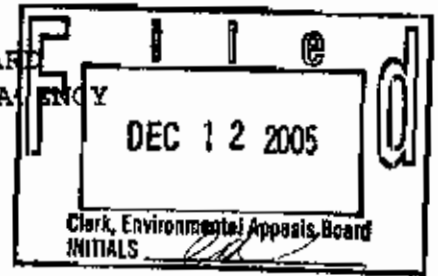


BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.



In re:)

Prairie State Generation)
Company, LLC)

PSD Appeal No. 05-05

**ORDER REQUESTING EPA'S OFFICE OF GENERAL COUNSEL
AND EPA'S REGION 5 TO FILE A BRIEF**

I. Introduction

By this Order, the Environmental Appeals Board ("Board") requests the U.S. Environmental Protection Agency's Office of General Counsel ("OGC") and U.S. EPA's Region V to jointly file a brief addressing issues related to the above-captioned matter. These issues arise in the context of a Clear Air Act prevention of significant deterioration ("PSD") permit decision, Permit No. 189808AAB (the "Permit"), Illinois Environmental Protection Agency ("IEPA") issued.¹ The Board believes that OGC's and the

¹ IEPA administers the Clean Air Act PSD program in Illinois pursuant to a delegation of authority from U.S. EPA Region V (the "Region"). See 40 C.F.R. §§ 52.21(u), 52.719-.744; 46 Fed. Reg. 9580 (Jan. 29, 1981). Because IEPA acts as EPA's delegate in implementing the federal PSD program within the State of Illinois, IEPA's PSD permits are considered EPA-issued permits, and appeals of the permit decisions are heard by the Board pursuant to 40 C.F.R. § 124.19. See 40 C.F.R. § 124.41; see also *In re Kendall New Century Dev.*, PSD Appeal No. 03-01, slip op. at 3 n.1 (EAB, April 29, 2003), 11 E.A.D. ____.

Region's views on this matter will assist the Board in the resolution of this case.

A summary of the case's background is provided below, followed by our request.

II. *Background*

A. *Factual Background*

On June 8, 2005, the American Bottom Conservancy, American Lung Association of Metropolitan Chicago, Clean Air Task Force, Health and Environmental Justice-St. Louis, Lake County Conservation Alliance, Sierra Club and Valley Watch (collectively, "Petitioners") filed a petition requesting that the Environmental Appeals Board grant review of IEPA's permitting decision. The Permit would authorize Prairie State Generating Company, LLC ("Prairie State") to construct the Prairie State Generating Station (the "Facility"), which is a proposed 1500 megawatt (MW) coal-fuel powered electricity generating plant to be located in Washington County, Illinois.

The proposed Facility would consist of a coal mine and an electric power generating station constructed at the mine location, both operated by Prairie State. The electric power would be generated by two coal-fired steam units, each with a nominal electric generating capacity of 750 megawatts. Project Summary at 1. Each unit would have a coal-fired boiler with a nominal rated heat input capacity of approximately 7450 million

Btu/hr. *Id.* The fuel will be supplied as pulverized coal (coal ground to a fine powder immediately before being blown, along with combustion air, into the boiler). *Id.* "The principal fuel for the boilers will be Illinois coal (Herrin No. 6)" that would primarily be supplied directly from the mouth of a new underground coal mine at the Facility. *Id.*

B. Statute, Regulations and Agency Guidance

The Clean Air Act and the PSD regulations require that new major stationary sources employ the "best available control technology," or BACT, to control emissions of regulated pollutants. 42 U.S.C. § 7475(a)(4); *see also* 40 C.F.R. § 52.21(j)(2). The BACT determination must be supported by a reasoned justification that faithfully and reasonably applies the statutory definition of BACT. *Alaska Dept. of Envrtl. Conservation v. U.S. EPA*, 540 U.S. 461 (2004). The Clean Air Act defines BACT as

an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from * * * any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility 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); see also 40 C.F.R.

§ 52.21(b)(12) (regulatory definition of BACT). The 1990 CAA amendments added "clean fuels" to the BACT definition's list of applicable methods for achieving maximum emission reductions. See Pub L. No. 549, 104 Stat. 2399, 2631-32.

The Board has referred to the statute's "clean fuels" language in a number of decisions. See, e.g., *In re Inter-Power of New York, Inc.*, 5 E.A.D. 130, 134 (1994) (stating that "in deciding what constitutes BACT, the Agency must consider both the cleanliness of the fuel and the use of add-on pollution control devices."); *Hawaiian Commercial & Sugar Company*, 4 E.A.D. 95, 99 n.7 (EAB 1992); see also *In re Old Dominion Electric Cooperative*, 3 E.A.D. 779, 794 (Adm'r 1992). In *Inter-Power*, the Board observed that "EPA described the amendment to add 'clean fuels' to the definition of BACT at the time the Act passed, 'as * * * codifying its present practice, which holds that clean fuels are an available means of reducing emissions to be considered along with other approaches in identifying BACT level controls.'" *Inter-Power*, 5 E.A.D. at 134 (quoting Letter from William G. Rosenberg, Assistant Administrator for Air and Radiation, to Henry A. Waxman, Chairman, Subcommittee on Health and Environment, House Committee on Energy and Commerce (Oct. 17, 1990), reprinted in 136 Cong. Rec. at S16916-17 (daily ed. Oct. 27, 1990)). The Board has specifically recognized that the BACT

analysis should include cleaner forms of the fuel proposed by the source. In re *Inter-Power of N.Y., Inc.*, 5 E.A.D. 130, 145 (EAB 1994); see also In re *Old Dominion Elec. Coop.*, 3 E.A.D. 779, 794 n.39 (Adm'r 1992).

In making its permitting decision in the present case, IEPA followed the "top-down" method for determining BACT as recommended by the U.S. EPA Office of Air Quality Planning, Draft New Source Review Workshop Manual ("NSR Manual"). The NSR Manual's recommended top-down method employs a five-step analysis. In the first step, the permit issuer must confirm that the permit applicant has identified "all control options with potential application to the emissions unit under review." NSR Manual at B.5-.7.

The NSR Manual explains that "[t]he first step in the 'top-down' analysis is to identify, for the emissions unit in question * * *, all 'available' control options" and that "the term, 'emissions unit' should be read to mean emissions unit, process or activity." *Id.* at B.5. It states further that "[a]vailable control options are those air pollution control technologies or techniques with a practical potential for application to the emissions unit and the regulated pollutant under evaluation." *Id.* "Lower-polluting processes should be considered based on demonstrations made on the basis of manufacturing identical or

similar products from identical or similar raw materials or fuels." *Id.* at B.10.

The NSR Manual also states, however, that "[h]istorically, EPA has not considered the BACT requirement as a means to redefine the design of the source when considering available control alternatives." *Id.* at B.13. It explains by way of example that "applicants proposing to construct a coal-fired electric generator[] have not been required by EPA as part of a BACT analysis to consider building a natural gas-fired electric turbine although the turbine may be inherently less polluting per unit production (in this case electricity)." *Id.* Nevertheless, where "a given production process or emissions unit can be made to be inherently less polluting * * * * the ability of design considerations to make the process inherently less polluting must be considered as a control alternative for the source." *Id.* at B.14.

The Board has recognized the Agency's historical reluctance to redefine the source's design in a number of prior decisions. See, e.g., *In re Hillman Power Co., L.L.C.*, 10 E.A.D. 673, 691 (EAB, July 31, 2002); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 140 (EAB 1999); *In re Hawaiian Commercial & Sugar Co.*, 4 E.A.D. 95, 100 (EAB 1992); see also *In re Old Dominion Elec. Coop.*, 3 E.A.D. 779, 793 (Adm'r 1992); *In re Hibbing Taconite Co.*, 2 E.A.D. 838, 843 (Adm'r 1989).

C. Parties' Arguments

Petitioners argue in the present case that IEPA's BACT determination is fatally flawed on the grounds that it did not identify in the first step, and therefore improperly excluded from BACT consideration, several control alternatives that Petitioners contend are "potentially" applicable to the Facility's coal-fired boilers. Petitioners argue, among other things, that IEPA improperly excluded low-sulfur coal from the BACT analysis as an additional control alternative for SO₂ emissions that may be used in combination with the add-on controls proposed by Prairie State. Petition at 31-32. According to Petitioners, the record shows that if Prairie State "were to use low-sulfur coal, it could achieve an SO₂ emission limit as low as 0.05 to 0.06 lb/MMBtu." *Id.* at 32. In contrast, the Permit would limit SO₂ emissions to 0.182 lb/MMBtu.² Permit ¶ 2.1.2(b)(ii).

IEPA has acknowledged that "the high sulfur content of the design coal results in an SO₂ emission rate that is substantially higher than that of power plants that are designed to use a coal supply with a low or very low sulfur content." Calculation Sheet at 5. Nevertheless, IEPA has consistently articulated its view that requiring Prairie State to use low-sulfur coal would

² Under the Permit's limit, the total potential SO₂ emissions would be 11,866 tons per year. Calculation Sheet at 1.

"redefine" the project, and that it cannot require Prairie State to build a project different from the one Prairie State has proposed.

Prior to the public comment period, IEPA explained its reasoning as follows:

With respect to alternate sources of coal, e.g., low-sulfur western coal from Wyoming or Montana, the proposed plant is being designed and developed to burn high-sulfur Illinois coal, the locally available coal. It would be inconsistent with the scope of the project to use coal from other regions of the country. Rather, the BACT determination addresses the appropriate control technology for SO₂ emissions associated with use of this coal at the proposed plant.

Project Summary at 8. Later, in responding to public comments, IEPA further explained as follows:

The project that must be addressed when evaluating BACT is the project for which an application has been submitted, i.e., a proposed mine-mouth power plant. The source of coal for which the plant would be developed is a specific reserve of 240 million tons of recoverable coal, which would meet the needs of the proposed plant for more than 30 years. Accordingly, the use of a particular coal supply is an inherent aspect of the proposed project. To require an evaluation of an alternative coal supply, as suggested by this comment, would constitute a fundamental change to the project.

Response to Comments at 23.

Petitioners argue on appeal that "IEPA's rejection of lower sulfur coals as redefining the source is contrary to the plain language of the definition of BACT and previous Board decisions," and that "[c]lean fuels must be evaluated for all projects, including mine mouth coal plants." Petition at 33. Petitioners

also argue that IEPA has mischaracterized the Agency's historical reluctance to redefine the source's design. Petition at 32. Petitioner's argue that, under IEPA's characterization of that policy, "a permit applicant could avoid a full BACT review by proposing a specific dirty fuel." *Id.*

IEPA argues on appeal that it afforded an appropriate level of analysis when it "broadly considered other alternative coal supplies for the proposed plant." IEPA's Response at 65. IEPA explains that it concluded the selected SO₂ emissions limit "'represents the maximum degree of reduction in emissions that is achievable for the proposed plant.'" *Id.* at 66 (quoting Response to Comments at 52). More specifically, IEPA "did not consider it necessary to further formally evaluate low-sulfur coal as an available control option because its use as the principal fuel source for the proposed plant would fundamentally alter the plant's design." *Id.* IEPA states that "Prairie State should not be restricted to the use of low-sulfur coal as a primary fuel where the underlying basis for the project's design has been specifically tailored to the exploitation of a particular fuel reserve, which is not low-sulfur coal." *Id.* at 69.

Prairie State argues on appeal that "the proposed plant, including its emissions control equipment, was designed specifically to burn a local high-sulfur Illinois No. 5 or No. 6 seam coal." Prairie State's Response at 43; *id.* at 45. Prairie

State suggests that "[t]he issue here is whether the use of coal from the co-located mine at the Prairie State site represents such an inherent element of the overall project that to require consideration of the use of coals from other sources would fundamentally change the basic nature and economic viability of the project itself." Prairie State Response at 51. Prairie State also argues that IEPA analyzed the appropriateness of requiring the use of low-sulfur coal in terms of its "environmental, energy, and economic impacts." *Id.* at 52; *see also id.* at 52-54.

Petitioners also note that IEPA received comments regarding whether there is a need for the proposed Facility, alternatives to coal such as natural gas, renewable energy sources and energy efficiency, and a smaller power plant. Petition at 9. Petitioners argue that IEPA improperly concluded that it did not have authority to consider such matters. *Id.* Petitioners argue that "IEPA's broad legal authority emanates from 'the bare terms of the law, the statutory context, the legislative history, and the judicial, administrative, and legislative history preceding the congressional adoption of a PSD program in 1977.'" Petition at 11-12 (quoting *In re West Suburban Recycling & Energy Center, L.P.*, PSD Appeal No. 95-1, *Amicus Brief of EPA Region V and EPA Office of Air and Radiation in Response to the Board's Order to Show Cause* (July 30, 1996)).

III. Request for Briefing

After a preliminary examination of the parties' arguments regarding IEPA's analysis at step-one of the NSR Manual's top-down BACT review method, the Board believes that further briefing from OGC and the Region would be helpful in this case, and hereby requests OGC and the Region to jointly address the following matters:³

(1) In OGC's and the Region's view, does IEPA's conclusion that low-sulfur coal is not a potentially applicable control alternative correctly apply the statutory definition of BACT and relevant Agency guidance, including guidance regarding the Agency's historical reluctance to require the source's design to be redefined? Why or why not? In particular:

(a) Is IEPA's conclusion that consideration of low-sulfur coal is foreclosed by Prairie State's decision to design its Facility to exploit a particular fuel reserve (which has a high sulfur content) consistent with the statute's requirement that the BACT emissions limitation be set based on the maximum degree of reduction of each pollutant achievable "through application of * * * clean fuels," among other criteria? Does IEPA's conclusion that the design precludes consideration of low-sulfur coal lead to a requirement that IEPA consider the reasonableness of Prairie State's design?

(b) Does IEPA's analysis of potential control alternatives (which looked to the entire Facility consisting of both the electrical generating station and mine) appropriately apply the NSR Manual's guidance that the purpose of the top-down method's step one is

³ The questions identified in this Order are intended solely to aid the Board in its review of this case. This Order should not be interpreted to suggest the Board has made any determinations on the merits regarding any of the facts, issues or legal matters relating to this matter.

to identify control options "for the emissions unit in question" where "the term, 'emissions unit' should be read to mean emissions unit, process or activity"? (NSR Manual at B.5)

(c) Is IEPA's conclusion that requiring consideration of low-sulfur coal would redefine Prairie State's design an appropriate application of relevant Agency guidance regarding the Agency's historical reluctance to require redefining of the source's design? Does IEPA's analysis properly apply the NSR Manual's guidance regarding inherently lower-emitting processes and similar fuels?

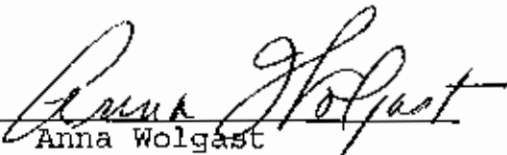
(2) In OGC's and the Region's view, what is the statutory or regulatory basis for the Agency's historical views regarding redefining the source? and

(3) Please address Petitioners' reliance upon the Agency's briefs in other cases to the effect that IEPA has, under the Clean Air Act and PSD program, broad authority to consider and a duty to respond to public comments like those submitted in this case suggesting alternatives to Prairie State's proposed Facility (see Petition at 11, 12, 15, 16).

OGC and the Region should file their brief on or before Friday, January 20, 2006.⁴

So ordered this 12 day of December 2005.

ENVIRONMENTAL APPEALS BOARD

BY: 
Anna Wolgast
Environmental Appeals Judge

⁴ Documents are "filed" with the Board on the date they are received.

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Order Requesting Epa's Office of General Counsel And Epa's Region 5 to File a Brief, PSD Appeal No. 05-05, were sent to the following persons in the manner indicated:

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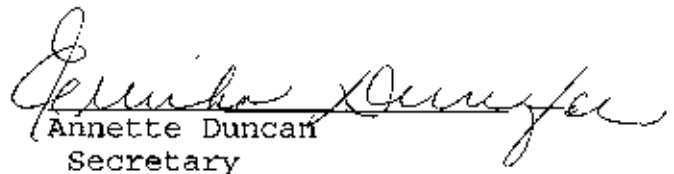
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