IN RE KENDALL NEW CENTURY DEVELOPMENT

PSD Appeal No. 03-01

ORDER DENYING REVIEW

Decided April 29, 2003

Syllabus

Before the Board is a petition seeking review of certain conditions of a prevention of significant deterioration ("PSD") permit decision (the "Permit"), issued by the Illinois Environmental Protection Agency ("IEPA"). The Permit was issued to Kendall New Century Development, LLC ("Kendall") for the construction of a natural-gas fired, electric generation facility (the "Facility") located near Plano in Kendall County, Illinois. The petition for review ("Petition") was filed by Verena Owen ("Ms. Owen").

IEPA previously issued a PSD permit for the Facility. However, Kendall did not begin construction of the Facility within the 18-month period allowed by the PSD regulations. Kendall submitted an application for extension of that PSD permit for an additional 18-month period. IEPA, however, reviewed the application as one for a new PSD permit. IEPA required Kendall to submit an air quality impact analysis and review of the best available control technology ("BACT") for sulfur dioxide, nitrogen oxides, carbon monoxide ("CO") and ozone. In her comments submitted during the public comment period on the draft permit, Ms. Owen raised concerns regarding the CO BACT provisions of the Permit and regarding IEPA's decision to review the application as one for a new PSD permit. IEPA decided to issue the Permit notwithstanding Ms. Owen's comments, and it explained its decision in a response to public comments.

Ms. Owen's first three issues in her petition for review relate to IEPA's determination of BACT for controlling CO emissions. Ms. Owen's fourth issue requests review of IEPA's decision to issue a new permit, rather than process the application as an extension of the previous permit.

Held: The petition for review is denied.

1) Ms. Owen argues that other facilities using best combustion practices as BACT have lower CO emission limits than the limit set in the Permit. Review of this issue is denied on the grounds that Ms. Owen has not shown clear error in IEPA's response to comments explaining why the Permit's CO emission limit represents BACT for Kendall's proposed Facility. Ms. Owen attached to her Petition a compilation of printouts from the Agency's RACT/BACT/LAER Clearinghouse showing the CO limits for 14 facilities with CO limits ranging from 7.4 ppmvd to 25 ppmvd. IEPA's decision to set BACT in this case at 25 ppmvd falls within this range, albeit at the top-end of the range. In addition, the facilities with CO limits at the lower end of the range Ms. Owen identifies are generally distinguishable from the present Facility based on one or more of the factors that IEPA

explained in its response to comments are relevant to its determination in this case. Ms. Owen has not argued in the present case that these reasons stated in general terms in IEPA's response to comments are clearly erroneous or otherwise warrant review.

2) Ms. Owen argues that IEPA improperly eliminated a CO catalyst from consideration as BACT. Ms. Owen cites to testimony submitted in a different PSD permitting case and argues that the BACT analysis submitted by Kendall improperly used certain "generic" cost factors in its analysis of the catalyst's cost-effectiveness. Review of this issue is rejected on the grounds that Ms. Owen has failed to demonstrate that issues concerning the use of generic cost factors in the cost effectiveness analysis for a CO catalyst were raised during the public comment period. Testimony that was not submitted in the administrative record of this proceeding may not be considered on appeal. To rule otherwise would have the practical effect of requiring a permit issuer to search not only the administrative record of the draft permit's public comment period, but also the administrative record of any other pending proceeding that might have some bearing upon the draft permit and to then determine whether any of the comments found in such other proceedings called for a revision of the draft permit's terms. To impose such an obligation on the permit issuer would be unduly onerous, costly and burdensome.

3) Ms. Owen argues that IEPA should have considered the size and magnitude of Kendall's Facility in setting BACT limits for CO. Consideration of this issue is denied because Ms. Owen has not shown that this issue was properly raised below.

4) Ms. Owen argues that Kendall's application should have been processed as a permit extension, not as a new permit. Ms. Owen argues that pursuant to 40 C.F.R. § 52.21(r)(2) an extension of an existing permit may be granted only upon a showing of "justification." Ms. Owen contends that guidance issued by EPA Region IX has interpreted this requirement to mean that the extension application must explain why construction did not commence as scheduled and give assurances that it will begin construction within the extended period, as well as provide a full BACT review and air quality impacts analysis. Review based on this issue is denied on the grounds that Ms. Owen has not shown clear error in IEPA's decision.

The stated purpose of the Region IX guidance cited by Ms. Owen is to "clarify the criteria EPA examines prior to extending the 18-month commencement of construction deadline found in 40 C.F.R. § 52.21(r)(2)." That guidance specifically states that "[t]he applicant, however, may choose to file a project application for consideration as a new permit." It also states that, generally, an extension will not be granted for more than 12 months from the original permit expiration date. Here, Kendall's application requested a permit that would be valid for an 18-month period. Where, as here, Kendall requested an extension for the same length of time that would be afforded a new permit under section 52.21(r)(2), the Board finds no clear error in IEPA's decision to treat that application as one requesting a new permit. Moreover, Kendall was required to meet all of the standards presently applicable to the issuance of a PSD permit. Requiring a full review of an application as one for a new permit assures that "advances in air pollution control technology and any reduction in the available PSD increment will be taken into account." *In re Knauf Fiber Glass, GmbH,* 8 E.A.D. 121, 160-61 (EAB 1999). Ms. Owen has not demonstrated any error in IEPA's determination that the requirements for issuing a PSD permit have been satisfied.

Before Environmental Appeals Judges Scott C. Fulton, Ronald L. McCallum and Kathie A. Stein.

Opinion of the Board by Judge McCallum:

Before the Board is a petition seeking review of certain conditions of a prevention of significant deterioration ("PSD") permit decision, Permit No. 093801AAN (the "Permit"), issued by the Illinois Environmental Protection Agency ("IEPA").[1] The Permit was issued to Kendall New Century Development, LLC ("Kendall") for the construction of a natural-gas fired, electric generation facility (the "Facility") located near Plano in Kendall County, Illinois. The petition for review ("Petition") was filed by Verena Owen ("Ms. Owen").[2]

For the reasons explained below, we deny review.

I. *BACKGROUND*

A. *Statutory and Regulatory Background*

Congress enacted the PSD provisions of the Clean Air Act ("CAA") in 1977 for the purpose of, among other things, "insur[ing] that economic growth will occur in a manner consistent with the preservation of existing clean air resources." CAA § 160(3), 42 U.S.C. § 7470(3). To that end, parties must obtain preconstruction approval in the form of a PSD permit to build new major stationary sources, or to make major modifications to existing sources, in so-called "attainment" or "unclassifiable" areas. CAA §§ 107, 160-169B, 42 U.S.C. §§ 7407, 7470-7492. The PSD permitting program regulates air pollution in "attainment" areas, where air quality meets or is cleaner than the national ambient air quality standards ("NAAQS"), as well as areas that cannot be classified as "attainment" or "non-attainment" ("unclassifiable" areas). CAA §§ 160-169B, 42 U.S.C.

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[1] IEPA administers the PSD program in Illinois pursuant to a delegation of authority from U.S. Environmental Protection Agency Region V (the "Region"). *See* 46 Fed. Reg. 9580 (Jan. 29, 1981); *In re Zion Energy, LLC,* 9 E.A.D. 701 n. 1 (EAB 2001). Because IEPA acts as EPA's delegate in implementing the federal PSD program within the State of Illinois, the Permit is considered an EPA-issued permit for purposes of federal law, and is subject to review by the Board pursuant to 40 C.F.R. § 124.19. *See In re Kawaihae Cogeneration Project,* 7 E.A.D. 107, 109 n.1 (EAB 1997); *In re Commonwealth Chesapeake Corp.*, 6 E.A.D. 764, 765 n.1 (EAB 1997); *In re W. Suburban Recycling & Energy Ctr., L.P.*, 6 E.A.D. 692, 695 n.4 (EAB 1996).

[2] In order to have standing to file a petition for review, the petition must show that the petitioner submitted comments on the draft permit during the public comment period or participated in the public hearing. 40 C.F.R. § 124.19(a)(2002). Ms. Owen submitted comments during the public comment period and participated in the public hearing. Absent such participation, a petitioner is restricted to raising matters that relate to changes from the draft to the final permit decision. *Id.*

§§ 7470-7492; *see In re EcoEléctrica, L.P.*, 7 E.A.D. 56, 59 (EAB 1997); *In re Commonwealth Chesapeake Corp.*, 6 E.A.D. 764, 766-67 (EAB 1997).

The NAAQS are "maximum concentration 'ceilings'" for particular pollutants, "measured in terms of the total concentration of a pollutant in the atmosphere." U.S. EPA Office of Air Quality Planning, Draft New Source Review Workshop Manual ("NSR Manual")[3] at C.3. The PSD permitting requirements are pollutant-specific, which means that a facility may emit many air pollutants, but only one or a few may be subject to PSD review depending upon a number of factors including the amount of emissions of each pollutant by the facility. NSR Manual at 4. NAAQS have been set for six criteria pollutants: sulfur oxides,[4] particulate matter,[5] nitrogen dioxide ("NO_2"),[6] carbon monoxide ("CO"), ozone ("O_3"),[7] and lead. *See* 40 C.F.R. §§ 50.4-50.12 (2002). Kendall County, Illinois, is located in an area designated attainment for meeting the NAAQS for SO_2 and either attainment or unclassifiable for particulate matter, CO, and NO_2. 40 C.F.R. § 81.314 (2002). Oswego township in Kendall County is not in attainment of the NAAQs for O_3; however, all other parts of Kendall County are in attainment or are unclassifiable. *Id.*

The PSD regulations require that new major stationary sources, or major modifications of existing major sources, employ the "best available control technology," or BACT, to control emissions of regulated pollutants in attainment or unclassifiable areas. 42 U.S.C. § 7475(a)(4); 40 C.F.R. § 52.21(j)(2002).[8] Ms.

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[3] 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 NSR Manual has been looked to by this Board as a statement of the Agency's thinking on certain PSD issues. *See, e.g., 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).

[4] Sulfur oxides are to be measured in the air as SO_2. 40 C.F.R. § 50.4(c)(2002).

[5] For purposes of determining attainment of the NAAQS, particulate matter is measured in the ambient air as particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers, referred to as PM_{10}. 40 C.F.R. § 50.6(c)(2002).

[6] A facility's compliance with respect to nitrogen dioxide is measured in terms of emissions of any nitrogen oxides (NO_X). 40 C.F.R. § 52.21(b)(23)(2002); *In re Haw. Elec. Light Co.,* 8 E.A.D. 66, 69 n.4 (EAB 1998).

[7] A facility's compliance with respect to ozone is measured in terms of emissions of volatile organic compounds ("VOCs"). 40 C.F.R. § 52.21(b)(23)(2002).

[8] The PSD regulations also require the permit issuer to review new major stationary sources prior to construction to ensure that emissions from such facilities will not cause or contribute to an exceedance of either the NAAQS or the applicable PSD ambient air quality "increments." 40 C.F.R. §§ 52.21-.34. The performance of an ambient air quality and source impact analysis, pursuant to the regulatory requirements of 40 C.F.R. § 52.21(k), (l) and (m), as part of the PSD permit review process,

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Owen's petition for review in the present matter challenges IEPA's determination of BACT for CO at Kendall's proposed Facility. Ms. Owen has not raised any issues concerning IEPA's BACT determination for other regulated pollutants.

B. *Factual and Procedural Background*

The Permit would authorize Kendall to construct the Facility, consisting of eight (8) simple-cycle, natural gas-fired, GE Frame 7EA combustion turbines. Each of the turbines will be equipped with low NO_X combustors and will have nominal electrical generating capacity of 83 Megawatt ("MW"). The total nominal generating capacity of the Facility will be 664 MW. Other emission units at the Facility will include two (2) natural gas-fired fuel heaters and an emergency fire-water pump powered by a diesel-fired engine.

IEPA previously issued a PSD permit for the Facility on January 14, 2000. However, Kendall did not begin construction of the Facility within the 18-month period allowed by the PSD regulations.[9] Shortly before that period expired, on June 28, 2001, Kendall submitted an application for extension of the PSD permit for an additional 18-month period. *See* Extension Request for PSD Permit (June 2001). IEPA, however, required Kendall to submit a new BACT demonstration and air quality impact analysis, and it reviewed the application as one for a new PSD permit. IEPA Responsiveness Summary for Public Questions and Comments on the Construction Permit Application from Kendall New Century Development at 14 ("Responsiveness Summary").

The proposed Facility is a new major source of air emissions. Responsiveness Summary at 2. Kendall stated in its application that the Facility has the potential to emit CO and NO_X in amounts exceeding 250 tons per year. Accordingly, the Facility will be a "major stationary source" of regulated pollutant emissions within the meaning of the PSD regulations.[10] In addition, Kendall stated in its application that the Facility will emit PM and SO_2 in amounts qualifying as "significant" under 40 C.F.R. § 52.21(b)(23)(i). *Id.* As such, Kendall is required to

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is the central means for preconstruction determination of whether the NAAQS or PSD increment will be exceeded. *See Haw. Elec. Light,* 8 E.A.D. at 73. In the present case, Ms. Owen has not alleged any error in IEPA's ambient air quality and source impact analysis.

[9] Unless an extension of time is granted, the regulations provide that a PSD permit becomes invalid if construction is not commenced within 18 months after receipt of approval. 40 C.F.R. § 52.21(r)(2).

[10] *See* 40 C.F.R. § 52.21(b)(1)(i)(2002) (major stationary source is defined as including "any stationary source which emits, or has the potential to emit, 250 tons per year or more of any air pollutant subject to regulation under the Act.").

install the best available control technology, or BACT, for controlling emissions of PM and SO_2, as well as CO and NO_X.

IEPA prepared a draft permit and provided public notice and an opportunity to comment on the draft permit during a public comment period that ended on July 12, 2002. In addition, IEPA held a public hearing in Yorkville, Illinois, on June 12, 2002. Ms. Owen submitted written comments during the public comment period and participated in the public hearing. In her comments, Ms. Owen raised concerns regarding the CO BACT provisions of the Permit and regarding IEPA's decision to review the application as one for a new PSD permit, rather than as an extension of the existing permit. On November 27, 2002, IEPA issued the Permit and shortly thereafter issued its Responsiveness Summary providing its response to comments received during the public comment period.

The Permit would require Kendall to equip, operate, and maintain low NO_X combustors for each of the eight turbines. Permit at 2, condition 2a. The Permit also would establish an emissions limit for NO_X at 9 parts per million volume dry ("ppmvd") at 15% O_2 on an hourly average based on a 3-hour block average. *Id.* at 4, condition 2c.i. As for CO, the subject of Ms. Owen's comments, the Permit would set the emissions limit at 25 ppmvd at 15% O_2 on an hourly average based on a 3-hour block average. *Id.* at 4, condition 2c.ii. The Permit also would require Kendall to use good combustion practices to maintain and operate the turbines in order to control emissions of CO and PM. *Id.* at 4, condition 2d. IEPA determined that these conditions "represent the application of the Best Available Control Technology" for Kendall's proposed Facility. *Id.* at 5, condition 4b.

C. *Issues Raised in the Petition*

Ms. Owen has raised four issues in her Petition. Ms. Owen's first three issues relate to IEPA's determination of BACT for controlling CO emissions. Ms. Owen argues (1) that the CO BACT limit of 25 ppmvd is too high (she contends it should be as low as 7.4 ppmvd); (2) that IEPA improperly eliminated use of a catalyst as BACT for CO; and (3) that the CO BACT limit should take into account the size and magnitude of this Facility. Ms. Owen's final issue raised in her Petition is that IEPA should have processed this permit as a request for an extension of Kendall's previous PSD permit, rather than as a new permit application. IEPA contends that each of Petitioner's arguments should be rejected on the grounds that they allegedly (1) were not adequately raised during the public comment period; (2) are unsubstantiated and lack specificity; and (3) do not show error in IEPA's permitting decision when taking into account the deference that the Board affords to permitting authorities on matters of technical judgment.

For the following reasons, we deny Ms. Owen's Petition for review of IEPA's permitting decision.

II. *DISCUSSION*

A. *Standard of Review*

The Board's review of PSD permitting decisions is governed by 40 C.F.R. part 124, which "provides the yardstick against which the Board must measure" petitions for review of PSD and other permit decisions. *In re Commonwealth Chesapeake Corp.*, 6 E.A.D. 764, 769 (EAB 1997) (quoting *In re Envotech, L.P.*, 6 E.A.D. 260, 265 (EAB 1996)). Pursuant to those regulations, a decision to issue a PSD permit will ordinarily not be reviewed unless the decision is based on either a clearly erroneous finding of fact or conclusion of law, or involves an important matter of policy or exercise of discretion that warrants review. 40 C.F.R. § 124.19(a); *accord, e.g.*, *In re Zion Energy, LLC,* 9 E.A.D. 701, 705 (EAB 2001); *In re Knauf Fiber Glass, GmbH,* 8 E.A.D. 121, 126-27 (EAB 1999); *Commonwealth Chesapeake Corp.*, 6 E.A.D. at 769. The preamble to section 124.19 states that the Board's power of review "should be only sparingly exercised," and that "most permit conditions should be finally determined at the Regional [State] level * * * ." 45 Fed. Reg. 33,290, 33,412 (May 19, 1980); *accord In re Kawaihae Cogeneration Project,* 7 E.A.D. 107, 114 (EAB 1997).

The burden of demonstrating that review is warranted rests with the petitioner challenging the permit decision. 40 C.F.R. § 124.19(a); *accord, e.g., Kawaihae Cogeneration,* 7 E.A.D. at 114; *In re EcoEléctrica L.P.*, 7 E.A.D. 56, 61 (EAB 1997); *Commonwealth Chesapeake Corp.*, 6 E.A.D. at 769. We have explained that in order to establish that review of a permit is warranted, section 124.19(a) requires that a petitioner both state the objections to the permit that are being raised for review and explain why the permit decisionmaker's previous response to those objections (*i.e.*, the decisionmaker's basis for the decision) is clearly erroneous or otherwise warrants review. *See Kawaihae Cogeneration,* 7 E.A.D. at 114; *see also In re Puerto Rico Elec. Power Auth.*, 6 E.A.D. 253, 255 (EAB 1995); *In re Genesee Power Station L.P.*, 4 E.A.D. 832, 866-67 (EAB 1993). It is not enough simply to repeat objections made during the comment period. *See, e.g., Zion Energy,* 9 E.A.D. at 705; *Knauf Fiber Glass,* 8 E.A.D. at 127.

In the present case, we conclude, as explained below, that Ms. Owen failed to show that several of her issues were raised during the public comment period and, with respect to those issues that were raised, she failed to sustain her burden of showing that IEPA's response to comments was clearly erroneous or otherwise warrants review.

B. *Ms. Owen's Argument that the CO Emission Limit of 25 ppmvd Does Not Represent BACT*

Ms. Owen argues that emissions limits for CO with good combustion control have been achieved from as low as 7.4 ppm to 25 ppm and that, therefore, BACT is lower than the 25 ppmvd set by IEPA in the Permit. Petition at 4. In support of this contention, Ms. Owen attached to her Petition copies of pages from the Agency's RACT/BACT/LAER clearinghouse database ("RBL Clearinghouse") showing electrical generation facilities that Ms. Owen contends have achieved CO emissions of between 7.4 ppm and 25 ppm. Petition at 5 & att. 4.[11] Ms. Owen draws particular attention to the El Paso Merchant Energy facility (RBL Clearinghouse No. MI-0345), which she argues has achieved a 7.9 ppmvd emission rate for CO using the same GE Frame 7EA turbines in simple cycle mode that Kendall proposes to install at its Facility. *Id.* at 5. Ms. Owen further argues that IEPA's response to comments "failed to answer the question why [Kendall] is not able to meet CO limits for similar turbines." *Id.*

IEPA argues that Ms. Owen failed to raise this issue during the public comment period with sufficient specificity to be considered as grounds for review of the Permit's CO emissions limit. IEPA Response at 9-10, 13-16. IEPA argues further that Ms. Owen's arguments in her Petition also lack specificity and are unsubstantiated. *Id.* at 10-13. Finally, IEPA argues that, even if Ms. Owen's arguments are found to meet these procedural prerequisites for consideration by the Board, nevertheless, the Board should deny review on the grounds that Ms. Owen has not met her burden of showing that IEPA's conclusion is clearly erroneous or involves discretionary matters or policy considerations that merit further review. *Id.* at 16-23.

We conclude that Ms. Owen's arguments that a lower CO emissions limit has been achieved at other facilities was raised during the public comment period with sufficient specificity to meet the threshold requirements to be considered by this Board as part of Ms. Owen's petition for review. However, we also conclude

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[11] "RACT/BACT/LAER" stands for "Reasonably Available Control Technology/Best Available Control Technology/Lowest Achievable Emission Rate." Each of these acronyms refers to technological standards established by different sections of the CAA. BACT is the standard from the PSD provisions of the CAA. *See* CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4). The RACT/BACT/LAER Clearinghouse contains information on emission controls and emission limits for industrial facilities across the country. The RBL Clearinghouse is available on the internet at http://cfpub1.epa.gov/rblc/htm/bl02.cfm. Each of the facilities listed in the RBL Clearinghouse is assigned an identification number which can be used to locate the different database pages that provide general information regarding the facility and particular limits applicable to the pollutants emitted by the facility. Multiple pages must be consulted to review all of the database's information regarding a particular facility.

that Ms. Owen's arguments do not show clear error in IEPA's permitting decision or that review is otherwise warranted.

1. *Questions Regarding the CO BACT Limit Were Adequately Raised During the Public Comment Period*

A person who filed comments during the public comment period may raise in a petition for review any issues that were raised by someone (either the petitioner or another commenter) during the public comment period and any issues that were not ascertainable during the public comment period. 40 C.F.R. §§ 124.13 & 124.19 (2002); *see also In re City of Phoenix, Ariz.,* 9 E.A.D. 515, 524-26 (EAB 2000). Ms. Owen does not seek to raise any issues that were not ascertainable during the public comment period. Instead, she argues that the question of CO BACT limit was raised during the public comment period.

IEPA however argues that, although both Ms. Owen and another commenter (Sierra Club Great Lakes Program - hereinafter, "Sierra Club") generally raised issues regarding the CO BACT limit, they did not raise the precise arguments that Ms. Owen now seeks to advance on appeal. Response at 7-16. IEPA argues that Ms. Owen "did not specifically address the 25 ppmvd emissions limit in Special Condition 2(c)(ii) of the permit but, rather, focused on an *equivalent* emission limit of 0.060 lbs/mmbtu found at Attachment B, Table 1." Response at 7 (emphasis added). IEPA also argues that "the Petitioner did not identify or rely upon any of the BACT determinations or PSD projects now cited by her in the Petition" and "the Sierra Club did not mention any of the evidence espoused by Petitioner in her Petition." *Id.* at 9. IEPA, however, does not dispute that the Sierra Club stated in its comments that lower CO limits are noted as achievable in the RBL Clearinghouse. *Id.*

We conclude that concerns regarding the CO limit of the Permit were raised during the public comment period with sufficient specificity to meet the applicable standards for inclusion in a petition for review. Those standards look to whether the submitted comments meet the purpose underlying the public comment period of alerting IEPA to potential problems with the draft permit.

We have previously stated that the purpose underlying the requirement that ascertainable issues be raised during the public comment period "is to alert the permit issuer to potential problems with a draft permit and to ensure that the permit issuer has an opportunity to address the problems before the permit becomes final." *City of Phoenix,* 9 E.A.D. at 526, citing *In re Broward County,* 4 E.A.D. 705, 714 (EAB 1993), *In re NPC Servs., Inc.,* 3 E.A.D. 586 (CJO 1991). "[A]lerting the permit issuer to problems during the public comment period serves to promote the longstanding policy that most permit issues should be resolved at the Regional level." *City of Phoenix*, 9 E.A.D. at 526. Simply stated, "[t]he effective, efficient and predictable administration of the permitting process demands

that the permit issuer be given the opportunity to address potential problems with draft permits before they become final." *In re Encogen Cogeneration Facility,* 8 E.A.D. 244, 250 (EAB 1999).

Ms. Owen's comments and the Sierra Club's comments were sufficient to alert IEPA to Ms. Owen's and Sierra Club's concern that the CO limit of the draft permit was set higher than CO limits found to be achievable by comparable facilities and, thereby, afforded IEPA an opportunity to consider and address this concern before making a final permitting decision. Although Ms. Owen's comments did not address the 25 ppmvd limit, IEPA acknowledges that Ms. Owen discussed the "*equivalent* emission limit" found in Permit Attachment B, table 1. Response at 7 (emphasis added). Thus, IEPA was aware that Ms. Owen had concerns regarding the limit for CO emissions. Ms. Owen also identified a specific facility for comparison: the Duke Lee Generating Station, which Ms. Owen cited in support of her contention that the emissions limit in the draft permit did not require Kendall to follow good combustion practices as BACT. *See* Letter from Ms. Owen to William Seltzer, IEPA, at 3 (July 12, 2002) (noting that the Duke Lee permit provided that failure to meet a lower CO emission limit stated in lbs/mmbtu would constitute failure to use good combustion practices).[12]

The Sierra Club likewise raised concerns regarding the CO emissions limit and suggested that facilities identified in the RBL Clearinghouse had achieved lower emissions levels. *See* Letter from Glenn Landers, Sierra Club Cleveland Office, to IEPA Hearing Officer, at 1 (July 12, 2002). Significantly, the NSR Manual advises permitting authorities that they should look to the RBL Clearinghouse in the first step of the BACT review process to check whether the applicant's compilation of control technologies is complete. NSR Manual at B.11. Under these circumstances, IEPA cannot credibly contend that it was not placed on notice during the public comment period that members of the public had concerns regarding whether a lower CO limit is achievable as evidenced by RBL Clearinghouse listings and that IEPA should at a minimum explain why a lower CO limit is not BACT for this Facility. Indeed, as explained below, IEPA re-

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[12] Notably, the facility that Ms. Owen emphasized in her comments on the draft permit is a different facility from the one that she now emphasizes in her Petition. Presumably, IEPA's concerns regarding whether these issues were properly raised below relate to this change in Ms. Owen's choice of facility to emphasize and, more generally, her additional list of other specific facilities that had not been identified by name during the public comment period. However, as noted in the text, Ms. Owen's list of other facilities is drawn from the RBL Clearinghouse, which Agency guidance recommends be reviewed at an early stage in the BACT review process, and the RBL Clearinghouse was identified by another commenter. Indeed, as will be explained below, although IEPA's response to comments does not show that it reviewed the specific facilities identified by Ms. Owen, the record shows both that IEPA considered current technology (including information drawn from the RBL Clearinghouse attached to Kendall's application) and that IEPA's general explanation of its rationale for its decision adequately explained the factors that would distinguish these other facilities now identified by Ms. Owen, as well as the one that Ms. Owen emphasized in her comments on the draft permit.

sponded to concerns regarding the CO limit and adequately explained why a lower limit is not required to achieve BACT for Kendall's Facility.[13] Accordingly, we reject IEPA's argument that Ms. Owen's concerns regarding the CO emissions limit were not adequately raised during the public comment period.

2. *IEPA's Response to Comments Explains Why the CO Limit of 25 ppmvd Represents BACT for Kendall's Facility*

Under the permitting regulations, permit issuers are required to "[b]riefly describe and respond to all significant comments on the draft permit * * * raised during the public comment period, or during any hearing." 40 C.F.R. § 124.17(a)(2). We have explained that "[t]his regulation does not require a [permit issuer] to respond to each comment in an individualized manner," nor does it require the permit issuer's response "to be of the same length or level of detail as the comment." *In re NE Hub Partners, L.P.,* 7 E.A.D. 561, 583 (EAB 1998). Instead, "[t]he response to comments document must demonstrate that all significant comments were considered." *Id.* On appeal, the petitioner must explain why the permit issuer's response to comments (*i.e.*, the decisionmaker's basis for the decision) is clearly erroneous or otherwise warrants review. *See Kawaihae Cogeneration,* 7 E.A.D. at 114; *see also In re Puerto Rico Elec. Power Auth.*, 6 E.A.D. 253, 255 (EAB 1995); *In re Genesee Power Station L.P.*, 4 E.A.D. 832, 866-67 (EAB 1993). In the present case, Ms. Owen has failed to demonstrate why IEPA's response to comments on the CO emissions limit are clearly erroneous or otherwise warrant review.

IEPA explained in its response to comments that Kendall's Facility is intended to be a so-called "peaking" generating facility that is intended to supply electricity at peak demand times and to be shut down at other times. Responsiveness Summary at 4, 7, 8. IEPA explained that "in Illinois at the present time,

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[13] IEPA states in its Response to the Petition that it "recognizes, in retrospect, that a more direct response might have been given in the Responsiveness Summary to the question, now posed by the Petitioner in her Petition, of how the CO emission limit for [Kendall] compared with other BACT determinations, including determinations for turbines that are dissimilar." Response at 14. We do not disagree that a more direct response might have helped Ms. Owen and other members of the public understand that IEPA's decision is consistent with other permitting decisions noted in the RBL Clearinghouse. However, the absence of such a direct response is not grounds for granting review under the circumstances of this case where IEPA's general explanation in its response to comments was sufficient to articulate the basis of its decision distinguishing other facilities as not comparable. We have held that a permit issuer is not required to individually respond to every comment, but may provide a unified response to related comments. *In re NE Hub Partners, L.P.,* 7 E.A.D. 561, 583 (EAB 1998), *rev. denied sub nom. Penn Fuel Gas, Inc. v. U.S. EPA,* 185 F.3d 862 (3rd Cir. 1999); *see also In re Steel Dynamics, Inc.,* 9 E.A.D. 165, 191 (EAB 2000) ("Thus, while [the permit issuer] should have clearly explained its decision-making process in the record, * * * the reality in this case is that petitioners could deduce the likely basis for [the permit issuer's] choice * * * and we are able to discern that [the permit issuer] applied its considered judgment in setting that limit.").

peaker plants typically operate on hot summer weekdays when the demand for electricity is at its highest because of the added power demand for air conditioning on top of normal weekday demand." *Id.* at 4-5.

IEPA explained further that peaking facilities are constructed as simple cycle, rather than combined cycle units and utilize smaller sized turbines. *Id.* at 4. IEPA explained the differences between combined and simple cycle operation as follows:

> A "simple cycle" turbine consists only of a gas turbine * * * , in which the hot exhaust gases exhaust directly to the atmosphere, without using boilers to recover the thermal energy remaining in the gas. In a combined cycle turbine, the hot exhaust gases discharge from the turbine do not go directly to the atmosphere but instead are ducted through a waste heat boiler and used to make steam. This steam is then used to drive a steam turbine generator, to produce more electricity, which increases the overall electrical output of the system compared to the gas turbine by itself.
>
> The generation and use of steam in this manner in a combined cycle turbine system increases its energy efficiency by about 50 percent compared to a simple cycle turbine. However, the greater efficiency and lower fuel cost with a combined cycle turbine come at a higher capital cost for the additional equipment, including the waste heat boiler, the steam turbine generator and a cooling tower to condense and reuse the steam. These features are not present with a simple cycle turbine. This means that simple cycle turbines, which are less efficient and more costly to run than "combined cycle" turbines, are used at peaking power plants, which will not run sufficient hours to make the capital investment for the more expensive combined cycle turbine worthwhile.

Responsiveness Summary at 4. IEPA also stated that non-peaking facilities, such as base-load or load-following facilities, generally use large gas turbines of 135 to 170 MW nominal generation capacity. *Id.*

IEPA stated that it does not have authority to require Kendall to construct a facility with larger combustion units or one that would run in combined-cycle

mode since this would change the intended nature of the Facility.[14] IEPA also explained that the choice of CO limit must be made in conjunction with the limit for NO_X because "[e]missions of NO_X and CO from combustion units, like turbines, generally have an inverse relationship, so NO_X emissions go down as CO emissions go up." *Id.* at 10. IEPA explained that the NO_X limit for the present Facility of 9 ppm will require a higher CO emissions rate than would be necessary for a facility with a NO_X limit of 15 ppm. *Id.* Because Ms. Owen had identified in her comments the Duke Lee Generating Station as an example of a facility with a lower CO limit, IEPA explained that these factors allowed the selection of a lower CO limit at the Lee Generating Station because a higher NO_X limit of 15 ppm, hourly average, was set at that facility. *Id.*

After considering Ms. Owen's arguments in her petition for review, we conclude that Ms. Owen has not shown clear error in IEPA's response to comments explaining why the Permit's CO emission limit represents BACT for Kendall's proposed Facility. As noted above, Ms. Owen attached to her Petition a compilation of one-page printouts from the RBL Clearinghouse showing the CO limits for 14 facilities with CO limits ranging from 7.4 ppmvd to 25 ppmvd. We first note that IEPA's determination falls within this range, albeit at the top-end of the range. Indeed, the one facility Ms. Owen identified that is also at the top of this range (25 ppmvd), the Allegheny Energy Supply Co. LLC facility (RBL Clearinghouse No. IN-0095), is described as "simple cycle" peaking units restricted to 3,500 hours of operation per year. Petition, attachment 4 at 4.15 (see process notes).[15] The Permit at issue in this case contains a similar restriction on Kendall's operating hours, generally restricting each unit's operation to 3,300 hours per year.[16]

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[14] We have previously noted that the Agency's PSD regulations governing permit conditions do not require that a permitting authority consider "redefining the source" as a means of reducing emissions. *In re Knauf Fiber Glass, GmbH,* 8 E.A.D. 121, 137 (EAB 1999); *In re Haw. Commercial & Sugar Co.,* 4 E.A.D. 95, 99-100 (EAB 1992). However, "[a]lthough it is not EPA's policy to require a source to employ a different design, redefinition of the source is not always prohibited. This is a matter for the permitting authority's discretion." *Knauf Fiber Glass*, 8 E.A.D. at 136. In order to obtain review of a permit issuer's decision not to conduct a broader BACT analysis that would include redefinition of the source, a petitioner must show a good reason in the circumstances of the case for curtailing the permit issuer's discretion or that the permit issuer abused this discretion. *Haw. Commercial,* 4 E.A.D. at 99-100.

[15] In addition, it is noteworthy that the Allegheny Energy facility CO limit is stated as a 24 hour average, which is potentially less stringent than the one-hour average based on a 3-hour block average that is required by Kendall's Permit. *See In re Three Mountain Power, LLC,* 10 E.A.D. 39, 48-49 (EAB 2001).

[16] Permit at 3, condition 2b.ii ("If at any time, the operation of an individual turbine exceeds 3,300 hours in a year, the Permittee shall demonstrate that operation of such turbine was consistent with its use as a peaking turbine * * * .").

Similarly, the Teco/Hardee Power Services facility (Fl-0222), which consists of 75 MW GE Frame 7EA turbines similar to those to be installed by Kendall, has a CO limit of 20 ppm at 15% 0_2. Although this emission limit may be somewhat lower[17] than the limit set by IEPA in the present case, it does not show clear error in IEPA's decision. We have held that permit writers retain discretion to set BACT levels that "do not necessarily reflect the highest possible control efficiencies but, rather, will allow permittees to achieve compliance on a consistent basis." *In re Steel Dynamics, Inc.,* 9 E.A.D. 165, 188 (EAB 2000); *see also In re Knauf Fiber Glass, GmbH,* 9 E.A.D. 1, 15 (EAB 2000) ("There is nothing inherently wrong with setting an emissions limitation that takes into account a reasonable safety factor."). Thus, Ms. Owen's Petition actually demonstrates that IEPA's CO limit in this case is consistent with other similar permitting decisions.

In addition, the facilities with CO limits at the lower end of the range Ms. Owen identifies are generally distinguishable from the present Facility based on one or more of the factors that IEPA explained in its response to comments are relevant to its determination in this case: 1) size of generating unit (83 megawatts vs. 160 megawatts or higher),[18] 2) combined cycle rather than simple cycle,[19] 3) base-load or load-following rather than peaking,[20] and 4) a higher NO_X limit that would allow for a lower CO limit.[21] In addition, the PPL Wallingford Energy, LLC facility is listed in the RBL Clearinghouse as using a CO oxidation catalyst as BACT for CO. This more stringent control technology was eliminated in the present case as not cost effective and because it would cause collateral increases in PM_{10} that IEPA deemed unacceptable here. Application at 2-23.

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[17] The RBL Clearinghouse does not state the length of averaging time allowed by the permit conditions. S*ee* note 15 above.

[18] The following facilities Ms. Owen identifies in her Petition are listed in the RBL Clearinghouse as employing generating units that are larger than those of Kendall's proposed facility: 1) El Paso Merchant Energy Center (FL-0226) (175 MW); 2) Consolidated Edison DVPMT - Lakewood Generating Facility (NJ-0056) (174 MW); 3) El Paso Merchant Energy Co. (MI-0345) (170 MW); 4) Pompano Beach Energy, LLC (FL-0229) (170 MW); 5) CLECO Midstream Resources, LLC (LA-0127) (184 MW); 6) Tenuska Georgia Partners, L.P. (GA-0069) (160 MW); 7) Renaissance Power, LLC (MI-0267) (170 MW); and 8) Reliant Energy Hope L.P. (RI-0019) (186 MW).

[19] The Jacksonville Electric Authority (FL-0239) facility is described as having obtained a permit for conversion to combined cycle.

[20] The El Paso Merchant Energy CO. (MI-0345) facility is described as "normally base loaded".

[21] The following facilities have NO_X limits as indicated: 1) Duke Energy (OH-0239) (12 ppm at 15% O_2); 2) Renaissance Power LLC (MI-0267) (15 ppmvd at 15% 0_2); 3) Tenuska Georgia Partners, L.P. (GA-0069) (15 ppmvd at 15% 0_2); and 4) Allegheny Energy Supply Co. LLC (IN-0095) (25 ppm at 15% 0_2). In addition, the Perryville Energy Partners, LLC (LA-0157) facility uses selective catalytic reduction as an additional add-on control. This technology was eliminated from consideration in the present case on the grounds that it is not cost effective, given that Kendall's units will not be operated continuously. Application at 2-17.

Ms. Owen drew particular attention in her Petition to the El Paso Merchant Energy Company project (RBL Clearinghouse Identification No. MI-0345), as consisting of GE Frame 7EA turbines operated in simple cycle mode, that allegedly achieve a 7.9 ppmvd emission limit for CO. Petition at 5. Although the page of the RBL Clearinghouse describing the CO limits for this facility does describe it as consisting of GE Frame 7EA turbines similar to those that will be installed by Kendall in this case, the database's general description of the project correctly identifies the facility as consisting of the larger GE 7FA turbines with 170 MW generating capacity. Accordingly, the El Paso Merchant Energy Company project is not comparable to Kendall's proposed Facility.

Thus, although IEPA did not discuss in its response to comments all of the examples that Ms. Owen now identifies in her petition, nevertheless there is no indication that Petitioner's examples required individual discussion since they all fall within IEPA's general explanation of why it chose the 25 PPMVD limit for this Facility, rather than a lower limit found at non-comparable facilities. Ms. Owen has not argued in the present case that these reasons stated in general terms in IEPA's Responsiveness Summary are clearly erroneous or otherwise warrant review. We also note that IEPA's decision is supported by the top-down BACT analysis in the record, the recent determination of the Indiana Department of Environmental Management establishing the same limit for a Duke Energy facility that IEPA considered comparable to Kendall's proposed Facility, and the manufacturer's statement of achievable emissions limits for the proposed turbines. Accordingly, Ms. Owen has failed to sustain her burden of proof of clear error in IEPA's decision required for us to grant review of this Permit.

C. *Ms. Owen's Argument that IEPA Improperly Eliminated a Catalyst from Consideration as BACT for CO*

Ms. Owen argues that IEPA improperly eliminated consideration of a CO catalyst as BACT on the grounds of cost effectiveness. Petition at 5-6. Ms. Owen argues that the BACT analysis submitted by Kendall improperly used certain "generic" cost factors in its analysis, which Ms. Owen argues overstate the actual cost of a catalyst. Ms. Owen has attached to her Petition testimony by a Dr. Fox regarding a CO catalyst's cost effectiveness. Petition, attachment 5. This testimony was not submitted in the present permitting proceeding, but instead was submitted as part of the permit review process for a different facility. Ms. Owen also refers to a 2002 published comparison of recent BACT determinations for cost effectiveness of pollutant removal. Petition, attachment 8. This report also was not submitted during the public comment period in the present case.

We reject these arguments on the grounds that Ms. Owen has failed to demonstrate that issues concerning the use of generic cost factors in the cost effectiveness analysis for a CO catalyst were raised during the public comment period. Although Ms. Owen raised the issue of cost during the public comment pe-

riod, the specific arguments challenging IEPA's reliance on "generic cost factors," Dr. Fox's testimony, and the published report of BACT cost determinations were not raised in this proceeding.

We reject consideration of the testimony of Dr. Fox in this appeal on the grounds that this testimony was not submitted in the administrative record of this PSD permitting proceeding, but instead was submitted in a different proceeding. *In re Avon Custom Mixing*, 10 E.A.D. 700, 706 (EAB 2002) ("permit decisions are to be made on the administrative record" and therefore, "at a minimum, 'fil[ing] comments' within the meaning of the standing requirements of 40 C.F.R. § 124.19 contemplates that a Petitioner shall assure that a written objection is registered, either by submitting written comments or by assuring that a written record summarizing any oral comments conveyed during the public comment period is reflected in the administrative record."); *see also* 40 C.F.R. § 124.18 (2002) (requiring the final permit decision to be based upon the administrative record defined in that section). To rule otherwise would have the practical effect of requiring a permit issuer to search, not only the administrative record of the draft permit's public comment period, but also the administrative record of any other pending proceeding that might have some bearing upon the draft permit and to then determine whether any of the comments found in such other proceedings called for a revision of the draft permit's terms. To impose such an obligation on the permit issuer would be unduly onerous, costly, and burdensome. In contrast, requiring a petitioner to raise issues in the permitting proceeding where the petitioner wants those issues to be considered, at most, places a minimal burden on the petitioner and provides a manageable record for the permit issuer to review before making the final decision.

In the present case, we are convinced that IEPA was not alerted during the public comment period to Ms. Owen's concern, raised now on appeal, that the generic cost factors relied upon by IEPA are clearly erroneous. We have held that a petitioner may not raise on appeal arguments challenging a different aspect of the BACT analysis than those portions of the BACT analysis challenged during the public comment period. *In re RockGen Energy Ctr.,* 8 E.A.D. 536, 544-45 (EAB 1999); *see also* 40 C.F.R. § 124.13 (stating that all persons "must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their positions by the close of the public comment period"). Therefore, Ms. Owen's arguments concerning the generic cost factors have not been preserved for appeal. Petitioner has not cited in her Petition any other reason for us to grant review of the cost analysis. Accordingly, review of this issue is denied.

D. *Ms. Owen's Argument that IEPA Should Consider the Size and Magnitude of Kendall's Facility in Setting BACT for CO*

Ms. Owen argues that IEPA should have taken into account the size and magnitude of Kendall's proposed Facility in setting the CO limit and that such

consideration would have resulted in a lower limit. Petition at 7-8. Ms. Owen cites to an IEPA permitting decision in another case where IEPA stated that it was allowing a NO_X limit on the high side of the BACT limit range due to the small size and magnitude of the facility. *Id.* at 8. Ms. Owen contends that this logic compels that consideration of the large size and magnitude of the proposed Kendall Facility should have resulted in selecting a CO limit in the lower range of CO BACT limits. *Id.*

We conclude that this issue regarding the size and magnitude of Kendall's proposed Facility was not raised in any form during the public comment period. The Petitioner has not cited any reference, by herself or another participant, to show that this issue was properly raised below. Accordingly, we will not consider this issue in support of Ms. Owen's Petition.[22]

E. *Ms. Owen's Argument that Kendall's Application Should Have Been Processed as a Permit Extension, Not as a New Permit*

Ms. Owen argues that, since Kendall had previously obtained a permit to construct its proposed Facility, Kendall's application should have been processed as a request for extension of the existing permit, rather than as an application for a new permit. Petition at 9-10. Ms. Owen argues that pursuant to 40 C.F.R. § 52.21(r)(2) an extension of an existing permit may be granted only upon a showing of "justification." Citing to a guidance document issued by Region IX, Ms. Owen contends that Agency guidance has interpreted this requirement to mean that the extension application must explain why construction did not commence as scheduled and give assurances that it will begin construction within the extended period, as well as provide a full BACT review and air quality impacts analysis. Petition at 9, citing Memorandum by Wayne Blackard, Chief Region IX New Source Review Section (Sept. 8, 1998). Ms. Owen argues that IEPA's response to comments did not explain why Kendall was not required to justify its failure to commence construction within the original 18-month period and give assurances that it would commence construction within the extension period. *Id.*

In its response to comments, IEPA explained that it "required [Kendall] to submit a new BACT demonstration and air quality impact analysis and reviewed the application as a new application, not as an extension of the original permit. As such, the USEPA Region IX's guidance on permit extensions is not applicable." Responsiveness Summary at 14.

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[22] Moreover, as discussed in part II.B.2 above, Ms. Owen has failed to show that facilities comparable to Kendall's in terms of size of the turbines, simple-cycle operation, limited hours of operation for peaking periods, and higher NO_X limits, have achieved CO emission rates or been permitted with emissions limits that range significantly lower than the limit set in this Permit. For this additional reason, review is denied on the grounds that Ms. Owen has not shown that a lower range of BACT limits is achievable by, or have been set as permit conditions for comparable facilities.

Upon consideration, we conclude that Ms. Owen has failed to show clear error in IEPA's decision to treat Kendall's application as one for a new permit. The regulations provide that the approval to construct under a permit becomes invalid if construction is not commenced within 18 months after the permit is issued. 40 C.F.R. § 52.21(r)(2) (2002). The regulations also provide that this original 18-month period may be extended "upon a satisfactory showing that an extension is justified." *Id.* The regulations do not define what constitutes a satisfactory showing of a justification.

The stated purpose of the Region IX guidance cited by Ms. Owen is to "clarify the criteria EPA examines prior to extending the 18-month commencement of construction deadline found in 40 C.F.R. § 52.21(r)(2)." Memorandum by Wayne Blackard, Chief Region IX New Source Review Section (Sept. 8, 1998). That guidance specifically states that "[t]he applicant, however, may choose to file a project application for consideration as a new permit." *Id.* It also states that, generally, an extension will not be granted for more than 12 months from the original permit expiration date. *Id.* In the present case, Kendall's application requested a permit that would be valid for an 18-month period. Application at 1-1. Here, where Kendall requested an extension for the same length of time that would be afforded a new permit under section 52.21(r)(2), we find no clear error in IEPA's decision to treat that application as one requesting a new permit, rather than merely an extension of the existing permit. As noted, the Region IX guidance specifically states that the applicant may choose to apply for a new permit, rather than an extension and, here, Kendall has not objected to IEPA's decision to treat the application as one for a new permit.

Moreover, treating its application as one for a new permit required Kendall to meet all of the standards presently applicable to the issuance of a PSD permit. Requiring a full review of an application as one for a new permit assures that "advances in air pollution control technology and any reduction in the available PSD increment will be taken into account." *In re Knauf Fiber Glass, GmbH,* 8 E.A.D. 121, 160-61 (EAB 1999); *see also In re N. Y. Power Auth.,* 1 E.A.D. 825, 826 (Adm'r 1983) (the time limits in section 52.21(r)(2) are to ensure that facilities "are constructed in accordance with reasonably current pollution control standards and on the basis of current information regarding the level of air pollution in the locality where the facility is to be located."). Thus, IEPA's decision to treat Kendall's application as one for a new permit exposed Kendall to potentially more stringent regulatory requirements. Ms. Owen has not demonstrated any error in IEPA's determination that the requirements for issuing a PSD permit have been satisfied. Accordingly, this issue does not warrant granting review of the Permit.

III. *CONCLUSION*

For the reasons set forth above, we deny Verena Owen's petition for review.

So ordered.