIP)). The Sierra Club argues that IEPA committed legal error by issuing a PSD permit without including conditions regulating emissions of greenhouse gases *See id.* at 12, 17.

The CAA contemplates that states may exercise primary responsibility for creating plans to maintain and improve the Nation's air quality consistent with the requirements of the CAA. States are required to develop SIPs, which provide a means for attainment of the NAAQS in nonattainment areas or for the prevention of significant deterioration in areas that are already in attainment or unclassifiable. CAA § 110, 42 U.S.C. § 7410. Each state's SIP must set forth a permitting program that is at least as stringent as the requirements of the CAA. CAA § 110(a), 42 U.S.C. § 7410(a). EPA is charged with reviewing each state's proposed SIP and determining whether the SIP complies with the CAA. *See* CAA § 110(k), 42 U.S.C. § 7410(k). EPA is also authorized to enforce the requirements of a state's SIP. CAA § 113(a), 42 U.S.C. § 7413(a). The State of Illinois submitted its SIP in 1972 , *see* 40 C.F.R. § 52.720(b), and, after review, EPA partially approved the plan. *See* 40 C.F.R. § 52.722. One notable exception to this approval, however, is the PSD program. *See* 40 C.F.R. § 52.738(a) (stating that the State's SIP "does not include approvable procedures for preventing the significant deterioration of air quality").

As noted earlier, Illinois does not have an approved PSD program, and IEPA administers the program in Illinois pursuant to a delegation of authority by

EPA.[18] *See* 46 Fed. Reg. 9580 (Jan. 29, 1981) (setting forth delegation agreement). As EPA's delegate, IEPA stands in the shoes of EPA and implements the federal PSD program. *See* 40 C.F.R. § 52.738(b) (stating that the provisions of 40 C.F.R. section 52.21 "are incorporated and made a part of the applicable State plan for the State of Illinois").[19]

The Sierra Club argues that because IEPA, as a delegated state, stands in the shoes of EPA and administers the federal PSD program, IEPA was required to comply with all applicable regulatory provisions, including 40 C.F.R. § 52.21(j). That section requires, in part, that major stationary sources "meet each applicable emissions limitation under the State Implementation Plan." According to the Sierra Club, the above-quoted provision of the Illinois SIP (at Ill. Admin. Code tit. 35 § 201.141) is an applicable emissions standard within the meaning of section 52.21(j), and this standard requires that the permit include conditions regulating greenhouse gas emissions. *See* Petition at 12.

In response, neither IEPA nor Power Holdings dispute that the State emissions limitation in section 210.141 has been incorporated into the IEPA's approved SIP. Rather, IEPA and Power Holdings make several arguments asserting that IEPA did not err in declining to regulate greenhouse gases and that the Sierra Club has failed to demonstrate that review is warranted. IEPA asserts that it has no obligation to regulate greenhouse gas emissions under state law and that, in any case, this issue has been rendered moot by the Administrator's recent determination that greenhouse gases are not subject to regulation until January 2, 2011. *See* IEPA's Response at 16 (referring to Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 Fed. Reg. 17,004 (Apr. 2, 2010)); IEPA Sur-Reply at 4-7. Power Holdings argues that because Illinois does not have an approved SIP for PSD purposes,"IEPA 'stands only in the shoes' of U.S. EPA in administering the federal PSD program and cannot require compliance with state law as a PSD require-

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[18] Under the CAA and associated regulations, a PSD program, or portions thereof, may be administered within a state in one of three ways. *See In re Milford Power Plant*, 8 E.A.D. 670, 673 (EAB 1999). First, EPA may run the program pursuant to a "Federal Implementation Plan" under part 52. *See* CAA §§ 109-110, 165, 168, 42 U.S.C. §§ 7409-7410, 7475, 7478; 40 C.F.R. pt. 52; *Milford*, 8 E.A.D. at 673. Second, EPA can delegate its authority to operate the PSD program to the state. *Milford*, 8 E.A.D. at 673. In such cases, the state issues PSD permits as federal permits on behalf of the Agency. 40 C.F.R. § 52.21(u). Third, if a state PSD program meets certain applicable (generally minimum) requirements of federal law, EPA can approve the state's program and such program is incorporated into the state's SIP. *See* CAA §§ 110, 116, 161, 42 U.S.C. §§ 7410, 7416, 7471; 40 C.F.R. § 51.166.

[19] The provisions of section 52.21, including 52.21(j), are applicable to any SIP which has been disapproved for purposes of the PSD program. 40 C.F.R. § 52.21(a)(2)(ii) (stating that "the requirements of paragraphs (j) through (r) of this section apply to the construction of any new major stationary source").

ment." Power Holdings Reply at 42. According to Power Holdings, although the Illinois SIP incorporates section 201.141, *see id.* at 41, that section is incorporated only for the purposes of implementing IEPA's approved nonattainment area and Title V permitting programs and is therefore inapplicable in this case. *Id*. at 41-42 (citing 40 C.F.R. § 52.720 *et. seq.*).

The Board concludes that neither IEPA nor Power Holdings provides this Board with a reasoned analysis of when a delegated state under the PSD program must incorporate emissions limitations in a state SIP pursuant to 40 C.F.R. § 52.21(j). IEPA asserts that the EPA Administrator's recent determination addressing the regulation of greenhouse gasses resolves this issue. That determination, however, concerned the application of BACT requirements under the PSD program rather than the interpretation of state SIP requirements pursuant to 52.21(j).[20] The Administrator's determination therefore does not speak to the interpretation of section 52.21(j) in this context.

The Board also finds questionable Power Holdings's assertion that the SIP provision at issue in this case was incorporated into the SIP only for purposes of nonattainment areas and the Title V permitting program. Power Holdings provides no basis for its argument that an emissions requirement can be part of a state SIP for some purposes but not others.[21] It is unclear what role section 52.21(j) would play under Power Holdings' interpretation since it would not consider any emissions limitation otherwise part of the SIP to be an "applicable emissions limitation" for purposes of that section.

In any event, irrespective or whether Power Holdings' analysis of the issue is erroneous and the Sierra Club is correct that section 201.141 of the Illinois Administrative Code constitutes an "applicable emissions limitation" within the

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[20] The Board notes that even if the Administrator's determination were applicable in the present context, the determination states as follows:

> To the extent approved SIPs contain the same language as used in 40 CFR 52.21(b)(50) [defining "regulated NRS pollutant"] * * * , EPA will not seek to preclude actions to address GHGs in PSD permitting actions prior to January 2, 2011 where a State permitting authority feels it has the necessary legal foundation and resources to do so.

75 Fed. Reg. at 17,022.

[21] The Board notes that the regulations appear to contradict Power Holdings' assertion in this regard. *See, e.g.*, 40 C.F.R. § 52.21(a)(1) ("No disapproval with respect to a State's failure to prevent significant deterioration of air quality shall invalidate or otherwise affect the obligations of States, emission sources, or other persons with respect to all portions of plans approved or promulgated under this part").

meaning of 40 C.F.R. § 52.21(j), the Sierra Club has failed establish that section 201.141 is applicable to greenhouse gases.

This Board has traditionally given substantial deference to a state's interpretation of its own laws and regulations. *See, e.g., In re Shell Offshore, Inc. and Frontier Discoverer Drilling Unit*, 13 E.A.D. 357, 393-94 (EAB 2007) (deferring to state's regulatory interpretation in a PSD permit appeal, citing *In re Teck Cominco Alaska, Inc.*); *In re Teck Cominco Alaska, Inc.*, 11 E.A.D. 457, 489 (EAB 2004) (stating that the Board generally gives substantial deference to a state's interpretation of its own laws). In the present case, in responding to comments on this issue and in a submission before this Board, the IEPA has made clear that it does not interpret section 201.141 as requiring regulation of greenhouse gas emissions. *See* Response to Comments at 89 (concluding that CO_2 is not a regulated air pollutant under Illinois law); IEPA Sur-Reply at 6-7 (stating that IEPA does not interpret section 201.141 as requiring regulation of greenhouse gases). Although the Sierra Club cites to several cases in which section 201.141 has been enforced in both federal and state enforcement actions, *see* Petition at 12, the Sierra Club does not cite to a single instance in which this provision has been applied to greenhouse gas emissions. Nor is there any assertion that this provision, which presumably would have been applicable to all PSD permits since the Illinois PSD program was disapproved in 1980, has ever been applied to greenhouse gases in any PSD permit in Illinois.

Moreover, as IEPA rather belatedly points out in its Sur-Reply, a 1998 Illinois Statute, the Kyoto Protocol Act of 1998, 415 Ill. Comp. Stat. 140/15 ("Kyoto Act"), severely limits the state's ability to regulate greenhouse gases. While the regulatory effect of this Act was prospective only, the findings and purposes section of the statute states, in part, that "[t]here is neither federal nor State statutory authority for new regulatory programs or other efforts intended to reduce greenhouse gas emissions." Kyoto Act at § 10(16). The reference to "other efforts" suggests that, at the time the Act was enacted, there was no statutory authority that would have allowed the regulation of greenhouse gases under section 201.141. This tends to confirm IEPA's reading of State law as not requiring the control of greenhouse gasses.

Because the State of Illinois has interpreted the disputed provision of its state SIP as inapplicable to greenhouse gases, and because this interpretation does not strike the Board as so unreasonable as to not be entitled to the substantial deference afforded state interpretations of their own laws, the Board declines to substitute its judgment for that of the IEPA in this instance. Review is therefore denied on this issue.

VII. *ORDER*

For the reasons stated above, the Sierra Club's petition for review is denied in its entirety.

So ordered.