26

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September 15, 2005

Via Federal Express

Ms. Erika Durr, Clerk of the Board
U.S. Environmental Protection Agency
Environmental Appeals Board
1341 G Street, N.W. Suite 600
Washington, D.C. 20005

Re: Appeal Number: PSD 05-05
Permit Number: 189808AAB
Prairie State Generating Company

Dear Ms. Durr:

Enclosed for filing is one original and five copies of Petitioners' Reply Brief, and one original and three copies of Petitioners' Exhibits #54 and 55. I am also serving copies of this brief on counsel for the Illinois EPA and Prairie State. Thank you for your assistance in this matter. If you have any questions about this filing or if I can be of any further assistance please call me at 608.257.4994.

Sincerely,

Bruce Nilles by/BSN

Bruce E. Nilles
Attorney for Sierra Club

Enclosures

26

ORIGINAL

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

IN THE MATTER OF:	)	PSD APPEAL NO. 05-05
PRAIRIE STATE	)	
GENERATING STATION	)	
	)	
PERMIT NUMBER	)	
189808AAB	)	

CERTIFICATE OF SERVICE

On September 15, 2005 I served a copy of the **PETITIONERS' REPLY BRIEF** on the following parties via United States first class mail, postage pre-paid:

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ORIGINAL

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

IN THE MATTER OF:	)	
	)	
PRAIRIE STATE GENERATING COMPANY, LLC	)	PSD APPEAL NO. 05-05
	)	
	)	
PERMIT NUMBER 189808AAB	)	

REVISED LIST OF PETITIONERS' EXHIBITS

1) Revised Permit (April 28, 2005)
2) Draft Prairie State Permit (undated)
3) Hearing Transcript (March 22, 2004)
4) Robert Ukeiley Comments (June 17, 2004)
5) Dr. Phyllis Fox Comments (June 21, 2004)
6) American Lung Assn., ABC, LCCA, PRN, SC Comments (Aug. 23, 2004)
7) Clean Air Task Force Comments (August 26, 2004)
8) Valley Watch Comments (July 26, 2004)
9) Dr. Phyllis Fox Supplemental Comments (August 26, 2004)
10) Department of Interior letter to IEPA concluding adverse impacts (May 14, 2004).
11) IEPA letter re: availability of final permit & responsiveness summary (January 21, 2005)
12) IEPA's revised Responsiveness Summary (April, 2005)
13) IEPA letter to Interior concluding no adverse impact (January 13, 2005)
14) Declaration of Bruce Nilles (February 22, 2005)
15) Press Release, Office of Governor Blagojevich announcing funding for PRAIRIE STATE (February 7, 2005)
16) Prairie State Letter to IEPA requesting permit condition to use other coal sources (August 27, 2004)
17) IEPA website for Prairie State permitting documents (undated)
18) IEPA Letter to USEPA Regional Administrator requiring consideration of IGCC (March 19, 2003).
19) WE Energies Elm Road Air Pollution Control Permit (January 15, 2004)
20) Letter from State of New Mexico to Mustang Energy requiring consideration of IGCC (December 23, 2002)
21) New Mexico letter to USEPA Region 9 regarding failure of Steag Power Plant to consider IGCC (October 8, 2004)
22) Decision of the Board of Environmental Review, Montana in the matter of the Air Quality Permit for Roundup (June 2003)
23) NESCAUM Amicus Brief, We Energies Elm Road proceeding (Nov. 30, 2004)

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PETITION FOR REVIEW

PETITIONERS' REPLY

TABLE OF CONTENTS

I. INTRODUCTION 1

II. IEPA'S BACT LIMITS ARE BASED ON A CLEARLY ERRONEOUS INTERPRETATION OF THE LAW 2

A. IEPA Has Not Justified BACT Limits Below the Highest Control Efficiencies. 3

B. IEPA's Rejection of IGCC as not "Achievable," Based on Speculative Assertions About the Viability of Financing, Is Contrary to Law. 6

C. IEPA Failed to Properly Consider Coal-Washing and Low-Sulfur Fuel in its BACT Analysis. 9

III. IEPA FAILED TO DETERMINE THAT THE FACILITY WILL NOT CONTRIBUTE TO VIOLATION OF THE NATIONAL AMBIENT AIR QUALITY STANDARDS. 10

A. IEPA Has Not Properly Addressed the Facility's Contributions to Violations of the National Ozone Standards. 10

1. *IEPA Failed to Address the National 8-Hour Ozone Standards* 10

2. *IEPA's Used the Wrong NOx Emission Rate in Its Analysis of the Facility's Contribution to Violations of the Ozone Standards* 13

B. IEPA Has Not Adequately Addressed the Facility's Contribution to Violations of the Sulfur Dioxide Standards 14

1. *IEPA Found That the Facility Would Contribute to Violations of the Sulfur Dioxide Standards* 14

2. *IEPA Used the Wrong Emission Rate in Its Analysis of the Prairie State's Contribution to Violations of the Sulfur Dioxide Standards.* 16

IV. IEPA DID NOT ADEQUATELY ANALYZE OZONE'S IMPACTS ON VEGETATION 17

V. PRAIRIE STATE WILL ADVERSELY IMPACT AIR-QUALITY RELATED VALUES AT THE MINGO CLASS I AIRSHED 18

A. IEPA Failed to Respond to DOI'S Finding of Excess Nitrate and Sulfate Deposition. 19

B. The Record Does Not Support IEPA's Rejection of DOI's Finding of Adverse Impacts to Visibility. 19

VI. IEPA MAY NOT IGNORE THE ENDANGERED TOAD 22

VII. RESPONDENTS HAVE NOT CONFIRMED THAT NO EIS IS REQUIRED 24

VIII. NEITHER USEPA NOR IEPA CONDUCTED AN ENVIRONMENTAL JUSTICE ASSESSMENT CONSIDERING SUBSISTENCE ANGLERS IN EAST ST. LOUIS 26

IX. ISSUES RAISED BY THE PETITION 27

I. INTRODUCTION

On August 9, 2005, a Kentucky Hearing Officer recommended that the State's Environmental Cabinet remand the air permit for Peabody's proposed Thoroughbred coal-fired power plant.[1] Attached as Petition ("Pet.") Ex. 54. That recommendation addressed a proposed coal plant virtually identical to Peabody's proposed facility here: a 1500MW mine-mouth coal plant with identical pollution control trains. The hearing officer found that the Thoroughbred permit suffers from many of the same defects identified in this Petition.

The Hearing Officer recommended remand of the Thoroughbred permit on, *inter alia*, multiple issues relating to BACT, including inadequate consideration of Integrated Gasification Combined Cycle combustion technology ("IGCC"), coal-washing and coal-blending. The Hearing Officer also found that the permit had relied on flawed NOx and SO_2[2] BACT rates (Count 9), and that a variety of its requirements suffered from enforceability issues (Count 14). Moreover, the decision notes that the PM/PM10 BACT claim was withdrawn in the Kentucky proceeding because Peabody agreed to a limit of 0.018 lb/MMBtu. Pet. Ex. 54 at 3. In contrast, Respondents here insist upon a PM/PM10 permit limit of 0.035 lb/MMBtu – nearly twice the rate agreed to in Thoroughbred.

The Thoroughbred decision, while not binding on this Board, offers an in-depth and reasoned analysis by a neutral arbiter of a project essentially identical to the Prairie State Generating Station (the "Facility"). In order to comply with the page limit, this Reply addresses only seven of the flaws in the Illinois Environmental Protection

[1] The Secretary has not yet acted on the hearing officer's recommendations.

[2] The Thoroughbred SO_2 rate is lower even though IEPA admits the Kentucky plant will burn higher sulfur coal. Resp. 159 n.131 (KY permit = 0.167 lb/MMBtu & Prairie State = 0.182 lb/MMBtu).

Agency's ("IEPA") and Prairie State Generating Company's ("Prairie State") Responses to the Petition: an incorrect understanding of the Clean Air Act's "Best Available Technology" ("BACT") requirements (addressing Arguments D, E, J, M, R-U in IEPA's Response); a failure to require a proper demonstration that the Facility will not contribute to violations of the National Ambient Air Quality Standards ("NAAQS") (Arguments F & N-P in IEPA's Response); improper analysis of ozone's impacts on vegetation (Argument Q in IEPA's Response); the Facility's impairment of air-quality related values at a Class I Airshed (Argument K in IEPA's Response); the failure to consider the Eastern Narrow Mouth Toad as a collateral impact (Argument A in IEPA's Response); the failure to comply with the National Environmental Policy Act, 42 U.S.C. § 4123 et seq. ("NEPA") (Argument C in IEPA's Response); and failure to comply with federal Environmental Justice obligations (Argument G in IEPA's Response). The final section of this brief is a table providing record citations for the central issues raised by the Petition, refuting IEPA's and Prairie State's general contention that Petitioners having failed to raise issues included in the Petition in their comments.

II. IEPA'S BACT LIMITS ARE BASED ON A CLEARLY ERRONEOUS INTERPRETATION OF THE LAW

Respondents present a fundamentally flawed analysis of the "achievable" element of BACT emissions limit setting – a flaw which pervades IEPA's reissued permit for Prairie State.[3] As a result the BACT limits for SO_2, PM, and NOx, including the use of safety factors and alternate compliance procedures, are based on clearly erroneous

[3] IEPA asserts its limited definition of the statutory term "achievable" in section U of its Response, but IEPA's fundamental misconstruction of what emissions rates are "achievable," underlies every one of the contested BACT-related Prairie State permit conditions, including the BACT limits for NOx, SO_2, and PM, the use of safety factors, and alternative compliance procedures. See, e.g., Resp. 120 (discussing SO_2 control efficiencies).

conclusions of law, and must be rejected. IEPA's approach to setting these BACT limits and permit conditions effectively rewrites the statutory and regulatory BACT requirement, undermining the technology-forcing purpose of the Act's "Prevention of Significant Deterioration" ("PSD") requirements, and warranting review.

A. IEPA Has Not Justified BACT Limits Below the Highest Control Efficiencies.

IEPA's BACT limits for SO_2, NOx, and PM are set at levels significantly below the "the most stringent"[4] or "the most effective" control technology,[5] or the "highest possible control efficiency achievable."[6] IEPA justifies those limits by claiming discretion to define achievability as "proven by existing units over the long term." Response to Petition ("Resp.") 330. In effect, IEPA asserts unfettered discretion to inject new concepts into the definition of BACT– for example, that the Agency can evaluate whether an emissions limit has been "proven by existing units over the long term," id. There is no support for such "discretion" in the statute or the Board's decisions.

The Clean Air Act requires that BACT for each regulated pollutant be set at a level "based on the *maximum* degree of reduction . . . which the permitting authority determines is achievable for such facility through application of production processes and available methods, systems, and techniques . . . ." 42 U.S.C. § 7479(3) (emphasis added); see also 40 C.F.R. §52.21(b)(12) (requiring BACT be "based on the maximum degree of reduction . . . achievable for such source . . . through application of production processes or available methods, systems, and techniques . . . ."). Congress intended these BACT

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[4] NSR Draft Manual B.29.
[5] In re Kawaihae Cogen. Proj, 7 E.A.D. 107, 117 (EAB 1997).
[6] In re Masonite, 5 E.A.D. 551 (EAB 1994). See In re Knauf Fiber Glass, GmbH, 8 E.A.D. 121, 129 (BAB 1999).

provisions to be "technology-forcing" – to demand "rapid adoption of improvements in [air pollution control] technology as new sources are built." S. Rep. No. 95-127, at 17-18 (1977). See also Alabama Power v. Costle, 636 F.2d 323, 372 (D.C. Cir. 1980) (PSD is a technology forcing program). BACT thus requires consideration of new approaches, new technology, or new process changes. See id.

The clear language of the statute and regulation is thus forward-looking; a limit must be "achievable" – capable of being achieved in the future – using "available" methods. IEPA has instead applied a backwards-looking standard – whether the limit has, in the past, been consistently met by existing units. By reading words such as "consistently," "continually," and "long-term" into the statute's use of the word "achievable," IEPA sets its BACT limits so as to reflect only the long-term performance of old technology at existing plants, thereby eliminating the new, more effective pollution controls which Congress intended BACT to require. Respondents' limited view of the concept of achievability implicates central policy issues, and warrants review.

There is no support to be found in the Board's case-law for IEPA's reading of "achievable." IEPA cites In re Three Mountain Power, LLC, 10 E.A.D. 39 (EAB 2001), In re Knauf Fiber Glass, Gmbh, 9 E.A.D. 1 (EAB 2000) (Knauf II), and In re Masonite Corp., 5 E.A.D. 551 (EAB 1994), *inter alia,* in support of its claim that an agency can – without more – rely on "safety factors" to set BACT limits less than the "maximum degree of emissions reduction." See Resp. 331-334. These cases do permit the use of safety factors on a limited basis, but only where founded on a reasoned analysis of specific circumstances requiring those factors. See e.g., Three Mountain Power, 10 E.A.D. at 531 (safety factor must be reasonable based on specifics of the situation);

Knauf II, 9 E.A.D at 15 (reasonable to include safety factor required by reasoned analysis in particular circumstances); Masonite Corp., 5 E.A.D. at 560 (specifying limited conditions under which BACT can be based on control efficiencies lower than the optimal level). No case allows a permitting authority to simply incant the words "safety factors," and thereby justify a non-maximal BACT limit. See Alaska DEC, 540 U.S. at 490 (BACT determination must be based on a "reasoned analysis").

IEPA's Responsiveness Summary provides no convincing account of specific circumstances necessitating safety factors here; it simply asserts that safety factors are a permissible justification for BACT limits weaker than the highest possible control efficiencies.[7] Pet. Ex. 12, #100 & 158. Indeed, IEPA's "safety factors" were not disclosed in the draft permit, but rather advanced only as a post-hoc rationalization in response to comments. IEPA failed to indicate what specific safety factors it relied on, or to provide any justification for them when presented with overwhelming evidence that lower limits are achievable. Resp. 117-126. Rather than explain, define or support these factors, IEPA's Response accuses Petitioners of not mounting a sufficient technical challenge. Id. But that is disingenuous -- Petitioners cannot be expected to create IEPA's missing analysis of safety factors, and then critique it.

IEPA also claims "discretion" to set less stringent BACT limits. But the law does not provide the agency with unlimited discretion to define BACT. The Supreme Court has recognized that the use of the word "maximum" in the BACT definition demonstrates Congressional intent to limit the discretion of permitting agencies. Alaska Dep't Envtl.

[7] IEPA asserts that Petitioners did not properly preserve this issue for appeal. Resp. at 113-114. IEPA, however, did not raise the issue of safety factors as justifying lower BACT limits until the revised Permit was issued.

Conservation v. EPA, 540 U.S. 461, 485-489 (2004) (accepting view that the "[Clean Air Act]'s strong normative terms 'maximum' and 'achievable' " constrain a state permitting authority's discretion in BACT analyses). Accordingly, the Board has consistently taken a hard look at the permit authority's decision-making. See, e.g., Three Mountain Power, 10 E.A.D. at 52-53 (analyzing specific details provided by the applicant to support a safety factor); Knauf II, 9 E.A.D. at 15 (same); Masonite Corp., 5 E.A.D. at 560 (same).

While the Board has recognized that permitting agencies "have discretion to set BACT limits at levels that do not necessarily reflect the highest possible control efficiencies but, rather, will allow permittees to achieve compliance on a consistent basis," Three Mountain Power, 10 E.A.D. at 53 (citations omitted), it is an abuse of that discretion for IEPA to set BACT by utilizing safety factors, but without identifying the specific factors or demonstrating *why* those factors are necessary. Pet. 55.

B. IEPA's Rejection of IGCC as not "Achievable," Based on Speculative Assertions About the Viability of Financing, Is Contrary to Law.

IEPA did not deny that IGCC would achieve the "maximum degree of reduction" of pollution from the facility.[8] 40 C.F.R. § 52.21(b)(12). See Pet. 22 (citing Resp., Pet. Ex. 12 #17). In issuing the permit, moreover, IEPA concluded that IGCC was a technically "achievable"[9] and "available"[10] method for application at the proposed

[8] In its response to the petition, IEPA for the first time expresses the view that "Prairie State's emission limits are *comparable* to IGCC plants, as shown by Prairie State in its permit application and evaluation of IGCC." Resp. 48 (emphasis added). This post hoc assertion is irrelevant, however, because (1) "comparable to" does not mean "lower than"; (2) the SO_2 and PM emission limits of the only IGCC plant examined by Prairie State are lower than Prairie State's limits; and (3) USEPA has already found that "[n]ew steam generating projects that use IGCC technology will inherently have only trace SO_2 emissions because *over 99 percent of the sulfur associated with the coal is removed by the coal-gasification process.*" 70 Fed. Reg. 9706, 9715 (Feb. 28, 2005) (emphasis added).

[9] 40 C.F.R. § 52.21(b)(12); see Pet. 22-23 (quoting Resp., Pet. Ex. 12 #17).

[10] 40 C.F.R. § 52.21(b)(12); see Pet. 23 (quoting Resp., Pet. Ex. 12 #17).

"source."[11] In its Response, IEPA confirms these findings. Resp. 43 ("IGCC may be an available technology in terms of the technical feasibility of the technology . . . ."); id. at 44 ("Illinois, along with a small number of other states, has concluded that it is appropriate for coal-fired power plant to consider IGCC as part of their BACT demonstrations.").

In light of those conclusions, IEPA could only reject IGCC, under the BACT definition, via a case-specific determination, "taking into account energy, environmental, and economic impacts and other costs," that the technology was unachievable at the proposed plant notwithstanding its technical achievability. 40 C.F.R. § 52.21(b)(12). Instead, IEPA rejected IGCC because the agency believed that the technology could not "yet be considered viable for privately financed power plant projects that are not guaranteed a revenue stream or return on investment." Pet. 25 (quoting Resp., Pet. Ex. 12 #15). IEPA's Response confirms Petitioners' understanding that this amounted to a conclusory determination that IGCC was unachievable for want of financing, id.,[12] but improperly invokes the "economic impacts and other costs" factor of the BACT definition as the agency's authority for rejecting IGCC on project-finance grounds.[13] Resp. at 46; accord id. at 43 ("IGCC * * * is not BACT for the proposed Prairie State plant due to its economic impacts.").

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[11] 40 C.F.R. § 52.21(b)(12); see Pet. 22-23 (quoting Response, Pet. Ex. 12 #20).

[12] Resp. 46 ("IGCC technology, when compared to that of pulverized coal boiler technology, has higher capital costs and a substantially higher cost for the electricity that would be generated. . . . [T]hese cost differentials . . . result in a significantly increased risk for investors and lenders thereby blocking the availability of project financing for the proposed plant if it were to rely on IGCC technology.")

[13] Economic impacts and other costs are evaluated on the basis of a cost-effectiveness paradigm, that is a comparison between the technology representing the highest possible control efficiency and other less protective alternatives. In re Inter-Power of New York, Inc., 5 E.A.D. 130, 136 (EAB 1994) (citing, *inter alia*, Draft NSR Manual at B.31-B.46).

Therefore, the sole question presented to the Board on the subject of IGCC is the question outlined in the Petition: did Prairie State meet its burden of proving, on a case-specific basis, that IGCC is not economically achievable? See Pet. 29-30; see also Citizens for Clean Air v. EPA, 959 F.2d 839, 845 (9th Cir. 1992) ("The top-down approach places the burden of proof on the *applicant* to justify why the proposed source is unable to apply the best technology available."); In re Pennsauken County, New Jersey Resource Recovery Facility, PSD Appeal No. 88-8 (EAB Nov. 10, 1988) (same); In re Inter-Power of New York, Inc., 5 E.A.D. 130, 135 (EAB 1994) ("Under the 'top-down' approach, permit applicants must apply the most stringent control alternative, unless the applicant can demonstrate that the alternative is not technically or economically achievable.").

IEPA's Response confirms that the answer to that question is "no." Specifically, IEPA acknowledges that Prairie State only offered – and IEPA only considered – white papers concluding that IGCC cannot currently receive financing for construction anywhere in the United States. Resp. 47-51. Indeed, Prairie State's President-elect asserted just last week that IGCC is "today's technolog[y] . . . not emerging, not new," and a matter of great interest now to the company, both technically and from a financial perspective. Statement of Greg Boyce, President-elect and Chief Operating Officer, Peabody Energy, September 8, 2005 (18 min. 42 Sec. to 25 Min. 55 Sec.) available at <http://www.lehman.com/conference/2005EnergyPower/welcome.html>, and attached as Petitioners' Ex. 55. IEPA had no well-reasoned basis to reject IGCC on cost-effectiveness grounds.

C. IEPA Failed to Properly Consider Coal-Washing and Low-Sulfur Fuel in its BACT Analysis.

IEPA's repeated emphasis on long-term performance as a criterion for judging the "achievability" of a BACT limit also improperly skews the BACT determination for Prairie State into a comparative analysis of add-on pollution control technologies, rather than the comprehensive assessment of "processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each . . . pollutant," required by the law. 42 U.S.C. § 7479(3). See 40 C.F.R. § 52.21 (b)(12); NSR Manual at B.5. The Board has repeatedly affirmed that BACT must reflect an assessment of all available options to achieve the maximum degree of reduction of each pollutant subject to regulation, and should not be limited to a comparative assessment of add-on controls. See In re Knauf Fiber Glass, Gmbh, 8 E.A.D. 121, 129 (EAB 1999) (Knauf I) (citing NSR Manual at B.10, B.13); In re Old Dominion Elec. Coop., 3 E.A.D. 779 (EAB 1992); Inter-Power of New York, 5 E.A.D. at 135-136; In re CertainTeed Corp., 1 E.A.D. 743 (EAB 1982) at 2-5.

IEPA's rejection of coal-washing, on the basis of a flawed and incomplete cost analysis, Pet. at 55-56, and without documentation of any unusual circumstances, id. at 62 (citing NSR Manual at B.29; In re Kawaihae Cogen. Proj., 7 E.A.D. at 107, 117 n.12 (EAB 1997)), is not only contrary to law on its face, but also reflects IEPA's improper conception of what "achievable" means in the BACT context. See Pet. at 31-38. Both coal-washing and coal-blending are at issue in multiple coal-plant permit proceedings across the country; because BACT determinations build from the most recent decision about similar facilities, IEPA's rejection of those options presents a significant policy question of nationwide significance, worthy of review.

III. IEPA FAILED TO DETERMINE THAT THE FACILITY WILL NOT CONTRIBUTE TO VIOLATION OF THE NATIONAL AMBIENT AIR QUALITY STANDARDS.

Under the Clean Air Act, the IEPA cannot issue a PSD permit "unless . . . the owner or operator of [the proposed] facility [has] demonstrate[d] . . . that emissions from construction or operation of [the facility] will not cause, or contribute to, air pollution in excess of any . . . [NAAQS] in any air quality control region." 42 U.S.C. § 7475(a)(3). See 40 C.F.R. §52.21(k)(1999) (same). IEPA's failure to require that demonstration with regard to two pollutants – ozone and SO_2 – requires a remand.

A. IEPA Has Not Properly Addressed the Facility's Contributions to Violations of the National Ozone Standards.

1. *IEPA Failed to Address the National 8-Hour Ozone Standards*

IEPA, in its analysis of Prairie State's impact on ozone levels in nearby St. Louis, concluded that the facility would "cause small increases in ambient ozone concentrations in the St. Louis metropolitan area," Resp. Ex. 23 at 20, and that "the coal-fired electric generating units evaluated here" could "be shown to interfere with timely attainment of [the 8-hour] standard." Id. at 3. Yet instead of asking whether these increases would contribute to ozone pollution in excess of the 8-hour standard – as they likely would, given that ozone pollution in the Greater St. Louis Area *already* exceeds that standard – IEPA merely stated that it would "address these sources . . . in development of the SIP for the 8-hour standard." Id.; 69 Fed. Reg. 23,858, 23,898 (April 30, 2004). In other words, the agency "promis[ed] to do tomorrow what the Act requires today." Sierra Club v. EPA, 356 F.3d 296, 298 (D.C. Cir. 2004) (overturning U.S. Environmental Protection Agency ("USEPA") approval of state's claim of compliance with ozone standards). In issuing the permit without a demonstration that the Facility "will not cause, or contribute

to, air pollution in excess" of the 8-hour ozone standard in the Greater St. Louis area, IEPA violated the Clean Air Act. 42 U.S.C. § 7475(a)(3); 40 C.F.R. §52.21(k).

Respondents offer four insufficient explanations for that violation. First, IEPA contends that its modeling provides "relevant insight" into the 8-hour standard, and that this insight suggests that the facility's contribution to violations of the ozone standard in St. Louis would be "not routine" and "only occur [under certain] wind direction[s]." Resp. 87. As an initial matter, IEPA's modeling analysis expressly disavows any such conclusion, cautioning that "[t]his analysis does not address the 8-hour ozone NAAQS established by the USEPA." Resp. Ex. 23 at 3.[14] And even if IEPA had merely found contributions to violations of the 8-hour ozone standard that were "not routine," neither the Act nor its implementing regulations except non-routine contributions. 42 U.S.C. § 7475(a)(3) (owner or operator must show that facility will not contribute to pollution in excess of "*any* . . . national ambient air quality standard in *any* air quality control region" (emphases added)); 40 C.F.R. § 52.21(k) (same).

Second, Respondents contend that the Act permits them to use the 1-hour standard as a "surrogate" for the 8-hour standard. Resp. 86. The Board has permitted agencies to estimate a facility's emissions of a pollutant based upon measurements of a "surrogate" substance, at least where use of that surrogate "overestimate[s] the quantity of [the pollutant] from the Facility." In re BP Cherry Point, PSD Appeal No. 05-01, slip op. at 20. IEPA, however, seeks to substitute the ambient 1-hour ozone levels in the St. Louis Area as a "surrogate" for the 8-hour levels of the same pollutant, thereby eliding USEPA's finding that ozone levels in the St. Louis area currently exceed the more

[14] Prairie State is thus incorrect when it suggests that "IEPA . . . concluded that emissions from Prairie State would not cause or contribute" to an ongoing violation of the 8-hour ozone standard, Ilvn. Resp. 56.

stringent 8-hour standard. No policy or law permits that end-run around USEPA's non-attainment designation. IEPA's analysis indicated that emissions from Facility would contribute to an increase in ambient ozone concentrations in the St. Louis area, but that the St. Louis area could sustain this increase and remain in compliance with the 1-hour ozone NAAQS. Ex. 23 at 12. USEPA has since implemented the 8-hour NAAQS, and found that ozone pollution in St. Louis currently violates that standard; IEPA cannot issue the permit when the Facility will contribute to that violation. 42 U.S.C. § 7475(a)(3).[15]

Third, Prairie State cites an Appendix to USEPA's regulations governing non-attainment new source review to claim that IEPA is allowed to "presume" that the Facility will have no impact on ozone levels in the St. Louis area. Intervenor Prairie State Generating Co.'s Brief Resp. Pct. ("Itvn. Resp.") 56-57 (citing 40 C.F.R. § 51 App. S § III). IEPA did not, however, invoke Appendix S to "presume" that the Facility would have no impact on the St. Louis area. On the contrary, it analyzed the Facility's emissions and concluded that those emissions would increase ozone levels in St. Louis. Ex. 23 at 20. See S.E.C. v. Chenery, 332 U.S. 194, 196 (noting that "administrative action is to be tested by the basis upon which it purports to rest").[16] For that reason, as well as the reasons set forth in Section III.B.1., below, Appendix S does not apply.

Finally, Respondents propose issuing the permit because "*Petitioners* do not address how further air quality analyses should be conducted" to indicate whether the Facility will cause or contribute to a violation of the 8-hour ozone standard. Itvn. Resp.

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[15] For the same reason, Respondents' reliance on PM10 as a "surrogate" for PM2.5 is incorrect. While IEPA could safely assume that the Station's PM10 emissions are entirely PM2.5, it cannot substitute ambient PM10 levels for ambient PM2.5 levels to avoid confronting USEPA's non-attainment designation.

[16] Prairie State raises a variety of additional, similarly post hoc, rationales to support IEPA's decision, all of which bear no relation to the IEPA's stated rationale for issuing the permit.

93 (emphasis added). The Act and its regulations, however, squarely place the burden of making that showing upon the permit-applicant. Under the Act, "*[n]o* major emitting facility . . . may be constructed . . . unless . . . *the owner or operator of [the proposed] facility* demonstrates" that the facility will not "contribute" to any ongoing NAAQS violation. 42 U.S.C. § 7475(a)(3) (emphasis added); 40 C.F.R. § 52.21(k). If Prairie State has not made that demonstration, the permit cannot issue. See generally H. Rep. 95-294 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1080 ("[T]he primary and overriding purpose of the [PSD provisions] remains the prevention of illness or death which is air pollution related and protection of public health.").[17]

2. *IEPA's Used the Wrong NOx Emission Rate in Its Analysis of the Facility's Contribution to Violations of the Ozone Standards*

IEPA does not dispute that its analysis of the Facility's contributions to violations of the 1-hour Ozone Standard used a NOx emission rate based on the Facility's 30-day averaging time NOx permit limit, rather than Prairie State 24-hour averaging time NOx permit limit. The regulations require the use of the shorter – i.e., the 24-hour – averaging time in IEPA's NAAQS compliance demonstration.[18] See 40 C.F.R Part 51, App. W, Table 9-2. IEPA has admitted that the emission rate based on the short-term limit is required in a short-term NAAQS compliance demonstration. Pet. Ex. 12 at Response 270 ("[IEPA] concurs that for purposes of a short-term NAAQS compliance demonstration, the federally enforceable short-term allowable emission rate should be employed.") (responding to comment about Murray source). IEPA attempts to excuse its departure

[17] In fact, the 8-hour analysis requires nothing beyond the data collected for IEPA's analysis under the 1-hour standard.

[18] IEPA Response confuses issues by referring to the 30-day averaging time limit as the NOx BACT emission limit. As Petitioners explained in their comments, the 24-hour NOx rate corresponding to the 0.08 lb/MMBtu 30-day emission rate used in IEPA's modeled is 0.27 lb/MMbtu. See Pet. Ex. 5 at 16.

from the regulatory requirement by referring to its SIP attainment demonstration, and invoking its "judgment." Neither trumps the regulations.

B. IEPA Has Not Adequately Addressed the Facility's Contribution to Violations of the Sulfur Dioxide Standards

1. *IEPA Found That the Facility Would Contribute to Violations of the Sulfur Dioxide Standards*

Both Prairie State's and IEPA's air quality modeling indicated that the Facility will contribute to violations of the 3 hour and 24 hour SO_2 NAAQS. See Respondent's Exhibit 5, Modeling Addendum #2, at 7.[19] IEPA could not, therefore, conclude that the Facility met the requirements of 42 U.S.C. § 7475(a)(3) and 40 C.F.R. §52.21(k)(1999). See e.g. Ohio Power Company v. EPA, 729 F.2d 1096, 1098 (6th Cir. 1984). This issue is at the heart of the PSD program. And SO_2 has potentially lethal impacts. Respondents argue that IEPA can issue a PSD permit when the air has deteriorated to below the NAAQS. The Clean Air Act says otherwise. See Section III.A.1, above; 42 U.S.C. § 7475(a)(3); 40 C.F.R. §52.21(k).

Respondents argue that 40 C.F.R. Part 51, App. W, Section 11.2.3.2 ("Appendix W") allows IEPA to insert the words "at the significant impact level" into 40 C.F.R. § 52.21(k)'s prohibition against sources that will cause or contribute to a violation of a NAAQS. However, Appendix W does not change the plain language of 40 C.F.R. § 52.21(k). Moreover, Appendix W does not say that a contribution to a violation is only a

[19] Petitioners submitted their NAAQS air modeling comments on June 17, 2004. See Pet. Ex. 4. After Petitioners submitted their comments and after the first public comment period had expired, IEPA extended the public comment period to allow Prairie State to put more information into the record, including the July 12, 2004 modeling. There is no requirement for Petitioners to comment on an issue multiple times. It is not disputed that the July 12, 2004 modeling as well as the earlier modeling show that Prairie State will contribute to violations of the 3 hour and 24 hour SO_2 NAAQS. The question whether the Facility's contribution to NAAQS violations can be excused by declaring that they are below the admittedly arbitrary Significant Impact Levels.

contribution if the contribution is above the significant impact level. See 40 C.F.R. Part 51, App.W, Section 11.2.3.2. Rather, it only states that contribution to a NAAQS violation is based on the "significance of its temporal and spatial contribution to any modeled violation." Id. If USEPA intended Appendix W to apply the "significant impact levels" it would have used that term in the language of the regulation. Rather Appendix W means that if the source's contribution to a particular time – receptor combination to a modeled violation is insignificant, that is zero, then that does not qualify as a contribution. Any other interpretation of Appendix W, would be inconsistent with plain language of 40 C.F.R. § 52.21(k), 42 U.S.C. § 7475(a)(3), and the fundamental purpose of the PSD program: to prevent the deterioration of air quality to below the NAAQS.

40 C.F.R. Part 51, Appendix S is also of no help to Respondents. It was superseded when Illinois' non-attainment NSR program was approved. See id. at § I.[20] And even before it was superseded, it was only a proposal. Id. at § III.B, n.2. Moreover, Appendix S only discusses an analysis to determine if a source will contribute above the significant level to a location that exceeds the NAAQS. In contrast, Respondents' analysis was whether Prairie State would contribute significantly to a NAAQS violation location at the same time as the NAAQS violation. In addition, this superseded proposal said that a determination of a NAAQS violation should be made as of the date of the major source's startup. Id. at III.C. That has not happened in this case. Finally, this superseded proposal requires an analysis of whether a source will contribute to an existing violation or cause a new violation. Id. at III.D. Respondents have never

[20] This explains why USEPA did not bother to revise this when the NAAQS and increment was changed from Total Suspended Particulate (TSP), which is addressed in this proposal to PM10.

claimed, nor could they, that they evaluated whether the Facility will cause any new violations. They only evaluated whether Prairie State will contribute significantly to existing violations.[21]

Finally, IEPA argues that requiring a state permitting agency to fix a NAAQS violation before permitting additional pollution might run afoul of the requirement to grant or deny PSD permits within one year. IEPA Response at 264-265. That argument reveals a crucial blind-spot: IEPA's option – indeed, duty – to deny an application which fails to meet the requirements of 40 C.F.R. §52.21(k) and 42 U.S.C. § 7475(a)(3). See 42 U.S.C. § 7475(a)(3). Nothing, beyond IEPA's apparent determination to issue the permit under any and all circumstances, prevents the agency from denying the permit within the specified time-frame.

2. *IEPA Used the Wrong Emission Rate in Its Analysis of the Prairie State's Contribution to Violations of the Sulfur Dioxide Standards.*

IEPA, in its response to comments, admits that Prairie State used the wrong SO_2 emission rate in its NAAQS modeling for the Murray Development Center (Murray). IEPA concurred with Petitioners in the response to comments that the highest allowable short term emission rate must be used for a source but for Murray, an emission rate based on the state emission inventory, i.e. actual annual emissions, was used. Pet. Ex. 12 at Resp. 270. IEPA tried to justify this error by saying that the emission rate used in this modeling is the current emission rate in the permit, and this rate will go down after two years of operation. Id. The PSD regulations do not allow sources to demonstrate that

[21] 40 C.F.R. § 51.165(b) is not applicable to Prairie State because that regulation discusses what must be in approved state's PSD programs. Illinois is not an approved state.

they will not cause or contribute to a violation of a NAAQS two years after a source begins polluting. See 40 C.F.R. § 52.21(k). See Sierra Club, 356 F.3d at 298.

In their briefs, Respondents now argue that Murray was not even included in the NAAQS modeling because it was "screened out" under a process the Respondents call "10D." Resp. 271-272; Itvn. Resp. 183.[22] IEPA's Responsiveness Summary makes no mention of 10D in regards to Murray. Pet. Ex. 12, #270, 271. It admits that the wrong emission rate was used but then claims that the right emission rate was used for Murray. The Board cannot accept counsels' arguments that contradict the agency's stated position in the Responsiveness Summary. The permit should be remanded for a new SO_2 NAAQS analysis using the correct emission rate for Murray.

IV. IEPA DID NOT ADEQUATELY ANALYZE OZONE'S IMPACTS ON VEGETATION

IEPA justifies its inadequate analysis of ozone's additional impacts to vegetation, required by 40 C.F.R. § 52.21(o), by claiming that the Petition does not address IEPA's response to comments. Resp. 273-277. IEPA is mistaken. The response to comments claimed that the additional impacts analysis requirement is met by conducting the NAAQS compliance analysis required by 40 C.F.R. § 52.21(k). The Petition explains why this is legally and factually incorrect: the acceptable ozone impact level in the soils and vegetation analysis is much lower than the impact levels used in the NAAQS analysis. See Pet. 98-100.

[22] Prairie State contradicts itself on this point. It said "cumulative NAAQS modeling includes other SO_2 emission sources in the area, such as Warren G. Murray." INTV Response at 181. Two pages later it states: "Emissions from Warren G. Murray were not included in the July 2002 SO_2 short-term remodeling at all." Id. at 183.

IEPA claims that the Board and the NSR Manual allow the use of secondary NAAQS analysis as a substitute for an additional impacts analysis. Resp. 278 (citing In re. Kawaihae Cogeneration Project, 7 E.A.D. at 130). In that case, the Board rejected a claim that an EIS needed to be prepared; in *dicta* it stated that sometimes the secondary NAAQS is good enough, and some times not. Id. at 130, n. 33 (quoting the NSR Manual). In this case, Petitioners have presented evidence from USEPA and IEPA establishing that the secondary ozone NAAQS is not protective of sensitive vegetation. Under those circumstances, IEPA cannot rely on the secondary NAAQS. See Pet. 100.[23]

V. PRAIRIE STATE WILL ADVERSELY IMPACT AIR-QUALITY RELATED VALUES AT THE MINGO CLASS I AIRSHED

IEPA's rejection of the U.S. Department of Interior's ("DOI") adverse impacts determination violated the obligation set forth in 42 U.S.C. § 7475(d)(2)(C)(ii) and 40 C.F.R. § 52.21(p)(4). See Pet. 69; Hadson Power, 4 E.A.D. at 276 (delegated authority's rejection of FLM finding of adverse impact must not be arbitrary and capricious); National Park Conservation Association v. Mason, 2005 U.S. App. LEXIS 13119; 35 ELR 20140 (D.C. Cir. July 1, 2005) at *3 (state's rejection of DOI adverse impact determination must be in writing and in accordance with federal requirements). The direct conflict between USEPA's sister agency, DOI, and USEPA's delegate, the State of Illinois, on this issue about a Class I airshed lying outside of Illinois, raises important policy concerns that the Board must resolve.

IEPA complains that Petitioners failed to present it with the issue of whether DOI's determination of adverse effects on air-quality related values justifies remand or

[23] IEPA also discusses analyses unrelated to ozone impacts on vegetation, Resp. 279-285; those analyses are irrelevant.

denial of the permit. Resp. 188. But this Board must determine whether the Federal Land Manager's determination of adverse impacts satisfies the federal EPA, not the delegated state authority. See Hadson Power, 4 E.A.D. at 276 n.26. Petitioners should not be expected to comment to the IEPA on the legal standard for review in a Board appeal. It is telling that IEPA does not mention the Hadson Power decision, much less refute it. Resp. 188-190.

A. IEPA Failed to Respond to DOI'S Finding of Excess Nitrate and Sulfate Deposition.

DOI concluded that Prairie State's emissions will adversely impact air-quality related values at Mingo, both by degrading visibility *and* by depositing sulfates and nitrates above the acceptable amounts set forth in the FLM's FLAG Report. See Pet. Ex. 10 (Asst. Sec. Hoffman's Adverse Impact Letter) at first encl. p.6. IEPA did not respond at all to the second of these points – the deposition of sulfates and nitrates. See Resp. 190-202. Absent some non-arbitrary response, IEPA's rejection of DOI's adverse impact finding cannot be upheld. The permit therefore must be remanded with a requirement that emissions of SO_2, NOx and sulfuric acid mist, the precursors to sulfate and nitrate emissions, be reduced to levels such that properly done modeling, pursuant to FLAG report procedures, demonstrates that sulfate and nitrate deposition at Mingo will be below the threshold in the FLAG report.

B. The Record Does Not Support IEPA's Rejection of DOI's Finding of Adverse Impacts to Visibility.

IEPA claims, without any support in the record, that the visibility modeling submitted by Prairie State, and reviewed by IEPA, properly followed the applicable regulations and guidance. Resp. 191. In fact, DOI found that the modeling did not

follow the FLAG guidance, and indeed, if it had, the predicted impacts likely would have been greater than what Prairie State reported to IEPA. See Pet. Ex. 10 first encl. at 6.

In its review of Prairie State's application, DOI stated that an applicant must use an emission rate based on a 24-hour averaging time, rather than a 30-day averaging time, when modeling to determine impacts based on 24-hour averaging time, because there is no guarantee that emissions will actually be equivalent to the 30-day averaging time limit during any particular 24-hour period. See Pet. Ex. 10 first encl. at 7-8. IEPA instead used an emission rate (the 30-day SO_2 limit) in the visibility modeling that differed from the emission rate mandated by the permit (the 24-hour SO_2 limit). That decision is arbitrary, for several reasons.

First, if Prairie State's actual emissions in fact will be less than the 30-day average limit during each 24-hour period, then the permit should require Prairie State to meet the 30-day averaging limit in the 24-hour averaging time. IEPA states that it did not require the use of the more stringent 24-hour averaging time limit in the modeling because the chances of the worst meteorological conditions happening at the same time as upset conditions at the plant is small. Resp. 195. But this reasoning is flawed, because the 24-hour averaging time emission limit is not an 'upset' condition – it is a permit limit. Prairie State is legally allowed to emit at that rate during any given 24-hour period.

Second, the rules are clear: agency modeling must use past meteorological data, coupled with the *highest* permitted emission rates to very roughly predict future impacts. The aim of this requirement is to ensure that all power plants are treated equally, with respect to predicted future impacts. IEPA has instead given Prairie State an unfair

competitive advantage by allowing it to use an emission rate in its modeling that is less stringent than its permitted rate.

Third, IEPA cites In re Old Dominion Electric Cooperative, 1992 EPA App. LEXIS 37, *12, fn. 12 (Adm'r 1992) as support for its decision to allow Prairie State to use less than the most stringent permitted rates in its modeling. That reliance is misplaced: the Board in that case *did not* find that it is permissible to use an emission rate other than the highest permitted emission rate.[24] Old Dominion therefore provides no support for Prairie State's divergence from well-established modeling rules.

Finally, IEPA finally does not contest that considering natural weather events, the Facility would have an adverse impact on visibility. Id. Rather, IEPA acknowledges that even under its flawed analysis, there was still one day with visibility impairment above 10% and four days above 5%. Resp. 197, n.169. Even one day above 10% is an adverse impact. See Pet. Ex. 10 first encl. at 6. IEPA also rejected the FLAG Report's approach to human perception in the changes to light extinction, based on the report of Prairie State's hired consultant, Dr. Ivar Tombach. Resp. 197-198. But even Dr. Tombach's analysis predicts that the Facility will cause at least one day with impacts over the 10% acceptable level. Resp. 197, n.169.

IEPA's Response describes changes made to the permit, but does not provide any assessment whether these changes will actually lessen the Facility's visibility impacts at

[24] The decision states: "The Federal Land Manager for the Park also used the MPTER model to predict SO[2] concentrations, which were then converted to sulfates and used to estimate short-term (24-hour) impacts on visibility in the Park. The State evaluated and responded to the modeling results, finding them 'clearly inadequate' for this purpose, tending to overstate impacts. Modeling cited by Petitioners and performed by Dr. Michael Williams is also highly likely to overstate short-term impacts. These analyses are contradicted by the analyses submitted by Old Dominion and USEPA Region III's RELMAP analysis. It is not error for the State to determine that, in light of contradictory evidence, the MPTER model and Dr. Williams' analysis were not sufficiently convincing." Old Dominion, 1992 EPA App. LEXIS 37, *12 n. 12.

Mingo. See Resp. 199-201. Without this analysis, IEPA's reliance on these permit changes is arbitrary. At bottom, Prairie State and IEPA admit that the facility is predicted to cause at least one day of visibility impairment over the 10% threshold used by DOI to establish impermissible adverse impacts. The Board should reject this back-door attempt by IEPA to amend DOI policy in a permitting decision.

VI. IEPA MAY NOT IGNORE THE ENDANGERED TOAD

The Illinois Department of Natural Resources (IDNR) notified IEPA in a draft biological opinion that the proposed Prairie State project may destroy portions of this toad's habitat. Yet the agency did not consider this information as part of its SO_2 BACT analysis, a collateral impacts analysis, or make the information available to the public prior to issuing the final permit. IEPA concedes that it neither considered the toad in its permitting decision, nor informed the public that IDNR biologists were concerned about Prairie State's project destroying toad habitat, and in fact misplaced the IDNR letter until after the permit was issued.

> A facsimile of the document had been directed to the Illinois EPA's Division Manager in early October 2004 but was subsequently overlooked by Illinois staff in the preparation of the Administrative Record. In fact, the discovery of the document within the Illinois EPA's files did not occur until sometime in middle May 2004 [sic][25], after both the issuance of the Prairie State permit and the completed assembly of the Administrative Record.

Resp. 17 n.11. Because the permit was issued without consideration of the toad, it was unlawfully issued without a complete administrative record – a necessary prerequisite to issuing a permit. 40 C.F.R. § 124.18(a) (requiring that a final permit decision be based on the administrative record).

[25] This should be 2005.

The Board must remand the permit for the record to be supplemented with information about the toad. This is particularly important because IEPA has not answered the allegations that its decision to withhold information about the toad from the public was based on inappropriate political concerns. "Courts have recognized that supplementation of the administrative records may be justified, in the interest of effective judicial review, where there are *credible* accusations that an agency has ... acted improperly or in bad faith." San Luis Obispo Mothers for Peace v. NRC, 751 F.2d 1287, 1331-32 (D.C. Cir. 1984) (Wald, J., dissenting).

Respondents assertions that the failure to disclose was harmless error are unsubstantiated. "Unfortunately [for IEPA and Prairie State], there are no details regarding [this] determination in the administrative record." Knauf I, 8 E.A.D. at 175. Prairie State's reference to its mercury deposition study is irrelevant because it did not assess whether the mining of limestone may destroy the toad's habitat. Prairie State also makes the unsubstantiated claim that if the limestone comes from a mine in Illinois then it will be protected because mining activity is a regulated action and is subject to the state endangered species act. Itvn. Resp. 11. A mining permit is only required in cases where the mining company proposes to remove more than ten feet of overburden or mine an area larger than ten acres during the permitted year. See 225 Ill. Comp. Stat. 715/4. Absent a mining permit for its limestone sources Prairie State has not explained how the toad will be protected.

The toad issue relates directly to the SO_2 BACT determination and is therefore appropriate for Board review. Based on the limited information Petitioners have been able to obtain, the toad is at risk from Prairie State's proposal to obtain limestone for its

SO_2 pollution controls – a wet scrubber – from local limestone mines. Unfortunately for the toad it also depends on these limestone-rich areas for its habitat. Therefore, the impact of limestone mining on the toad is a collateral impact associated with this pollution control that should have been considered as part of the BACT analysis.[26] There are reasonable alternatives to using local limestone from the toad's habitat that should have been considered in the top-down BACT analysis, such as using lime as a sorbent instead of limestone, or using limestone mined from other areas away from the toad's habitat. Because the SO_2 BACT analysis did not consider the toad as part of the collateral impacts the analysis is flawed and the Board must remand the permit. This situation is particularly egregious because based on the IEPA e-mail (Pet. Ex. 36) it appears that IEPA affirmatively withheld the toad information from the public.

VII. RESPONDENTS HAVE NOT CONFIRMED THAT NO EIS IS REQUIRED

Respondents fundamentally misconstrue who has what obligations under 40 C.F.R. § 52.21(s). IEPA responded to Petitioners' claim that this is a mandatory duty that the agency is not "aware of ... any actions by a federal agency necessitating the preparation of an [Environmental Impact Statement ("EIS")]." Resp. 38. Prairie State asserts, in the past tense, that "no federal agency action pertaining to Prairie State resulted in a review under [NEPA]." See Itvn. Resp. 20. Prairie State further asserts that Petitioners have not identified any federal action requiring NEPA review. Id. 23-24.

Putting aside for a moment whether IEPA can act in the shoes of USEPA, one of the two permitting agencies clearly has an obligation to coordinate the issuance of a PSD

[26] Elsewhere IEPA describes in detail how the collateral impacts analyses is required as part of the fourth step in a top-down BACT analysis to ensure "consideration of energy, environmental and economic impacts for the control technology under review." Resp. 130. IEPA leans heavily on the collateral impacts analysis to reject coal washing (Id. 130-146), and then turns around and ignores the toad.

permit with other federal agency actions related to the project that require preparation of an EIS. The only feasible strategy to ensure that such coordination can occur is if the permitting agency determines at the outset what other federal agency actions are related to this project, if an EIS is required, and if so begins coordination as soon as possible. According to IEPA and Prairie State responses, it is the public that has the task of identifying related federal actions. That is an impossible task and an unlawful reading of the law. The only entity that is in a position to know whether there are any federal actions associated with its project that may trigger the need for an EIS is Prairie State. The only entity that can demand this information of Prairie State and make it available for public review is the permitting agency. The public does not have access to this information absent disclosure by Prairie State or a permitting agency.

A close reading of Prairie State's carefully parsed response reveals no denial of the fact that there are additional federal actions related to their project that trigger NEPA. There is no affidavit from the Prairie State project manager attesting to a complete list of the remaining permits or other approvals required from federal agencies that may trigger NEPA. Silence cannot be good enough. The alternative is the current untenable situation in which the public raises the NEPA coordination issues and tries to guess the list of all the possible federal actions that may be related to the proposed project. Respondents dismiss the comments, but never reveal whether there are other federal actions that the public failed to divine. The Board should impose a bright line rule consistent with the PSD regulation: A permit applicant must disclose as part of its PSD permit application all of the federal actions related to its project that may trigger the obligation for preparing an EIS. At that time the permitting agency must coordinate issuance of the PSD permit

with the preparation of an EIS "to the maximum extent feasible and reasonable." 40 C.F.R. § 52.21(s). Petitioners also request that the Board confirm that while IEPA may assist in the coordination, USEPA retains final responsibility for compliance with this provision. USEPA is logically situated to coordinate with other federal agencies if indeed an EIS is required.

VIII. NEITHER USEPA NOR IEPA CONDUCTED AN ENVIRONMENTAL JUSTICE ASSESSMENT CONSIDERING SUBSISTENCE ANGLERS IN EAST ST. LOUIS

Petitioners identified in their public comments to USEPA and IEPA and in their petition to this Board at least one significant environmental justice ("EJ") population – subsistence anglers in East St. Louis – as being at risk from Prairie State's mercury emissions. Pet. 44-45. To date USEPA has not responded. Neither of the Respondents' responses reasonably explains why an EJ analysis has not been conducted or why it is not reasonable to expect that the Prairie State's mercury emissions would adversely affect this EJ population already at risk from excess mercury levels in the fish and located approximately thirty miles from the proposed power plant. Similarly there is no reasoned explanation why IEPA did not conduct any outreach targeted at this population (or other residents of East St. Louis) or why IEPA held a single public hearing thirty miles from East St. Louis at a location without any public transit options for those residents. Petitioners urge the Board to find that these actions do not meet the minimum requirements of E.O. 19898 and to remand the final permit. At the same time Petitioners urge the board to confirm that the duties under E.O. 19898 are directed at USEPA and that while IEPA may assist in preparing such an analysis as it deems appropriate, final responsibility for compliance rests with USEPA, including this Board.

IX. ISSUES RAISED BY THE PETITION

ISSUE	RESPONSE
E Low Sulfur Coal	
Low sulfur coals available locally & Peabody one of largest suppliers. Resp. 72.	Pet. Ex. 6, pp. 21, 22. Further raised in response to Pet. Ex. 12 #46. Thus, not previously ascertainable.
Coal blending was generally raised during public comment except with respect to mining low sulfur coal from a different part of the mine. Resp. 76, n.45.	Pet. Ex. 5, p. 24.
Relied on table of information representing the distribution of emissions from coal burning vs the transportation and mining of coal to support that collateral impacts from coal transportation would be minimal. Resp. 72.	This issue was raised in response to IEPA's response to comment #46 (Pet. Ex. 12 #46: "The Illinois EPA concludes that the impacts of using a non-local coal are excessive if the emission from the local coal supply..."). Petition 37.
Low sulfur coal would reduce emissions by 8,909 TPY is unsupported. Resp. 72.	The calculation of 8909 TPY is presented in Petition, p. 37, Fn 27, and involves a simple extrapolation from facts in the record. S content Pet. Ex. 52 & permit limit Pet. Ex. 1, p. 16.
H Safety Factors	
The safety factor should have been raised during public comment as safety factors are common. Resp. 113-114.	IEPA raised the safety factor issue in response to comments. Petition 45-46. Thus, the issue not reasonably ascertainable.
I Coal Washing	
IEPA failed to consider reductions of NOx emissions thru coal washing. Resp. 137, n.121.	Pet. Ex. 5 at 37.
Petitioners failed to cite any material in the record demonstrating that the proposed coal plant is similar to other coal plants. Resp. 144.	Pet. Ex. 5, p. 34; Pet. Ex. 50, at 6-7.

ISSUE	RESPONSE
Petitioners did not challenge IEPA's energy analysis and thus Petitioner's argument as to coal washing must fail. Itvn. Resp. 90.	Petition at 54, section head labeled C. Energy impacts are included in the economic impact analysis. Petitioners dispute the resulting cost effectiveness analysis, which included energy penalty. The cost analysis failed to consider net energy loss. Washed coal would require less electricity for grinding and air pollution control and result in more efficient boiler operation, reducing the energy penalty compared to what PSGC analyzed. Pet. Ex. 5 at 33, Sec. V.D; Pet. Ex. 50 at 7, 9, 10. Energy penalties are not adequate justification to eliminate a technology, so long as they are within the normal range for the technology. NSR Manual at B.30.
J SO_2 BACT	
Commercial operation of Chiyoda not in record. Resp. 154, n.129.	Pet. Ex. 5, p. 21 & n.39. Petitioners concede that the recent bid experience, cited in Petition, p. 62, Fn 41, is not in the record.
Averaging time issues with respect to SO_2 limits in Pet. 64-65 not in record. Resp. 169-170; Itvn. Resp. 118.	Pet. Ex. 10, pp. 7-8; Pet. Ex. 30 at 2-3.
Practice in other states not rational basis for setting BACT. Itvn. Resp. 118.	Not previously ascertainable as raised by IEPA in response to comments (Pet Ex. 12 #152) and in IEPA 4/27/05 Memo at 10.
The issues and supporting arguments in Petition, pp. 63-66, Secs. (D), (E),(G) and (H) not properly preserved. Resp. 170, 174.	These issues raised in response to IEPA 4/27/05 Memo; Pet. Ex. 30, pp. 2-3; Pet. Ex. 10 at 7-8.
SO_2 control efficiency issues not in record. Resp. 178.	The SO_2 control efficiency limit was set in the final permit. Thus, these issues were not reasonably ascertainable.

ISSUE	RESPONSE
L PM 10 BACT Newmont permit info not submitted during public comment period. Resp. 158, n.82. PM enforceability issues not previously raised. Resp. 233-234.	The fact that the permit was issued with the new limit was not ascertainable as the final permit was issued May 2005. Pet. Ex. 5, pp. 28-30. Otherwise, raised in response to comments (Pet. Ex. 12 #160, 161, 335) and thus not reasonably ascertainable.
Q Impact Analysis Inadequate soils and vegetation analysis with regard to ozone. Resp. 273-277.	Pet Ex. 4, p. 10-11; Pet. Ex. 6 at 37.
S NOx BACT Data available between the close of public comment and issuance of the final permit on April 28, 2005 should not benefit Petitioners and is not preserved for review. Resp. 296-300.	The BACT date is set at date of issue of final permit, April 28, 2005. The subject data was only measured or published after the close of public comments, but prior to issue of the final permit. Pet. Ex. 47-49.
T Startup and Shutdown CO startup, shutdown, malfunction limits not practically enforceable. Resp. 327-328.	Pet. Ex. 5, Comment VI for primary CO limit (Pet. Ex. 2, Condition 2.1.2.b, included CO). Secondary CO limit added in final permit & thus issue not reasonably ascertainable. Pet. Ex. 1, Condition 2.1.2.b.iv.B.

For these reasons we respectfully urge the Board to review and remand the Prairie State PSD permit. Respectfully submitted, this 15th day of September, 2005,

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