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(Slip Opinion)

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

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In re:	)	
	)	
Pio Pico Energy Center	)	PSD Appeal Nos. 12-04
	)	through 12-06
PSD Permit No. SD 11-01	)	
	)	
	)	

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[Decided August 2, 2013]

***ORDER REMANDING IN PART AND  
DENYING REVIEW IN PART***

***Before Environmental Appeals Judges Leslye M. Fraser,  
Randolph L. Hill, and Kathie A. Stein.***

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## IN RE PIO PICO ENERGY CENTER

PSD Appeal Nos. 12-04 through 12-06

### ***ORDER REMANDING IN PART AND DENYING REVIEW IN PART***

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Decided August 2, 2013

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#### Syllabus

Helping Hand Tools, Sierra Club, and Mr. Rob Simpson (“Petitioners”) each petition the Environmental Appeals Board (“Board”) to review a prevention of significant deterioration (“PSD”) permit (“Permit”) that Region 9 (“Region”) of the United States Environmental Protection Agency issued to the Pio Pico Energy Center (“Pio Pico”) pursuant to the Clean Air Act. The Permit authorizes Pio Pico to construct and operate a 300-megawatt natural gas-fired peaking and/or intermediate load-shaping power plant (“Facility”) in Otay Mesa, California.

The petitions challenge the Region’s issuance of, as well as several conditions in, the Permit. Collectively, Petitioners raise eleven issues for Board resolution. These include challenges to the Region’s acceptance of late comments; the adequacy of the Region’s responses to comments; the Region’s decision to eliminate combined-cycle gas turbines as a control technology in its best available control technology (“BACT”) analysis for greenhouse gases; the adequacy of the BACT emission limits the Region selected for greenhouse gases and for particulate matter (“PM”); the Region’s conclusion that carbon monoxide emissions from the Facility are not subject to the PSD program; the location of air quality monitors; and the Region’s decisions not to use emission reduction credits to mitigate air pollutants. In addition, two of the petitioners ask the Board to remand the Permit to the Region for a reassessment of the “need” for the Facility following a recent California Public Utilities Commission (“CPUC”) decision denying the local utility the authority to enter into a long-term power purchase agreement with Pio Pico.

Held: The Board remands the permit in part and directs the Region to prepare a revised PM BACT analysis and reopen the public comment period to provide the public with an opportunity to comment on it. The Board denies review of all other challenges.

- (1) The Region’s Analysis of the “Need” for the Facility: Mr. Simpson and Sierra Club have not demonstrated that the Region abused its discretion in electing not to perform an independent analysis of the “need” for the Facility. The Region had the discretion, but was not required, to conduct an independent analysis of the “need” for the Facility, and the Region also had the discretion,

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but was not required, to rely on the State of California agency's assessment of need. In this case, because the Region exercised its discretion not to conduct a needs assessment and not to rely on any State of California agency's determination of need, the recent CPUC decision does not affect the Region's conclusion.

- (2) The Region's Acceptance of Late Comments from One Individual: Under the unique context of this case, the Region's decision to allow late comments from Mr. Sarvey on the Environmental Justice Analysis was justified, and was not an abuse of the Region's inherent discretion to accept late comments in a permit proceeding without reopening the public comment period. Mr. Simpson has not demonstrated otherwise.
- (3) The Region's Response to a Series of Forwarded E-mails and Attachments: Mr. Simpson has not demonstrated that the Region clearly erred or abused its discretion by not providing detailed, individual responses to the series of forwarded e-mails and attachments Mr. Simpson submitted during the public comment period where he did not explain their relevance or applicability to this PSD permit proceeding.
- (4) The Region's Consideration of Air Quality Impacts at Nearby Correctional Facilities: Helping Hands Tools has not demonstrated that the Region failed to adequately address comments raising concerns about potential air quality impacts on inmate populations at nearby correctional facilities. The Region's response to comments clearly explains why additional air quality monitoring is not required to determine background concentrations or to fulfill its obligations under Executive Order 12898.
- (5) The Region's Elimination of Combined-Cycle Gas Turbines at Step 2 of Its BACT Analysis for Greenhouse Gases: Mr. Simpson and Sierra Club have not demonstrated that the Region clearly erred in eliminating combined-cycle gas turbines in step 2 of its BACT analysis for greenhouse gases, or that the issue otherwise warrants review or remand. In particular, the Board concludes that the Region did not define "source type" too narrowly in step 2, nor did the Region clearly err when it referenced the power purchase agreement and related documents in its analysis.
- (6) The Region's Selection of a Greenhouse Gas BACT Emission Limit at Fifty Percent Load: Sierra Club has not demonstrated that the Region failed to use its considered judgment when selecting a greenhouse gas BACT emission limit for the Facility's emissions when operating at fifty percent load. The Region's decision to select an emission limit that is not the most stringent is consistent with the definition of BACT and Board precedent, both of which afford the Region the discretion to set the emission limit at a level that ensures the Facility can achieve consistent compliance over its lifetime.

- (7) The Region's Use of Safety Factors (or Compliance Margins) in Its BACT Analysis for Greenhouse Gases: Sierra Club has not demonstrated that the Region failed to use its considered judgment when it incorporated safety factors, or compliance margins, into the greenhouse gas BACT emission limit. The Region provided adequate factual support for its decision to include such factors in the emission limit, and Sierra Club's petition for review failed to address the Region's rationale in the administrative record for including those factors.
- (8) The Region's Selection of BACT for PM: The record does not reflect the Region's considered judgment in selecting the BACT emission limits for PM. The Region, in conducting its PM BACT analysis, failed to adequately consider significant information in the administrative record regarding two simple-cycle plants that use the same turbine model as proposed for the Facility. Neither the "Fact Sheet and the Ambient Air Quality Impact Report" nor the response to comments document analyzed this information in detail nor explain how it affects the Region's PM BACT determination. In addition, the Region's explanation for its selection of 80 percent load as the defining criterion for applying two different emission limits and the selection of 5.5 pounds per hour ("lb/hr") as BACT for loads under 80 percent are not adequately explained in the record.
- (9) The Region's Reliance on Federally Enforceable Permit Terms for Carbon Monoxide: Helping Hand Tools has not demonstrated that the Region clearly erred when it relied on federally enforceable permit terms in the Final Determination of Compliance the San Diego Air Pollution Control District issued in concluding that the Facility's carbon monoxide emissions are not subject to the PSD program. The Region properly relied on the Final Determination of Compliance, which requires that each turbine be equipped with an oxidation catalyst to limit carbon monoxide emissions from the Facility to a level below the PSD significant emission threshold regardless of operating load.
- (10) The Region's Allowance of Data from Air Quality Monitor Located Nine Kilometers From the Facility: Mr. Simpson has not demonstrated that the Region clearly erred when it allowed the use of data from an air quality monitor located nine kilometers from the proposed Facility as opposed to data from other air quality monitors in the area. The Region fully explained its rationale in the response to comments document, and Mr. Simpson's petition for review fails to confront the Region's explanation.
- (11) The Region's Decision Regarding Emission Reduction Credits: Mr. Simpson has not demonstrated that the Region clearly erred by failing to require mitigation of air pollution through the use of emission reduction credits. Mr. Simpson's petition for review failed to confront the Region's response to a

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similar comment, and the emission reduction credits in question are utilized in nonattainment new source review permits rather than PSD permits.

***Before Environmental Appeals Judges Leslye M. Fraser,  
Randolph L. Hill and Kathie A. Stein.***

***Opinion of the Board by Judge Stein:***

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*I. STATEMENT OF THE CASE*

Helping Hand Tools, Mr. Robert Simpson, and Sierra Club each filed a timely petition seeking review of a Clean Air Act (“CAA”) Prevention of Significant Deterioration (“PSD”) permit (“Permit”), PSD No. SD 11-01, that the U.S. Environmental Protection Agency (“EPA” or “Agency”) Region 9 (“Region”) issued to Pio Pico Energy Center, LLC (“Pio Pico” or “Permittee”) on November 19, 2012. The Permit authorizes Pio Pico to construct and operate a 300-megawatt (“MW”) natural gas-fired power plant (“Facility”) in Otay Mesa, California. The petitions challenge the Region’s issuance of, as well as several conditions in, the Permit. Both the Region and Pio Pico filed responses to the petitions. The Environmental Appeals Board (“Board”) held a status conference in this matter on April 11, 2013. For the reasons set forth below, the Board remands the permit in part and denies review in part.

*II. ISSUES ON APPEAL*

The petitions present the following overarching issues for Board resolution:

1. Has Mr. Simpson or Sierra Club demonstrated that the Region abused its discretion in electing not to perform an independent “needs” analysis, and does the California Public Utility Commission’s (“CPUCs”) recent decision require a remand for the Region to reconsider its analysis?
2. Did the Region abuse its discretion in allowing one commenter additional time to submit late comments on the Region’s Environmental Justice (“EJ”) Analysis?
3. Has Mr. Simpson demonstrated that the Region clearly erred or abused its discretion by not providing a detailed response to the series of forwarded e-mails and

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attachments he submitted during the public comment period?

4. Has Helping Hand Tools demonstrated that the Region failed to adequately address comments raising concerns about air quality impacts on inmate populations at nearby correctional facilities?
5. Have Mr. Simpson or Sierra Club demonstrated that the Region clearly erred in eliminating combined-cycle gas turbines in Step 2 of its best available control technology (“BACT”) analysis for greenhouse gases (“GHGs”) or that the issue otherwise warrants review or remand?
6. Has Sierra Club demonstrated that the Region failed to use its considered judgment in choosing a carbon dioxide (“CO<sub>2</sub>”) BACT emission limit that corresponds to the Facility’s operation at fifty percent load?
7. Has Sierra Club demonstrated that the Region failed to use its considered judgment when it incorporated safety factors, or compliance margins, into the CO<sub>2</sub> BACT emission limit?
8. Does the record reflect the Region’s considered judgment in selecting the BACT limit for particulate matter (“PM”)?
9. Has Helping Hand Tools demonstrated that the Region clearly erred by relying on federally enforceable permit terms included in the San Diego County Air Pollution Control District’s determination of compliance to conclude that the facility’s potential to emit (“PTE”) carbon monoxide (“CO”) will not exceed the significant emission threshold that would otherwise require compliance with the PSD program?

10. Has Mr. Simpson demonstrated that the Region clearly erred in allowing the use of data from an air quality monitor located nine kilometers from the Facility?
11. Has Mr. Simpson demonstrated that the Region clearly erred by failing to require mitigation of air pollutants through the use of emission reduction credits?

### III. PRINCIPLES GUIDING BOARD REVIEW

Section 124.19 of Title 40 of the Code of Federal Regulations governs Board review of a PSD permit.<sup>1</sup> In any appeal from a permit decision issued under part 124, the petitioner bears the burden of demonstrating that review is warranted. *See* 40 C.F.R. § 124.19(a).

#### A. Standard of Review

The Board has discretion whether to review a PSD permit. *In re Avenal Power Ctr., LLC*, PSD Appeal Nos. 11-02 through 11-05, slip op. at 14-15 (EAB Aug. 18, 2011), 15 E.A.D. \_\_\_\_, *appeal docketed sub nom. Sierra Club v. EPA*, No. 11-73342 (9th Cir. Nov. 3, 2011). Ordinarily, the Board will not review a PSD permit unless the permit decision either is based on a clearly erroneous finding of fact or conclusion of law, or involves a matter of policy or exercise of discretion that warrants review. 40 C.F.R. § 124.19(a)(1)-(2); *accord, e.g., In re Prairie State Generating Co.*, 13 E.A.D. 1, 10 (EAB 2006), *aff'd sub nom. Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007).

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<sup>1</sup> The EPA recently revised 40 C.F.R. § 124.19 and other related provisions in parts 124 and 270 of the Code of Federal Regulations to clarify practices and procedures in appeals of permit decisions filed before the Board. *See* Revisions to Procedural Rules to Clarify Practices and Procedures Applicable in Permit Appeals Pending Before the Board, 78 Fed Reg. 5281, 5288 (Jan. 25, 2013), *available at* [www.epa.gov/eab](http://www.epa.gov/eab) (click on Regulations Governing Appeals). The revised part 124 provisions became effective on March 26, 2013. *Id.* Because the petitions in this matter were filed before the effective date of the revised provisions, the part 124 provisions cited in this decision correspond to the provisions in effect at the time the petitions were filed.

When evaluating a challenged permit decision for clear error, the Board examines the administrative record that serves as the basis for the permit to determine whether the permit issuer exercised his or her “considered judgment.” *See, e.g., In re Steel Dynamics, Inc. (“Steel Dynamics I”)*, 8 E.A.D. 165, 191, 224-25 (EAB 2000); *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417-18 (EAB 1997). The permit issuer must articulate with reasonable clarity the reasons supporting its conclusion and the significance of the crucial facts it relied upon when reaching its conclusion. *E.g., In re Shell Offshore, Inc. (“Shell Offshore 2007”)*, 13 E.A.D. 357, 386 (EAB 2007). As a whole, the record must demonstrate that the permit issuer “duly considered the issues raised in the comments” and ultimately adopted an approach that “is rational in light of all information in the record.” *In re Gov’t of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 342 (EAB 2002); *accord In re City of Moscow*, 10 E.A.D. 135, 142 (EAB 2001); *In re NE Hub Partners, LP*, 7 E.A.D. 561, 567-68 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999). On matters that are fundamentally technical or scientific in nature, the Board typically will defer to a permit issuer’s technical expertise and experience, as long as the permit issuer adequately explains its rationale and supports its reasoning in the administrative record. *See In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 510 (EAB 2006); *see also, e.g., In re Russell City Energy Ctr. (“Russell City”)*, PSD Appeal Nos. 10-01 through 10-05, slip op. at 88 (EAB Nov. 18, 2010), 15 E.A.D. \_\_\_\_, *petition denied sub nom. Chabot-Las Positas Cmty. Coll. Dist. v. EPA*, No. 10-73870 (9th Cir. May 4, 2012); *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 40-41, 46, 51 (EAB 2005); *NE Hub*, 7 E.A.D. at 570-71.

In reviewing an exercise of discretion by the permitting authority, the Board applies an abuse of discretion standard. *See In re Guam Waterworks Auth.*, NPDES Appeal Nos. 9-15 & 9-16, slip op. at 9 n.7 (EAB 2011), 15 E.A.D. \_\_\_\_. The Board will uphold a permitting authority’s reasonable exercise of discretion if that decision is cogently explained and supported in the record. *See Ash Grove*, 7 E.A.D. at 397 (“[A]cts of discretion must be adequately explained and justified.”); *see also Motor Vehicles Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 48 (1983) (“We have frequently reiterated that an agency

must cogently explain why it has exercised its discretion in a given manner \* \* \*.”).

B. *Petitioner’s Burden on Appeal, Including Threshold Requirements*

In determining whether to review a petition filed under 40 C.F.R. § 124.19(a), the Board first considers whether the petitioner has met threshold procedural requirements such as timeliness, standing, issue preservation, and specificity. *See* 40 C.F.R. § 124.19; *In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 143 (EAB 2006). For example, a petitioner must demonstrate that any issues and arguments it raises on appeal have been preserved for Board review (i.e., were raised during the public comment period or public hearing on the draft permit), unless the issues or arguments were not reasonably ascertainable at the time. 40 C.F.R. §§ 124.13, .19; *see, e.g., In re City of Attleboro*, NPDES Appeal No. 08-08, slip op. at 10, 58-59 (EAB Sept. 15, 2009), 14 E.A.D. \_\_\_; *City of Moscow*, 10 E.A.D. at 141, 149-50. Assuming that a petitioner satisfies all threshold procedural obligations, the Board then evaluates the petition to determine if it warrants review. *Indeck*, 13 E.A.D. at 143.

As noted above, in any appeal from a permit under part 124, the petitioner bears the burden of demonstrating that review is warranted. Thus to the extent a petitioner challenges an issue the permit issuer addressed in its response to comments, the petitioner must *explain why* the permit issuer’s previous response to those comments was clearly erroneous or otherwise warrants review.<sup>2</sup> *Id.* § 124.19(a);<sup>3</sup> *see, e.g., In re*

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<sup>2</sup> Federal circuit courts of appeal have upheld this Board requirement that a petitioner must substantively confront the permit issuer’s response to the petitioner’s previous objections. *City of Pittsfield v. EPA*, 614 F.3d 7, 11-13 (1st Cir. 2010), *aff’g In re City of Pittsfield*, NPDES Appeal No. 08-19 (EAB Mar. 4, 2009) (Order Denying Review); *Mich. Dep’t of Env’tl. Quality v. EPA*, 318 F.3d 705, 708 (6th Cir. 2003) (“[Petitioner] simply repackag[ing] its comments and the EPA’s response as unmediated appendices to its Petition to the Board \* \* \* does not satisfy the burden of showing entitlement to review.”), *aff’g In re Wastewater Treatment Fac. of Union Twp.*, NPDES Appeal Nos. 00-26 & 00-28 (EAB Jan. 23, 2001) (Order Denying Petitions for Review);

(continued...)

*Teck Cominco Alaska, Inc.*, 11 E.A.D. 457, 494-95 (EAB 2004); *In re Westborough*, 10 E.A.D. 297, 305, 311-12 (EAB 2002); *In re City of Irving*, 10 E.A.D. 111, 129-30 (EAB 2001), *review denied sub nom. City of Abilene v. EPA*, 325 F.3d 657 (5th Cir. 2003). The Board consistently has denied review of petitions that merely cite, attach, incorporate, or reiterate comments previously submitted on the draft permit. *E.g.*, *In re City of Pittsfield*, NPDES Appeal No. 08-19 (EAB Mar. 4, 2009) (Order Denying Review), *aff'd*, 614 F.3d 7, 11-13 (1st Cir. 2010); *In re Knauf Fiber Glass, GmbH* (“*Knauf II*”), 9 E.A.D. 1, 5 (EAB 2000) (“Petitions for review may not simply repeat objections made during the comment period; instead they must demonstrate why the permitting authority’s response to those objections warrants review.”); *In re Hadson Power 14*, 4 E.A.D. 258, 294-95 (EAB 1992) (denying review where petitioners merely reiterated comments on draft permit and attached a copy of their comments without addressing permit issuer’s responses to comments).

When a petition is filed by a person who is unrepresented by legal counsel, the Board endeavors to liberally construe the petitions to fairly identify the substance of the arguments being raised. *In re Sutter Power Plant*, 8 E.A.D. 680, 687 (EAB 1999); *see also In re Envyl. Disposal Sys., Inc.*, 12 E.A.D. 254, 292 n.26 (EAB 2005); *In re Envotech, LP*, 6 E.A.D. 260, 268 (EAB 1996). While the Board “does not expect such petitions to contain sophisticated legal arguments or to employ precise technical or legal terms,” the Board nevertheless “does expect such petitions to provide sufficient specificity to apprise the Board of the issues being raised.” *Sutter*, 8 E.A.D. at 687-88; *accord*

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<sup>2</sup>(...continued)

*LeBlanc v. EPA*, No. 08-3049, at 9 (6th Cir. Feb. 12, 2009) (concluding that the Board correctly found petitioners to have procedurally defaulted where petitioners merely restated “grievances” without offering reasons why the permit issuer’s responses were clearly erroneous or otherwise warranted review), *aff’g In re Core Energy, LLC*, UIC Appeal No. 07-02 (EAB Dec. 19, 2007) (Order Denying Review).

<sup>3</sup> The Board notes for future reference that the new part 124 regulations (not applicable to the petitions in this case but applicable to any petition filed on or after March 26, 2013) further require that petitioners “provide a citation to the relevant comment and response.” 40 C.F.R. § 124.19(a)(4)(ii).

*In re P.R. Elec. Power Auth.*, 6 E.A.D. 253, 255 (EAB 1995). “The Board also expects the petitions to articulate some supportable reason or reasons as to why the permitting authority erred or why review is otherwise warranted.” *Sutter*, 8 E.A.D. at 688; *accord In re Beckman Prod. Servs.*, 5 E.A.D. 10, 19 (EAB 1994). Thus, the burden of demonstrating that review is warranted still rests with the petitioner challenging the permit decision. *In re New Eng. Plating Co.*, 9 E.A.D. 726, 730 (EAB 2001); *In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 249-50 (EAB 1999).

#### IV. SUMMARY OF DECISION

For the reasons stated below, the Board concludes that:

1. Mr. Simpson and Sierra Club have failed to demonstrate that the Region abused its discretion in electing not to perform an independent “needs” analysis, and the CPUC’s recent decision does not require a remand to the Region to reconsider its analysis;
2. The Region did not abuse its discretion in allowing one commenter additional time to submit late comments on the Region’s EJ Analysis;
3. Mr. Simpson has not demonstrated that the Region clearly erred or abused its discretion by not providing a detailed response to the series of forwarded e-mails and attachments that he submitted during the public comment period;
4. Helping Hand Tools has not demonstrated that the Region failed to adequately address comments raising concerns about air quality impacts on inmate populations at nearby correctional facilities;

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5. Mr. Simpson and Sierra Club have not demonstrated that the Region clearly erred in eliminating combined-cycle gas turbines in Step 2 of its BACT analysis for greenhouse gases or that the issue otherwise warrants review or remand;
6. Sierra Club has not demonstrated that the Region failed to use its considered judgment in choosing a CO<sub>2</sub> BACT emission limit that corresponds to the Facility's operation at fifty percent load;
7. Sierra Club has not demonstrated that the Region failed to use its considered judgment when it incorporated safety factors, or compliance margins, into the CO<sub>2</sub> BACT emission limit;
8. The record does not reflect the Region's considered judgment in selecting the BACT limit for PM;
9. Helping Hand Tools has not demonstrated that the Region clearly erred by relying on federally enforceable permit terms included in the San Diego County Air Pollution Control District's determination of compliance to conclude that the Facility's PTE to emit CO will not exceed the significant emission threshold that would otherwise require compliance with the PSD program;
10. Mr. Simpson has not demonstrated that the Region clearly erred in allowing the use of data from an air quality monitor located nine kilometers from the proposed Facility; and

11. Mr. Simpson has not demonstrated that the Region clearly erred by failing to require mitigation of air pollutants through the use of emission reduction credits.

As explained in detail in Part VIII.F of this decision, the Board remands the Permit in part for the Region to conduct a revised BACT analysis for PM and to allow public comments on the Region's analysis, and denies review of all other issues.

#### V. PROCEDURAL AND FACTUAL HISTORY

The public comment period for the proposed permit<sup>4</sup> began on June 20, 2012, and was originally scheduled to close on July 24, 2012. *See* U.S. EPA Region 9, *Responses to Public Comments on the Proposed Prevention of Significant Deterioration Permit for the Pio Pico Energy Center* at 2 (Nov. 2012) (Administrative Record ("A.R.") VII.3) [hereinafter RTC]. The Region later extended it until September 5, 2012. *Id.* The Region also allowed one individual additional time, until September 20, 2012, to submit late comments on the Region's EJ Analysis. *Id.* at 2 n.2. On November 19, 2012, the Region issued its final permitting decision and a document responding to the comments it had received. *See generally* U.S. EPA Region 9, *Final PSD Permit* (Nov. 19, 2012) (A.R. VII.2) ("Permit"); RTC at 1.

Helping Hand Tools, Mr. Simpson, and Sierra Club each filed a timely appeal challenging different aspects of the decisionmaking process, underlying technical determinations, and certain conditions in the Permit. *See* Helping Hand Tools Petition for Review (filed Dec. 19, 2012) ("Helping Hand Tools Pet."); Robert Simpson Petition

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<sup>4</sup> Because the terms "draft permit" and "proposed permit" are not consistently used across the parties' documents, the administrative record, and the part 124 regulations, the Board uses them interchangeably throughout this decision.

for Review (filed Dec. 19, 2012) (“Simpson Pet.”); Sierra Club Petition for Review (filed Dec. 19, 2012) (“Sierra Club Pet.”).<sup>5</sup>

Both the Region and Pio Pico filed responses to the petitions. *See* EPA Region 9’s Response to Petition for Review (filed Feb. 6, 2013) (“Region Resp.”); Brief of Intervenor Pio Pico Energy Center, LLC in Response to the Petitions for Review (filed Feb. 6, 2013) (“Pio Pico Resp.”). On February 19, 2013, Sierra Club filed a motion seeking leave to file a reply brief and attached its proposed reply brief. Petitioner Sierra Club Motion for Leave to File Short Reply; Petitioner Sierra Club’s (Proposed) Reply (“Sierra Club Reply Br.”). Both Pio Pico and the Region opposed Sierra Club’s motion.

Concurrent with these PSD permit proceedings and pursuant to California law, the California Public Utility Commission (“CPUC”) undertook review of an application submitted by the San Diego Gas & Electric Company (“SDG&E”) for the approval of long-term power purchase tolling agreements (“PPTAs”) with three power plants, one of which is the Pio Pico Facility. The PPTA between SDG&E and Pio Pico would have authorized SDG&E to purchase power generated at the Facility beginning in 2014 and continuing for a twenty-year period.<sup>6</sup> On March 22, 2013, Pio Pico filed a Notice of Supplemental Information notifying the Board that the CPUC issued its final decision denying SDG&E the authority to enter into a PPTA with Pio Pico at the present time. Notice of Supplemental Information at 1 (Mar. 22, 2013) (“Mar. 22, 2013 Notice”). The CPUC decision did, however, “direct SDG&E to procure up to 298 MW of local capacity to come on-line beginning in 2018,” and noted that, if the proposed PPTA is amended to

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<sup>5</sup> The Board assigned Helping Hand Tools’ petition PSD Appeal Number 12-04, Mr. Simpson’s petition PSD Appeal Number 12-05, and Sierra Club’s petition PSD Appeal Number 12-06.

<sup>6</sup> *Decision Determining [SDG &E’s] Local Capacity Requirement and Granting Partial Authority to Enter into [PPTAs]* at 2-3 (Mar. 21, 2013), available at <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M060/K898/60898567.PDF> [hereinafter *CPUC Decision*].

correspond to the identified need, SDG&E could seek to meet this need using the Pio Pico Energy Center. *CPUC Decision* at 18.

Shortly thereafter, both the Region and Sierra Club filed motions for leave to respond and proposed responses to Pio Pico's notice. Based on the information submitted by the parties, the Board concluded that the changes in circumstances raised significant questions about the status of the proposed Facility, such as whether it still would be built; if so, whether the nature, purpose, and design parameters of the project would remain as originally proposed by Pio Pico and as permitted in the PSD decision the Region issued; when construction likely would begin; and whether the Region would have approached its BACT analysis in the same manner absent Pio Pico's contractual obligation to SDG&E under the PPTA. Consequently, the Board granted Sierra Club's and the Region's motions and scheduled a status conference on April 11, 2013, to discuss these issues. *See Order Scheduling Status Conference and Directing Parties to Provide Additional Information* at 2, 4-6 (Apr. 5, 2012) ("Board's April 5th Order"); *see also* Status Conference Transcript (filed April 24, 2013) ("Status Conf. Tr."). The Board also directed Pio Pico and the Region to file supplemental briefs on the issues and authorized Petitioners to file responses to the supplemental briefs, if they so chose. Board's April 5th Order at 5, 7.

All parties participated in the status conference.<sup>7</sup> Shortly thereafter, Pio Pico, the Region, and Sierra Club filed follow-up briefs as authorized by the Board's April 5th Order. On June 11, 2013, Pio Pico filed a notice of supplemental information informing the Board of a recent factual development related to the issues discussed at the status conference: the fact that SDG&E and Pio Pico "had executed an amendment to the [PPTA] which contemplates the project starting

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<sup>7</sup> The attorney for Helping Hand Tools, Mr. Johannes Epke, did not participate at the status conference, but Mr. Simpson, who is a member of the group, attended the status conference by phone both on his and Helping Hand Tools' behalf. Status Conf. Tr. at 7. On May 22, 2013, several weeks after the status conference, the Board received the copy of the Board's scheduling order that the Board had sent to Mr. Epke marked "not at this address." *See* EAB Dkt. No. 30, available at [www.epa.gov/eab](http://www.epa.gov/eab). The Clerk of the Board subsequently made several attempts to contact Mr. Epke without success.

construction in early 2014 and requires a commercial operations date no later than September 1, 2015.” See [Second] Notice of Supplemental Information at 1. On June 18, 2013, Sierra Club filed an unopposed motion for leave to respond to Pio Pico’s notice and attached its proposed response brief. See Petitioner Sierra Club’s Motion for Leave to Respond to Pio Pico Energy Center LLC’s June 11, 2013 Notice of Supplemental Information; (Proposed) Sierra Club’s Response to Pio Pico Energy Center LLC’s June 11, 2013 Notice of Supplemental Information.

#### VI. PENDING PROCEDURAL MOTIONS

Currently before the Board are two outstanding motions: Sierra Club’s Motion for Leave to File Short Reply and Sierra Club’s Motion for Leave to Respond to Pio Pico Energy Center LLC’s June 11, 2013 Notice of Supplemental Information. The Board addresses them in turn.

The Board applies a presumption against the filing of reply briefs or sur-replies in appeals of new source review (“NSR”) permits, like the PSD permit at hand. Revised Order Governing Petitions for Review of Clean Air Act New Source Review Permits ¶ 3, at 3 (EAB Mar. 27, 2013) (“Standing Order”), *available at* <http://www.epa.gov/eab> (follow “Standing Orders” hyperlink).<sup>8</sup> A petitioner seeking leave to file a reply brief must satisfy a high threshold to overcome this presumption by stating “with particularity the arguments to which the Petitioner seeks to respond and the reasons the Petitioner believes it is both necessary to file a reply to those arguments \* \* \* and how those reasons overcome the presumption in the Standing Order.” *In re Shell Gulf of Mex., Inc.* (“*Shell Gulf of Mex. 2012*”), OCS Appeal Nos. 11-02, 11-03, 11-04 & 11-08, slip. op. at 15 (EAB Jan. 12, 2012), 15 E.A.D. \_\_\_\_ (citations omitted).

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<sup>8</sup> The Board applied this same presumption in its previous NSR standing order as well. See Order Governing Petitions for Review of Clean Air Act New Source Review Permits ¶ 3, at 3 (EAB Apr. 19, 2011).

A new explanation or rationale for the Region's permitting decisions that appears for the first time in the Region's response brief has the potential to significantly affect the outcome of the Board's decision on that issue, and historically, the Board has granted parties' motions to file replies and sur-replies when new arguments are raised in opposing briefs. *See, e.g., id.* at 16, 15 E.A.D. at \_\_\_\_\_. The Board has held that when a permit issuer offers a new rationale, cites new authority, or relies on new information to support its decisionmaking for the first time in its response brief, such circumstances meet the high threshold required to overcome the presumption against filing a reply brief. *Id.*

In this instance, Sierra Club asserts that the Region cites for the first time in its response brief additional information to support the Region's rationale for selecting the PM BACT limit included in the final Permit. Sierra Club Reply Br. at 6-7 & n.8. Sierra Club similarly asserts that the Region relied for the first time in its response brief on additional information contained in the administrative record to support the Region's decision to include safety factors, or compliance margins, within the GHG BACT emission limit. *Id.* at 4-5. Upon consideration, the Board concludes that for these two select issues Sierra Club meets the high threshold required to overcome the Board's stated presumption against filing reply briefs in an NSR appeal. *Id.* Accordingly, Sierra Club's motion to file a reply brief is granted in part. In reaching its conclusions set forth in this order the Board has considered the portions of Sierra Club's reply brief that address the Region's response regarding the PM BACT limit and safety factors included in the GHG BACT limit. The Board will not consider Sierra Club's reply brief arguments concerning the rejection of combined cycle gas turbines, *see id.* at 1-3, because these merely reiterate arguments already contained in Sierra Club's petition.

With respect to Sierra Club's other pending motion, which was unopposed, the Board grants the motion and accepts Sierra Club's response to Pio Pico's supplemental information. Sierra Club's brief, which is notably quite short, merely responds to the new information Pio Pico filed updating information it had previously provided in response to the Board's April 5th Order.

VII. OVERVIEW OF PSD LEGAL REQUIREMENTS AND  
BACT ANALYSIS

The PSD provisions govern air pollution in certain areas, called “attainment” areas, where the air quality meets or is cleaner than the national ambient air quality standards (“NAAQS”), as well as in unclassifiable areas that are neither attainment nor “nonattainment.” CAA §§ 160-169, 42 U.S.C. §§ 7470-7479; *accord In re RockGen Energy Ctr.*, 8 E.A.D. 536, 541 (EAB 1999). The statutory PSD provisions are largely carried out through a regulatory process that requires new major stationary sources in attainment (or unclassifiable) areas, such as the Facility, to obtain preconstruction permits pursuant to CAA § 165, 42 U.S.C. § 7475. *See* 40 C.F.R. § 52.21; *RockGen*, 8 E.A.D. at 541; *In re Knauf Fiber Glass, GmbH (“Knauf I”)*, 8 E.A.D. 121, 123 (EAB 1999).

The CAA and Agency PSD regulations require that every proposed PSD permit be subjected to a preconstruction review by the permitting authority, which must include an opportunity for a public hearing that allows interested persons to comment on the air quality impact of the proposed source, alternatives thereto, control technology, and other appropriate considerations. CAA § 165(a)(2), 42 U.S.C. § 7475(a)(2); 40 C.F.R. § 124.12(a); *In re Sierra Pac. Indus.*, PSD Appeal Nos. 13-01 through 13-04 (EAB July 18, 2013), 15 E.A.D. \_\_\_\_\_. As part of the preconstruction review process, new major stationary sources and major modifications of such sources employ the “best available control technology,” or BACT, to minimize emissions of regulated pollutants. CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4); 40 C.F.R. § 52.21(j)(2). The statute defines the BACT requirements as follows:

The term “best available control technology” means an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy,

environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant.

CAA § 169(3), 42 U.S.C. § 7479(3); *accord* 40 C.F.R. § 52.21(b)(12) (similar regulatory definition). As the Board explained in *In re Northern Michigan University* (“*NMU*”), the BACT definition requires permit issuers to “proceed[] on a case-by-case basis, taking a careful and detailed look, attentive to the technology or methods appropriate for the particular facility, [] to seek the result tailor-made for that facility and that pollutant.” PSD Appeal No. 08-02, slip op. at 12 (EAB Feb. 18, 2009), 14 E.A.D. \_\_\_ (citations and quotations omitted). BACT is therefore a site-specific determination that results in the selection of an emission limitation representing application of control technology or methods appropriate for the particular facility. *In re Prairie State Generating Co.*, 13 E.A.D. 1, 12 (EAB 2006), *aff’d sub nom. Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007); *In re Three Mountain Power, LLC*, 10 E.A.D. 39, 47 (EAB 2001); *Knauf I*, 8 E.A.D. at 128-29.

In 1990, EPA issued draft guidance for permitting authorities to use in analyzing PSD requirements (among others) in a consistent and systematic way. *See generally* Office of Air Quality Planning & Standards, U.S. EPA, *New Source Review Workshop Manual 1* (draft Oct. 1990) (“*NSR Manual*”).<sup>9</sup> The *NSR Manual* sets forth a “top-down”

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<sup>9</sup> Notably, the *NSR Manual* is not a binding Agency regulation, and consequently strict application of the methodology described in it is not mandatory nor is it the required vehicle for making BACT determinations. *E.g.*, *NMU*, slip op. at 12, 14 E.A.D. at \_\_\_; *Prairie State*, 13 E.A.D. at 6 n.2; *Knauf I*, 8 E.A.D. at 129 n.13. Nevertheless, because it provides a framework for determining BACT that assures adequate consideration of the statutory and regulatory criteria, it has guided state and federal permit issuers, as well as PSD permit applicants, on PSD requirements and policy for years. *E.g.*, *NMU*, slip op. at 12, 14 E.A.D. at \_\_\_; *In re Cardinal FG Co.*, 12 E.A.D. (continued...)

process for determining BACT for each particular regulated pollutant that is summarized as follows:

The top-down process provides that all available control technologies be ranked in descending order of control effectiveness. The PSD applicant first examines the most stringent – or “top” – alternative. That alternative is established as BACT unless the applicant demonstrates, and the permitting authority in its informed judgment agrees, that technical considerations, or energy, environmental, or economic impacts justify a conclusion that the most stringent technology is not “achievable” in that case.

*Id.* at B.2. Permit issuers apply the top-down method on a case-by-case basis to each permit they evaluate. *See id.* at B.1 (explaining that all BACT analyses are done case-by-case). The *NSR Manual*'s recommended top-down analysis employs five steps:

Step 1: Identify all available control options with potential application to the source and the targeted pollutant;

Step 2: Analyze the control options' technical feasibility;

Step 3: Rank feasible options in order of effectiveness;

Step 4: Evaluate the energy, environmental, and economic impacts of the options; and

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<sup>9</sup>(...continued)

153, 162 (EAB 2005); *see also In re Steel Dynamics, Inc.* (“*Steel Dynamics II*”), 9 E.A.D. 165, 183 (EAB 2000) (“This top-down analysis is not a mandatory methodology, but it is frequently used by permitting authorities to ensure that a defensible BACT determination, involving consideration of all requisite statutory and regulatory criteria, is reached.”). The Region utilized the “top-down method” described in the *NSR Manual* when determining BACT emission limits for the Permit. *See* U.S. EPA Region 9, Fact Sheet and Ambient Air Quality Impact Report for a CAA PSD Permit, Pio Pico Energy Center at 8 (June 2012) (A.R. IV.2) (“Fact Sheet & AAQIR”); RTC at 31-32, 45.

Step 5: Select a pollutant emission limit achievable by the most effective control option not eliminated in a preceding step.

*Id.* at B.5-.9.

### VIII. ANALYSIS

In the analysis that follows, the Board considers each of the issues identified in Part II of this decision in turn. The Board concludes that, for one issue, remand is warranted. For the remaining issues, the Board concludes that Petitioners have not met their burden of demonstrating that the Region based its permit decision on a clearly erroneous finding of fact or conclusion of law, or that the Region abused its discretion in a manner warranting review.

A. *Petitioners Have Failed to Demonstrate That the Region Abused Its Discretion in Electing Not to Perform an Independent “Needs” Analysis, and the California Public Utility Commission’s (“CPUC’s”) Recent Decision Does Not Require a Remand for the Region to Reconsider Its Analysis*

The Board begins its analysis by addressing Mr. Simpson’s and Sierra Club’s request that the Board remand the Permit in light of the recent CPUC decision that raises questions about the Facility’s need. *See* Status Conf. Tr. at 42-44, 50-54. The Region, in response to comments asking whether the Facility was needed, had declined to conduct a “rigorous and robust” analysis of the “need” for the Facility and had declined to rely on any California agency’s specific determinations of “need” for the Facility. *See* RTC at 73. In doing so, the Region relied on prior Board precedent stating that such matters are within the Agency’s discretion.

Mr. Simpson claims that the Region’s findings of fact on this issue are “misplaced.” Simpson Pet. at 6. He further argues that the Board should remand the Permit based on “new information” in the form of the CPUC’s recent decision “to deny the [Pio Pico] project and

associated proposed PP[T]A,” which was issued after the Region issued the final PSD Permit. *Id.* (referring to *CPUC Decision*);<sup>10</sup> *accord* Status Conf. Tr. at 50-54. Sierra Club similarly contends that, at a minimum, the permit and comment period should be reopened in light of the CPUC decision.<sup>11</sup> Sierra Club Response to [March 22, 2013] Notice of Supplemental Information at 2; *accord* Status Conf. Tr. at 42-44.

Although not clearly articulated in their petitions and briefs, Mr. Simpson and Sierra Club appear to be relying on Board precedent interpreting a CAA provision, section 165(a)(2), 42 U.S.C. § 7475(a)(2). *See, e.g.*, Simpson Pet. at 6 (citing page 73 of the response to comments document, which in turn cites section 165(a)(2) of the CAA); Status Conf. Tr. at 42-44 (arguing that the Region did not consider the need for the facility or “alternatives”). This section provides that PSD permitting authorities must provide the public with the opportunity to comment on “the air quality impact of [the proposed] source, *alternatives thereto*, control technology requirements, and other appropriate considerations[.]” CAA § 165(a)(2), 42 U.S.C. § 7475(a)(2) (emphasis

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<sup>10</sup> In his Petition, Mr. Simpson refers to CPUC’s *proposed* decision, which was issued the day after the Region issued the Permit. A final decision has now been issued, and the parties, in their arguments at the status conference and in their supplemental briefs, discuss the final decision. Consequently, the Board refers solely to the final version of the decision in the rest of this decision.

<sup>11</sup> Normally, the Board would not allow Sierra Club to raise a new issue for the first time on appeal during the supplemental briefing phase. *See, e.g.*, *Russell City*, slip op. at 45 n.35, 15 E.A.D. at \_\_\_ (explaining that issue may not be raised for the first time in a reply brief); *In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 595 (EAB 2006) (declining to consider issue that could have been raised in a timely petition but was instead raised in a response brief); *Knauf I*, 8 E.A.D. at 126 n.9 (“New issues raised for the first time at the reply stage of the[] proceedings are equivalent to late filed appeals and must be denied on the basis of timeliness.”). Because Sierra Club raises this issue in connection with the CPUC’s recent decision, which the CPUC issued after the PSD permit issuance and which arguably involves new information that is potentially relevant to the permit decision, the Board considers Sierra Club’s arguments with Mr. Simpson’s. *See, e.g.*, *In re Circle T Feedlot, Inc.*, NPDES Appeal Nos. 09-02 & 09-03, slip op. at 13 & n.11 (EAB June 7, 2010), 14 E.A.D. \_\_\_ (allowing petitioners to file a joint addendum discussing the applicability of a United States Supreme Court case issued after petitions were filed).

added). The Board has interpreted the statutory language *to allow, but not require*, consideration of a no-build alternative. *In re City of Palmdale*, PSD Appeal No. 11-07, slip op. at 57 (EAB Sept. 17, 2012), 15 E.A.D. \_\_\_, *appeal docketed sub nom. Simpson v. EPA*, No. 12-74124 (9th Cir. Dec. 18, 2012); *Prairie State*, 13 E.A.D. at 32-33 (holding that the state permitting authority was incorrect in stating that it was not empowered to consider a no-build alternative, but upholding the permit because it was clear that the permitting authority had reasonably exercised its discretion not to conduct an independent analysis of a no-build alternative).

In the present permitting proceeding, Mr. Simpson initially raised the issue of the “need” for the Facility in his comments on the draft permit. In those comments, he first generally asserted that “there is no need for this project.” E-mail from Rob Simpson, Exec. Dir., Helping Hand Tools, to Roger Kohn, U.S. EPA, at 1 (July 18, 2012, 00:56 PDT) (A.R. VI.14) [hereinafter Simpson Cmt.]. Then, relying on language from another permitting decision in which the Region had explicitly relied on a state agency’s “needs” analysis, he contended that, because California had not yet addressed the “need” issue for Pio Pico, the Region was “not in a position to make a final decision.” *Id.* at 1-2 (quoting response to comments document for the Palmdale Hybrid Power Project permitting decision).

In responding to Mr. Simpson’s comment, the Region reasonably exercised its discretion not to evaluate the need for Pio Pico and not to rely on a state agency’s analysis. *See* RTC at 72-74. Among other things, the Region correctly pointed out that it was not required to conduct an independent analysis of the need for the Facility in the context of the PSD permit proceeding. *Id.* at 73 (citing and relying on *Palmdale*, slip op. at 57, 15 E.A.D. at \_\_\_, and *Prairie State*, 13 E.A.D. at 32-33). The Region detailed the difficulties in performing such an analysis: “[I]n order to conduct a reasoned analysis to determine the need for new natural gas-fired power plants in general, or a specific natural gas-fired power plant in particular, either within the State as a whole, or in a particular geographic location within the State, EPA would need to consider a myriad of extremely complex factors and detailed information

that EPA has neither the resources nor the expertise to analyze.” *Id.* Significantly, the Region then concluded that, “[i]n this case, *EPA does not believe that it is appropriate to conduct the type of rigorous and robust analysis that would be required* to definitively determine the need for the Project.”<sup>12</sup> *Id.* (emphasis added). Moreover, with respect to the State of California’s assessment of need, the Region explicitly stated that it was “*not deferring in this case to any agency’s specific determination of need* for the [Facility].” *Id.* (emphasis added). The Region then noted that the commenter had not pointed “to any specific information related to any such determination that [it] should consider.”<sup>13</sup> *Id.*

On appeal, neither Mr. Simpson nor Sierra Club provide specific objections to the Region’s responses to comments that call into question the Region’s initial decision not to evaluate the need for the Facility, nor to rely on a state agency’s analysis. Sierra Club does not address the Region’s responses to comments at all, and Mr. Simpson merely asserts, without more, that the Region’s factual determinations are “misplaced.” As stated in Part III, a petitioner must explain *why* the permit issuer’s response to petitioner’s comments during the comment period is clearly erroneous or otherwise warrants Board consideration. Mr. Simpson’s conclusory assertion is insufficient to call into question the Region’s conclusion, which is a matter clearly within the Region’s discretion. *See, e.g., Russell City*, slip op. at 99-100 (declining to find abuse of discretion where petitioner’s claims “boil down to conclusory assertions of error”); *In re BP Cherry Point*, 12 E.A.D. 209, 228 (EAB 2005) (denying review where petitioner “does not argue with any specificity” why the permit

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<sup>12</sup> The Region did note that the power purchase agreement with SDG&E suggests there is “need” for the Facility, but the Region *did not rely* upon this fact in its analysis. *See* RTC at 73.

<sup>13</sup> On appeal, Mr. Simpson disputes this last statement, contending that he did submit several documents with “specific information” supporting his assertion of the lack of need for the project: a document he had previously submitted to the CPUC, two scholarly articles by Mark Jacobsen, and Bill Powers’ testimony. Simpson Pet. at 3-4. As the Board holds below, the Region did not clearly err or abuse its discretion by not providing a detailed response to the series of forwarded e-mails and attachments Mr. Simpson submitted to the Region. *See infra* Part VIII.C.

issuer's conclusions were clearly erroneous); *In re Envotech, LP*, 6 E.A.D. 260, 268-69 (EAB 1996) (explaining Board's specificity requirement and dismissing petitions for lack of specificity).

The Region's conclusion that it had the discretion, but was not required, to conduct an independent analysis of the need for the Facility in the context of this PSD permit proceeding is entirely consistent with Board precedent interpreting the CAA. See *Palmdale*, slip op. at 57, 15 E.A.D. at \_\_; *Prairie State*, 13 E.A.D. at 32-34. In fact, the Board's observations in *Prairie State* are equally applicable here. In that case, the Board specifically rejected the contention "that a commenter can require a permit issuer to perform a rigorous analysis simply by raising the subject of 'need' in the public comments." *Prairie State*, 13 E.A.D. at 33. The Board explained that the permit issuer is only required to consider the analysis submitted by the commenter – and may choose to engage in additional analysis "as it sees fit" – as long as the permit issuer's response to public comments is "sufficient to 'demonstrate that all significant comments were considered.'" *Id.* (quoting *In re NE Hub Partners, LP*, 7 E.A.D. 561, 583 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999)). Here, the Region responded to comments on the issue, but declined to engage in additional analysis. That is all that is required. Accordingly, for these reasons, the Board concludes that Petitioners have not met their burden of demonstrating that the Region abused its discretion in its initial "needs" determination.

Mr. Simpson and Sierra Club also argue on appeal that the CPUC's recent decision affects the Region's needs analysis for the Facility sufficiently enough to require a remand for the Region to reconsider its analysis and to reconsider the permit. Petitioners miss the point of the Region's needs analysis, however. Because the Region did not rely on the State of California agency's determination of need, new information about CPUC's opinions on the "need" for the Facility does

not affect the Region's assessment.<sup>14</sup> This decision, as well as the Region's decision not to rely on the state's assessment, are both squarely within the Region's discretion, and neither party has demonstrated that the Region abused its discretion in making those decisions.<sup>15</sup>

B. *The Region Did Not Abuse Its Discretion in Allowing One Commenter Additional Time to Submit Late Comments on the Region's Environmental Justice ("EJ") Analysis*

The Board next examines Mr. Simpson's challenge to the Region's decision to allow late comments from one commenter. The public comment period for the proposed permit began on June 20, 2012, and was scheduled to close on July 24, 2012. RTC at 2. On July 24, 2012, Mr. Robert Sarvey informed the Region that he had not received

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<sup>14</sup> Interestingly, the facts the parties reported suggest that SDG&E disagrees with CPUC's conclusion on the need for the Facility. As noted in Part VIII.E.5, *infra*, SDG&E is planning to purchase power from the Facility using short-term contracts. In addition, Pio Pico has averred that it will build the plant and sell the power in the open market if SDG&E does not purchase it. Pio Pico's Supplemental Brief in Response to Board Order at 2.

<sup>15</sup> Petitioners' arguments concerning the state agency's needs assessment may arise from a misreading of the Board's case law. In several early cases where petitioners challenged a permitting authority's reliance on a state agency analysis of "need," the Board and its predecessors explained that it was permissible for a permitting authority to rely on mechanisms within the relevant state to evaluate the need for a facility, rather than conducting its own needs assessment. *E.g., In re EcoEléctrica, LP*, 7 E.A.D. 56, 74 (EAB 1997) (holding that it was not clear error for the permit issuer to defer to the state agency tasked with the responsibility to consider need for the facility); *In re Ky. Utils. Co.*, PSD Appeal No. 82-5, at 2 (Adm'r Dec. 21, 1982) (same), *available at* 1982 EPA App. LEXIS 17, at \*2-3; *see also Palmdale*, slip op. at 58, 15 E.A.D. at \_\_\_ (relying on mechanisms within the State to evaluate the need for the facility); *Prairie State*, 13 E.A.D. at 34 (concluding that it was "appropriate for the PSD permitting authority to take into account a state legislature's decision to deregulate the electric power generation industry" in declining to exercise its discretion to engage in a broad needs analysis). Thus, while the Region had the discretion to rely on the analysis of state authorities in discussing the need for the Facility – which it declined to do in this case – it is not required to do so.

the proposed permit's public notice as he had requested,<sup>16</sup> and he asked that the Region extend the public comment period for another month. *Id.* at 44. In evaluating Mr. Sarvey's request, the Region discovered that because of a discrepancy in its public notice distribution list, several persons had not received the required notice. *Id.* Accordingly, the Region decided to extend the public comment period for another forty-three days, until September 5, 2012. *Id.*

On September 6, 2012, a day after the extended public comment period closed, Mr. Sarvey notified the Region by e-mail that he had not received a copy of the Region's EJ Analysis,<sup>17</sup> a document he had previously requested on July 24. *Id.* The Region responded to Mr. Sarvey, explaining that the EJ Analysis had been available in the electronic docket for the proposed permit, on [www.regulations.gov](http://www.regulations.gov), since the beginning of the public comment period, but because the Region had not directly responded to his specific request, the Region would provide him a copy that day and "extend" to him two additional weeks to comment on the EJ Analysis. *Id.* at 2 n.2, 44. The Region emphasized to Mr. Sarvey that it was not "extending" the public comment period to the general public. *Id.* at 44.

Mr. Simpson, who had requested an extension of the original public comment period (that the Region ultimately granted after

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<sup>16</sup> The regulations governing public notice of permit actions and public comment periods require that the permit issuer notify by mail those who request in writing to be on a mailing list. 40 C.F.R. § 124.10(c)(1)(ix).

<sup>17</sup> Executive Order 12898 ("EO 12898" or "Executive Order"), entitled Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs each federal agency to incorporate environmental justice as part of the agency's mission "by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Exec. Order No. 12898 §1-101, 59 Fed. Reg. 7629 (Feb. 16, 1994). EPA evaluates the potential impacts of proposed agency actions on minority and low income populations in an environmental justice analysis or report.

discovering a problem with its public notice distribution list)<sup>18</sup> takes issue with the two weeks granted to Mr. Sarvey to submit late comment on the EJ Analysis and claims that he was prejudiced by the Region's action.<sup>19</sup> Mr. Simpson does not specify how he or the general public were harmed or prejudiced by the Region's action. Significantly, neither he nor any of the other commenters, except for Mr. Sarvey, commented on the EJ Analysis.

Mr. Simpson requests on appeal that the public comment period be reopened for the general public. It is unclear, however, whether Mr. Simpson is requesting a limited public comment period to focus on the EJ Analysis, or a broader opportunity to comment on the entire permit.

In this case, the Region characterized the two-week period granted to Mr. Sarvey as an "extension," which Mr. Simpson has interpreted as an extension of the public comment period. Despite the Region's characterization, the Board does not interpret the time granted

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<sup>18</sup> In July 2012, Mr. Simpson requested an extension of the public comment period to allow the related state and local level proceedings to take place before the PSD permit proceedings at EPA. *See* Simpson Cmt. at 1; RTC at 68. In its response to comments, the Region explains that, in an e-mail dated July 26, 2012, it notified Mr. Simpson and his attorney that the comment period would be extended until September 5, 2012, and rejected his request for any further delay to allow other proceedings to take place. RTC at 70.

<sup>19</sup> Specifically Mr. Simpson stated:

The EPA further prejudiced me when it extended an exclusive comment period to another member of the public. The EPA cannot pick and choose who it opens its comment periods to. I am a member of the public and I require the same rights as other US citizens. The EPA admitted giving preference to another commenter; "EPA was extending to him two additional weeks (until September 20, 2012) to comment only on the EJ Analysis for the Proposed Permit. EPA noted that it was not extending the public comment period for the Proposed Permit for the [Facility] generally." RTC 44. I require a reopening of the comment period for all members of the public.

*See* Simpson Pet. at 3.

to Mr. Sarvey to be an extension of the public comment period, but rather an inartfully worded decision by the Region to accept late comments from one commenter on one issue. The public comment period had already closed at the time Mr. Sarvey contacted the Region. By allowing Mr. Sarvey two additional weeks for submittal of comments on the EJ Analysis, the Region apparently was neither purporting to extend nor to reopen the public comment period. *See In re Bear Lake Properties Inc.*, UIC Appeal No. 11-03, slip op. 22-23 (EAB June 28, 2012), 15 E.A.D. \_\_ (concluding that acceptance of late-filed comments does not result in a reopening of the comment period); *In re Weber #4-8*, 11 E.A.D. 241, 243 n.2 (EAB 2003) (noting that simply by responding to late comments the permit issuer did not reopen the comment period).

As a general matter, permit issuers possess inherent authority and discretion to accept late comments in a permit proceeding and are not required to reopen the public comment period when exercising such discretion. *In re Upper Blackstone Water Pollution Abatement Dist.*, NPDES Appeal Nos. 10-09 through 10-12, slip op. at 22 (EAB Mar. 30, 2011), 15 E.A.D. \_\_ (“The Region has the discretionary authority to consider and rely upon information, including comments, received after the close of public comment and is not required to reopen the public comment period except where the Region determines in its discretion that the new information it relies upon raises substantial new questions.”), *aff’d*, Nos. 11-1474 & 11-1610 (1st Cir. Aug. 3, 2012), *cert. denied*, 133 S. Ct. 2382 (May 13, 2013); *Bear Lake*, slip op. at 22-23, 15 E.A.D. at \_\_ (finding no clear error in the permit issuer’s acceptance of late-filed comments); *In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 519 (EAB 2006) (recognizing permit issuer’s discretion to accept late-filed comments before permit issuance); *Weber #4-8*, 11 E.A.D. at 243 n.2 (“[A]s a matter of good government, the Region should retain the flexibility to freely respond to citizens’ concerns, even those belatedly raised, without impairing the efficiency and finality of the permitting process.”); *Steel Dynamics II*, 9 E.A.D. at 194 & n.32 (permit issuer considered and responded to late-filed comment). The permit issuer, however, must exercise such discretion in a way that is not an abuse of this authority. For example, a permit issuer cannot accept late comments from one commenter and reject them from another who,

for similar reasons and at the same time, requests that the permit issuer consider his or her late comments. This, however, is not the case here. The record before the Board does not reflect that other commenters sought additional time to file comments, either generally on the draft permit or specifically on the EJ Analysis, following the Region's extension of the original public comment period, or at the same time of Mr. Sarvey's request to submit late comments on the EJ Analysis.

Here, the Region was trying to correct an oversight and be fair to Mr. Sarvey. Mr. Sarvey had specifically asked the Region for a copy of the EJ Analysis, and the Region did not directly respond to that request. In this unusual context, the decision to accept late comments from Mr. Sarvey on the EJ Analysis appears to be justified and does not strike the Board as an abuse of discretion.<sup>20</sup> Given the time-sensitive nature of PSD permitting decisions, the Board can understand the Region's reluctance to invite comments on the EJ Analysis from the general public when no other commenters had made such a request<sup>21</sup> or approached the Region with a situation similar to Mr. Sarvey's.

That being said, because of the confusing language the Region used to accept late comments, the Region should consider providing other members of the public the same two-week opportunity to submit late comments on the EJ Analysis as it gave Mr. Sarvey. As explained in more detail later in this decision, because the Board is separately remanding the permit on another issue to allow public comments, this might provide an opportunity to allow additional late comments on the EJ Analysis. In the future, the Region should exercise care when using terms of art such as "extend" or "reopen" and should avoid using such terms to describe its intent to accept late comments, unless it intends to

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<sup>20</sup> This does not mean that the Region is obliged to provide individual information to each requestor when the requested information is already publicly available.

<sup>21</sup> As noted above, while Mr. Simpson had requested an extension of the public comment period, his was an early request sought before the closing of the original comment period, and the Region extended the original comment period until September 5, 2012.

follow the procedures in 40 C.F.R. § 124.10(c) and give all members of the public additional time to comment.<sup>22</sup>

*C. Mr. Simpson Has Not Demonstrated That the Region Clearly Erred or Abused Its Discretion by Not Providing a Detailed Response to the Series of Forwarded E-mails and Attachments He Submitted During the Public Comment Period*

Mr. Simpson alleges that the Region violated part 124 procedural requirements by failing to respond to several of his comments. Simpson Pet. at 1-5. He requests that the Board “remand the permit and instruct the [Region] to respond” to them. *Id.* at 3. The Region contends Mr. Simpson submitted a number of documents for which he failed to provide any specific explanation as to their relevance to the PSD permit under review or to the analyses the Region had prepared as part of the permit review process. Region Resp. at 9. The Region thus contends that it did not err or abuse its discretion in not providing a detailed response to those documents. *Id.* As explained below, the Board concludes that Mr. Simpson has failed to show that the Region clearly erred or abused its discretion by not providing detailed responses to the e-mails and attachments in question.

On July 18, 2012, Mr. Simpson submitted a two-page e-mail to the Region, which stated that “[t]his and the following e[-]mails, from me, constitute my opening comments and request for an extension of the public comment opportunity for the Pio Pico Proposed PSD permit.” Simpson Cmt. at 1. Mr. Simpson’s e-mail specifically asked the Region

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<sup>22</sup> If the Region intends to reopen or extend the public comment period for all interested persons, it would need to follow the procedures that govern reopening and extension of public comment periods. These procedures require the Region to provide public notice of the reopening or extension and give the general public an opportunity to comment. *See* 40 C.F.R. § 124.14(e) (“Public notice of any of the above actions shall be issued under § 124.10.”); *id.* § 124.14(a)(1) (“When the public comment period is reopened under [§ 124.14(a)(1)], all persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Regional Administrator’s tentative decision to \* \* \* prepare a draft permit is inappropriate, must submit all reasonably available factual grounds supporting their position”).

to extend the public comment period, take “official notice” of the California Energy Commission (“CEC”) Pio Pico proceedings and the Palmdale PSD permit proceeding, include all “notice lists” from the other CPUC and CEC proceedings, and revoke the San Diego County Air Pollution Control District’s (“SDAPCD” or “District”) authority. *Id.* at 1-2. The e-mail further argued that “there is no need for this project.” *Id.* at 1.

Shortly thereafter, Mr. Simpson sent the Region a series of seven “follow-up” e-mails. Each was entitled “Pio Pico PSD comments” and was consecutively numbered (i.e., 1 through 7). The body of each of the seven e-mails stated “attached please find my initial Pio Pico PSD comments Pio Pico PSD comments [sic],” followed by Mr. Simpson’s name, mailing address, and e-mail address. Three of these follow-up e-mails were forwarded e-mails that had originally been submitted by Mr. Simpson to Mr. Steve Moore, who, based on the e-mail address and content, appears to work for the SDAPCD. *See, e.g.*, E-mail from Rob Simpson, Exec. Dir., Helping Hand Tools, to Roger Kohn, U.S. EPA (July 18, 2012, 01:19 PDT) (originally addressed to “Steve.Moore@sdcounty.ca.gov”) (A.R. VI.15). The other four follow-up e-mails simply contained attachments below Mr. Simpson’s name and address, with no explanation of their relevance to the draft PSD permit. These attachments, among other things, included a 1979 Memorandum of Understanding between the CEC and the California Air Resources Board, Mr. Simpson’s comments on the SDAPCD’s Preliminary Determination of Compliance for Pio Pico Energy Center, the testimony of Mr. Bill Powers, and a San Diego Smart Energy 2020 study prepared by Mr. Powers.

In its response to comments document, the Region responded point by point to each of the issues Mr. Simpson specifically raised in his initial two-page e-mail. *See* RTC at 70-74. With respect to the follow-up e-mails, the Region stated:

The commenter also submitted a series of emails that contained miscellaneous attached documents. With the exception of one email that is the subject of this

response, the body of those emails did not contain any actual comments on EPA's Proposed Permit or Fact Sheet. The attachments do not contain any actual comments on EPA's Proposed Permit or Fact Sheet for [the Facility], nor has the commenter explained with any specificity the attachments' relevance to EPA's PSD permit decision. Therefore, EPA cannot provide a detailed response. EPA acknowledges the commenter's documents provided as attachments to his email transmittals and has included the attachments as part of the commenter's comments in the record for this action.

We also note that the commenter did not author any of the documents he submitted as attachments to those emails,<sup>[23]</sup> with the exception of two letters, both dated January 18, 2012, which were submitted by the commenter and his attorney to SDACPD. These comment letters were issued long before EPA issued the Proposed Permit and Fact Sheet in this action, and constitute comments on SDAPCD's Preliminary Determination of Compliance for the project. However, the letters do not address or comment on the Proposed Permit and Fact Sheet, nor has the commenter explained

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<sup>23</sup> The Region's observation that Mr. Simpson did not author several of the documents seems to imply that this was relevant to the Region's decision not to address them in detail. If this were the Region's position, the Board would have a concern with it. The fact that a commenter did not author a document, in and of itself, is irrelevant to its significance in a permitting proceeding. A commenter may submit studies, reports, or other documents prepared by others, and often does. *See, e.g., Dominion*, 12 E.A.D. at 574 & n.138, 576-78 & n.143, 145 (discussing scientific and economic studies prepared by other authors that the applicant submitted in support of its application). In its response to the petition, however, the Region clarifies its position, explaining that it had "mentioned the issue of the authorship of these documents in its RTC to illustrate the point that the documents were prepared by third parties in contexts other than the instant PSD permit proceeding and that their relevance to this proceeding was unclear." Region Resp. at 9 n.4. With this caveat, it does not appear that the Region misunderstood its obligation with respect to these documents.

with any specificity the letters' relevance to EPA's PSD permit decision. Accordingly, EPA cannot provide a detailed response to these letters.

RTC at 74. The Region listed the other miscellaneous documents and reports that Mr. Simpson had attached, noting that "[a]s with the letters commenting on SDAPCD's [Preliminary Determination of Compliance], the commenter has not explained with any specificity these documents' relevance to EPA's PSD permit decision, and therefore EPA cannot provide a detailed response." *Id.*

As noted in Part III, the Agency's permitting regulations require persons challenging a PSD permit condition to "raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period." 40 C.F.R. § 124.13. The regulations also require that the permit issuer "describe and respond to all *significant* comments on the draft permit." *Id.* § 124.17(a)(2) (emphasis added). In order to fully effectuate these provisions, parties submitting comments on draft permits must present their concerns with sufficient precision and specificity to apprise the permitting authorities of the significant issues so that the permit issuer can make timely and appropriate adjustments to its permit determination, or, if no adjustments are made, can explain why none are necessary in its response to comments. *In re Scituate Wastewater Treatment Plant*, 12 E.A.D. 708, 722 (EAB ); *see also In re Sutter Power Plant*, 8 E.A.D. 680, 687, 694 (EAB 1999); *In re RockGen Energy Ctr.*, 8 E.A.D. 536, 540, 547-48 (EAB 1999). As the Board explained in *In re Encogen Cogeneration Facility*, "[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." 8 E.A.D. 244, 250 (EAB 1999).

Importantly, the permitting authority's adjustments and explanations to comments form the basis for parties to appeal the permit decision. *See* 40 C.F.R. § 124.19(a). Consequently, "the accountability of the permit issuer for providing a full, meaningful response to comments is tempered by the commenter's own responsibility to convey

its thoughts clearly in the first instance.” *Scituate*, 12 E.A.D. at 722; *see also, e.g., Sutter*, 8 E.A.D. at 694 (noting that “authorities are not expected to be prescient in their understanding of vague or imprecise comments”); *RockGen*, 8 E.A.D. at 547-48 (“Absent such specificity, the permit issuer cannot meaningfully respond to comments.”). As the United States Court of Appeals for the District of Columbia Circuit has explained:

[T]he “dialogue” between administrative agencies and the public is a “two-way street.” Just as the “opportunity to comment is meaningless unless the agency responds to significant points raised by the public,” so too is the agency’s opportunity to *respond* to those comments meaningless unless the interested party clearly states its position.

*Northside Sanitary Landfill, Inc. v. Thomas*, 849 F.2d 1516, 1520 (D.C. Cir. 1988) (citations omitted), *cert. denied*, 489 U.S. 1078 (1989), *quoted in Scituate*, 12 E.A.D. at 722; *RockGen*, 8 E.A.D. at 548; *In re Spokane Reg’l Waste-to-Energy*, 2 E.A.D. 809, 816 (Adm’r 1989).

It is for this reason that, under the Agency’s permitting regulations, it is well settled that “permit issuers need not guess the meaning behind imprecise comments and are under no obligation to speculate about possible concerns that were not articulated in the comments.” *Scituate*, 12 E.A.D. at 723 (quotations and citations omitted). Accordingly, “[g]eneralized or vaguely enunciated concerns warrant no formal, particularized response and are not preserved for review on appeal.” *Id.* at 723; *accord Sutter*, 8 E.A.D. at 694; *RockGen*, 8 E.A.D. at 547-48; *Encogen*, 8 E.A.D. at 251 n.12 (where an “issue is raised only generically during the public comment period, the permit issuer is not required to provide more than a generic justification for its decision, and the petitioners cannot raise more specific concerns for the first time on appeal”); *cf. Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 394 (D.C. Cir. 1973) (stating in the rulemaking context that “comments must be significant enough to step over a threshold

requirement of materiality before any lack of agency response of consideration becomes of concern”), *cert. denied*, 417 U.S. 921 (1974).

Similarly, general references to documents in the record or to other PSD projects, with no explanation as to the relevance of those documents or projects to a PSD permit condition at issue, are insufficient to preserve that issue for review. *In re Maui Elec. Co.*, 8 E.A.D. 1, 8-12 (EAB 1998); *see also Steel Dynamics II*, 9 E.A.D. at 229 (declining to reach the merits of an issue where petitioner failed in its comments to identify specific *NSR Manual* language that provided the linchpin of its arguments on appeal); *cf. Northside*, 849 F.2d at 1519 (holding, in an analogous rulemaking context, that EPA’s failure to respond to specific issues the petitioner claims on appeal were presented in its comments was neither arbitrary nor capricious where petitioner had initially submitted 420 pages of documents but “made no attempt to specify *why* it considered those documents or anything in them relevant to the rulemaking procedure”). If a commenter provides little or no information or explanation about the applicability of a document, the permit issuer runs the risk of assuming that the commenter submitted or referred to the document to address a particular issue but then having the commenter on appeal claim it intended the document to be submitted for another reason. *See, e.g., Steel Dynamics II*, 9 E.A.D. at 229 n.71 (observing that, because petitioner had failed to point to the key language supporting its position in its comments on the draft permit, the permit issuer had construed the original comment differently).<sup>24</sup>

While the Board does not expect a pro se petitioner to comment in great detail on every referenced or submitted document, study, or report, the Board does expect a pro se petitioner to alert the permit issuer as to the relevance of a particular document to the specific permit

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<sup>24</sup> Based on such concerns, the Supreme Court has explained that “administrative proceedings should not be a game or forum to engage in unjustified obstructionism by making cryptic and obscure references to matters that ‘ought to be’ considered and then, after failing to do more to bring the matter to the agency’s attention, seeking to have that agency determination vacated on the ground that the agency failed to consider matters ‘forcefully presented.’” *Vt. Yankee Nuclear Power Co. v. NRDC*, 435 U.S. 519, 553-54 (1978).

condition petitioner is challenging. *See Sutter*, 8 E.A.D. at 694 (noting that raising issues on the draft permit with sufficient specificity is a “principle no less important in the context of petitioners not represented by counsel”); *In re Envotech, LP*, 6 E.A.D. 260, 268 (EAB 1996) (same); *cf. Northside*, 849 F.2d at 1519-20 (explaining that while petitioner did not have to comment “in great detail on every study,” it “should have assumed at least a modicum of responsibility for flagging the relevant issues which its documentary submissions presented”). Where an entire document is not relevant, it would be advisable for a petitioner to point to the section, paragraph, or provision of the document that is relevant to the permit condition petitioner is challenging. Importantly, if this were not the rule, commenters could inundate permit issuers with large quantities of seemingly irrelevant reports, studies, and other documents, thereby delaying the permit process for an inordinate length of time while the permit issuer struggled to determine each of the documents’ potential relevance to the draft permit.

In light of these principles, the Board has reviewed all of the e-mails and attachments Mr. Simpson submitted and concludes that the Region did not err or abuse its discretion in not responding individually to them. The relevance of the majority of Mr. Simpson’s attachments to the Region’s Fact Sheet and draft permit conditions is unclear and very few, if any, of the attachments appear related to the specific comments Mr. Simpson raised in his initial e-mail. Some documents appear irrelevant on their faces to the Region’s draft permit, such as the forwarded e-mail Mr. Simpson originally sent to San Diego questioning *San Diego’s* public comment process and requesting a comparison of San Diego’s process to several other entities’ processes, including EPA’s, and containing as an attachment a 1979 Memorandum of Understanding (“MOU”) between the CEC and the California Air Resources Board.<sup>25</sup>

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<sup>25</sup> The text of the forwarded e-mail, which is addressed to Mr. Moore, states:

The attached MOU is a part of my comments. Please identify why the District has a comment period, how commenting to the District could have a different effect than commenting with the CEC, EPA or CAR and how the public can affect the proposed permit with the

(continued...)

Likewise, without any real explanation tying the two together, a CPUC guidance document that sets forth standardized planning assumptions it requires for the filing of resource plans seems wholly irrelevant to the Region's permitting decision.<sup>26</sup> See E-mail from Rob Simpson, Exec. Dir., Helping Hand Tools, to Roger Kohn, U.S. EPA (July 18, 2012, 01:19 PDT) (attaching CPUC, *Standardized Planning Assumptions (Part I) for System Resource Plans* (filed Feb. 10, 2011)) (A.R. VI.15). Other documents, such as the Jacobson study and the AES Energy Storage presentation, appear generally relevant to greenhouse gas and/or energy storage issues, but their pertinence to the Pio Pico draft permit is not clear without any explanation. See Mark Z. Jacobson, *Enhancement of Local Air Pollution by Urban CO<sub>2</sub> Domes*, 44 *Envtl. Sci. Tech.* 2497 (2010); AES Energy Storage, *Energy Storage for Flexible Peaking Capacity* (June 2012); see also Bill Powers, *San Diego Smart Energy 2020, The 21st Century Alternative* (Oct. 2007) (report providing a range of potentially available clean and sustainable energy options for the San Diego region).

A few of the documents are related to the proposed Facility and thus their potential relationship to the PSD permitting process is a bit more apparent. These documents, however, challenge the SDAPCD's conclusions and preliminary permitting decision for Pio Pico, not the Region's PSD permitting decision. Two of the documents, in fact, were prepared and submitted prior to the issuance of the Region's Fact Sheet and draft permit and thus, based on their chronology, cannot explicitly

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<sup>25</sup>(...continued)

District as opposed to the CEC, EPA or CARB.

E-mail from Rob Simpson, Exec. Dir., Helping Hand Tools, to Roger Kohn, U.S. EPA (July 18, 2012, 01:20 PDT) (A.R. VI.20).

<sup>26</sup> The e-mail containing this document did state that "[t]his attachment supports a no project alternative as the project is not needed." E-mail from Rob Simpson, Exec. Dir., Helping Hand Tools, to Roger Kohn, U.S. EPA (July 18, 2012 1:19 PDT). Even with this statement, it is still not clear how the California guidance applies to EPA's permitting decision.

challenge conditions of the draft PSD permit.<sup>27</sup> See Letter from April Rose Sommer, Esq., to Steven Moore, SDAPCD (Jan. 18, 2012) (A.R. VI.26) (“Sommer SDAPCD Cmt.”); Letter from Rob Simpson to Steven Moore, SDAPCD (Jan. 18, 2012) (A.R. VI.23). Significantly, many of the comments do not appear to be even arguably relevant to the PSD permit’s conditions or even PSD permits. For example, in many of Mr. Simpson’s comments on the District’s preliminary determination of compliance, he cites to and questions specific statements the *District* made in its decision document. See, e.g., Letter from Rob Simpson to Steven Moore at 2-10 (Jan. 18, 2012). The other document challenges certain aspects of the District’s nonattainment permit, but different standards apply to that permit, such as “LAER” (lowest achievable emissions rate) and the requirement for emissions offsets. See, e.g.,

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<sup>27</sup> The other document, which is a copy of testimony presented to the CEC, was prepared during the comment period. See Rebuttal Testimony of Bill Powers, In the Matter of the Application for Certification for the Pio Pico Energy Center, State of California, Docket No. 11-AFC-01 (July 6, 2012). Its specified purpose was to challenge:

[a] failure of the CEC to follow the *Energy Action Plan* loading order in its analysis of alternatives to the proposed Pio Pico Energy Center; b) failure of CEC to conduct detailed analysis of rooftop solar as [an] alternative \* \* \* consistent with the CEC determination regarding rooftop solar in the 2009 denial of 100 MW Chula Vista Energy Upgrade Project (CVEUP); c) failure of CEC to determine solar resource availability in top 100 demand hours or to corroborate whether Pio Pico can assure 98+ percent availability; d) failure of CEC to evaluate low cost demand response alternatives to Pio Pico, including but not limited to Ice Bear thermal storage units used extensively by public utilities in Southern California; and e) the failure of CEC to establish that the ancillary services to be provided by Pio Pico cannot be met by peak load reduction measures ([discount rate], rooftop [photovoltaics]) or energy/thermal storage, or why the ancillary services issue eliminates rooftop solar from consideration in the case of Pio Pico but did not in the case of the CVEUP.

*Id.* at 2. None of these challenges refer to the Region’s PSD permitting decision. Thus, the document’s relevance to this PSD permit proceeding is unclear without some explanation by the commenter identifying how and what portion of the testimony relates to a PSD permit condition he is challenging.

Sommer SDAPCD Cmt. at 2, 5 (discussing applicability of CAA section 7503 to the District's permit, a provision of the Act that applies to nonattainment permits, not PSD permits); *compare NSR Manual* pt. I *with id.* pt. II; *see also id.* at G.1 (noting the different requirements between the two permit programs). While comments challenging one permit may be applicable to some degree to another permit, it is incumbent upon the commenter to explain what portion of his or her previous comment applies in the current PSD permitting context. Otherwise, it is left to the second permitting authority to guess which comments the commenter intends to apply to the second permitting decision. This should be the commenter's burden, not the permitting authority's.

Moreover, in this case, Mr. Simpson further confounded the issue by stating, in his two-page e-mail, that he had submitted comments to the SDAPCD, but that the District "failed to respond to my comments and issued their decision. I hereby submit the same comments regarding the Proposed PSD permit, in the following e-mail, and request that the EPA revoke the air districts [sic] authority for its failure." Simpson Cmt. at 1. These statements suggest he may have been forwarding the comments previously submitted to the District to the Region not to challenge the PSD Permit, but for another purpose altogether.

For all of the above-mentioned reasons, the Board concludes that Mr. Simpson has not demonstrated that the Region clearly erred or abused its discretion by not providing detailed responses to Mr. Simpson's follow-up e-mails and attachments.

*D. Helping Hand Tools Has Not Demonstrated That the Region Failed to Adequately Address Comments About Air Quality Impacts on Inmate Populations at Nearby Correctional Facilities*

The Board next addresses Helping Hand Tools' challenge to the Region's response to comments Mr. Sarvey raised. During the public comment period, Mr. Sarvey raised concerns about the air quality impact of the Pio Pico Facility on the nearby inmate population. Specifically, Mr. Sarvey claimed that "[EJ] considerations require onsite monitoring

for a period of time to collect the data to provide proper background concentrations to assess the air quality impact of the Pio Pico and the Otay Mesa Project[s] on the large inmate populations.” RTC at 65. In responding to this comment, the Region referred Mr. Sarvey to several other responses in its response to comments document, which addressed challenges to the location of the air quality monitors (responses 45 and 58) and comments about the scope of and the permit issuer’s obligations under EO 12898<sup>28</sup> (response 54) and the cumulative air quality impacts of the Pio Pico project (response 57). *See id.* (referring to responses 45, 54, 57 and 58). In addition, the Region explained that the PSD cumulative impact analyses that were performed for particulate matter less than 2.5 micrometers in diameter (“PM<sub>2.5</sub>”) and nitrogen dioxide (“NO<sub>2</sub>”) included emissions from the Otay Mesa Power Plant and that the Facility showed compliance with the applicable NAAQS. *Id.* at 66.

Helping Hand Tools challenges the adequacy of this response, arguing that “[n]one of the \* \* \* responses cited refer to on-site monitoring at the correctional facilities to address the Environmental Justice concerns.” Helping Hand Tools Pet. at 4. Therefore, Helping Hand Tools argues, the Region “did not adequately respond to [Mr. Sarvey’s] comment.”<sup>29</sup> *Id.*

The Board disagrees. In this case, the Region’s response to comments document addresses both the specific as well as related issues to the concern Mr. Sarvey raised. By referring Mr. Sarvey to other responses, the Region addressed the issue of the need for additional monitoring to determine background concentrations, as well as the Region’s obligation under EO 12898. While the Region’s response may not have specifically stated that EJ considerations in this case do not require monitoring at the correctional facilities, the response to comments document clearly explains why in this case additional

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<sup>28</sup> *See supra* note 17.

<sup>29</sup> Mr. Simpson raises a related but different issue in his petition, arguing that the Region failed to utilize the correct air quality monitor. Simpson Pet. at 8. The Board addresses Mr. Simpson’s argument later in this decision. *See infra* Part VIII.I.

monitoring is not required.<sup>30</sup> The Region's response to comments document explains: (1) why site-specific monitoring was not required, RTC at 37-44; (2) why the monitoring locations selected were adequately representative of background air quality in the area, *id.*; (3) why monitoring near the Donovan prison was not required, *id.* at 44; and (4) that data from Otay Mesa were evaluated in the cumulative impacts analysis and Otay Mesa Power Plant emissions were considered in the modeling analysis, *id.* at 55, 64-65.

The response to comments document also makes clear that the Region was fully aware of the nearby correctional facilities and of its obligations pursuant to EO 12898. *See* RTC at 56-63. The Region explained that it had "considered the demographic and other information concerning the populations at correctional facilities provided by the commenter[, and] \* \* \* the unique conditions, such as overcrowding,

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<sup>30</sup> Notably, Helping Hand Tools does not provide, and the Board has not found, any authority suggesting that EO 12898 mandates monitoring at the correctional facilities. As explained earlier in this decision, EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. *See supra* note 17. The Executive Order, however, does not dictate how federal agencies are to comply with such a mandate. Therefore, to suggest that EO 12898 *requires* onsite monitoring at the correctional facilities mischaracterizes the Executive Order's mandate.

The Executive Order does, however, impart considerable leeway to federal agencies in determining how to comply with the spirit and letter of the Executive Order. *Accord In re Avenal Power Ctr., LLC*, PSD Appeal Nos. 11-02 through 11-05, slip op. at 24 (EAB Aug. 18, 2011), 15 E.A.D. \_\_\_, *appeal docketed sub nom. Sierra Club v. EPA*, No. 11-73342 (9th Cir. Nov. 3, 2011). An examination of EPA's Plan EJ 2014, the Agency's roadmap for integrating EJ into its programs, policy and activities, also shows that permitting authorities have discretion to determine how to best implement the Executive Order's mandate. *See* U.S. EPA, Plan EJ 2014 Progress Report (Feb. 2013), available at <http://www.epa.gov/environmentaljustice/>; *see also* EPA Activities to Promote Environmental Justice in the Permit Application Process, 78 Fed. Reg. 27,220, 27,222 (May 9, 2013) (noting that each permit and community is different and that each EPA regional office has the insight and experience to develop strategies tailored to the particular communities and needs within the region). Nothing in EPA's Plan EJ 2014 suggests that the Region was required to conduct onsite monitoring at the correctional facilities before issuing the permit.

social vulnerability and health related issues, impacting the prison communities located near the proposed Project site.” *Id.* at 60. The Region also explained that the EJ Analysis determined that the modeled results of the NAAQS analysis indicate that proposed emissions of the pollutants regulated under the PSD permit for Pio Pico would not cause or contribute to a violation of the NAAQS. *Id.* at 59-60, 66.

NAAQS are standards designed to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly, with an adequate margin of safety,<sup>31</sup> and to protect public welfare, including protection against visibility impairment and damage to animals, crops, vegetation, and buildings.<sup>32</sup> Because NAAQS are health-based standards, the Agency often uses compliance with the NAAQS in the context of environmental justice as an indicator that Agency action will not result in disproportionately high and adverse human health or environmental effects on minority and low-income populations residing near a proposed facility.<sup>33</sup> In this case, the Region relied on the results of the NAAQS analysis to determine that monitoring at the correctional facilities was not necessary. Helping Hand Tools does not question this determination.<sup>34</sup>

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<sup>31</sup> These are known as “primary standards.” See CAA § 109(b)(1), 42 U.S.C. § 7409(b)(1).

<sup>32</sup> These are known as “secondary standards.” See CAA § 109(b)(2), 42 U.S.C. § 7409(b)(2).

<sup>33</sup> See, e.g., *Avenal Power*, slip op. at 22, 15 E.A.D. at \_\_; *Shell Offshore 2007*, 13 E.A.D. at 404-05 (EAB 2007); *Knauf II*, 9 E.A.D. at 16-17; *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417-18 (EAB 1997).

<sup>34</sup> The Region’s determination appears consistent with Agency practice. See *In re Shell Gulf of Mex. Inc.* (“*Shell Gulf of Mex. 2010*”), OCS Appeal No. 10-01 through 10-04, slip op. at 69-75 (EAB Dec. 30, 2010), 15 E.A.D. \_\_; *id.* at 74, 15 E.A.D. at \_\_ (“The Board relies on and defers to the Agency’s cumulative expertise when upholding a permit issuer’s environmental justice analysis based on a proposed facility’s compliance with the relevant NAAQS in a PSD appeal. In the context of an environmental justice analysis, compliance with the NAAQS is emblematic of achieving a level of public health protection that, based on the level of protection afforded by a  
(continued...)”)

In sum, it is clear from the response to comments document as a whole that the Region considered the air quality monitoring information already available to be sufficient to ensure that the nearby inmate communities will not experience disproportionately high and adverse human health or environmental effects from the Facility, and thus, determined that additional monitoring at the correctional facilities was unnecessary. *See* RTC at 55-62. The Board therefore concludes that the Region’s response to comments document adequately addresses Mr. Sarvey’s concerns about air quality impacts on inmate populations at nearby correctional facilities and that Helping Hand Tools has not demonstrated otherwise.<sup>35</sup>

E. *Petitioners Have Not Demonstrated That the Region Clearly Erred in Eliminating Combined-Cycle Gas Turbines in Step 2 of Its BACT Analysis for Greenhouse Gases (“GHGs”) or That the Issue Otherwise Warrants Review or Remand*

Using the *NSR Manual* to perform its BACT analysis for GHGs,<sup>36</sup> the Region eliminated combined cycle gas turbines from further BACT consideration at step 2. Fact Sheet & AAQIR at 15-17. The Region believed technical difficulties “would preclude successful deployment of a combined-cycle operation” at the Facility and thus concluded that the control technology would be “technically infeasible.” RTC at 27 (summarizing and explaining its initial determination); *accord*

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<sup>34</sup>(...continued)

primary NAAQS, demonstrates that minority or low-income populations will not experience disproportionately high and adverse human health or environmental effects due to exposure to relevant criteria pollutants.”). Therefore, absent a demonstration that the Region clearly erred in relying on the NAAQS, the Board will not second-guess the Region’s technical judgment.

<sup>35</sup> To the extent that Helping Hand Tools attempts to challenge the Region’s rationale for concluding that onsite monitoring at the correctional facilities was unnecessary, the petition falls short. Petitioner has failed to demonstrate why the Region’s response to comments is clearly erroneous.

<sup>36</sup> For a description of the *NSR Manual*’s top-down method for BACT, see *supra* Part VII.

Fact Sheet & AAQIR at 16-17. In *NSR Manual* parlance, the Region essentially concluded that combined-cycle technology was not technically feasible because the technology was not “applicable” to the Facility. *See* RTC at 27; *NSR Manual* at B.18.

Sierra Club and Mr. Simpson both challenge the Region’s decision to eliminate combined-cycle gas turbine technology from the GHG BACT analysis. Mr. Simpson generally questions the Region’s failure to select combined-cycle gas turbines as BACT. Simpson Pet. at 7-8.<sup>37</sup> Sierra Club specifically challenges the Region’s step 2 analysis, essentially questioning the definition of “source type” the Region used in its analysis. Sierra Club Pet. at 11, 13-18. Sierra Club also questions the basis for the Region’s selection of cold start<sup>38</sup> and ramp rates. *Id.* at 18. In response, the Region and Pio Pico contend that review of all these issues should be denied on procedural grounds. In particular, both argue that the Board should reject Mr. Simpson’s argument because he does not explain why the Region’s responses to comments on this issue were incorrect, Region Resp. at 22; Pio Pico Resp. at 14-15, and should similarly reject Sierra Club’s arguments because Sierra Club did not raise them in the comments it submitted on the draft permit, Region Resp. at 15-16; Pio Pico Resp. at 5.

On a somewhat different note, both petitioners also argue that the Region’s BACT analysis for GHGs should be remanded in light of the CPUC’s recent decision that essentially prohibits SDG&E from entering into a long-term purchase agreement with Pio Pico at this time.<sup>39</sup>

*See, e.g.,* Simpson Pet. at 7; Sierra Club’s Brief in Response to Supplemental Briefs (“Sierra Club Suppl. Br. in Resp. to Board Order”) at 5; Status Conf. Tr. at 42-43, 49-52, 54, 64. They claim that, because

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<sup>37</sup> The Board notes that Mr. Simpson did not number the pages in his petition. In referring to the page numbers in his petition, the Board considers “page one” to be the first page of the PDF version of the docketed document.

<sup>38</sup> “Cold starts” typically refers to startups that occur more than forty-eight hours after shutdown. *Russell City*, slip op. at 32 n.17, 15 E.A.D. at \_\_\_.

<sup>39</sup> For a more detailed description of the CPUC decision, *see supra* Part V.

the Region referred to SDG&E's 2009 Request for Offers ("RFO") and the power purchase agreement multiple times throughout the administrative record, the CPUC decision undermines the "foundational elements" of the Region's decision. *See, e.g.,* Sierra Club Suppl. Br. in Resp. to Board Order at 5.

As noted in Part III, a petitioner challenging an issue that is fundamentally technical in nature bears a particularly heavy burden because the Board generally defers to the permit issuer on questions of technical judgment. The Board has also stated, however, that BACT determinations, which are generally technical in nature, are one of the most critical elements in the PSD permitting process and thus should be well documented in the record. *In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 134 (EAB 2006); *In re Newmont Nev. Energy Inv., LLC*, 12 E.A.D. 429, 442 (EAB 2005); *Knauf I*, 8 E.A.D. at 131. In particular, "[a] permitting authority's decision to eliminate potential control options as a matter of technical infeasibility \* \* \* must be adequately explained and justified." *Knauf I*, 8 E.A.D. at 131; *see also In re Cardinal FG Co.*, 12 E.A.D. 153, 167 (EAB 2005) (explaining Board's standard of review for technical infeasibility); *In re Pennsauken Cnty., NJ, Resource Recovery Facility*, 2 E.A.D. 667, 672 (Adm'r 1988) (remanding PSD permit decision because the BACT analysis did not contain the level of detail and analysis necessary to show that a particular technology was technically or economically unachievable). Of particular relevance to the present issue, the Board has distinguished between two types of BACT cases: those in which the permit issuer failed to consider a control option and those where the option was considered but rejected. In cases where the permit issuer evaluated and rejected an alternative control option, "those favoring the option must show that the evidence 'for' the control option clearly outweighs the evidence 'against' its application." *In re Inter-Power of N.Y., Inc.*, 5 E.A.D. 130, 144 (EAB 1994); *accord Cardinal*, 12 E.A.D. at 167; *In re Three Mountain Power, LLC*, 10 E.A.D. 39, 50 (EAB 2001); *In re Maui Elec. Co.*, 8 E.A.D. 1, 15 (EAB 1998).

In light of this standard and the parties' arguments, the Board must resolve several subissues in deciding the overarching issue of

whether these two petitioners have demonstrated that the Region clearly erred in eliminating combined-cycle gas turbines in its BACT analysis for GHGs or that this issue otherwise warrants review or should be remanded. First, with respect to his general challenge to the elimination of combined-cycle gas turbines, has Mr. Simpson confronted the Region's responses to comments and explained why they were clearly erroneous? Second, has Sierra Club preserved any of its substantive issues for review? Third, on the issue of defining the "source type," which the Board will treat as preserved, has Sierra Club demonstrated that the Region defined "source type" too narrowly in step 2? Fourth, do the Region's references to the power purchase agreement and RFO in its BACT analysis necessitate a remand in light of the recent CPUC decision? After describing the Region's step 2 analysis, the Board considers the procedural issues before turning to the substantive issues.

#### 1. *The Region's Step 2 Analysis*

In step 2 of its BACT analysis for GHGs, the Region considered several factors in assessing the technical feasibility of combined-cycle gas turbine technology for the Facility. The Region first considered the type of facility (i.e., the source) that the applicant proposed to build. Throughout its Fact Sheet, the Region explained that the proposed facility is intended to be a peaking plant and/or intermediate load-shaping facility that provides up to 300 MW of power. Fact Sheet & AAQIR at 3 (300 MW "peaking"), 10 n.4 ("peaking and load shaping"), 16 ("peaking applications"), 18-19 ("peaking and load shaping"); *see also* RTC at 6 ("peaking"), 23 ("peaking"), 28 (citing the RFO's reference to the facility as a 300 MW "peaking and intermediate-class resource"). In characterizing the purpose and design of the proposed facility, the Region relied on statements made by Pio Pico in its application. *See, e.g.*, Fact Sheet & AAQIR at 4 n.10 (citing Application to the U.S. EPA for a Prevention of Significant Deterioration Permit, Pio Pico Energy Center, San Diego County, California, at 2.1 (rev'd Sept. 2011) (A.R. I.15) [hereinafter Revised Application] ); *see also* Revised Application at 2.2, 3.55 (noting that the Facility "is designed as a simple-cycle, peaking, and intermediate load"), 3.9. Both the Region and Pio Pico explained that the reason behind the facility's

purpose and design was “to directly satisfy the San Diego area demand for peaking and load-shaping generation, near and long term.” Revised Application at 2.1; *accord* Fact Sheet & AAQIR at 10 n.4.

The Region also emphasized that the project was intended to support renewable power generation. Fact Sheet & AAQIR at 10 n.4, 16. According to the Region, “[the Facility’s] capacity for frequent and fast turbine startups will provide necessary power to compensate for the intermittent nature of wind and solar generation, and thus will ultimately provide critical support for the growth of renewable energy sources in the area.” Fact Sheet & AAQIR at 10 n.4.

Based on these considerations, the Region stated in the Fact Sheet that “in order to satisfy its business purpose, the [Facility] must be able to offer units that: 1) are highly flexible and that can provide regulation during the morning and evening ramps, 2) can be repeatedly started and shut down as needed, and 3) can be brought online quickly, even under cold-start conditions.” Fact Sheet & AAQIR at 16; *accord id.* at 10 n.4. The Region then explained that “the complete startup time for a combined-cycle plant is typically longer than that of a *similarly-sized* simple cycle plant.” *Id.* at 16 (emphasis added). Thus, according to the Region, the simple-cycle turbines proposed for the Facility “can be dispatched from ‘cold iron’ to 300 MW in less than 30<sup>[40]</sup> minutes. By comparison, the most likely combined-cycle alternative in [General Electric Company’s (“GE’s”)] product offering – a 107FA power block – would be capable of providing at most 160 MW in approximately the same amount of time.” *Id.* (footnotes and references omitted). The Region further noted that, “[e]ven with fast-start technology, new combined-cycle units like the GE 7FA may require

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<sup>40</sup> According to Pio Pico, each turbine takes 10 minutes to reach full capacity and thus, if all three are started up at the same time, the three turbines should reach a combined load of 300 MW within 10 minutes, not 30. Pio Pico Resp. at 6 n.1. Consequently, the Region’s references to “30 minutes” are incorrect and should read “10 minutes.” *Id.* Because, for the purposes of the following analysis, it does not matter whether the turbines reach full capacity at 10 minutes or at 30 minutes – the time differential between 3½ hours and either 10 or 30 minutes is still significant – the Board will retain and use the Region’s references to 30 minutes in the remainder of the decision.

up to 3½ hours to achieve full load under some conditions. These longer startup times are incompatible with the purpose of the Project to provide quick response to changes in the supply and demand of electricity.” *Id.* at 17.

During the public comment period, several commenters questioned the Region’s conclusion that combined-cycle gas turbines would not be technically feasible for the proposed plant. *See, e.g.*, Letter from William Corcoran, Reg’l Dir., Sierra Club, to Roger Kohn, U.S. EPA, Region 9, at 2-5 (July 24, 2012) (A.R. VI-33) [hereinafter Sierra Club Cmt.]; E-mail from Robert Sarvey to Roger Kohn, U.S. EPA, attach. at 4-5 (July 24, 2012) (A.R. VI.36) [hereinafter Sarvey Cmt.]. Sierra Club raised two issues. It first argued that Pio Pico’s CEC application listed a different purpose than did the Region’s Fact Sheet. Sierra Club Cmt. at 3 (citing CEC Staff Report at 3-1). According to Sierra Club, the former document lists the purpose of the Facility as providing a “minimum of 100 megawatts (MW) of peaking and intermediate-class resources.” Sierra Club Cmt. at 3 (citing CEC Staff Report at 3-1). Sierra Club believed that, because the Region’s Fact Sheet stated that a 107FA power block combined-cycle plant could achieve quick start capacity of at least 160 MW, this technology should be considered in the Region’s BACT analysis and would meet the Facility’s purpose as described in the State application. *Id.* Second, Sierra Club contended that a combined-cycle gas turbine could be used if the Facility was “sufficiently sized so that it could produce 300 MW with the turbines alone in 30 minutes.” *Id.* at 4. In connection with this point, Sierra Club stated that, according to a study by Henkel, “with certain upgrades, a 400 MW [combined-cycle gas turbine] can reach full power within 40 minutes after a cold start.” *Id.* at 5. Another commenter, Mr. Sarvey, asserted that “modern combined cycle projects have start times that are similar to ‘simple cycle peaker plants’” and referred to certain units proposed for use at the Willow Pass Generating Station. Sarvey Cmt. at 4-5.

The Region addressed the commenters’ concerns and suggestions in the response to comments document. *See* RTC at 27-30, 52-54. Among other things, the Region reiterated and further explained

its conclusion regarding the technical feasibility of combined-cycle gas turbines, clearly indicating that it found the control technology to be “inapplicable”:

EPA disagrees with the commenter that combined cycle gas turbines are technically feasible for this project for the reasons explained in detail in our Fact Sheet. For example, EPA has long held that when assessing the technical feasibility of a control technology, it is appropriate to consider whether the technology may reasonably be deployed on, *or is applicable to*, the source type under consideration. Our Fact Sheet for the Proposed Permit clearly explained that the *longer startup times are not compatible with the operational characteristics of the proposed facility* and that these technical difficulties would preclude successful deployment of a combined cycle operation in this case.

RTC at 27 (emphasis added).

The Region next addressed Sierra Club’s comment regarding the project’s “purpose” as described in the CEC application. RTC at 28-29. The Region stated that “[i]n our view, the statement that the Project should include ‘a minimum of 100 megawatts’ merely specifies a *minimum* requirement.” *Id.* at 28 (emphasis added). The Region also specifically addressed Sierra Club’s suggestions about resizing the plant and using other potential configurations so that combined-cycle gas turbines could be used at the Facility. *Id.* at 29-30. The Region stated:

The commenter suggests, for example, that a combined cycle plant could be sized so that it is capable of producing 300 MW in the first 30 minutes without the aid of the [heat recovery steam generator] and steam generator. The commenter then suggests that once the [heat recovery steam generator] and steam generator are fully functional, the fuel supply could be scaled back. We find this notion to be ill-supported and

unpersuasive. To follow the commenter's suggestion would be to grossly oversize the facility and require the applicant to procure, construct, and maintain additional generating capacity that it may never use and that is inconsistent with the power purchase agreement that serves as the fundamental basis for the project. Furthermore, gas turbines (whether simple cycle or combined cycle) are much less efficient when operated at lower loads. The commenter has not demonstrated that a combined cycle plant that is larger than necessary but then operated at partial loads would be more efficient than this Project. We also note that the commenter has misrepresented what the Henkel report says. The report in fact states that with certain upgrades, a start-up time of less than 40 minutes is possible for a 400 MW combined cycle plant after an overnight shutdown. This describes hot start, not cold start conditions.

*Id.* at 30.

Finally, in response to comments referencing combined-cycle units at Willow Pass Generating Station, the Region stated that the information was unpersuasive because “[a] permit for this facility was never proposed or finalized, and we were recently notified by the Bay Area [Air Quality Management District] that the application for this facility has been cancelled.” *Id.* at 53. The Region further noted that the unit at issue “has a net generating capacity of 275 MW and it can operate down to a minimum load of 60 percent, or approximately 165 MW,” whereas the units proposed for Pio Pico “have a practical operating range down to 50 MW.” *Id.* at 53-54. The Region explained that, as it had discussed in its Fact Sheet, “it is a necessary element of the Project to operate over a wide range of loads and the unit suggested by the commenter is not capable of satisfying that objective.” *Id.* at 54.

2. *Mr. Simpson Failed to Confront the Region's Responses to Comments and Explain Why They Were Clearly Erroneous on His General Challenge to the Region's Elimination of Combined-Cycle Gas Turbines as BACT*

In his petition, Mr. Simpson generally challenges the Region's BACT analysis for GHGs, asserting that the Region "should have required a combined-cycle configuration as BACT."<sup>41</sup> Simpson Pet. at 8. Mr. Simpson, however, fails to address the Region's responses to comments on these same issues or explain why the Region's explanations were clearly erroneous. He merely recites statements from the response to comments document. *See id.* at 7-8 (quoting RTC at 53-54). Furthermore, contrary to Mr. Simpson's implication, *see id.* at 7, the Region did in fact "address" the relevant "factors" that led it to select single-cycle over combined-cycle gas turbines. *See* RTC at 27-30, 53-54; *see also infra* Part VIII.E.1 (summarizing and discussing the Region's analysis).

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<sup>41</sup> Mr. Simpson additionally asserts that the Region "ignored [his] comments on the matter." Simpson Pet. at 8. He does not, however, indicate what specific comments the Region allegedly ignored or where he raised such comments. Upon review of Mr. Simpson's two-page comment letter, the Board is unable to locate any comment that is related to the Region's BACT analysis for GHGs. *See generally* Simpson Cmt. at 1-2. As discussed in Part VIII.C, Mr. Simpson submitted a number of reports, studies, and other documents to the Region as attachments to a series of e-mails, but failed to include any explanation or argument as to those documents' relevance to these PSD proceedings. Insofar as Mr. Simpson may be claiming that there is something within those documents that he intended as a comment on the Region's BACT and/or GHG analysis, the Board has already determined that the Region did not clearly err or abuse its discretion by not providing a detailed response to those particular comments. Because it is *Petitioner's* burden on appeal to demonstrate that Board review of an issue is warranted, without specific reference to or evidence of an allegedly "ignored" BACT/GHG comment, the Board is unpersuaded that the Region erred in ignoring such a comment. Furthermore, as Mr. Simpson himself points out in connection with this argument, the Region did "repl[y] to another commenter" on this issue. Simpson Pet. at 7-8 (quoting the Region's summary of the other comment and part of the Region's response to it). The Region is not required "to respond to each comment in an individualized manner." *In re NE Hub Partners, LP*, 7 E.A.D. 561, 583 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999). It is only required to respond to all significant comments, *see id.*, which it did regarding this issue. *See* RTC at 27-30, 53-54. For these reasons, review of this issue is denied.

As the Board has explained on many occasions, petitioners must describe each objection they are raising and explain *why* the permit issuer's response to petitioners' comments during the comment period is clearly erroneous or otherwise warrants consideration. *E.g., In re City of Palmdale*, PSD Appeal No. 11-07, slip op. at 32-34 (EAB Sept. 17, 2012), 15 E.A.D. \_\_\_, *appeal docketed sub nom. Simpson v. EPA*, No. 12-74124 (9th Cir. Dec. 18, 2012); *In re Deseret Power Elect. Coop.*, PSD Appeal No. 07-03, slip op. at 20 (EAB Nov. 13, 2008), 14 E.A.D. \_\_\_; *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 33 (EAB 2005); *In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 143, 170 (EAB 2006) (“[A] petitioner’s failure to address the permit issuer’s response to comments is fatal to its request for review.”); *see also supra* Part III. Here, Mr. Simpson has failed to do so. Merely disagreeing with the Region’s conclusion and alleging error is insufficient to overcome his burden of demonstrating that the Region clearly erred and therefore review is warranted, especially in this case where the Region provided a lengthy discussion of its rationale. *See, e.g., Russell City*, slip op. at 91-92, 15 E.A.D. at \_\_\_; *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 404 (EAB 1997) (“General allegations of error, without a more specific showing \* \* \*, are not sufficient to obtain Board review.”).

Moreover, as noted above, where an alternative control option has been evaluated and rejected, those favoring the option must show that the evidence “for” the control option clearly outweighs the evidence “against” its application. *See supra* Part VIII.E; *see also infra* discussion Part VIII. E.4.b. By neglecting to address the Region’s analysis whatsoever, Mr. Simpson has also failed to demonstrate that the evidence for combined-cycle gas turbines clearly outweighs the evidence against its application. *See Maui Elec.*, 8 E.A.D. at 15 (denying review where petitioner failed to discuss the permit issuer’s response to comments explaining why it rejected a control technology and thus failed to demonstrate why its evidence clearly outweighed the permit issuer’s evidence). For these reasons, the Board denies review of Mr. Simpson’s generalized claims regarding the Region’s elimination of combined-cycle gas turbines from its BACT analysis for greenhouse gases.

3. *Sierra Club Has Preserved One of Its Substantive Issues for Review*

Sierra Club challenges the substance of the Region's step 2 GHG BACT analysis on two primary grounds. Sierra Club first contends that the Region improperly defined "source type" for purposes of the technical feasibility analysis "based on design-specific attributes of its preferred production process, to the exclusion of cleaner production processes." Sierra Club Pet. at 11. According to Sierra Club, if the Region had properly defined "source type," the Region would have concluded that combined-cycle gas turbines are "demonstrated" within the meaning of the step 2 analysis and thus would not have eliminated the technology at that step. *Id.* at 15-16.

Within this section of its brief, Sierra Club also questions the basis for the startup and ramp rates the Region used in its analysis. Sierra Club claims that, although the Region states that the production process must achieve a startup rate of 100 MW in 10 minutes and 300 MW in 30 minutes, "nothing in the record specifies this particular rate." *Id.* at 18. Thus, according to Sierra Club, the rates are "not based on any record evidence" but instead on "vague, generalized, narrative descriptions" of the Facility's operating parameters, which it believes to be inappropriate in the BACT context.

As explained in Part III, in order for an issue to be preserved for purposes of administrative review, it must have been raised before the permitting authority during the public comment period (including any public hearings), unless the issue was not reasonably ascertainable during the comment period. On occasion, where the permit issuer's reasoning on an issue was not clearly ascertainable from the record at the draft permit stage but was later clarified following the close of the comment period (for example, in the response to comments document or during the appeal process), the Board has considered the issue on appeal, concluding that such issue had not truly been "reasonably ascertainable." *See, e.g., In re Prairie State Generating Co.*, 13 E.A.D. 1, 45 n.41 (EAB 2006) ("Because [the permit issuer]'s analysis explaining why it was rejecting [the control option] was not provided in the record prior to

the public comment period, but instead was provided for the first time in response to comments, [the permit issuer]’s reasoning was not ascertainable before the close of public comment and may be challenged for the first time on appeal.”), *aff’d sub nom. Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007); *In re Campo Landfill Project*, 6 E.A.D. 505, 517-19 (EAB 1996) (considering issue that became clear in the permit issuer’s response to the petition, but “was not so clear as to be ‘reasonably ascertainable’ during the public comment period”).

Sierra Club raised two issues about the Region’s technical feasibility analysis in its comments on the draft permit, first pointing to differences between the “purpose” listed in Pio Pico’s CEC application and the purpose noted in the Region’s Fact Sheet, and second asserting that combined-cycle gas turbines could be feasible if the proposed facility was sized substantially larger. Sierra Club Cmt. at 3-5. Sierra Club did not, however, clearly raise the question of the appropriate “source type” definition that should be used in a step 2 BACT analysis, nor did it question the basis for the Region’s startup and ramp rates. These issues, therefore, are potentially procedurally barred.<sup>42</sup>

Nonetheless, the Board will consider the substance of the first issue – the Region’s definition of “source type” – below. This particular issue is arguably a natural progression from the comments Sierra Club did raise concerning step 2 of the Region’s greenhouse gas BACT analysis and the Region’s responses to those comments. *See, e.g., In re Cape Wind Assoc.*, OCS Appeal No. 11-01, slip op. at 12 (EAB May 20, 2011), 15 E.A.D. \_\_\_ (explaining that the appropriate time to question information the permit issuer added to the administrative record in response to public comments is in an appeal to the Board); *In re NE Hub Partners, LP*, 7 E.A.D. 561, 587 n.14 (EAB 1998) (same), *review denied sub. nom Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999). It appears that Sierra Club may have recognized from the Region’s responses to comments that the real dispute between the parties related to the differing interpretations of “source type” within the BACT step 2

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<sup>42</sup> In its reply, Sierra Club did not respond to the Region’s contention that the Board should deny review of these claims on procedural grounds.

analysis. It was not until the Region's responses to comments that it became clear that the Region had determined that the technology was technically infeasible under step 2 because the Region had found it to be "inapplicable." *See* RTC at 27 (using the term "applicable" as well as stating that technical difficulties would preclude the "successful deployment" of a combined-cycle operation, a term that is typically used in an "applicability" assessment). It also became clearer in the response to comments document that the Region's conclusion was significantly influenced by the 300 MW design element: the Region's listing of key operational factors in the Fact Sheet did not include the size of the facility *per se*, *see* Fact Sheet & AAQIR at 16 (listing three factors), but in its responses to comments, the Region emphasized the importance of the Facility's 300 MW power output to a much greater degree, *see, e.g.*, RTC at 28-30. On the other hand, Sierra Club did mention the 300 MW in the comments it submitted, suggesting its awareness that size affected the Region's decisionmaking.

Moreover, not only is the issue Petitioner raises here – the proper definition of "source type" within the meaning of step 2 of a BACT analysis – an issue of first impression before the Board, it is also a critical question that, in certain cases, can affect the entire BACT determination. If permitting authorities define "source type" too narrowly, this practice could lead to the elimination of technologies that should have been selected as "[t]he most effective control option" in step 5. *NSR Manual* at B.9. Given the importance of this key interpretive issue, the Board will resolve any ambiguity as to whether this issue was reasonably ascertainable in favor of the petitioner. *See Campo*, 6 E.A.D. at 519. Accordingly, the Board declines to deny review of this issue on procedural grounds as the Region requests and will address the substance of the issue in the next section.

The Board does, however, conclude that Sierra Club failed to preserve its challenge to the particular cold start and ramp rates upon which the Region relies. The statements Sierra Club questions are contained in the Region's Fact Sheet, but Sierra Club did not object to the selected rates during the comment period. *See* Sierra Club Cmt. at 2-5. Sierra Club, in fact, referred to the 30 minute/300 MW requirement

in its comments, but did not challenge the basis of those selected numbers. *See id.* at 4. Because this issue was reasonably ascertainable and Sierra Club failed to raise it during the comment period, Sierra Club failed to preserve the issue for review, and thus may not raise it now. Accordingly, the Board declines review of this latter issue.

4. *Sierra Club Has Not Demonstrated That the Region Defined “Source Type” Too Narrowly in Step 2*

a. *NSR Manual Step 2: Question of Technical Feasibility*

In step 2 of the *NSR Manual*'s “top-down” BACT analysis, permit issuers eliminate “technically infeasible” options from the potentially available control options identified in step 1. *NSR Manual* at B.7. Step 2 involves first determining for each technology whether it is “demonstrated,” or in other words, whether it has been “installed and operated successfully on the type of source under review.” *Id.* at B.17. If a technology has not been “demonstrated,” the analysis becomes “somewhat more involved,” requiring a determination of whether the technology is both “available” and “applicable.” *Id.*

An “available” technology is one that “can be obtained through commercial channels or is otherwise available within the common sense meaning of the term.” *Id.* An “applicable” technology is one that “can reasonably be installed and operated on the source type under consideration.” *Id.* Thus, a commercially available control technology will generally be presumed applicable “if it has been or is soon to be deployed (e.g., is specified in a permit) on the same or a similar source type.” *Id.* at B.18. On the other hand, “[a] showing of unresolvable technical difficulty with applying the control would constitute a showing of technical infeasibility (e.g., *size of the unit*, location of the proposed site, and *operating problems related to specific circumstances of the source*).” *Id.* at B.19 (emphasis added). Technical infeasibility is typically demonstrated based on “a technical assessment considering physical, chemical and engineering principles \* \* \* showing that the technology would not work on the emissions unit under review, or that unresolvable technical difficulties would preclude the successful

deployment of the technique.” *Id.* at B.20; *see also Indeck*, 13 E.A.D. at 134 (“A technology is applicable only if it can be ‘reasonably installed and operated on the source type under consideration,’ in light of how the particular control option has been used in the past and how that past use compares to the proposed project.” (quoting *NSR Manual* at B.17)). Notably, the *NSR Manual* provides that “[t]echnical judgment on the part of the applicant and the review authority is to be exercised in determining whether a control alternative is applicable to the source type under consideration.” *NSR Manual* at B.18.

Technologies identified in step 1 as “potentially” available, but that are neither “demonstrated” nor found after careful review to be both “available” and “applicable,” are eliminated under step 2 from further BACT analysis. *See id.* at B.7, B.17-B.21.

b. *The Region’s Step 2 Analysis Was Consistent With the NSR Manual and Board Case Law*

In its petition, Sierra Club challenges the Region’s technical feasibility analysis on the ground that the Region improperly “rejected the combined-cycle production process because it determined that the assumed startup times of the particular technology [Pio Pico] selected to meet SDG&E’s 2009 RFO defined the ‘source type’ within the meaning of a Step 2 analysis.” Sierra Club Pet. at 14. According to Sierra Club, “‘source type’ refers to a general category of emissions sources, not to specific design elements of a specific proposed facility.” *Id.* Sierra Club further asserts that, by relying on the RFO, “the Region is doing in Step 2 of the BACT analysis what it is prohibited from doing in Step 1 – eliminating a control technology by narrowly defining the purpose of the project to preclude the use of applicable control technologies.”<sup>43</sup> *Id.*

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<sup>43</sup> Pio Pico seems to interpret this and other similar statements to mean that Sierra Club is arguing that “the Region erred by finding a combined cycle plant to be technologically infeasible under Step 2 of its BACT analysis instead of under Step 1 of the analysis.” Pio Pico Resp. at 5; *accord id.* at 9. The Board does not read Sierra Club’s petition to raise this issue, which would be inconsistent with its overarching position that the BACT emission limits for GHGs at the Facility should be based on combined-cycle

(continued...)

In essence, Sierra Club is claiming that the Region defined “source type” too narrowly in step 2 and, in doing so, improperly concluded that the technology was not “demonstrated.” For the following reasons, Sierra Club’s arguments are insufficient to show that the Region clearly erred in its definition of “source type” and in its technical feasibility analysis.

Here, in order for the Region to have determined that combined-cycle gas turbines are “inapplicable” to the “source type” in question, the Region must first have concluded that combined-cycle gas turbines have not been installed or operated successfully (i.e., are not “demonstrated”) on the “type of source” under review. *NSR Manual* at B.17. Sierra Club asserts that such a conclusion is erroneous because “[h]undreds of such facilities exist in the United States.” *Sierra Club Pet.* at 16. The Board presumes that Sierra Club is largely referring to the technology’s use in base load and/or intermediate-only load facilities, for which this statement would be true.<sup>44</sup> Based on this statement, Sierra Club intimates that “source type” should include all gas-fired electric generating plants.

Sierra Club further asserts that, in order for the Region to have come to its “demonstration” conclusion, it must have defined “source type” to include only the “qualities specific to [the Facility].” *See id.* at 15-16. Sierra Club argues that this approach is erroneous based on the dictionary definition of “type,” which “refers to a group, category, or class and not to a particular applicant or a particular facility’s unique design elements.” *Id.* at 15 (citing Merriam-Webster’s Collegiate Edition 1354 (11th ed. 2003) (referring to the fourth listed definition)). Sierra Club also points to language in the *NSR Manual* that suggests

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<sup>43</sup>(...continued)  
gas turbines.

<sup>44</sup> On appeal, none of the parties have pointed to anything in the administrative record suggesting that this technology has been used in a similar peaking and or peaking/intermediate-class facility. Although one commenter cited a facility where the technology had allegedly been proposed for use, upon investigation, the Region determined that the permit in question had never been proposed or finalized. *RTC* at 53. The Region properly discounted Willow Creek’s alleged usage of combined-cycle technology as “demonstrated.” *Id.* at 53-54; *see NSR Manual* at B.17.

“‘source type’ is distinct from a particular source because it looks to similar facilities with similar physical and chemical emission characteristics and not to the specific qualities of the particular design put forward by the applicant.” *Id.* (citing *NSR Manual* at B.18).

The Board agrees with Sierra Club’s general contention that, under the language of the *NSR Manual*, “source type” refers to a category or class, and not a specific design. *Id.* at 15. This does not, however, mean that the category must be as broad as Sierra Club implies. Moreover, the Board does not find that the Region construed “source type” in this case as narrowly as Sierra Club contends it did.

The administrative record clearly indicates that the Region did not consider all power plants to be the “source type” in its step 2 feasibility analysis. Instead, as described above, the Region defined the relevant “source type” as a peaking and load-shaping facility, one that could provide between 50 and 300 MW of power. *See* Fact Sheet & AAQIR at 1, 3, 10 n.4, 16-19; RTC at 28, 53; *see also* Region Resp. at 19 (stating that “the type of source under review is a peaking and load-shaping unit”).

The *NSR Manual* does not provide a definition of “source type” in the context of the step 2 analysis. The *NSR Manual*, however, does contain examples of BACT analyses suggesting that different operational characteristics of power plants can potentially distinguish them and place them into different “source type” categories for purposes of a BACT analysis. *See NSR Manual* at B.57-B.75. In illustrating how to perform a BACT analysis, the *NSR Manual* differentiates between three categories or “types” of stationary gas turbine projects: a simple-cycle gas turbine firing natural gas, a combined-cycle gas turbine firing natural gas, and a combined-cycle gas turbine firing distillate oil. *Id.* at B.57. While some of the technical points of these 1990 examples may be outdated, this set of examples demonstrates that the “source type” under consideration may include something less than all gas turbine facilities. *Id.* Additionally, these three examples indicate that a permitting authority may distinguish between types of electric generating plants and group them as different “source types” – for example, peaking,

intermediate, and base load facilities – when it determines that the significantly different operating scenarios of each type require such a distinction. The Region’s approach in this case, therefore, is generally consistent with these examples. Notably, Sierra Club’s definition of “source type” is seemingly so broad that it would *not* be consistent with these examples.

Not only is the Region’s analysis consistent with Agency guidance, but it is also consonant with Board caselaw discussing plants operating in different modes. The Board has noted that plants operating in “peaking mode” typically remain idle much of the time, but can be started up when power demand increases, i.e., at times of “peak” demand, and, unlike base load plants, typically use simple-cycle rather than combined-cycle units as well as smaller turbines. *E.g.*, *Russell City*, slip op. at 31 & n.16, 15 E.A.D. at \_\_\_; *In re Kendall New Century Dev.*, 11 E.A.D. 40, 50-52 (EAB 2003); *In re RockGen Energy Ctr.*, 8 E.A.D. 536, 537-38 (EAB 1999); *In re Commonwealth Chesapeake Corp.*, 6 E.A.D. 764, 766 n.3 (EAB 1997). Because of these differences, the Board has “recognized that it [is] appropriate for the permitting authority to distinguish between electric generating stations designed to function as ‘base load’ facilities and those designed to function as ‘peaking’ facilities, and that this distinction affects how the facility is designed and the pollutant emissions control equipment that can be effectively used by the facility.”<sup>45</sup> *In re Prairie State Generating Co.*, 13 E.A.D. 1, 25 (EAB 2006), *aff’d sub nom. Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007); *see also In re Maui Elec. Co.*, 8 E.A.D. 1, 16-22 (EAB 1998) (discussing key distinctions between three modes of operating combustion turbine generators – simple cycle, combined cycle, and cogeneration – and concluding that technology appropriate for one mode

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<sup>45</sup> While the statements in these cases were made in the context of step 1, *see, e.g., Prairie State*, 13 E.A.D. at 25; *Kendall*, 11 E.A.D. at 51-52 & n.14, there is no reason that these principles would not similarly apply to step 2 as well. The questions being addressed in both steps go to the definition of “source.”

may not be appropriate for another).<sup>46</sup> Similarly, it is not unreasonable for permitting authorities to distinguish between electric generating stations designed to function as peaking/intermediate load facilities and those designed to function as base load facilities or even intermediate-only load facilities.

Furthermore, in *In re Cardinal FG Co.*, a case similar to this one that dealt specifically with a step 2 technical feasibility analysis, the Board found no clear error where the permit issuer had defined “source type” to be a particular type of glass-producing facility that manufactured high-quality flat glass using a certain process. 12 E.A.D. 153, 164-66 (EAB 2005). There, the permit issuer had eliminated oxy-fuel from further consideration in the BACT analysis due to concerns regarding its technical feasibility at the glass-producing facility in question. *Id.* In particular, the permit issuer had concluded that the technology was neither “demonstrated” nor “applicable” to that particular type of glass-producing facility. *Id.* at 165-67. The permit issuer acknowledged that oxy-fuel had been used in other types of glass-producing facilities, but not in one specific category: those high-quality flat-glass-producing facilities that utilize the float process, which was the type of facility the applicant proposed to construct. *Id.* at 164-65. The permit issuer had explained the technical difficulties that had prevented oxy-fuel firing from being used in this one category of glass-producing facilities. *Id.* at 165. The permit issuer also had addressed and

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<sup>46</sup> The Board has also noted that a change from a base load to a peaking facility could be considered a redefinition of the proposed facility's design and thus could justify the elimination of the option in step 1 of the BACT analysis. *Prairie State*, 13 E.A.D. at 25 (citing *Kendall*, 11 E.A.D. at 51-52 & n.14). Here, the Region argues that even if the Board agrees with Sierra Club concerning the Region's BACT step 2 analysis (which the Board does not), “the record in this case is clearly sufficient to justify elimination of the combined-cycle gas turbines as ‘redefining the source’ under step 1 of the BACT analysis.” Region Resp. at 20. Pio Pico also suggests that the Region could have concluded that a combined-cycle gas turbine plant would be a redefinition of the source, thereby justifying its elimination at step 1. Pio Pico Resp. at 11-14. While it may be true that the Region could have done so, the Region did not explicitly conclude that combined-cycle gas turbines would be a redefinition of the source, and the administrative record does not contain any analysis reflecting such a determination. Consequently, the Board does not consider this argument on appeal.

distinguished those plants identified by commenters that allegedly showed that oxy-fuel had been successfully installed and operated, i.e., “demonstrated.” *Id.* On appeal, the Board concluded that the petitioner had not shown that the permit issuer’s “demonstration” and “applicability” determinations, which were based on a “source type” definition narrower than “all glass-producing facilities,” were clearly erroneous. *Id.* at 168; *see also Knauf I*, 8 E.A.D. at 141 (noting that the permit issuer failed to perform a technical feasibility analysis on the control technologies employed at various types of fiberglass manufacturing facilities and indicating that there may be reasons to find that certain technologies may be infeasible).

The fact that a step 2 technical feasibility analysis has two parts is an important consideration in determining what the appropriate scope for selecting “source type” should be. Because the analysis is two-fold, if the permitting authority concludes that a control technology is not “demonstrated,” the inquiry does not end there. Thus, even if “source type” is defined on the narrower side of the spectrum, the permitting authority will still need to consider whether that control technology is “available” and “applicable.” Defining “source type” more narrowly does not, therefore, allow applicants or permit issuers to pave an “automatic BACT off-ramp” for a control technology, as argued by Sierra Club. *Sierra Club Pet.* at 16 (quoting *NMU*, slip op. at 26-27, 14 E.A.D. at \_\_\_). It merely places the control technology into the second part of the step 2 analysis, where the applicant and permit issuer will have to perform a detailed assessment of the technology’s availability and applicability.

Conversely, if “source type” is defined too broadly, a control technology will automatically be shunted into steps 3 and 4, thereby bypassing the detailed consideration of its technical feasibility that part 2 of step 2 would have required. Because step 4 considerations do not typically include technical feasibility, a control technology that is not truly feasible for a particular source could end up being inappropriately selected as the top control option in step 5.

The present case demonstrates how the two-part step 2 analysis works. Here, even though the Region concluded that combined-cycle gas turbines were not a “demonstrated” control technology, the Region still performed a detailed consideration of combined-cycle gas turbines in its “applicability” determination. In its applicability analysis, the Region, in exercising its technical judgment, determined that there would be several significant operational problems with employing combined-cycle gas turbines at the Facility. Summarizing the Region’s key findings described above, the Region found this control technology to be “inapplicable” because: (1) it would not produce enough power when larger quantities are needed after a “cold start” (160 MW versus 300 MW in the same time), *see* Fact Sheet & AAQIR at 16; (2) it would take much longer to produce full load power (300 MW) following a cold start (3-1/2 hours versus 30 minutes), and the purpose of peaking plants is to produce power relatively quickly, especially when they are supporting renewable energy, *see id.* at 16-17; RTC at 27; and (3) it could only produce sufficient power (300 MW) in an appropriate time frame if a substantially larger facility (at least 400 MW in size) is built, but at least 25 percent of a larger plant’s capacity would likely never be used and such an operation would be significantly less efficient, *see* RTC at 30. The Region also concluded that one of the proposed combined-cycle gas turbine units would not have a flexible enough operating range, especially at the low end of the range (i.e., that unit can only operate down to 165 MW as opposed to 50 MW). RTC at 53-54; *see also* Fact Sheet & AAQIR at 16 (stating that the Facility needs to be “highly flexible”). Importantly, all of these reasons – time to produce required electricity, ability to produce the appropriate amount of electricity, size of the turbines – are “operating problems related to specific circumstances of the source” or problems with “the size of the unit,” which are examples that the *NSR Manual* explicitly includes within those “unresolvable technical difficult[ies] with applying the control” that demonstrate “inapplicability” and thus technical infeasibility. *NSR Manual* at B.19. The Region’s analysis under part 2 of step 2 is therefore entirely consistent with the *NSR Manual*.

In light of these considerations, the Board concludes that Sierra Club has not demonstrated that the Region’s approach was clearly

erroneous. Moreover, decisions as to what the appropriate “source type” should be for a given sector is the kind of technical judgment to which the Board typically defers. In light of this deference, Sierra Club has not presented persuasive evidence that the Region clearly erred in exercising its technical judgment by considering “source type” here as less than “all gas-fired electric generating plants.” In addition, as noted above, in cases where a permit issuer has evaluated and rejected a control technology as the Region did here, “those favoring the option must show that the evidence ‘for’ clearly outweighs the evidence ‘against’ its application.” *Cardinal*, 12 E.A.D. at 167 (citations omitted). Petitioner has not done so. While the Region provided a detailed explanation as to why the technology should be rejected, Sierra Club has only provided generalized statements supporting its use. *See, e.g.*, Sierra Club Pet. at 16. Sierra Club has failed to demonstrate that the evidence for combined-cycle gas turbines clearly outweighs the evidence against its application. Consequently, the Board denies review of this issue.

Although the Board does not agree with Sierra Club that the Region defined “source type” too narrowly, Sierra Club’s fear that applicants and permit issuers could so narrowly define the source type they consider in step 2 as to make all other control technologies infeasible is well taken. It was in part due to this concern that the Board considered this issue on appeal. Upon review, however, the Board concludes that defining “source type” somewhat narrowly is not fatal to the general requirement of performing a broad overall BACT analysis because of the construct of the *NSR Manual*’s step 2 analysis. Even if a permit issuer defines “source type” on the narrow side in the first part of the step 2 technical feasibility analysis, thereby eliminating a technology that arguably is “demonstrated,” the permit issuer still will have to reconsider such technology in the second part of the technical feasibility analysis when it examines whether that technology is available (which it is likely to be, as it was in this case) and applicable. This second part of the step 2 test, especially the “applicability” analysis, will therefore be able to “recapture” technologies that may fall out in the first part of step 2 and that should be considered at least one step further in the BACT analysis.

In the future, the Board will continue to closely scrutinize step 2 analyses to ensure that applicants and permit issuers do not unduly narrow the “source type” they consider in deciding whether a control technology has been “demonstrated” or is “applicable.” The Board expects a thorough analysis in the second part of the step 2 analysis in those cases where the permitting authority defines “source type” narrowly. The Board will not hesitate to remand in cases where the permit issuer’s definition of source type is so narrow that it does not fairly conduct the first part of a step 2 analysis, e.g., where the source type is essentially a category of one, unless the permit issuer fully explains the technical reasons, supported by the record, why the category cannot be larger without making achievement of the project purpose impossible.

5. *The Region’s References to the Power Purchase Agreement and RFO in Its BACT Analysis Do Not Necessitate a Remand in Light of the Recent CPUC Decision*

The Region referred to the RFO and the power purchase agreement a number of times throughout the administrative record in connection with its GHG BACT analysis.<sup>47</sup> See, e.g., Fact Sheet & AAQIR at 16; RTC at 27-28. Petitioners contend that, in light of the CPUC decision – which essentially prohibits SDG&E from entering into

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<sup>47</sup> The Region claims that the power purchase agreement (and RFO) are not “part” of the administrative record. See, e.g., Region Suppl. Br. in Resp. to Board Order at 7, 9. That claim is not correct. Under the permitting regulations, all documents the permit issuer cites in the fact sheet are included in the administrative record. 40 C.F.R. § 124.9(b)(4); accord *In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 516 (EAB 2006); see also *In re Mayaguez Reg’l Sewage Treatment Plant*, 4 E.A.D. 772, 776 n.7 (EAB 1993) (“The Report was cited on page 32 of the Region’s response to comments \* \* \* and therefore became part of the administrative record.”), *aff’d sub nom. P.R. Aqueduct & Sewer Auth. v. EPA*, 35 F.3d 600 (1st Cir. 1994), *cert. denied*, 513 U.S. 1148 (1995). The Region cited both documents in its Fact Sheet, see Fact Sheet & AAQIR at 16, and thus is required to include them in the record. Furthermore, the RFO is in fact currently in the administrative record, as an attachment to a letter from Pio Pico’s consultants to EPA addressing GHG BACT concerns. See Letter from Steve Hill, Sierra Research, to Gerardo Rios, Chief, Air Permits Office, U.S. EPA Region 9, attach. 1 (Apr. 13, 2012) (A.R. I.56).

a long-term purchase agreement at this time – the multiple references to those potentially inapplicable documents require a remand so that the Region may reconsider its BACT analysis. More specifically, Mr. Simpson, in his petition, claims that the Region erred by relying on the power purchase agreement requirements in concluding that a simple-cycle rather than a combined-cycle configuration was needed and that this reliance is especially problematic in light of the CPUC decision. Simpson Pet. at 7. Sierra Club, in its supplemental brief, similarly asserts that, because the Region set its operating limits based on the power purchase agreement and determined that combined-cycle gas turbines were incompatible with those limits, “in the absence of those foundational elements, the Region must reconsider its BACT analysis.” Sierra Club Suppl. Br. in Resp. to Board Order at 5; *see also id.* (“[T]he CPUC’s decision fundamentally alters the purpose of the facility.”). Petitioners reiterated these arguments during the status conference. *See, e.g.,* Status Conf. Tr. at 41-43, 51-54, 64.

The Board concludes that the Region did not clearly err or abuse its discretion for several reasons. First, in response to the Board’s questions concerning the ramifications of the CPUC decision on Pio Pico’s plans, Pio Pico has averred that it still intends to build the Facility as described in its application. Pio Pico’s Suppl. Br. in Resp. to Board Order at 2 & Ex. 1, ¶7, at 2 (Decl. of Gary R. Chandler). Pio Pico has also stated that it plans to produce power as described in its application either to sell on the open market (thereby acting as a merchant plant) or to sell to SDG&E using short-term power agreements instead of a long-term one. *Id.* at 2. Thus, there is no indication that the basic design or the basic purpose of the Facility (providing up to 300 MW of peaking and/or intermediate load-shaping power) has changed. The mere fact that SDG&E may not enter into a long-term power purchase agreement with Pio Pico to purchase power from the Facility does not per se change the Facility’s basic design or its purpose. Moreover, the PSD regulations require that the Facility be built in accordance with the permit

application (or the terms of the approval to construct).<sup>48</sup> 40 C.F.R. § 52.21(r)(1).

Petitioners argue that the “purpose” of the Facility is to meet SDG&E’s RFO/PPTA. Petitioners, however, are framing the PSD analysis incorrectly. For purposes of a PSD analysis, the question as to the “purpose” and “design” of a facility goes to what type of source an applicant is planning to build. Here, Pio Pico’s business “purpose” is to build a highly flexible peaking/intermediate load-shaping power plant that provides up to 300 MW to support renewable energy and to support San Diego’s short-term and long-term energy needs. *See, e.g.*, Revised Application at 2.1 (“[The Facility] is designed to directly satisfy the San Diego area demand for peaking and load-shaping generation, near and long term.”). Both the Region, throughout the administrative record as described above, and Pio Pico, in its application materials, made this clear. *See, e.g.*, Fact Sheet & AAQIR at 3, 4 n.10, 16, 18-19; RTC at 6, 23, 28; Revised Application at 2.1, 2.3, 2.55, 3.9. Although the reason behind the company’s decision to build a 300 MW peaking/intermediate load-shaping plant was the need San Diego described in its RFO/PPTA, this factor does not convert the RFO/PPTA into the purpose of the plant per se. Importantly, the fact that an applicant selects a type of source to build based on what it believes current market needs are – or, in this case, what the locality states its needs are – does not change the basic

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<sup>48</sup> Sierra Club also contends that it is not credible that Pio Pico will construct the same type of plant now, Sierra Club Suppl. Br. in Resp. to Board Order at 1-2, and that it is unclear what kind of plant will be constructed, *id.* at 3-4. The Board disagrees. Pio Pico must construct a facility subject to the terms and conditions in the Permit. 40 C.F.R. § 52.21(r)(1). If Pio Pico desires to build a plant with a different set of PSD permit terms and conditions, it will have to apply for and obtain approval of the change. *See id.* Furthermore, insofar as Sierra Club is now questioning the maximum number of hours of operation allowed by the permit, *see, e.g.*, Sierra Club Suppl. Br. in Resp. to Board Order at 3-4, such a challenge was not preserved for review. Sierra Club did not raise this issue in its comments on the draft permit, nor did it raise this issue in its petition. Sierra Club may not raise it for the first time in reply or supplemental briefs. *See Knauft I*, 8 E.A.D. at 126 n.9 (new issues raised in reply briefs are equivalent to late-filed appeals and must be denied as untimely); *see also Russell City*, slip op. at 45 n.35 (explaining that issue may not be raised for the first time in a reply brief); *Dominion*, 12 E.A.D. at 595.

purpose and design of the proposed facility. The purpose and design behind most power plants are likely informed by the perceived needs of the market either because of market analyses, power purchase agreements with a municipality or other government or private sector entity, and/or corporate judgment.

#### 6. *Conclusion*

In sum, the Board concludes that neither Sierra Club nor Mr. Simpson has demonstrated that the Region clearly erred in declining to consider combined-cycle gas turbines past step 2 of the BACT analysis. Although the Region defined the source type for purposes of step 2 of its BACT analysis more narrowly than the entire class of all gas turbines, Sierra Club has not demonstrated that this was clearly erroneous. Petitioners have also failed to demonstrate that the recent CPUC decision necessitates a remand of the GHG BACT analysis. All other claims are procedurally barred. Accordingly, the Board denies review of this issue.

#### F. *Challenges to CO<sub>2</sub> BACT Emission Limit*

Sierra Club next challenges the Region's BACT emission limit for CO<sub>2</sub>.<sup>49</sup> In its petition, Sierra Club asserts that the Region's decision to select a BACT emission limit based on 50 percent load efficiency<sup>50</sup> at

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<sup>49</sup> In the Fact Sheet, the Region noted that although collectively there are six gases subject to regulation as GHG pollutants under the CAA (carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons), the GHG BACT emission limit in this permit is expressed as a CO<sub>2</sub> limit because the GHG emissions from the gas turbines are overwhelmingly in the form of CO<sub>2</sub>. Fact Sheet & AAQIR at 21 n.15 (CO<sub>2</sub> emissions caused by the combustion of natural gas represent 99.9 percent of CO<sub>2</sub>-equivalent emissions on a ton per year basis even after accounting for the warming potential of methane and nitrous oxide emissions); *see also* 40 C.F.R. § 52.21(b)(49)(i); RTC at 11 n.4. For consistency, the Board refers to the BACT limit for GHGs in this section as the CO<sub>2</sub> BACT limit.

<sup>50</sup> Heat rate increases (and thus thermal efficiency decreases) as load decreases. *See* Letter from Steve Hill, Sierra Research, to Gerardo Rios, Chief, Air Permits Office, (continued...)

all times the turbines operate constitutes clear error because the Permit contains a less stringent CO<sub>2</sub> BACT limit as compared to the draft permit. Sierra Club also asserts that the Region clearly erred by including safety factors, also referred to as compliance margins, in the CO<sub>2</sub> BACT limit that lack factual support in the administrative record. The Region counters that the CO<sub>2</sub> BACT limit and corresponding safety factors are fully explained and supported by the administrative record, and thus, the Board should deny review of these issues. The question the Board must answer then is whether the Region used its “considered judgment” to select the Permit’s CO<sub>2</sub> BACT emission limit and corresponding safety factors and whether the Region’s explanation of its decision is rational in light of all of the information in the record. *See, e.g., In re Shell Offshore, Inc. (“Shell Offshore 2012”)*, OCS Appeal Nos. 11-05 through 11-07, slip op. at 8 (EAB Mar. 30, 2012), 15 E.A.D. at \_\_\_ (citing cases); *Russell City*, slip op. at 58, 15 E.A.D. at \_\_\_.

The Board notes at the outset that Sierra Club’s challenges to the Region’s CO<sub>2</sub> BACT limit and the accompanying safety factors are inherently technical. As explained above in Part III, the Board accords substantial deference to a permit issuer on fundamentally technical issues as long as the determination reflects the permit issuer’s considered judgment as documented in the record. *See, e.g., Russell City*, slip op. at 58, 15 E.A.D. at \_\_\_. The Board addresses Sierra Club’s challenges to both the CO<sub>2</sub> BACT limit and the safety factors incorporated into that limit in turn below.

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<sup>50</sup>(...continued)

Region 9, U.S. EPA at 14 & fig. 5 (Jan. 5, 2012) (A.R. I.33) (explaining that turbines operate less efficiently at lower loads); Letter from Steve Hill, Sierra Research, to Gerardo Rios, Chief, Air Permits Office, U.S. EPA Region 9, at 1 (Aug. 22, 2012) (A.R. VI.48) (same). Conversely, the higher the load, the more efficiently the turbines will operate, resulting in fewer pollutant emissions.

1. *Sierra Club Has Not Demonstrated That the Region Failed to Use Its Considered Judgment in Choosing a CO<sub>2</sub> BACT Emission Limit That Corresponds to the Facility's Operation at Fifty Percent Load*

Sierra Club argues that the Permit's CO<sub>2</sub> BACT emission limit is based on the "worst-case operating conditions" and conflicts both with the definition of BACT and EPA precedent. *Sierra Club Pet.* at 18-20. In particular, Sierra Club contends that the "significant change" in heat rate, from 9,196 British thermal units per kilowatt hour-gross ("Btu/kWh<sub>gross</sub>")<sup>51</sup> in the draft permit to 11,358 Btu/kWh<sub>gross</sub> in the Permit, indicates that "the Region assumed when establishing the BACT limit that [the Facility] would operate at all times at 50 percent load," resulting in the 11,358 Btu/kWh<sub>gross</sub><sup>52</sup> heat rate and a corresponding emission rate of 1,328 pounds per megawatt hour ("lb/MWh") for CO<sub>2</sub>. *Id.* at 19. Sierra Club further asserts that the CO<sub>2</sub> BACT emission limit in the Permit ensures that the facility will only be subject to "BACT-level emission limits," during the relatively few operating hours when the

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<sup>51</sup> The 9,196 Btu/kWh<sub>gross</sub> heat rate Sierra Club refers to is the initial heat rate that appears in the proposed permit and the corresponding Fact Sheet, which is separate from the ongoing CO<sub>2</sub> emission limit intended to apply for the life of the Facility. *See* Fact Sheet & AAQIR at 20 ("[CO<sub>2</sub>] BACT will include a heat rate limit that applies at initial startup in addition to a separate emission limit that applies on an ongoing basis."); U.S. EPA Region 9, Proposed PSD Permit for PPEC (PSD Permit No. SD 11-01) at 7 (June 2012) (A.R. IV.1) ("Proposed Permit") (specifying in Condition IX.D.4 that within a certain period of time, "each [turbine] shall achieve an initial heat rate at full load that does not exceed 9,196 Btu/kWh<sub>gross</sub>").

<sup>52</sup> The heat rate at 50 percent load under International Organization for Standardization ("ISO") conditions is 10,576 Btu/kWh. *See* Letter from Steve Hill, Sierra Research, to Gerardo Rios, Chief, Air Permits Office, U.S. EPA Region 9, at 5 tbl.1B (Apr. 13, 2012), *cited in* RTC at 16. When multiplied by the safety factors the Region included, *see infra* Part VIII.F.1.a, the rates are as follows:

$$\begin{aligned}
 10,576 \text{ Btu/kWh} * .014 &= 148 \\
 10,576 \text{ Btu/kWh} * .03 &= 317 \\
 10,576 \text{ Btu/kWh} * .03 &= 317 \\
 10,576 \text{ Btu/kWh} + 148 + 317 + 317 &= 11,358 \text{ Btu/kWh.}
 \end{aligned}$$

facility is at 50 percent load.<sup>53</sup> *Id.* at 20. Sierra Club asserts that when the Facility is operating at full load the heat rate is 9,385 Btu/kwh,<sup>54</sup> which translates to an 18 percent lower emission rate of 1,097 lb/MWh for CO<sub>2</sub>. Sierra Club contends that even though the Facility will operate at rates above 50 percent load during “many, if not most” of its operating hours, during which lower CO<sub>2</sub> emission rates are achievable, “the final permit establishes a BACT-level emission rate for only those hours when the unit operates at a 50 percent load.” *Id.*

The Region counters that it provided a clear, detailed explanation for setting the Permit’s CO<sub>2</sub> BACT limit for the life of the facility to correspond to emissions at 50 percent load. Region Resp. at 23. The Region notes that it must ensure that BACT is achievable at all times, and the Facility is designed to operate anywhere between 100 percent to 50 percent load during normal operation. *Id.* The Region further explains that since the Facility will not use add-on controls to achieve CO<sub>2</sub> BACT, and will instead achieve BACT using good combustion and maintenance practices, this situation warrants a BACT emission limit that can be met in a variety of operating conditions consistent with the project’s design. *Id.* at 23-24.

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<sup>53</sup> Sierra Club also states that because the Facility will only operate at 50 percent load for a portion of the 720-hour rolling averaging period (equivalent to thirty days), even when the plant is operating at 50 percent load, it can emit more than 1,328 lb/hr of CO<sub>2</sub> because “those periods will be averaged out with the other hours of higher operating rates, when emissions are necessarily lower.” Sierra Club Pet. at 20.

<sup>54</sup> The heat rate at 100 percent load under ISO conditions is 8,738 Btu/kWh. *See* Letter from Steve Hill, Sierra Research, to Gerardo Rios, Chief, Air Permits Office, U.S. EPA Region 9, at 5 tbl.1B (Apr. 13, 2012) (A.R. I.56), *cited in* RTC at 14. When multiplied by the safety factors, *see infra* Part VIII.F.1.a, the corresponding rates are:

$$\begin{aligned}
 &8,738 \text{ Btu/kWh} * .014 = 122.33 \\
 &8,738 \text{ Btu/kWh} * 1.03 = 262.14 \\
 &8,738 \text{ Btu/kWh} * 1.03 = 262.14 \\
 &8,738 \text{ Btu/kWh} + 122.33 + 262.14 + 262.14 = 9,385 \text{ Btu/kWh} \\
 &\text{(rounded to the nearest whole number).}
 \end{aligned}$$

a. *Background*

Prior to issuing the proposed PSD permit, the Region performed a five-step top-down BACT analysis for CO<sub>2</sub> emissions, considering potentially available control technologies at step 1 that included reciprocating internal combustion engines, combined-cycle gas turbines, energy-efficient simple-cycle gas turbines, and carbon capture and sequestration. *See* Fact Sheet & AAQIR at 15-16; *see also supra* Part VII (providing detailed description of top-down BACT analysis). The Region eliminated both combined-cycle turbines and carbon capture and sequestration as technically infeasible at step 2. Fact Sheet & AAQIR at 16-19. Although reciprocating internal combustion engines have a lower heat rate than energy-efficient simple-cycle gas turbines, and thus were the top-ranked control technology at step 3, the Region ultimately eliminated reciprocating internal combustion engines at step 4 due to collateral environmental impacts. *Id.* at 19-20 (noting that reciprocating internal combustion engines would emit roughly 70 percent more oxides of nitrogen (“NO<sub>x</sub>”) at full load than simple-cycle gas turbines, which would have a deleterious impact on San Diego’s nonattainment status for the 8-hour ozone NAAQS).

Thus, at step 5 of the BACT analysis, the Region selected thermally efficient simple-cycle combustion turbines combined with good combustion and maintenance practices to maintain optimum efficiency as BACT for CO<sub>2</sub>. In step 5, the Region noted that GE LMS100 gas turbines proposed by the applicant have a maximum efficiency of 44 percent under ISO conditions, which is at the high end of the efficiency range for simple-cycle gas turbines in that size category. *Id.* at 20 & n.15 (citing product documentation for various turbines and highlighting the GE LMS100 product information, which states that when running at full capacity, the LMS100 avoids over 34,000 metric tons<sup>55</sup> of CO<sub>2</sub> emissions over the course of a peaking season compared

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<sup>55</sup> One metric ton is equal to 1000 kilograms. The U.S. equivalent, also called a short ton, equals 2000 pounds, or 0.907 metric tons (approximately 907 kilograms). Merriam Webster’s Collegiate Dictionary 733 (citing metric system measures), 1341 (continued...)

to a typical simple-cycle system). The Region also explained its decision to use safety factors to calculate the CO<sub>2</sub> BACT emission limit. Based on the emissions data the applicant provided as well as the safety factors, *see infra* Part VIII.F.2.a, .b, the Region proposed an emission limit of 1,181 lbs CO<sub>2</sub> per megawatt hour (“lbs CO<sub>2</sub>/MWh”) net output with a rolling 8,760 operating hour averaging period. *See* Fact Sheet & AAQIR at 21.

During the public comment period, Pio Pico submitted comments stating that the Region’s proposed CO<sub>2</sub> BACT limit resulted in emission restrictions that the Facility could not meet, in part because the proposed CO<sub>2</sub> emission limit failed to take into account turbine operation at partial load, a necessary operating scenario for a peaking facility.<sup>56</sup> *See* Letter from Steve Hill, Sierra Research, to Gerardo Rios, Chief, Air Permits Office, U.S. EPA Region 9, at 3 (July 24, 2012) (A.R. VI.10) (“Pio Pico July 24 Cmt.”); RTC at 7-8, 14. In its comments, Pio Pico proposed an alternative CO<sub>2</sub> BACT emission limit based on an estimated heat rate calculation at 75 percent load, essentially averaging the heat rates for 50 and 100 percent loads. RTC at 14-15 (proposing permit language that would limit CO<sub>2</sub> emissions when the

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<sup>55</sup>(...continued)

(citing U.S. weights and measures) (10th ed. 1999). The alternate spelling of “tonne,” which the Region refers to in the Fact Sheet, is used to denote the metric measure, whereas “ton” connotes the U.S. measure. *See* U.S. Government Printing Office, *Style Manual* 237, 257 (2008) (distinguishing the spelling of tonne and ton).

<sup>56</sup> Pio Pico’s comments also noted that the Region never specified in the Fact Sheet the initial operating efficiency, or “heat rate,” that formed the basis for the proposed ongoing CO<sub>2</sub> emission limit of 1,181 lbs CO<sub>2</sub>/MWh<sub>net</sub>. *See* Pio Pico July 24 Cmt. at 3; *see also* Fact Sheet & AAQIR at 20-21 (referencing emissions data provided in the permit application and turbine performance data but never specifying the heat rate limit to which the six percent compliance margin would be added in order to calculate the proposed CO<sub>2</sub> BACT emission limit). Nonetheless, whatever the heat rate limit is that would result in a proposed ongoing CO<sub>2</sub> emission limit of 1,181 lbs CO<sub>2</sub>/MWh<sub>net</sub>, i.e., 9,196 Btu/kWh<sub>gross</sub> or something else, it would still be lower than the heat rate of 11,358 Btu/kWh<sub>gross</sub> contained in the Permit. Since Petitioners request review of the final CO<sub>2</sub> emission limit, which is based on a different and higher heat rate, the absence of the heat rate information that formed the basis for the ongoing CO<sub>2</sub> emission limit in the proposed permit does not affect any of the challenges Petitioners raise in these appeals.

Facility is operating at or above 75 percent load). Although the Region agreed with Pio Pico that the initial proposed CO<sub>2</sub> BACT emission limit failed to account for Facility operations at partial loads and thus agreed that the CO<sub>2</sub> BACT limit should be revised, the Region rejected Pio Pico's proposal to apply the CO<sub>2</sub> BACT emission limit only to loads at or above 75 percent. *Id.* at 15-16. The Region highlighted the lack of a technical justification for why the limit should be based on heat rate at 75 percent load and the suggestion that the CO<sub>2</sub> BACT limit should only apply to loads at or above 75 percent as reasons for rejecting Pio Pico's proposal. *Id.* at 16.

In setting the CO<sub>2</sub> BACT emission limit for the Permit, the Region explained its reasoning as follows:

EPA must ensure BACT is achieved at all times. The permit record is clear that each turbine is designed to operate from 100% down to 50% load during normal operation. As such, we must set a limit that is achievable at all times, including 50 to 75% load. Neither the Proposed Permit limit nor the limit suggested by [Pio Pico] would achieve this requirement.

\* \* \* \*

As discussed in the Fact Sheet (see pp. 20), BACT for GHGs for each turbine has been determined to be efficient equipment design and does not include add-on control equipment. As a result, BACT is achieved in the same manner at 50% load as it is at 75% and 100% load (and any other load level), even though the actual GHG emissions resulting from the application of BACT may vary at different loads. *Our determination must account for the fact that the turbines can operate at a number of different load levels within one period of operation and within the averaging period used to determine compliance.* Therefore, in order to ensure that the emission limit resulting from application of

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BACT for GHGs is set at a level that can be achieved from the turbines at all times, the final BACT limit has been set at a level achievable during the “worst-case” of normal operating conditions – 50% load. This will give the facility the ability to operate within its BACT emission limit and within its designed operating range at all times.

*Id.* (emphasis added). With this background in mind, the Board now turns to Sierra Club’s substantive challenges to the Permit’s CO<sub>2</sub> BACT limit.

b. *Analysis*

Contrary to Sierra Club’s assertions, the Region’s decision to set the CO<sub>2</sub> BACT emission limit to correspond with a load that has a higher, less efficient heat rate is consistent with the definition of BACT and EPA precedent. The Board has an established history of deferring to a permit issuer’s well-documented decision to set a BACT limit that is achievable for a given facility under all operating scenarios, and has previously stated 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 Newmont Nev. Energy Inv., LLC*, 12 E.A.D. 429, 442 (EAB 2005) (quoting *Steel Dynamics II*, 9 E.A.D. at 188 (EAB 2000)); *accord Russell City*, slip op. at 78, 15 E.A.D. at \_\_\_; *In re Prairie State Generating Co.*, 13 E.A.D. 1, 54 (EAB 2006), *aff’d sub nom. Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007); *In re Masonite Corp.*, 5 E.A.D. 551, 560-61 (EAB 1994). The Board further explained in *Newmont*:

In essence, Agency guidance and our prior decisions recognize a distinction between, on the one hand, measured “emissions rates,” which are necessarily data obtained from a particular facility at a specific time, and on the other hand, the “emissions limitation” determined to be BACT and set forth in the permit,

which the facility is required to continuously meet throughout the facility's life. Stated simply, if there is uncontrollable fluctuation or variability in the measured emission rate, then the lowest measured emission rate will necessarily be more stringent than the "emissions limitation" that is "achievable" for that pollution control method over the life of the facility.

12 E.A.D. at 442, *quoted in Russell City*, slip op. at 78-79, 15 E.A.D. at \_\_\_; *accord Prairie State*, 13 E.A.D. at 54-55; *In re Genesee Power Station LP*, 4 E.A.D. 832, 858, 862 (EAB 1993) ("It is customary to establish emissions limitations based on realistic operating parameters, rather than on results that are only occasionally achievable." (citing *In re Pennsauken Cty., N.J., Res. Recovery Facility*, 2 E.A.D. 768, 769-70 (Adm'r Apr. 20, 1989))).

When juxtaposed with longstanding Board precedent that affords permit issuers discretion to set BACT emission limits that are not the most stringent achievable emission limits, Sierra Club's challenge to the Region's decision to set the CO<sub>2</sub> BACT emission limit to correspond with emission rates at 50 percent load must fail. As an initial matter, Sierra Club fails to explain *why* the Region's explanation for its choice of the BACT emission limit falls short. Although Sierra Club cites the response to comments document in its petition, it fails to address the Region's stated explanation for choosing the BACT emission limit to correspond with heat rates at 50 percent load. Sierra Club asserts that "rather than establishing a limit that accounts for the fact that heat rates, and therefore emission rates, change to correspond with load changes, the Region took the drastic step of establishing a BACT limit that will apply on a long[-]term (30 days or greater) averaging basis<sup>57</sup> based on the

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<sup>57</sup> The Region's reasoning for choosing a longer-term averaging period is supported by EPA guidance pertaining to PSD permitting for GHGs. See Air Quality Policy Div., Office of Air Quality Planning & Standards, U.S. EPA, *PSD and Title V Permitting Guidance for Greenhouse Gases* 46 (Mar. 2011). The guidance states that "since the environmental concern with GHGs is with their cumulative impact in the environment, metrics should focus on longer-term averages (e.g., 30- or 365-day rolling (continued...))

highest heat rate and emission rate.” Sierra Club Pet. at 19.<sup>58</sup> However, Sierra Club does not confront the Region’s explanation in the response to comments document that it considered setting alternative BACT limits to cover different load ranges. *See* RTC at 15 (agreeing with the commenter that “it is not possible to predict the extent of part load operation during every year for the life of the facility”), 16. The Region explained that upon “further examination of the load ranges, turbine efficiency, and operating parameters, we find no justification for setting multiple limits based on an arbitrary load level.” *Id.* at 16; *see also* Region Resp. at 24 (noting that to establish BACT emission limits based on the achievable emission rate at the various operating rates at which the plant proposes to operate would be “impractical if not altogether impossible since the plant may operate at 50% load, 100% load, or any of the countless points in between”). As explained in Part III.B, the Board has frequently stated that a petitioner must substantively confront the permit issuer’s response and explain why, in light of the permit issuer’s stated rationale, the permit is clearly erroneous or otherwise warrants review. In this instance, Sierra Club cannot prevail when it has not addressed the Region’s explanation contained in the response to comments document.

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<sup>57</sup>(...continued)

average) rather than short-term averages (e.g., 3- or 24-hr rolling average).” *Id.*

<sup>58</sup> Sierra Club also avers that the Region “assumed when establishing the BACT limit that the [Facility] would operate at all times at 50% load,” and continued that, “nowhere in the record is there a basis to assume continuous – i.e., all 720 operating hours in each 720-hour rolling average – operation at 50% load.” Sierra Club Pet. at 19. Contrary to Sierra Club’s assertion, the record is clear that the Region understood that the Facility would operate at various loads between 50 and 100 percent. *See* RTC at 16 (“The permit record is clear that each turbine is designed to operate from 100% down to 50% load during normal operation. As such, we must set a limit that is achievable at all times, including 50 to 75% load.”); Fact Sheet & AAQIR at 16 (noting that Pio Pico must be able to provide highly flexible units that can provide regulation during morning and evening ramps because output from renewable sources varies); Revised Application at 2.1 (“The LMS100 is designed for cyclic applications with 10-minute starts that provide flexible power generation for peaking and intermediate solutions vital to support variable demand and variable renewable energy sources \* \* \*”).

Sierra Club's use of the term "BACT-level emission limits" twice in its petition appears to reference the most stringent emission limit the Region could have chosen for CO<sub>2</sub> BACT, namely to correspond to the heat rate at 100 percent load. Sierra Club Pet. at 20 (arguing that the Permit limit "will never ensure that the plant is required to emit at BACT-level emission limits," and further claiming that the Region's decision to establish the CO<sub>2</sub> BACT emission limit based on worst-case operating conditions "ensures that during most periods the source is not subject to BACT-level emission limits"). Sierra Club again fails to address the Region's explanation set forth in the response to comments document. See RTC at 16 ("BACT is achieved in the same manner at 50% load as it is at 75% and 100% load (and any other load level), even though the actual GHG emissions resulting from application of BACT may vary at different loads."). Sierra Club's assertions regarding the "BACT-level emission limit" do not account for Pio Pico's operation as a peaking facility, which anticipates operation at various loads as part of the facility's inherent design and purpose. In addition, any assumption that a "BACT-level emission limit" only occurs at 100 percent load ignores the Board's extensive prior precedent set forth at the beginning of this section, which states that a BACT emission limit need not be the most stringent emission limit. E.g., *Newmont*, 12 E.A.D. at 441-42, *quoted in Russell City*, slip op. at 78-79, 15 E.A.D. at \_\_\_\_\_. As the Board has previously acknowledged, where the technology's efficiency at controlling emissions is known to fluctuate, "setting the emissions limitation to reflect the highest control efficiency would make violations of the permit unavoidable." *Masonite*, 5 E.A.D. at 560, *quoted in Newmont*, 12 E.A.D. at 442.

Sierra Club's petition also contains a calculation of the emission limit and corresponding heat rate at 100 percent load, which Sierra Club avers would translate to an emission rate 18 percent lower than when the emission limit and corresponding heat rate is calculated at 50 percent load. Sierra Club Pet. at 20. Sierra Club states that although the Facility will operate at rates above 50 percent load during "many, if not most" of its operating hours, which will result in lower achievable CO<sub>2</sub> emission rates due to more efficient heat rates that occur at higher loads, "the final permit establishes a BACT-level emission rate for only those hours when

the unit operates at 50% load.” *Id.* Although the Permit’s CO<sub>2</sub> BACT emission limit is not the most stringent emission limit available, as explained above, it is within a permit issuer’s discretion to set a limit somewhat lower than optimal efficiency to ensure continued compliance. *E.g., Masonite*, 5 E.A.D. at 560. Furthermore, similar to the permit issued in *Masonite*, the Permit establishes good combustion and maintenance practices as part of the BACT limit. Permit at 5 (“The Permittee shall also perform any necessary operations to minimize emissions so that emissions are at or below the emission limits specified in this permit.”), 8 (“The Permittee shall prepare and follow a Maintenance Plan for each [combustion turbine-generator]. The Maintenance Plan shall \* \* \* provide, to the extent practicable, for the maintenance and operation of the turbine in a manner consistent with good air pollution control practice for minimizing emissions.”). The Board notes, as it did in *Masonite*, that if the equipment is capable of achieving a higher control efficiency, enhanced efficiency will be achieved regardless of whether the emission limit in the Permit contemplates such efficiency. *See Masonite*, 5 E.A.D. at 562; *see also* Letter from Steve Hill, Sierra Research, to Gerardo Rios, Chief, Air Permits Office, Region 9, U.S. EPA, at 14 (Jan. 5, 2012) (A.R. I.33) [hereinafter January 2012 Letter] (“It is important to note that while the LMS100 configuration provides the flexibility to operate across the full range of loads between approximately 50 MW and 300 MW, it will most likely be dispatched to operate at the more efficient loads of 100 MW, 200 MW, or 300 MW.”).

Sierra Club has not met the particularly high threshold required to demonstrate that review of the Region’s fundamentally technical decision to establish the CO<sub>2</sub> BACT emission limit to correspond to 50 percent load efficiency is warranted. *See Russell City*, slip. op. at 15, 15 E.A.D. at \_\_\_; *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 33-34 (EAB 2005). The Board now turns to the Region’s decision to include safety factors in the Permit’s CO<sub>2</sub> BACT emission limit.

2. *Sierra Club Has Not Demonstrated That the Region Failed to Use Its Considered Judgment When It Incorporated Safety Factors, or Compliance Margins, Into the CO<sub>2</sub> BACT Emission Limit*

Sierra Club next challenges the Region's decision to incorporate three safety factors, totaling a 7.4 percent compliance margin, into the CO<sub>2</sub> BACT emission limit, alleging that the record lacks the factual basis to support the Region's decision to include them. Sierra Club Pet. at 21-22. The Region counters that not only was the need to include safety factors in the CO<sub>2</sub> BACT emission limit explained in the Fact Sheet and response to comments document, but also that inclusion of the safety factors was a reasonable exercise of the Region's discretion to ensure that the CO<sub>2</sub> BACT emission limit can be met over the lifetime of the Facility. Region Resp. at 24-26. Prior to addressing Sierra Club's allegations, the Board examines the Region's CO<sub>2</sub> BACT analysis and corresponding information in the administrative record regarding the Region's decision to include safety factors.

a. *Background*

As the Board has explained in earlier decisions, "a 'safety factor' is intended to allow the permitting authority flexibility in setting the permit limits where there is some degree of uncertainty regarding the maximum degree of emissions reduction that is achievable." *Prairie State*, 13 E.A.D. at 55, *quoted in Russell City*, slip op. at 75, 15 E.A.D. at \_\_\_\_.

The Region first discussed safety factors in the step 5 explanation of its CO<sub>2</sub> BACT analysis contained in the Fact Sheet that it issued concurrently with the proposed draft permit in June 2012. *See* Fact Sheet & AAQIR at 20-21. As stated in Part VIII.F.1.a, at step 5 of its BACT analysis the Region selected thermally efficient simple-cycle combustion turbines combined with good combustion and maintenance practices as the control technique to limit the Facility's CO<sub>2</sub> emissions. After explaining that the BACT emission limit for CO<sub>2</sub> would include a heat rate limit that applies at initial startup in addition to a separate,

ongoing emission limit (the one Sierra Club challenges) that applies for the life of the facility, the Region stated:

Both the initial heat rate limit and the ongoing emission limit must account for a number of factors including various tolerances in the manufacturing and construction of the equipment as well as actual ambient operating conditions.

\* \* \* \*

Where the long-term emission limit is concerned, EPA is \* \* \* account[ing] for unrecoverable losses in efficiency the plant will experience over its entire lifetime as well as seasonal variation in site-specific factors that affect turbine performance such as temperature and humidity. In this instance, we believe a margin of 6% is appropriate.

Fact Sheet & AAQIR at 20-21. Using the 6 percent margin of compliance along with emissions data provided in the permit application, the Region proposed the 1,181 lbs CO<sub>2</sub>/MWh<sub>net</sub> output emission limit. *See* U.S. Proposed Permit at 6; *see also* Fact Sheet & AAQIR at 21.

During the public comment period, another commenter, Mr. Sarvey, contested the Region's inclusion of a 6 percent compliance margin. *See* RTC at 52-53 (referencing the 9,196 Btu<sub>hhv</sub>/kWh<sub>gross</sub> initial heat rate limit included in the proposed permit and Fact Sheet "as BACT for GHG for the [Facility]," and continuing that "this represents a 6% margin over the guaranteed heat rate" for the turbines chosen).<sup>59</sup> In its response, the Region elaborated on its decision to use a compliance

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<sup>59</sup> Mr. Sarvey's comment at first appears to address the proposed initial heat rate limit, which the Region explained in the Fact Sheet contained a 3 percent safety factor to account for variations in manufacturing, assembly, construction, and performance of the new turbines. Fact Sheet & AAQIR at 20. Yet his comment also referenced the 6 percent safety factor that the Region applied to the ongoing CO<sub>2</sub> BACT emission limit, rather than the proposed initial heat rate limit. *See id.* at 20-21.

margin based on the likelihood that emissions may vary from the manufacturer's stated heat rate:

It is especially important to note that the manufacturer's stated heat rate is at ISO conditions, which are standard reference conditions for temperature and pressure. As discussed in our Fact Sheet, turbine efficiency is highly dependent upon actual ambient operating conditions, which are not necessarily the same as ISO reference conditions. It is precisely for this reason that it is necessary to adjust the heat rate limit in our permit to account for the actual operating conditions at the plant location.

*Id.* at 53.

The Region also elaborated on its decision to include safety factors in the CO<sub>2</sub> BACT emission limit while responding to the permit applicant's comment that the Facility would be unable to meet the CO<sub>2</sub> emission limit proposed in the draft permit. *See id.* at 14-17; *see also* Pio Pico July 24 Cmt. at 3. In its response to Pio Pico, the Region explained in more detail the calculation of the revised heat rate that would lead to a pounds of CO<sub>2</sub> per megawatt hour (lbs CO<sub>2</sub>/MWh) emission limit and the reasons for including safety factors in the CO<sub>2</sub> BACT emission limit:

Table 1B of the applicant's April 13, 2012 letter indicates that the heat rate at 50% load under ISO conditions is 10,576 BTU/kWh (HHV, gross). As stated in the comment and in our Fact Sheet, turbine performance varies with ambient conditions, and we agree with the commenter that a 1.4% adjustment is appropriate. This results in an adjusted heat rate of 10,724 BTU<sub>HHV</sub>/kWh<sub>gross</sub>. We further agree with the commenter that it is necessary to adjust the heat rate for variability in the new unit and degradation in performance over time. We have further adjusted the heat rate by an additional 3% for each of these factors.

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As noted by Sierra Research elsewhere in its comments, there are only a limited number of LMS100 installations, which makes it difficult to predict the magnitude of all of these effects on turbine performance. We applied similar adjustments when initially proposing the permit (see Fact Sheet at pp. 20-21) and we believe their continued use is appropriate given the uncertainty involved in establishing an efficiency-based limit for this type of source, resulting in a final heat rate of 11,358 BTU<sub>HHV</sub>/kWh<sub>gross</sub>.

RTC at 16.

b. *Analysis*

To determine whether the use of a safety factor is appropriate, the Board's inquiry must be case- and fact-specific. *Prairie State*, 13 E.A.D. at 55 (explaining that the "appropriate application of a safety factor in setting an emission limit is inherently fact-specific and unique to the particular circumstances of the selected technology, the context in which it will be applied, and available data regarding achievable emissions limits"), *quoted in Russell City*, slip op. at 80, 15 E.A.D. at \_\_\_; *accord In re Miss. Lime Co.*, PSD Appeal No. 11-01, slip op. at 27 (EAB Aug. 9, 2011), 15 E.A.D. at \_\_\_. In general, safety factors allow the permit issuer to account for variability and fluctuations in performance of the emission control technology, lack of long-term data for the control technology, and uncertainty regarding the degree to which the control technology will be effective when setting a BACT emission limit. *See, e.g., Newmont*, 12 E.A.D. at 442; *Russell City*, slip op. at 78, 84, 15 E.A.D. at \_\_\_; *accord Prairie State*, 13 E.A.D. at 55.

Contrary to Sierra Club's contention, the safety factors the Region chose to incorporate in the CO<sub>2</sub> BACT emission limit have adequate factual support in the record. The Region stated in its response to comments document that it had included, based on comments it received, a 1.4% safety factor to account for the variability in turbine performance due to changes in ambient conditions, a 3% safety factor for

variability in the new unit, and a 3% safety factor for degradation in performance over time, for a total of 7.4%. RTC at 16. As set forth above in Part VIII.F.2.a, at an early stage of the permitting process the Region explained that its chosen control technology for CO<sub>2</sub> emissions necessitated the use of safety factors in the CO<sub>2</sub> BACT emission limit to ensure the Facility's compliance over its life span, a nominal thirty years. *See* RTC at 7 (citing estimated life of Facility). The Region noted in the Fact Sheet that unrecoverable losses in efficiency over the life of the plant, variability in the turbines themselves, and seasonal variation in site-specific factors such as temperature and humidity would affect the Facility's ability to meet the CO<sub>2</sub> emission limit, and further explained in the response to comments that the limited number of similar LMS100 installations, and corresponding performance data for such installations, made it difficult to predict the magnitude of all of these effects on turbine performance. Fact Sheet & AAQIR at 20-21; RTC at 16.

The Region's analysis of the need for safety factors is particularly reasonable here, where the control technique for the CO<sub>2</sub> BACT emission limit is good combustion and maintenance practices as opposed to add-on technology, as the effectiveness of this control technique could likely vary across sources.<sup>60</sup> *See Russell City*, slip op. at 84, 15 E.A.D. at \_\_\_ (upholding the permit issuer's decision to use a compliance margin in the BACT emission limit for NO<sub>2</sub> emissions during startup and shutdown of a power plant and noting that the chosen control technique of "best work practices" is "a control technique the Board expects would more widely vary across sources"). The Region adequately explained the reasons why the safety factors included in the CO<sub>2</sub> emission limit are necessary and provided adequate support for each one given the need to meet the CO<sub>2</sub> emission limit over the lifetime of the Facility and in light of the limited data currently available to demonstrate the BACT limit can be met over time. As such, this case is distinguishable from those the Board has remanded for failure to provide

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<sup>60</sup> As the Board noted in *Prairie State*, "[v]ariability in the observed performance of a control technology is an appropriate circumstance for the permitting authority to use a safety factor in setting the permit's BACT limit." 13 E.A.D. at 75-76; *accord In re Masonite Corp.*, 5 E.A.D. 551, 560-61 (EAB 1994).

an adequate justification for safety factors in a BACT emission limit. *See, e.g., In re Vulcan Constr. Materials, LP*, PSD Appeal No. 10-11, slip op. at 36 (EAB Mar. 2, 2011), 15 E.A.D. \_\_\_\_ (remanding because permit issuer failed to discuss the need for compliance margins in its BACT analyses or otherwise provide a rationale as to why compliance margins were appropriate); *Miss. Lime*, slip op. at 30-33, 15 E.A.D. at \_\_\_\_ (same).

To demonstrate that review of an issue is warranted, a petitioner must substantively confront the permit issuer's response and explain why, in light of the permit issuer's stated rationale, the permit is clearly erroneous or otherwise warrants review. *See supra* Part III. Nowhere in its petition does Sierra Club address the Region's explanation in the Fact Sheet or the response to comments document of its decision to include safety factors in the CO<sub>2</sub> BACT emission limit, nor does Sierra Club refer to any of the Board's prior precedent regarding safety factors.<sup>61</sup> As

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<sup>61</sup> Sierra Club's reply brief challenges the Region's citation, for the first time in the Region's response brief, to Table 3.5-2, which is located on page 3.18 of the Revised Application. Sierra Club Reply Br. at 4-5; *see supra* Part VI. The Region apparently included Table 3.5-2 in its response brief to illustrate, albeit without articulating it in words, the source of the 1.4 percent safety factor the Region included in the CO<sub>2</sub> BACT limit. The difference between the heat rate at peak operating conditions (7,964 Btu/kWh) and the heat rate during winter conditions (7,856 Btu/kWh) totals 108 Btu/kWh, which is equivalent to a 1.4 percent difference in expected emissions based on ambient conditions such as temperature and humidity.

Notwithstanding the Region's citation to Table 3.5-2 in its response brief, and the Board's acceptance of Sierra Club's reply brief on this issue, the Board's analysis of Sierra Club's petition for review and the arguments therein is unchanged by the arguments in Sierra Club's reply brief. In particular, Sierra Club's reply brief appears to challenge the use of Table 3.5-2 to explain the 1.4 percent safety factor included for variation in ambient conditions. However, the challenge to this document is late, and as the Board has stated many times before, issues raised for the first time in a reply brief are deemed untimely filed petitions for review. *See, e.g., In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 595 (EAB 2006) (declining to consider an issue that could have been raised in a timely petition for review but was instead raised in a subsequent response brief); *Knauf I*, 8 E.A.D. at 126 n.9 ("New issues raised for the first time at the reply stage of the[] proceedings are equivalent to late filed appeals and must be denied on the basis of timeliness."). The remainder of Sierra Club's reply brief that addresses  
(continued...)

a result, Sierra Club's challenge to the Region's incorporation of safety factors into the CO<sub>2</sub> BACT emission limit falls well short of the high threshold petitioners must meet to demonstrate that review of a permit issuer's technical determination is warranted. *See, e.g., Prairie State*, 13 E.A.D. at 72; *Newmont*, 12 E.A.D. 458-59.

The Region's CO<sub>2</sub> BACT analysis and the corresponding emission limit the Region established are reasonable in light of all of the information in the record. Thus, review of Sierra Club's challenges to both the stringency of the CO<sub>2</sub> BACT emission limit and the Region's decision to incorporate safety factors into the CO<sub>2</sub> limit is denied.

G. *The Record Does Not Reflect the Permit Issuer's Considered Judgment in Selecting the BACT Limit for Particulate Matter ("PM")*

1. *Overview of Permit Condition*

PM is one of the pollutants the Permit regulates. After identifying available control technologies for PM, their technical feasibility and cost effectiveness, the Region identified the use of low sulfur natural gas and good combustion practices as the top and preferred control option. Fact Sheet & AAQIR at 13-15. To determine the appropriate emission limit achievable by this control option, the Region evaluated performance test data from "similar simple cycle plants" located in southern California. *Id.* at 14. Specifically, the Region evaluated data from tests conducted in 2010 and 2011 on GE LMS 6000 turbines from three different facilities.<sup>62</sup> The performance test data from these facilities showed PM emissions ranging between 0.0008 lb/MMBtu and 0.0049 lb/MMBtu. *Id.* Based on its top-down BACT analysis, the

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<sup>61</sup>(...continued)

safety factors expounds upon arguments already presented in the petition for review, and thus the Board does not consider them in its analysis of this issue.

<sup>62</sup> The three facilities the Region evaluated are: Orange Grove; El Cajon Energy; and Canyon Power. Fact Sheet & AAQIR at 14 tbl.7-5.

Region proposed as BACT in the draft permit “the use of low sulfur pipeline quality natural gas, good combustion practices, and a PM, PM<sub>2.5</sub>, and PM<sub>10</sub> [emission] limit of 0.0065 lb/MMBtu on a 9-hr average” as BACT. Proposed Permit at 6 (special cond. IX.B.1). The Region explained that the emission limit “represents the expected PM emissions based on the engineering design of the specific model (GE LMS 100) of natural-gas fired turbine.” Fact Sheet & AAQIR at 14. The Region also proposed that the sulfur content of the natural gas not be greater than 0.25 grains per 100 dry standard cubic feet (“dscf”) on a twelve-month rolling average and 1.0 grain per 100 dscf at any time. *Id.* at 15; Proposed Permit at 6 (special cond. IX.B.1).

In comments on the draft permit, Pio Pico raised concerns about its ability to comply with the proposed emission limit of 0.0065 lb/MMBtu when operating at low-load levels. *See* RTC at 6. Pio Pico explained that the facility can comply with the proposed emission limit when operating at full load, but “that at low load this level may not be achievable at all times.” *See id.*

In response to Pio Pico’s concern, the Region revised the proposed emission limit. Applying a load-based approach, the Region created a two-tier emission limit with 0.0065 lb/MMBtu as the applicable emission limit when the plant operates above 80 percent load, and with 5.5 lb/hr as the emission limit for all operations below 80 percent load. *See* Permit at 6 (cond. IX.B.1); RTC at 6.

## 2. *Challenges on Appeal*

Sierra Club takes issue with the revised emission limit and asserts that there is no basis in the record for the determination that: (1) 0.0065 lb/MMBtu is an appropriate limit for operations greater than 80 percent load; (2) 80 percent load represents the operating range below which 0.0065 lb/MMBtu is not achievable; and (3) 5.5 lb/hr represents the lowest achievable emission rate for all loads lower than 80 percent. *See* Sierra Club Pet. at 23-29.

In support of its assertions, Sierra Club argues that the record fails to describe “how the Region concluded that 0.0065 lb/MMBtu represents BACT” based on the performance test data the Region evaluated.<sup>63</sup> *Id.* at 23-27. Sierra Club suggests that BACT for PM emissions should have been similar to the emission data from the test facilities the Region examined as part of its BACT analysis. *Id.* at 24. With respect to the selection of 80 percent load, Sierra Club argues that the record does not support the Region’s conclusion that 80 percent defines the point where 0.0065 lb/MMBtu is no longer achievable. *Id.* at 28. Finally, with respect to the inclusion of 5.5 lb/hr as BACT for loads below 80 percent, Sierra Club claims that the Region did not conduct a BACT analysis and instead only noted that 5.5 lb/hr was demonstrated to protect ambient air quality standards and to be achievable at all operating rates. *Id.* at 9; Sierra Club Reply Br. at 6-7.

Helping Hand Tools also challenges, although on different grounds, the 5.5 lb/hr emission limit. Helping Hand Tools claims that this limit is less restrictive than what is currently being achieved in practice at other facilities. Helping Hand Tools Pet. at 4

### 3. *Analysis*

In light of the changes between the draft permit and the permit as issued, which allow higher lb/MMBtu emissions than contemplated in the draft permit to apply at all loads below 80 percent, and the challenges Sierra Club and Helping Hand Tools raise, the Board must determine whether the record reflects the permit issuer’s exercise of considered judgment in selecting BACT for PM. In doing so, the Board will examine whether the record supports the selection of:

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<sup>63</sup> Sierra Club raised similar comments during the public comment period. *See* RTC at 25. According to Sierra Club, the record on the draft permit did not explain how the Region derived the 0.0065 lb/MMBtu emission limit from the performance test data the Region examined as part of the BACT analysis. *See id.* at 26 (noting that 0.0065 lb/MMBtu represents more than eight times the average from the facility with lowest emissions – 0.0008 lb/MMBtu – and is higher than the maximum observed at the three facilities examined – 0.0049 lb/MMBtu). Sierra Club suggested the BACT limit should have been closer to 0.0008 lb/MMBtu. *Id.*

(a) 0.0065 lb/MMBtu as BACT for loads above 80 percent; (b) the selection of 80 percent as the defining criterion for applying different emission limits; and (c) 5.5 lb/hr as BACT for loads below 80 percent. The Board's analysis begins with the selection of 0.0065 lb/MMBtu.

a. *Selection of 0.0065 lb/MMBtu as BACT for Loads Above 80 Percent*

In its response to Sierra Club's comments on the draft permit questioning the selection of 0.0065 lb/MMBtu as representative of BACT, the Region explained that: (1) because this is a natural gas-fired combustion turbine, EPA must set a limit that is technically feasible to meet on an ongoing basis; (2) the Facility might not be able to meet the lowest emission rate observed at the test facilities on an ongoing basis because the turbines Pio Pico plans to install will not have add-on control equipment, and therefore PM emissions will vary depending on sulfur content in natural gas, the burning off of lubricant oils, and turbine maintenance cycles; (3) while the sulfur content of the natural gas Pio Pico will use is limited to 0.25 grain per 100 dscf on an annual average, the sulfur content of the fuel used at the test facilities is unknown; (4) achieving an emission rate during a single source test does not guarantee that the emission unit will achieve that rate on an ongoing basis; (5) PM emissions vary even on identical turbine models due to different operating conditions; and (6) the turbines at the test facilities' and at Pio Pico's are different both in size and model (i.e., GE LMS 6000 at test facilities and GE LMS 100 at Pio Pico). RTC at 26-27. In light of this and because of the lack of test data for the specific turbine model, the Region concluded that setting the emission limit at 0.0065 lb/MMBtu – the expected PM emissions based on the engineering design of the specified model of natural-gas fired turbine (i.e., GE LMS 100) – was appropriate in this case. *See id.*; Fact Sheet & AAQIR at 14.

The Board does not disagree with the principal factors that form the basis of the Region's analysis. It is well established that a permit issuer may appropriately consider the extent to which available data in the record evidence the ability to consistently achieve certain emission rates or control effectiveness of the selected technology. *See, e.g.,*

*Newmont*, 12 E.A.D. at 440. As noted in Part VIII.F.1, “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.’” *Newmont*, 12 E.A.D. at 442 (quoting *Steel Dynamics II*, 9 E.A.D. at 188); *see also* Part VII.F.2 (discussing use of safety factors as a way to take into account variability and fluctuations in the performance of the selected control technology).

At the same time, the permit issuer has an obligation “to adequately explain its rationale for selecting a less stringent emission limit, and that rationale must be appropriate in light of *all* the evidence in the record.” *Newmont*, 12 E.A.D. at 440 (emphasis added); *cf. In re Vulcan Constr. Materials, LP*, PSD Appeal No. 10-11, slip op. at 32 (EAB Mar. 2, 2011), 15 E.A.D. \_\_\_ (“Selection of a reasonable safety factor is not an opportunity for the permittee to argue for, or for the permit issuer to set, a safety factor that is not fully supported by the record, or that does not reflect the exercise of the permit issuer’s considered judgment in determining that the emissions limit, including the safety factor, constitutes BACT.”). This is because “BACT determinations are one of the most critical elements in the PSD permitting process.” *In re Miss. Lime Co.*, PSD Appeal No. 11-01, slip op. at 17 (EAB Aug. 9, 2011), 15 E.A.D. \_\_\_ (citing *In re Desert Rock Energy Co., LLC.*, PSD Appeal Nos. 08-03 through 08-06, slip op. at 50 (EAB Sept. 24, 2009), 14 E.A.D. \_\_\_). As such, “the determination of what represents BACT for a specific facility must reflect the considered judgment on the part of the permit issuer, and must be well documented in the administrative record.” *Id.*

In this particular case, while the Region’s analysis may explain why the Region selected a less stringent lb/MMBtu limit than the performance levels observed *at the three test facilities*, why the emission limit for the Pio Pico Facility should take into account variability and fluctuations in control efficiency, and how the 0.0065 lb/MMBtu figure came about, the Region’s analysis fails to consider all of the evidence in the record. As explained more fully below, it appears that the Region dismissed or overlooked highly relevant information in the record without adequate explanation. The overlooked information in the record

appears to directly conflict with part of the Region's underlying rationale for selecting 0.0065 lb/MMBtu as the emission limit representative of PM BACT for the Facility.

The Region cites the lack of test data for the specific turbine model being evaluated as one of the main reasons for deviating from the emission rates observed at the test facilities and for selecting 0.0065 lb/MMBtu as BACT. *See* RTC at 27 (“Considering the lack of test data for the specific turbine model we are evaluating, we do not believe there is sufficient evidence to set a PM BACT limit lower than the 0.0065 lb/MMBtu and 5.5 lb/hr in the Permit.”); Pio Pico Resp. at 22 (“there is no existing testing data for the LMS 100 model turbine”). This rationale, however, fails to reflect all of the information in the record of this case.

First, at the Region's request, Pio Pico provided PM emission test results from the Panoche Energy Center Project (“Panoche”), an electric generating facility, also peaking, located in Fresno County, California. *See generally* January 2012 Letter. Panoche utilizes four GE LMS 100 natural gas-fired combustion turbine generators – the same model turbine that Pio Pico plans to install. In January 2012, several months before the Region issued the Fact Sheet and the response to comments document, Pio Pico provided PM emission data from 2009 to 2011 for the four turbines at Panoche. Inexplicably, none of the documents that form the basis of the Region's BACT analysis discuss this information or explain why this information is not part of the BACT analysis.<sup>64</sup>

The first and seemingly only place where the Region references this information is a cursory footnote in the Region's response to the petitions. *See* Region Resp. at 28 n.15. The Region states:

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<sup>64</sup> *See* Sierra Club's Reply Br. at 6 n.8 (arguing that Panoche data did not form the basis of the Region's decision and claiming that the Region's description of the data is misleading).

In its recent review of the administrative record for this matter, the Region noted that performance test data for LMS100 turbines at the Panoche Energy Center \* \* \* was submitted to the Region by the Applicant on January 12, 2012. This [sic] data, *with PM emissions in the range of 0.001 to 0.012 lb/MMBtu*, shows *considerable* variability in emissions from the LMS100 turbines. These results *are generally consistent* with the Region's conclusion that the 0.0065 lb/MMBtu PM limit selected for the [Pio Pico facility] was reasonable \* \* \*.

*Id.* (emphasis added).

The Region's post-hoc analysis comes too late; the analysis should have been part of the record available for public comments before the Region determined the final PM BACT limits.<sup>65</sup> Moreover, the Region's post-hoc summary lacks a detailed explanation of all the data and its significance.<sup>66</sup> According to the Region, PM emissions from Panoche range between 0.001 lb/MMBtu and 0.012 lb/MMBtu, showing considerable variability in emissions from LMS 100 turbines. *Id.* While the Panoche data do show variability, the majority of the available data are below 0.0065 lb/MMBtu. Out of the thirty-six data points available, only two show emission rates above 0.0065 lb/MMBtu (i.e., 0.012 lb/MMBtu and 0.007 lb/MMBtu). *See* January 2012 Letter at 13;

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<sup>65</sup> *See, e.g., In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 162 n.68 (EAB 2006) (noting that a permit issuer must articulate the reasons for its conclusion and must adequately document its decisionmaking as part of the permit decision itself and not for the first time on appeal); *In re Chem. Waste Mgmt.*, 6 E.A.D. 144, 151-52 (EAB 1995) (declining to rely on rationale permit issuer raised for the first time in response to an appeal); *In re Amoco Oil Co.*, 4 E.A.D. 954, 964 (EAB 1993) (remanding issue where permit issuer's rationale was articulated for the first time on appeal); *In re Waste Techs. Indus.*, 4 E.A.D. 106, 114 (EAB 1992) (rejecting post-hoc argument raised by permit issuer in response to an appeal).

<sup>66</sup> *See, e.g., Miss. Lime*, slip op. at 25, 15 E.A.D. at \_\_\_ (remanding faulty BACT analysis to allow public comments); *Knauf I*, 8 E.A.D. at 175 (remanding incomplete BACT analysis and requiring that new analysis be made available for public comments).

Region Resp. excerpt E tab. 3. The rest of the data points are below 0.005 lb/MMBtu, except for two data points, one at 0.00605 lb/MMBtu and another at 0.006 lb/MMBtu, which are still slightly under 0.0065 lb/MMBtu. The Region's footnote does not analyze these data in detail nor explain how, if at all, they affect the Region's PM BACT determination for Pio Pico, and more importantly, neither do the Fact Sheet nor the response to comments document.

The record also shows that another facility, the CPV Sentinel Project ("CPV Sentinel"), also utilizes the GE LMS 100 turbines. *See* RTC at 50. Mr. Sarvey brought this facility to the Region's attention in his comments on the draft permit. *See id.* (noting that this facility is permitted at 5 lb/hr). In responding to this comment, the Region merely explained the difference between an emission limit with one significant figure and one with two significant figures (i.e., 5 lb/hr vs. 5.0 lb/hr). *See id.* at 51. The record, however, does not demonstrate that the Region factored the data of this facility into its BACT analysis or determined that the facility was inappropriate to use for comparison. *See id.*

As the *NSR Manual* states, "[i]n the absence of a *showing of differences* between the proposed source and previously permitted sources achieving lower emissions limits, the permit agency should conclude that the lower emissions limit is representative for that control alternative." *NSR Manual* at B.24 (emphasis added). The permitting agency has an obligation to investigate and examine recent regulatory determinations, especially if, as in this case, examples are brought to its attention. *Miss. Lime*, slip op. at 23, 15 E.A.D. at \_\_\_. The existence of a similar facility with a lower emissions limit creates an obligation for the permit applicant and permit issuer to *consider and document* whether the same emission level can be achieved at the proposed facility. *Id.* Simply stating that PM emissions vary even on identical turbine models, without considering and documenting BACT limits and emission rates from existing facilities with the same turbine model, is not sufficient to satisfy this obligation. *Cf. Miss. Lime*, slip op. at 33, 15 E.A.D. at \_\_\_ (noting importance of carefully evaluating multiple sources and data points as well as information such as recent permit limits at similar facilities).

The Region had an obligation to investigate and evaluate Panoche and CPV Sentinel, particularly considering the fact that the Region had information about them in the record and was therefore aware of their existence. The Region also had an obligation to explain, as it did with the three test facilities it examined in the Fact Sheet, whether there are differences between the Facility and these two additional facilities, and/or whether source-specific factors exist that justify the selection of an emission limit that is higher than that achieved by, or permitted at, these particular sources.

The Region's failure to adequately consider at the appropriate time what appears to be significant information casts doubt on the BACT analysis and on the adequacy of 0.0065 lb/MMBtu as emission limit representative of BACT for this Facility. Therefore, the Board concludes that the record does not reflect the exercise of the permit issuer's considered judgment in determining that the emissions limit selected constitutes BACT.

b. *Selection of 80 Percent Load as the Defining Criterion for Applying Different Emission Limits*

Examination of the record also shows a gap in adequately explaining the selection of 80 percent load as the criterion for defining when different emission limits apply. Neither the response to comments document nor the Region's response to the petitions explain whether a two-tier approach, like the one adopted in this case, is typical for this type of facility, or why 80 percent, rather than any other potential percentage, was selected as the threshold.<sup>67</sup>

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<sup>67</sup> Neither does Pio Pico. As explained earlier, the Region modified the proposed emission limit for PM in response to Pio Pico's comments raising concerns about the Facility's ability to meet the emission limit proposed in the draft permit during low loads. The Region was persuaded by information Pio Pico provided in a December 2011 submission. See Letter from Steve Hill, Sierra Research, to Gerardo Rios, Chief, Air Permits Office, U.S. EPA Region 9 (Dec. 8, 2011) (A.R. I.31) [hereinafter December 2011 Letter]; RTC at 6 n.3. Pio Pico's submission explained that: (1) it had originally proposed a compliance limit of 5.5 lb/hr, rather than a limit expressed in lb/MMBtu; (continued...)

For instance, the Region's response to comments explained why a change in the proposed limit was necessary,<sup>68</sup> why emission rates from the test facilities may not apply to the Pio Pico Facility, and why Pio Pico's Facility should be able to meet the new emission limits. RTC at 6, 26. The Region's response to comments also explained why the Permit requires an emission limit expressed in units of lb/MMBtu, the source of the new emission limit of 5.5 lb/hr, and why the lb/hr limit is achievable at low loads.<sup>69</sup> *Id.* The Region's response to comments, however, did not explain the basis for selecting 80 percent as the threshold above which 0.0065 lb/MMBtu, and below which 5.5 lb/hr, represents BACT.

In its response to the petitions, the Region asserts that the selection of 80 percent load is based on its best professional judgment, reiterates the reasons provided in the response to comments, and explains why PM performance test data from other facilities are difficult to use for determining PM BACT limits. *See* Region Resp. at 29-30. These

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<sup>67</sup>(...continued)

(2) the proposed limit was intended to apply under all circumstances; (3) in its "achieved-in-practice" emission rate analysis, it considered PM BACT limits from other sources, but the most recently permitted units had no operating history; (4) for the only facility with an operating history, it was not possible to determine compliance with the limit expressed in lb/MMBtu, and initial compliance testing results for total PM showed that the facility did not comply with its PM limits. Pio Pico concluded that there is no "achieved-in-practice" BACT. December 2011 Letter at 2-4. Notably, Pio Pico's letter does not suggest any specific load percentage as a threshold.

<sup>68</sup> *See* RTC at 6 (explaining that turbines are less fuel efficient at lower loads and that because there is no control device for PM emissions the applicant cannot take measures to improve the lb/MMBtu PM emissions at lower loads).

<sup>69</sup> *See* RTC at 6 (stating that "[t]he lb/MMBtu is being applied at high loads because it represents the testing conditions that will be used to demonstrate compliance during performance testing. Compliance with the lb/MMBtu limit at high loads demonstrate that the turbines are meeting BACT by using good combustion practices. The 5.5 lb/hr limit is the emission rate that was used in the application to demonstrate compliance with the PM<sub>10</sub> and PM<sub>2.5</sub> NAAQS. This limit is achievable at lower loads because PM emissions per unit of time will be less at lower loads when less fuel is being used.").

assertions, however, are insufficient to compensate for omissions in the response to comments document.<sup>70</sup> Lack of an adequate explanation of the rationale for selecting 80 percent load above other load percentages cannot be dismissed as a trivial matter. As Sierra Club points out, the new emission limit for operations below 80 percent is less stringent than 0.0065 lb/MMBtu.<sup>71</sup> Because this represents a significant change between the draft and final Permit, at a minimum, the record should reflect the Region's technical considerations for selecting this particular level. Simply stating that the Region used its best professional judgment to select 80 percent, without an articulation of what went into that judgment, is insufficient and requires a remand.<sup>72</sup> *E.g.*, *Vulcan*, slip op. at 33-34, 15 E.A.D. at \_\_\_ (remanding in part because administrative record did not include any discussion of what an appropriate compliance margin should be, why the margin should be set at a particular level, or what data from other facilities might support the proposed level); *In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 589-90 (EAB 2006) (remanding permit condition because permit issuer failed to provide rationale explaining "precisely why it ultimately selected five days (as opposed to any other number of days, such as six or seven)");

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<sup>70</sup> One of the arguments Sierra Club raises in its petition is that the record does not show consideration of low-load emission data, Sierra Club Pet. at 9, the implication being that the Region should have evaluated low-load emission rates from different facilities to determine the load at which 0.0065 lb/MMBtu is no longer achievable. The Region's response to the petitions does not address this argument. On remand, the Region should evaluate low-load emission data from other facilities, if available, or explain why it is unnecessary or infeasible to perform such an analysis, and should explain the reasons for selecting a specific load as the threshold for applying two different BACT limits.

<sup>71</sup> In its December 2011 Letter, Pio Pico explains that the expected emission rate at low load is 0.01 lb/MMBtu. December 2011 Letter at 6.

<sup>72</sup> Notably, in selecting a BACT limit for CO<sub>2</sub> that corresponds to the Facility's operation at 50 percent load, the Region rejected Pio Pico's suggestion to select a limit based on a heat rate calculation that corresponds to 75 percent load. The Region decided against Pio Pico's suggestion because of a lack of technical justification for why the limit should be based at 75 percent. RTC at 16; *see supra* Part VIII.F.1. Unlike here, the record regarding the selection of a BACT limit for CO<sub>2</sub> explains the Region's rationale for selecting a limit that corresponds to the Facility's operation at 50 percent load.

*In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417 (EAB 1997) (explaining that the permit issuer “must articulate with reasonable clarity the reasons for [its] conclusions and the significance of the crucial facts in reaching those conclusions”).

c. *Selection of 5.5 lb/hr as BACT for Loads Under 80 Percent*

Similarly, the selection of 5.5 lb/hr as BACT for loads under 80 percent is not adequately explained in the record. The record lacks a formal BACT analysis demonstrating that 5.5 lb/hr constitutes BACT for loads under 80 percent. Here, the record establishes that: (1) 5.5 lb/hr is the compliance limit Pio Pico requested in its application<sup>73</sup> as representing expected PM emissions from the GE LMS 100 turbines based on their engineering design, Fact Sheet & AAQIR at 14; (2) Pio Pico used this figure to demonstrate compliance with the NAAQS, RTC at 6; and (3) 5.5 lb/hr is equivalent to 0.0065 lb/MMBtu measured at or near peak turbine load, January 2012 Letter at 12. The record also shows that the Region was interested in an emission limit expressed in units of lb/MMBtu of heat input and thus requested that Pio Pico provide additional analysis to support such an emission limit for PM. December 2011 Letter at 2 (explaining that Region requested that the proposed limit be expressed as an emission rate in units of lb/MMBtu in order to facilitate comparison with other facilities).

While the record explains how the 5.5 lb/hr and 0.0065 lb/MMBtu figures were derived, there is no formal BACT analysis providing support for the determination that 5.5 lb/hr constitutes BACT for loads below 80 percent.<sup>74</sup> Notably, the Region’s BACT

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<sup>73</sup> In its permit application, Pio Pico proposed a PM compliance limit of 5.5 lb/hr applicable under all circumstances (including full load, startup, and shut down). See Revised Application at 4.32 tbl.4-17.

<sup>74</sup> Another argument Sierra Club raises is that the record appears to show that the emission rates in lb/MMBtu at low loads for at least one other facility are significantly  
(continued...)

analysis focused on comparing performance test data expressed in units of lb/MMBtu of heat input from similar simple-cycle plants. Fact Sheet & AAQIR at 14; *see also* December 2011 Letter at 2, tbl. 1 (excluding certain facilities from further evaluation because PM limit was not expressed in lb/MMBtu). The Region, however, did not compare BACT limits, performance test data, or emission rates at different loads in lb/hr from similar simple-cycle facilities, or explain why these types of analyses are either unfeasible or unnecessary in this case, nor did it conduct any other type of analysis to establish the 5.5 lb/hr limit as BACT. Fact Sheet & AAQIR at 14. As noted above, without an articulation in the record of the BACT analysis, the Board cannot perform any review of that analysis and, therefore, cannot conclude that it meets the requirement of rationality. *See In re Gov't of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 342 (EAB 2002) (noting that permit issuer failed to commit its analysis to writing and remanding permit to provide or develop record support for its permit determination). Therefore, even if 5.5 lb/hr in fact represents PM BACT for the Facility, the Board cannot, on this record, properly review the Region's analysis or determine whether the Region clearly erred in selecting 5.5 lb/hr as BACT for loads below 80 percent. As noted earlier, BACT determinations are critical elements of the PSD permitting program and must be well documented in the administrative record.

4. *Because the Record Does Not Reflect the Permit Issuer's Considered Judgment in Selecting BACT Limits for PM, a Remand Is in Order*

To correct the record inconsistencies identified above and the lack of adequate support and explanation for the new load-based PM emission limits, the Board remands this permit condition to the Region so that the Region may prepare a revised BACT analysis and make a new BACT determination for PM based on the exercise of its technical

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<sup>74</sup>(...continued)

lower than the lb/MMBtu at low loads with a 5.5 lb/hr limit. *See* Sierra Club Pet. at 9, 29. The Region does not address this specific argument; therefore, the Region should address this argument on remand.

judgment after consideration of all of the relevant information. Specifically, on remand the Region should: (1) consider emission data and BACT limits from Panoche and CPV Sentinel in its BACT analysis and document whether the limits or emission rates observed at these facilities can or cannot be achieved at the Facility; (2) explain whether a two-tier load-based approach is typical for similar facilities, and if not, why such an approach is appropriate in this case. If a load-based approach continues to be the Region's choice, the Region must: (1) provide a rationale explaining any specific load level selected; and (2) provide record support for the emission limits selected as BACT for high and low loads consistent with this decision.<sup>75</sup> In addition, the Region is directed to reopen the public comment period to provide the public with an opportunity to review and comment on this analysis.

H. *Helping Hand Tools Has Not Demonstrated That the Region Clearly Erred by Relying on Federally Enforceable Permit Terms Included in the SDAPCD's Final Determination of Compliance to Conclude That the Facility's Potential to Emit Carbon Monoxide Will Not Exceed the Significant Emission Threshold That Would Otherwise Require Compliance with the PSD Program*

Helping Hand Tools argues that the Region clearly erred when it concluded that the Facility's carbon monoxide ("CO") emissions fall below the 100 tons per year ("tpy") threshold that would require compliance with the PSD program, and urges the Board to remand the Permit to the Region to recalculate the Facility's potential to emit CO and to conduct a BACT analysis for CO. Helping Hand Tools Pet. at 3-4. Helping Hand Tools asserts that the Region incorrectly assumed that CO emissions were greatest at the Facility's maximum load, which in

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<sup>75</sup> Because the Board is remanding the permit to the Region for additional examination of the BACT emission limits for PM, the Board need not address the argument Helping Hand Tools raises about 5 lb/hr being a more restrictive limit than 5.5 lb/hr, and the Region's corresponding response. See Helping Hand Tools Pet. at 4; RTC at 50.

turn caused the Region to underestimate the Facility's emissions.<sup>76</sup> *Id.* at 3. In particular, Helping Hand Tools challenges the Region's conclusion that maximum CO emissions at 100 percent and 50 percent loads are expected to be the same, and alleges that the Region "fails to explain how the oxidation catalyst control efficiency leads to identical emission rates at different loads." *Id.* Finally, Helping Hand Tools alleges that the Region cannot rely on the 96.4 tpy CO emission limit included in the Final Determination of Compliance that SDAPCD issued to the Facility as "an effective federally enforceable CO permit limit." *Id.* at 4 (citing RTC at 76); *see generally* Final Determination of Compliance, San Diego Air Pollution Control District (May 4, 2012) (A.R. V.33) [hereinafter SDAPCD Permit].

The Region states that the SDAPCD Permit requires each turbine to be equipped with an oxidation catalyst to control CO emissions from the Facility, such that emissions from the turbines at any load will equal 4.0 parts per million dry volume ("ppmvd") per hour corrected to 15 percent oxygen ("O<sub>2</sub>"), 0.0088 lb/MMBtu, and 7.97 lb/hr regardless of load. *See* RTC at 75 (citing Revised Application at 4.32, 1.51 tbl.1C.1); Revised Application at 1.53 tbl.1C.3 (detailing calculations for maximum hourly, daily, and annual criteria pollutant emissions); Region Resp. at 34. The oxidation catalyst is a post-combustion, or add-on air pollution control technology, through which exhaust gas emitted from each of the turbines passes. The oxidation catalyst reduces the concentration of CO in the exhaust gas to 4.0 ppmvd at 15 percent O<sub>2</sub>

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<sup>76</sup> Carbon monoxide emissions result from incomplete combustion and thus occur at higher rates when turbines operate at low and medium loads. *See* Office of Air Quality, Planning & Standards, U.S. EPA, I *Compilation of Air Pollutant Emission Factors AP-42: Stationary Point and Area Sources* at 3.1-4 (6th ed. Sept. 1998) ("AP-42 Guidance"), *cited in* Helping Hands Tools Pet. at 3 *and* RTC at 75; *see also* Revised Application at 4.7; *supra* note 50.

before it is released into the atmosphere.<sup>77</sup> See Revised Application at 3.33; see also Fact Sheet & AAQIR at 4.

The Region maintains that because the SDAPCD Permit requires the oxidation catalyst, regardless of load, the annual mass emissions of CO will equal 96.4 tpy. RTC at 75. The Region further asserts that because the terms of the SDAPCD Permit are federally enforceable, the Facility's potential to emit CO is not "significant,"<sup>78</sup> and thus the Facility is not subject to PSD requirements. RTC at 75-76; Region Resp. at 24.

The question the Board must answer is whether the Region clearly erred by relying on the SDAPCD Permit to establish a federally enforceable CO emission limit that effectively precludes the Facility from the need to comply with PSD requirements for CO. To begin its analysis of this question, the Board first briefly reviews the rules that determine under what circumstances PSD requirements apply to a particular pollutant.

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<sup>77</sup> Specifically:

The CO oxidation catalyst is an add-on device that is placed in the turbine exhaust duct. It promotes the oxidation of hydrocarbon compounds to carbon dioxide (CO<sub>2</sub>) and water (H<sub>2</sub>O) as the emission stream passes through the catalyst bed. The catalyst is usually a precious metal such as platinum, palladium, or rhodium. \* \* \* The oxidation process takes place spontaneously, without the requirement for introducing reactants. The performance of a CO oxidation catalyst is affected by factors such as operating temperature and the presence of poisons in the emission stream.

Letter from Sims Roy, Emissions Standards Div., Combustion Group, Office of Air Quality, Planning & Standards, U.S. EPA, to Docket A-95-51, Re: Hazardous Air Pollutant (HAP) Emission Control Technology for New Stationary Combustion Turbines, attach. A, at 1 (Aug. 21, 2001), available at [http://deq.state.ms.us/MDEQ.nsf/pdf/epd\\_CT\\_HAP\\_TECHNICAL\\_GUIDANCE/\\$File/CT\\_HAP.pdf?OpenElement](http://deq.state.ms.us/MDEQ.nsf/pdf/epd_CT_HAP_TECHNICAL_GUIDANCE/$File/CT_HAP.pdf?OpenElement).

<sup>78</sup> As explained below in more detail, the significant emission rate for CO is 100 tpy, 40 C.F.R. § 52.21(b)(23)(i), whereas the Facility's potential to emit is 96.4 tpy of CO. See Fact Sheet & AAQIR at 6-7 (noting that each turbine is expected to emit approximately 32.1 tpy of CO).

A source's potential to emit relates to its inherent ability to emit air pollutants. *Shell Offshore 2012*, slip op. at 17, 15 E.A.D. at \_\_\_; *Shell Offshore 2007*, 13 E.A.D. at 365; *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 30 (EAB 2005). The PSD regulations define potential to emit as:

[T]he maximum capacity of a stationary source to emit a pollutant under its physical and operational design. *Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.* Secondary emissions do not count in determining the potential to emit of a stationary source.

40 C.F.R. § 52.21(b)(4) (emphases added). In general, EPA evaluates a source's potential to emit to determine whether the source is "major," and thus subject to regulation under the CAA. *See* CAA § 165(a), 42 U.S.C. § 7475(a) (requiring PSD permits for any "major emitting facility" on which construction is commenced); 40 C.F.R. § 52.21(b)(1)(i) (defining a "major stationary source," in part, as "any stationary source which emits, or has the potential to emit, 250 tons or more per year of a regulated NSR pollutant").<sup>79</sup> "Thus, [potential to emit] is a technical determination that 'is jurisdictional in nature.'" *Peabody*, 12 E.A.D. at 30 (quoting *Ala. Power Co. v. Costle*, 636 F.3d 323, 352 (D.C. Cir. 1979)); *accord Shell Offshore 2012*, slip op. at 17, 15 E.A.D. at \_\_\_.

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<sup>79</sup> Beginning in July 2011, new stationary sources that emit or have the potential to emit 100,000 tpy or more of CO<sub>2</sub>-equivalent are subject to regulation under the PSD program. *See* 40 C.F.R. § 52.21(b)(49)(v); *see generally* Office of Air Quality Planning & Standards, U.S. EPA, *PSD and Title V Permitting Guidance for Greenhouse Gases 1-5* (Mar. 2011) (explaining relevant background regarding regulation of GHGs).

In this instance, the Facility is a new major source covered under the PSD program because it will have the potential to emit more than 100,000 tpy of greenhouse gases as provided in 40 C.F.R. § 52.21(b)(49). *See* Fact Sheet & AAQIR at 5-6 & tbl. 6-1 (estimating annual mass CO<sub>2</sub> emissions to be 623,299 tpy); *see also* Revised Application at 1.1, 4.49. As the Region explained in the Fact Sheet, once a source is considered major for at least one regulated NSR pollutant,<sup>80</sup> the PSD program also applies to any other regulated pollutant that the facility has the potential to emit in significant amounts, i.e., at or above the significant emission rate. *See* 40 C.F.R. § 52.21(b)(23)(i) (noting that “significant means, in reference to \* \* \* the potential of a source to emit,” that a source would emit at a rate equal to or in excess of the pollutant-specific emission rates set forth in the rule);<sup>81</sup> Fact Sheet & AAQIR at 6 & tbl. 6-1 (noting the Facility’s estimated annual emissions, major source threshold, and significant emission rate for regulated NSR pollutants); Revised Application at 4.11-.12.

Concurrent with the Region’s PSD permitting process, SDAPCD received an application for a Determination of Compliance from Pio Pico and undertook a review of the air quality impacts of the proposed

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<sup>80</sup> The regulations define “regulated NSR pollutant” as any CAA pollutant for which a NAAQS has been promulgated, any pollutant subject to standards promulgated under section 111 of the CAA, a Class I or Class II substance subject to title VI of the CAA, or any pollutant that is otherwise subject to regulation under 40 C.F.R. § 52.21(b)(49). 40 C.F.R. § 52.21(b)(50).

<sup>81</sup> The level of significance is, for example, 40 tpy for NO<sub>x</sub>, 40 tpy for sulfur dioxide, 100 tpy for CO, and 40 tpy for volatile organic compounds. 40 C.F.R. § 52.21(b)(23) (listing various air pollutants and levels of emissions deemed “significant”).

Facility.<sup>82</sup> SDAPCD Permit at 1. Among other things, the SDAPCD Permit requires Pio Pico to install oxidation catalyst technology to control emissions of both CO and volatile organic compounds (“VOCs”). SDAPCD Permit at 1, 4, 20 (noting that the oxidation catalyst add-on air pollution control system “is the only post-combustion technology currently available to control CO, VOCs, and toxic emissions”). With this background in mind, the Board now turns to the substance of Helping Hand Tools’ challenges to the Region’s CO permitting decision.

Helping Hand Tools first asserts that the Region erred by underestimating the Facility’s potential to emit CO because it based its calculation on the Facility’s operation at 100 percent load, whereas CO emissions generally increase as load decreases due to incomplete combustion. Helping Hand Tools Pet. at 3-4; *see also* Letter from Johannes Epke, Helping Hand Tools, to Roger Kohn, U.S. EPA Region 9, at 1-2 (July 24, 2012) [hereinafter Helping Hand Tool Cmt.]. The Region responded to Helping Hand Tools’ comments on the draft permit:

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<sup>82</sup> At the same time it submitted an application to SDAPCD, Pio Pico also submitted an Application for Certification (“AFC”) to the CEC. Projects that require an AFC must also obtain a determination of compliance from the local air district. The District further explained its role when it issued the SDAPCD Permit in May 2012:

The [Facility] is subject to the approval of the [CEC] because the proposed power plant has a nominal rating greater than 50 MW. The applicant filed an [AFC] with the CEC in February 2011 (CEC Docket No. 11-AFC-01). The [SDAPCD] is considered a responsible agency for this approval and is required to submit a Preliminary Determination of Compliance (PDOC) and a Final Determination of Compliance (FDOC) to the CEC. Pursuant to District Rule 20.5, the Final Determination of Compliance review is functionally equivalent to an Authority to Construct.

SDAPCD Permit at 1; *see also* Revised Application at 4.19 (explaining that new power plant projects reviewed under the CEC AFC process must obtain an FDOC from the local air district that, when all of the conditions from the FDOC are incorporated into a CEC Final Decision, constitute an Authority to Construct); SDAPCD Permit at 28-29 (noting that the FDOC is equivalent to an authority to construct and will be submitted to the CEC).

**PIO PICO ENERGY CENTER**

While EPA agrees that *uncontrolled* CO emissions from the engines will vary between 50% and 100% load, *these engines will be equipped with oxidation catalysts. Regardless of load*, the maximum CO emission rates from the Project (excluding startups and shutdowns, which are accounted for separately) are expected to be 4.0 ppmv @ 15% O<sub>2</sub>, 0.0088 lb/MMBtu, and 7.97 lb/hr. *These rates were calculated from emission concentration rates and the exhaust flow rates from vendor performance data, and reflect the control efficiency expected to be achieved by the oxidation catalyst required by the permit issued to [Pio Pico] by the SDAPCD.*

EPA concurs with the CO emission data presented by the applicant. The SDAPCD permit contains effective federally enforceable CO emission limits \* \* \*. [The Facility] does not have “significant” emissions of CO, as that term is defined in the PSD regulations at 40 CFR [§] 52.21, and therefore it is not subject to PSD review.

RTC at 75-76 (emphases added) (citations omitted). Helping Hand Tools acknowledges the Region’s response in its petition, stating that it was “unsatisfied by EPA’s explanation that the maximum CO emissions stated in the Permit applies to all loads,” and also challenges similar conclusions in the Revised Application that maximum CO emissions at all loads are expected to be the same, stating that “[t]he reasoning behind this claim is unknown.” Helping Hand Tools Pet. at 3.

As explained above, a source’s potential to emit “is a technical determination that ‘is jurisdictional in nature.’” *Peabody*, 12 E.A.D. at 30 (quoting *Ala. Power Co. v. Costle*, 636 F.3d 323, 352 (D.C. Cir. 1979)). Here, Helping Hand Tools’ statements that it is unsatisfied with the Region’s explanation and that the reasoning for the Region’s decision is unknown do not demonstrate that review of this issue is warranted given the high threshold a petitioner must meet to obtain review of a permit issuer’s fundamentally technical decision that is supported in the

record. *E.g.*, *In re Prairie State Generating Co.*, 13 E.A.D. 1, 100 (EAB 2006), *aff'd sub nom. Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007) (“We generally accord broad deference to permitting authorities with respect to issues, such as this one, requiring the exercise of technical judgment and expertise.”); *accord In re BP Cherry Point*, 12 E.A.D. 209, 228 (EAB 2005); *Peabody*, 12 E.A.D. at 22. Helping Hand Tools has not substantively confronted the Region’s explanation, which is particularly important in technical matters, and has not explained why the Region’s decision was clearly erroneous. *See, e.g.*, *In re City of Palmdale*, PSD Appeal No. 11-07, slip op. at 33-34 (EAB Sept. 17, 2012), 15 E.A.D. \_\_\_, *appeal docketed sub nom. Simpson v. EPA*, No. 12-74124 (9th Cir. Dec. 18, 2012).

Similarly, the Board rejects Helping Hand Tools’ second assertion that the Region cannot rely on the federally enforceable permit limit contained in the SDAPCD Permit. Helping Hand Tools maintains that the underlying calculation of 96.4 tpy of CO emissions is flawed and states the following in support of its assertion:

The 96.4 tpy is meant to represent the facility’s maximum potential CO emissions based on physical and operational design. \* \* \* If the plant cannot emit more than 96.4 tpy under the physical and operational design of the facility, then it is unnecessary to rely on a permit limit of 96.4 tpy. If EPA is attempting to allow [the Facility] to avoid PSD review for CO by relying on a permit limit of 96.4 tpy rather than a limit based on the facility’s physical and operational design, this synthetic minor CO status must be made clear and examined in more detail.

Helping Hand Tools Pet. at 4.

Helping Hand Tools’ objection to the Region’s reliance on the CO emission limits in the SDAPCD Permit misconstrues the definitions of both “potential to emit” and “federally enforceable” set forth in the PSD regulations. As noted above, any physical or operational limitation

on the source's capacity to emit a pollutant, including air pollution control equipment, "shall be treated as part of [the source's] design if the limitation or the effect it would have on emissions is federally enforceable." 40 C.F.R. § 52.21(b)(4). Thus, if a permit contains a federally enforceable limit, it is treated as part of the source's design, and the source's potential to emit cannot properly be calculated without that limit. *See Shell Offshore 2007*, 13 E.A.D. at 392 (noting that neither the CAA nor its implementing regulations require calculation of a source's maximum capacity to emit absent federally enforceable limitations); *see also Shell Gulf of Mex. 2012*, slip op. at 35, 15 E.A.D. at \_\_\_\_\_. The PSD regulations define federally enforceable as follows:

Federally enforceable means all limitations and conditions which are enforceable by the Administrator, including those requirements developed pursuant to 40 C.F.R. parts 60 and 61, requirements within any applicable State implementation plan, any permit requirements established pursuant to 40 C.F.R. 52.21 or under regulations approved pursuant to 40 C.F.R. part 51, subpart I, including operating permits issued under an EPA-approved program that is incorporated into the State implementation plan and expressly requires adherence to any permit issued under such program.

40 C.F.R. § 52.21(b)(17).

The Board agrees with the Region that the Region can rely on the terms of the SDAPCD Permit, which requires the oxidation catalyst to control both CO and VOC emissions, as an effective, federally enforceable limit on CO emissions in the PSD permit. *See RTC at 76; see also John S. Seitz, Dir., EPA Office of Air Quality, Planning & Standards, Release of Interim Policy on Federal Enforceability of Limitations on Potential to Emit* (Jan. 22, 1996) ("[T]he term 'federally enforceable' should now be read to mean 'federally enforceable or legally and practicably enforceable by a state or local air pollution control agency.'" (emphasis excluded)), *quoted in Peabody*, 12 E.A.D.

at 31 n.22. California established local air pollution control districts and air quality management districts with the principal responsibility for regulating air emissions from all sources other than motor vehicles. *See generally* Cal. Health & Safety Code §§ 40000-41357 (Air Pollution Control Districts); *see also* Revised Application at 4.15 (detailing history of state air pollution control). The proposed Facility is under the local jurisdiction of the SDAPCD, and thus, compliance with SDAPCD regulations will assure compliance with state and federal air quality requirements. *See* Cal. Health & Safety Code § 40001(a) (“Subject to the powers and duties of the state board, the districts shall adopt and enforce rules and regulations to achieve and maintain the state and federal ambient air quality standards in all areas affected by emission sources under their jurisdiction, and shall enforce all applicable provisions of state and federal law.”); *see also* Revised Application at 4.51. The District has been delegated the authority to implement local, state, and federal air quality regulations in the San Diego air basin. *See* SDAPCD Reg. II, R. 20.1(c)(26) (defining federally enforceable for purposes of permitting new or modified sources as anything that can be enforced by the EPA through either a state implementation plan or an authority to construct or permit to operate, including, among other things, “[a]ny term or condition of an Authority to Construct issued pursuant to these rules and regulations which term or condition is imposed pursuant to 40 CFR Parts 60 or 61, 40 CFR Part 52.21 or 40 CFR Part 51, Subpart I”). Thus, the District’s rules designed to address new source review pollutants are enforceable at the local and state level, and federally enforceable in terms of the Facility’s PSD permit.

Helping Hand Tools’ petition does not address the PSD regulations that define potential to emit or federal enforceability, nor does it explain why the Region’s decision constitutes clear error. Rather, Helping Hand Tools essentially challenges the Region’s decision to rely on the terms of the SDAPCD Permit as federally enforceable permit terms within the PSD permit, which is an inherently technical decision. The federal PSD permitting scheme envisions cooperation with state and local permitting entities to ensure, as here, that new source construction does not have a deleterious impact on local air quality. Given the

Region's thorough response to this issue, Helping Hand Tools has not carried the heavy burden required to demonstrate that review of a permit issuer's technical decision is warranted. *E.g., Prairie State*, 13 E.A.D. at 100; *Peabody*, 12 E.A.D. at 22. Thus, the Board denies review of the CO emission limit in the Facility's PSD permit.

I. *Mr. Simpson Has Not Demonstrated That the Region Clearly Erred in Allowing the Use of Data from an Air Quality Monitor Located Nine Kilometers from the Facility*

The Board now examines Mr. Simpson's challenge to the location of the air quality monitors. Mr. Simpson claims that "EPA failed to utilize the correct monitors" and "allowed the [permit] applicant to utilize a distant monitor instead of the nearly adjacent ones including the one at the prison." Simpson Pet. at 8. Mr. Sarvey raised a similar argument during the public comment period. *See* RTC at 65.<sup>83</sup> There

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<sup>83</sup> The Board notes that Mr. Simpson's petition does not demonstrate that he or any other commenter raised this issue during the public comment period. As noted in Part III, the failure to demonstrate that an issue was preserved is a basis for denying review. *E.g., Palmdale*, slip op. at 31, 15 E.A.D. at \_\_\_ (noting that the Board is not required to scour the entire administrative record to determine whether an issue was raised in comments below); *In re ConocoPhillips Co.*, 13 E.A.D. 798, 801 (EAB 2008) (same). However, because the Board is aware that Mr. Sarvey raised a similar issue, the Board will not deny review of the issue Mr. Simpson raises on appeal on this basis.

The Board, nonetheless, takes this opportunity to remind petitioners of the importance of satisfying this requirement and of the new provision in part 124, which applies to petitions filed after March 26, 2013, and reads as follows:

Petitioners must demonstrate, by providing specific citation to the administrative record, including the document name and page number, that each issue being raised in the petition was raised during the public comment period (including any public hearing) to the extent required by § 124.13. For each issue raised that was not raised previously, the petition must explain why such issues were not required to be raised during the public comment period as provided in § 124.13. Additionally, if the petition raises an issue that the Regional Administrator addressed in the response to comments document issued pursuant to § 124.17, then petitioner must provide

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Mr. Sarvey claimed that the monitoring site selected “is not representative of the ambient air concentrations currently encountered near the project site because it does not capture the air quality impacts from the Otay Mesa Power plant and is located 9 [kilometers] away.” *See id.*

The Region fully addressed Mr. Sarvey’s comment, explaining why the location of the monitoring site selected (the Chula Vista monitoring station) was appropriate and clarifying that the emissions from the Otay Mesa Power Plant were modeled as emissions from a nearby source in the cumulative impacts analysis. *Id.* at 37 (explaining, among other things, why site-specific monitoring was not required in this case, why it was necessary to identify a representative background concentration, and why the use of the Chula Vista monitor was appropriate to satisfy regulatory requirements); *id.* at 65 (explaining that the closest PM<sub>2.5</sub> monitor is in fact the Chula Vista monitoring station, and that the cumulative impact analysis was only required for PM<sub>2.5</sub> and NO<sub>2</sub>).

Mr. Simpson does not confront the Region’s response to comments by explaining why the Region’s explanation is clearly erroneous. In fact, Mr. Simpson does not acknowledge that the Region responded to a similar comment. Again, petitioners may not simply reiterate comments made during the public comment period, but must substantively confront the permit issuer’s subsequent explanations and explain why the permit issuer’s response to comments is clearly erroneous or otherwise warrants consideration. *See supra* Part III. Failure to do so is a basis for denying review. *In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 143, 170 (EAB 2006). Because Mr. Simpson fails to confront the Region’s response to comments and demonstrate that the Region clearly erred in allowing the use of data from the Chula Vista

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<sup>83</sup>(...continued)

a citation to the relevant comment and response and explain why the Regional Administrator’s response to the comment was clearly erroneous or otherwise warrants review.

monitors, the Board denies review of Mr. Simpson's challenge to the location of the air quality monitors.

J. *Mr. Simpson Has Not Demonstrated That the Region Clearly Erred by Failing to Require Mitigation of Air Pollutants Through the Use of Emission Reduction Credits*

Mr. Simpson argues that “[t]he EPA failed to require adequate mitigation, as detailed in April Sumer’ [sic] comment [that] the [a]ir pollution credits are invalid.” Simpson Pet. at 8. The comments Mr. Simpson references address the Determination of Compliance proceedings conducted by the SDAPCD. *See generally* Sommer SDAPCD Cmt. The Region counters that Mr. Simpson failed to meet the threshold procedural requirements to obtain Board review because he did not explain “how or where in comments on the Proposed Permit this issue was raised, whether the Region responded to any such comments, and, if so, on what basis he disagrees with the Region’s response.” Region Resp. at 38. In addition, the Region notes that the credits Mr. Simpson referenced, also known as emission reduction credits, are used in nonattainment new source review permits, and thus are not properly before the Board in this PSD proceeding. *Id.* at 38-39 (quoting RTC at 61).

The Board’s analysis of this issue with respect to procedural requirements is similar to its analysis in the immediately preceding part wherein Mr. Simpson challenges the location of the air quality monitor used in the air quality analysis. Mr. Simpson’s petition does not include any statements identifying where he or any other commenter raised this issue during the public comment period of this PSD permit proceeding; he only references Ms. Sommer’s comments on this point, which were made during the SDAPCD proceeding. As the Board noted above, failure to demonstrate that an issue has been preserved for review is a basis for denying review. *See supra* Part III; *see also* note 88. The Board, however, is aware that Mr. Sarvey raised a similar issue in comments on the environmental justice analysis for this PSD permit, and thus the Board will not deny review on this basis. *See* Sarvey Cmt. at 7; RTC at 56.

In his July 24, 2012, comments on the proposed PSD permit, Mr. Sarvey commented that, “[t]he mitigation for air impacts for this project are not real time emission reduction credits but worthless paper credits from past emission reductions which have no value in reducing the existing emissions from the multitude of point sources near the project.” *See* Sarvey Cmt. at 7.<sup>84</sup> In response, the Region stated:

The commenter appears to suggest that mitigation may be required or should be further considered in the context of environmental justice impacts, but does not explain why he believes that is the case. EPA does not believe that mitigation for environmental justice impacts is necessary or appropriate in this case given that EPA’s PSD permitting action will not result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations as explained above. We also note that the commenter’s assertion about emission reduction credits focus on matters that are not regulated under the PSD permit. Nonattainment pollutants are addressed by the State and District approvals and comprehensive air quality planning processes, and thus are best addressed by the State/local air quality programs.

RTC at 61. Mr. Simpson does not confront the Region’s response to comments by explaining why it is erroneous, nor does he acknowledge in his petition that the Region responded to a similar comment. This Board has previously made clear that in order to obtain review, “the petitioner must address the permit issuer’s responses to relevant comments made during the process of permit development” and explain why, in light of the permit issuer’s rationale, the permit is clearly erroneous or otherwise warrants review. *Peabody*, 12 E.A.D. at 33.

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<sup>84</sup> Ms. Sommer’s comments, which Mr. Simpson references, also discuss emission reduction credits and offsets, although Ms. Sommer made her comments in the context of nonattainment new source review permitting. *See* Sommer SDAPCD Cmt. at 5-7.

Failure to do so is a basis for denying review. Mr. Simpson failed to confront the Region's response to comments and demonstrate that the Region clearly erred by declining to address emission reduction credits.<sup>85</sup> The Board therefore denies review of this issue.

#### IX. CONCLUSION & ORDER

For all the foregoing reasons, the Board denies review of all the issues except for PM BACT. Accordingly, the Board remands the Permit in part and directs the Region to correct the record inconsistencies regarding the BACT analysis for PM and the lack of adequate support and explanation for the new load-based PM emission limits. The Region is hereby directed to prepare a revised BACT analysis consistent with Part VIII.G.4 of this decision, and to reopen the public comment period to provide the public with an opportunity to review and comment on this analysis.

Once the Region issues a final permit decision following the public comment period required by this remand, that final permit decision and the Board's decision in this case become final agency action subject to judicial review. 40 C.F.R. § 124.19(l). Although an appeal to the Board is a prerequisite to judicial review of an initial final

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<sup>85</sup> The Region made clear in its response to comments that the SDAPCD is responsible for nonattainment new source review permitting, and in this instance the San Diego Air District is a federal nonattainment area for ozone. *See* RTC at 61; *see also* SDAPCD Reg. II, R. 20.3(d)(5) (discussing the requirement to provide offsets on a pollutant-specific basis for emission increases of nonattainment air contaminants and their precursors); Revised Application at 4.53. As this Board has previously noted:

The PSD review process is not an open forum for consideration of every environmental aspect of a proposed project, or even every issue that bears on air quality. In fact, certain issues are expressly excluded from the PSD permitting process. The Board will deny review of issues that are not governed by the PSD regulations because it lacks jurisdiction over them.

*Knauf I*, 8 E.A.D. at 127; *accord Shell Gulf of Mex. 2012*, slip op. at 47, 15 E.A.D. at \_\_\_\_; *Russell City*, slip op. at 134, 15 E.A.D. at \_\_\_\_.

permit decision, *id.* § 124.19(l)(1), such an appeal is not a prerequisite to judicial review of a final permit decision following a Board remand of a permit decision unless the Board “specifically provides that appeal of the remand decision will be required to exhaust administrative remedies.” *Id.* § 124.19(l)(2)(iii). The Board is not requiring, and will not accept, an appeal to the Board on the final permit decision following remand in this case.

So ordered.

**CERTIFICATE OF SERVICE**

I hereby certify that copies of the foregoing Order Remanding in Part and Denying Review in Part in the matter of Pio Pico Energy Center, PSD Appeal Nos. 12-04 through 12-06, were sent to the following persons in the manner indicated:

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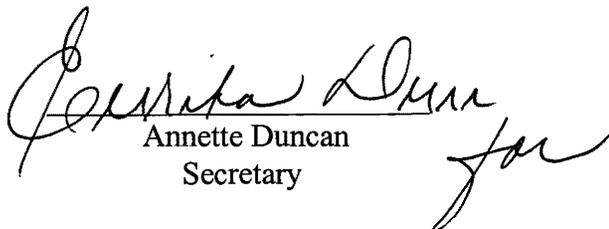
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Dated:

*August 2, 2013*

  
Annette Duncan  
Secretary