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

In re:	)	
Pio Pico Energy Center	)	Appeal Nos. PSD 12-04, PSD 12-05, and PSD 12-06
PSD Permit No. SD 11-01	)	

EPA REGION 9'S RESPONSE TO PETITIONS FOR REVIEW

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INTRODUCTION

The EPA Environmental Appeals Board ("EAB" or "Board") should deny review of the challenges brought by Petitioners Rob Simpson, Helping Hand Tools ("HHT"), and Sierra Club ("SC") to the Prevention of Significant Deterioration ("PSD") permit issued pursuant to section 165 of the Clean Air Act ("CAA") by EPA Region 9 ("the Region" or "Region 9") on November 19, 2012 to Pio Pico Energy Center, LLC ("Permittee," or "Applicant") authorizing the construction and operation of the Pio Pico Energy Center ("Project" or "PPEC"). The Region's PSD permit decision for the PPEC is fully supported by the record, including a detailed Fact Sheet and Ambient Air Quality Impact Report ("Fact Sheet") and response to comments document ("RTC"), and Petitioners have failed to demonstrate clear error, an abuse of discretion, or an important policy consideration warranting review in Region 9's decision. In addition, Petitioners have failed in some instances to meet the applicable procedural requirements for Board review.

FACTUAL AND PROCEDURAL BACKGROUND

On June 20, 2012, Region 9 proposed to issue a PSD permit ("Proposed Permit") to the Applicant for the PPEC. *See* Proposed Permit, SC Exhibit (hereinafter "Ex.") 5; see also Ex. 3 (RTC) at 2.[1] The PPEC, which would be located in San Diego County, California, is a 300-megawatt natural gas-fired power plant that would be operated as a peaking and load-shaping facility. Ex. 2 (Fact Sheet) at 1-3, 18-19. The PPEC was designed to directly satisfy San Diego area peaking and load-shaping generation current and long-term requirements, including supporting wind and solar generation, whose overall output varies. *Id.* at 10 n.4, 18-19. The PPEC's capacity for frequent and fast turbine startups is intended to provide necessary power to

[1] SC's excerpts of records are hereinafter denoted by numbers, while Region 9's are denoted by letters.

compensate for the intermittent nature of wind and solar generation, in order to provide support for the growth of renewable energy sources in the area. *Id.*

The Region's Fact Sheet accompanying the Proposed Permit described the Region's finding that the Proposed Permit was consistent with PSD requirements, because, among other things, the Proposed Permit required the Best Available Control Technology ("BACT") to limit emissions of nitrogen oxides ("NO_x"), total particulate matter ("PM"), particulate matter under 10 micrometers (μm) in diameter ("PM_{10}"), particulate matter under 2.5 μm in diameter ("$PM_{2.5}$") and greenhouse gases ("GHG"), to the greatest extent feasible; and the proposed emission limits would protect the National Ambient Air Quality Standards ("NAAQS") for nitrogen dioxide ("NO_2"), PM_{10}, and $PM_{2.5}$. *See* Ex. 2 at 1.

The public comment period for the Region's Proposed Permit began on June 20, 2012 and was proposed to close on July 24, 2012. RTC at 2. Region 9 also scheduled and held a public hearing on July 24, 2012; no oral public comments were submitted at the hearing, although one set of written comments was submitted at the hearing, which was also transmitted to Region 9 via email. RTC at 3. On July 24, 2012, a commenter, Mr. Robert Sarvey, notified Region 9 that he had not received the public notice of the Proposed Permit as he had requested, and requested a one-month extension of time to comment. RTC at 44. As a result, the Region discovered that an inadvertent discrepancy with its public notice distribution list had resulted in several parties not receiving the required notice, and the Region therefore extended the public comment period for the Proposed Permit to September 5, 2012. *Id.* Region 9 received a number of public comments from various parties during the initial and extended public comment period. *See generally* RTC.

On September 6, 2012, Mr. Sarvey notified Region 9 by email that although he had requested a copy of the Region's Environmental Justice Analysis ("EJ Analysis") for the PPEC in his comment letter transmitted to Region 9 on July 24, 2012, he had not received a copy of that analysis, and he requested a copy of the analysis so that he could comment on it. RTC at 44. The Region notified Mr. Sarvey that although the public comment period closed on September 5, 2012, and although the EJ Analysis had been available in the electronic docket during the public comment period, the Region was providing him with the EJ Analysis and would extend to him two additional weeks (until September 20, 2012) to comment only on the EJ Analysis because he had requested the EJ Analysis from EPA on July 24, 2012 and Region 9 had not directly responded to that request. The Region noted that it was not extending the public comment period for the Proposed Permit for the PPEC generally. RTC at 2 and n.2, 44; Ex. A.

After careful consideration of the public comments submitted regarding the Proposed Permit, including comments from the Petitioners, the Applicant, and other interested parties, on November 19, 2012, Region 9 issued a final decision to grant the Applicant a PSD permit for the PPEC. See Ex. 1 (Final Permit). The Final Permit included a number of changes as compared with the Proposed Permit. *See generally* Exs. 1 and 3. Along with the Final Permit, Region 9 prepared the 81-page RTC, which explained in detail the Region's reasoning in responding to the comments received, including the basis for any permit changes made and additional analyses conducted by the Region as part of its response. *See generally* RTC.

The EAB notified Region 9 of the filing of petitions for review of the Region's PSD permit decision for the PPEC by Mr. Simpson, SC, and HHT, and extended the date for the Region and the Permittee (an intervenor) to file a response to February 6, 2013. PPEC EAB Docket Nos. 4-6, 9-10.

STANDING AND STANDARD AND SCOPE OF REVIEW

When considering a petition for review of a PSD permit, the Board "first considers whether the petitioner has met key threshold pleading requirements such as timeliness, standing, and issue preservation….. [I]n order to demonstrate that an issue has been preserved for appeal, a petitioner must show that any issues being appealed were raised with reasonable specificity during the public comment period." *In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 143 (EAB 2006) (internal citations and footnotes omitted). The burden of establishing that issues have been preserved for review rests squarely with the petitioner. *In re Encogen Cogeneration Facility* ("*Encogen*"), 8 E.A.D. 244, 250 (EAB 1999). A petitioner must not only specify objections to the permit but also must explain why the permit issuer's previous response to those objections is clearly erroneous or otherwise warrants review. *E.g., In re: City of Palmdale* ("*Palmdale*"), PSD Appeal No. 11-07, slip op. at 10 (EAB Sept. 17, 2012). *See also* Order Governing Petitions for Review of CAA NSR Permits (April 19, 2011) at 4 ("[T]he petitioner must also demonstrate with specificity, by citing to the applicable documents and page numbers, where in the response to comments the permit issuer responded to the comments and must explain why the permit issuer's response to comments is inadequate."). Alternatively, a petitioner may demonstrate that an issue or argument was not reasonably ascertainable during the public comment period. 40 C.F.R. § 124.13; *see In re Encogen,* 8 E.A.D. at 250 n.8.

If these threshold pleading requirements are met,

> The Board's review of a PSD permit is … discretionary. 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 ... [using] an abuse of discretion standard.... [T]he Board examines the administrative record prepared in support of the permit to determine whether the permit issuer exercised his or her considered judgment. 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.... On matters

> that are fundamentally technical or scientific in nature, the Board will typically 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.

Palmdale, slip op. at 8-9 (citations, quotation marks, parentheticals and brackets omitted).

ARGUMENT

Petitioners raise numerous procedural and substantive issues in their challenges to Region 9's PSD permit decision for the PPEC. As the Region demonstrates below, Board review is not warranted on any of these grounds. As an initial matter, in certain instances the petitions fail to meet EAB pleading requirements by failing to identify, with cites to the applicable documents and page numbers, the specific comments provided to the Region or the relevant analysis and reasoning provided by the Region in response to the arguments raised. In addition, some of the Petitioners' arguments are not properly before the Board because they do not meet the Board's other pleading requirements, including the requirement to demonstrate that arguments were raised with reasonable specificity during the public comment period.

Even where Petitioners have met these pleading requirements, review is not warranted. As explained below, Region 9 reasonably applied the relevant PSD regulatory criteria to the specific facts surrounding this Project, reasonably considered and responded to the comments submitted by Petitioners and other commenters, and conducted additional analyses and made appropriate permit changes in response to these comments. Petitioners fail to satisfy their burden of demonstrating that Region 9's permitting decision constituted clear error, or involved an abuse of discretion or an important policy consideration warranting Board review.

I. Petitioner Rob Simpson Fails to Demonstrate that Region 9's Decision Not to Provide a Second Extension of the Public Comment Period for All Members of the Public Constituted Clear Error, an Abuse of Discretion, or Raises an Important Policy Consideration that the Board Should Review

Mr. Simpson asserts that Region 9 improperly failed to provide a second extension of the public comment period, and argues that therefore the comment period should be reopened to him and all members of the public. Mr. Simpson argues that the Region gave preference to Mr. Robert Sarvey and prejudiced Mr. Simpson when it offered Mr. Sarvey two additional weeks to comment specifically on the EJ Analysis for the Proposed Permit for the PPEC. Mr. Simpson neglects to mention the context and reason for the additional time being granted to Mr. Sarvey; *i.e.,* after the close of the extended public comment for the Proposed Permit that had already been granted to the general public, Mr. Sarvey notified the Region that he had not heard back from the Region concerning his July 24, 2012 request for a copy of the EJ Analysis, and requested a copy of the analysis so that he could comment on it. RTC at 44; Ex. A. The Region determined that although the EJ Analysis had been available in the electronic docket for the Proposed Permit during the public comment period, and the public comment period had already been extended to the general public by over 40 days, it would be appropriate to provide the EJ Analysis to Mr. Sarvey and extend to him two additional weeks to comment on the EJ Analysis only, since the Region had not directly responded to his specific request for this document. RTC at 44. Region 9 did not provide a second general extension of the public comment period to all members of the public. *Id.* The Region's action in this regard was a reasonable solution that ensured a fair opportunity for Mr. Sarvey to comment on the EJ Analysis while not causing undue delay in processing the final permit decision for the PPEC. Mr. Simpson fails to show that the Region, having granted one extension to the general public in this case, but then

declining to grant an additional extension, committed clear error or an abuse of discretion, or raised an important policy consideration that the Board should review.

EPA rules provide that "[a] comment period longer than 30 days may be necessary to give commenters a reasonable opportunity to comply with the requirements of [section 124.13]. Additional time shall be granted under § 124.10 *to the extent that a commenter who requests additional time demonstrates the need for such time*." 40 C.F.R. § 124.13 (emphasis added). As discussed above, Mr. Sarvey, in his initial comments, requested a one-month extension of the public comment period as he had not received the notice he had requested of the Proposed Permit, and also specifically requested a copy of the EJ analysis. RTC at 44. Mr. Simpson's comments had also recommended a significant extension or delay of the public comment period to accommodate other proceedings concerning the Project in State fora. RTC at 68-69.[2] The RTC explained that it granted the initial extension of the public comment period in light of a mailing list discrepancy, and provided a detailed, well-reasoned response to Mr. Simpson's comment which explained in detail why the Region believed that the extended comment period that it offered was adequate and that a further extension of the public comment period beyond September 5, 2012 was not warranted. RTC at 44, 70-71. As explained above, the Region's RTC also made clear the specific basis and unique circumstances leading to its determination that it would be appropriate to provide an additional two-week extension of time for Mr. Sarvey to comment on the PPEC EJ Analysis only. RTC at 44.

In his petition, Mr. Simpson does not attempt to refute the RTC's explanations concerning the length of the extended public comment period that was provided to the public or the two-week additional extension provided to Mr. Sarvey to comment on the EJ Analysis.

[2] Ms. Gretel Smith, counsel for Mr. Simpson and HHT, also submitted an email dated July 24, 2012 reiterating Mr. Simpson's request for an extension of the public comment period. See RTC at 68 n.35.

Neither does Mr. Simpson explain why he or any other party would similarly require additional time to comment on the EJ Analysis or was otherwise prejudiced by the Region's providing this brief extension to Mr. Sarvey under the particular circumstances presented in this case. Review of this issue should be denied on this basis. *Palmdale*, slip op. at 10.

To the extent Mr. Simpson is arguing that the Region simply may not provide an additional extended public comment period to a particular commenter under unique circumstances, such as those in this case involving Mr. Sarvey's request for the EJ Analysis, he cites no authority for this proposition, nor is Region 9 aware of any. Although the Region agrees that in general, all members of the public should be afforded the same public notice and comment opportunities, the unique circumstances in this case support the approach the Region took in granting Mr. Sarvey additional time to comment on the particular document at issue. Further, we note that extending a public comment period involves significant additional time, Agency resources, and delay associated with drafting, translating, distributing and posting public notice of an extension, and the associated delay must be balanced against the Region's obligation to process PSD permits in a timely manner. Given the fact that the Region had already offered a significant extension of time to comment to all parties, and that the Region narrowly tailored Mr. Sarvey's short additional comment opportunity to the one document that he had requested, the Region's action in this case clearly was reasonable. Petitioner Simpson has not demonstrated clear error or an abuse of discretion on this issue, nor raised important policy considerations that the Board should review, and therefore Board review on this basis should be denied. *See In re Shell Offshore, Inc., Kulluk Drilling Unit and Frontier Discoverer Drilling Unit,* 13 E.A.D. 357, 401-402 (EAB 2007); *Palmdale*, slip op. at 20.

II. Lack of a Detailed Response to Documents Submitted During the Public Comment Period with No Explanation of Their Relevance to the Proposed PSD Permit at Issue Does Not Warrant Board Review

Petitioner Rob Simpson also argues that Region 9 erred in not providing a detailed response to numerous documents that he submitted and characterized as public comments, where he failed to provide any specific explanation in his comments as to the relevance of these documents to the PPEC PSD permit under review or the analyses conducted by Region 9 as part of the PPEC PSD review process. As explained below, the Region's action in this regard was not clearly erroneous or an abuse of discretion, nor does it raise an important policy issue warranting Board review.

On July 18, 2012, Mr. Simpson submitted an email with substantive comments on the Region's permit proceeding, to which the Region fully responded. See RTC at 68-74. He also submitted numerous additional emails and other attached documents that he characterized as "Pio Pico PSD comments," of which the attachments alone totaled over 350 pages. RTC at 74.[3] Some of these documents appeared to have been drafted by Mr. Simpson or others on his behalf as part of the air permit proceeding by the San Diego Air Pollution Control District ("District") for the Project and refer to the District's actions and analyses in that proceeding, and others were documents that appeared to have been drafted by third parties.[4] When submitting these emails and other documents, Mr. Simpson provided no explanation in his comments as to their specific relevance to the proposed PSD permit for the PPEC or to Region 9's PSD analyses conducted as part of the PPEC PSD permit review process. *See* Ex. B. In response, the Region stated:

[3] These emails and attachments are in Section VI of the PPEC administrative record and can be found in the electronic docket EPA-R09-OAR-2011-0978 at www.regulations.gov at the link entitled "Public Comments."
[4] The Region 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.

> 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 PPEC, 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.

RTC at 74. The Region further explained that it was not responding to two attached letters Mr. Simpson and his attorney drafted as comments on the District's Preliminary Determination of Compliance for the project, because they were drafted long before the Region issued the Proposed Permit and Fact Sheet in this action and the commenter did not explain with any specificity the letters' relevance to Region 9's PSD permit decision. *Id.*

Mr. Simpson's petition belatedly attempts to make numerous general arguments about the specific PSD issues to which he believes these earlier submitted documents pertain, but that does not cure the fact that he failed to make any such arguments in the comments he submitted or to otherwise provide a specific explanation in his comments regarding the relevance of the documents to the PPEC PSD permit decision. All reasonably ascertainable issues and all reasonably available arguments supporting a commenter's position must be submitted by the close of the public comment period on a draft permit. Further, "[t]he Board frequently has emphasized that, to preserve an issue for review, *comments made during the comment period must be sufficiently specific*. On this basis, we have often denied review of issues raised on appeal that the commenter did not raise with the requisite specificity during the public comment period." *In re City of Attleboro, MA Wastewater Treatment Plant*, NPDES Appeal Nos. 08-08 - 08-09, slip op. at 10-11 and n.9 (EAB Sept. 15, 2009), 14 E.A.D. ___ (and cases cited therein) (emphasis added; internal citations omitted); *see also In re Maui Electric Company*, 8 E.A.D. 1,

8-12 (EAB 1998) (where petitioner generally referred to documents in comments but did not raise specific issue related to the document in comments, petitioner could not raise issue on appeal).

As the Board has clearly explained, "[t]he purpose of these regulations is to ensure that all matters are first raised with the permit issuer. In this manner the permit issuer can make timely and appropriate adjustments to the permit determination, or, if no adjustments are made, the permit issuer can include an explanation of why none are necessary." *Maui Electric* at 9. Moreover,

> [w]hile it is appropriate to hold permitting authorities accountable for a full and meaningful response to concerns fairly raised in public comments, *such authorities are not expected to be prescient in their understanding of vague or imprecise comments*…. "*At a minimum, commenters must present issues with sufficient specificity to apprise the permit issuing authority of the issues being raised. Absent such specificity, the permit issuer cannot meaningfully respond to comments*."

In re Sutter Power Plant ("*Sutter*"), 8 E.A.D. 680, 687 (EAB 1999) (quoting *In re Rockgen Energy Center*, 8 E.A.D. 536, 547–48 (EAB 1999)) (emphasis added). In this case, Mr. Simpson clearly did not meet his obligation to raise all reasonably ascertainable issues and arguments with adequate specificity during the public comment period with respect to the documents at issue, and the Region's not providing a detailed response to the documents was reasonable given the lack of specificity in Mr. Simpson's comments concerning their relevance to the PPEC PSD permit decision.

Mr. Simpson asserts that nevertheless the Region could, and should, have figured out the relevance of these documents to the PPEC PSD permit proceeding. He attempts to remedy the deficiency in his comments by arguing, for example, that some of the information and arguments in the documents reference Federal PSD rules, alternatives, and BACT, and their relevance should have been obvious with respect to the PPEC PSD permit proceeding. However, this

argument fails given that is *the commenter's responsibility* to make all reasonably ascertainable arguments *with specificity* during the public comment period. It is not the Region's responsibility to sift through several hundreds of pages of documents created in other contexts and speculate as to which portions(s) of the documents might be relevant to the PSD proceeding before it, and in what manner, absent a clear explanation by the commenter of their relevance to the instant PSD permit proceeding. *See, e.g., In re Sutter Power Plant*, 8 E.A.D. at 687. Furthermore, given the fact that these documents were prepared in other contexts and/or for proceedings with different criteria and/or before the proposed PSD permit and accompanying analysis and record were provided for public comment, it is not clear whether or how the information contained therein would be applicable to this PSD permit, absent some specific explanation of their relevance by the commenter.

Mr. Simpson's petition further suggests that the Region's decision not to provide a detailed response to the documents at issue may be retaliatory,[5] and is inconsistent with directions from the Region given in responses to comment in prior PSD permit proceedings. Region 9 denies these allegations, and notes that the Region has, in fact, repeatedly stated in responses to similar comments submitted by Mr. Simpson and others in recent PSD permit proceedings that it cannot provide a detailed response to documents prepared in different contexts that are then submitted as "comments" on a particular PSD permit decision without a specific explanation of their relevance to the PSD permit proceeding at hand. See Ex. C.[6]

[5] Mr. Simpson's petition also briefly refers to HHT's submittal of some of the same comments from a prior proceeding without a specific explanation of their relevance to the Region's PSD permit decision for the PPEC. The Region reasonably declined to provide a detailed response to these comments. *See* RTC at 76-77. Mr. Simpson does not address the Region's response in this regard; thus, review of this issue should be denied for this reason.

[6] These documents are posted in full on the Board's electronic dockets, available at http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/Closed+Dockets?OpenView. See City of Palmdale (Palmdale Hybrid Power Project), Docket Filing 24.01, and Avenal Energy Project, Docket Filing 4.1.

In sum, the Region reasonably declined to provide a detailed response to documents Mr. Simpson submitted during the comment period where he failed to explain the relevance of the documents or information contained therein to the PSD permit and analysis at issue, and therefore failed to provide his arguments during the public comment period with the required specificity. *In re Sutter Power Plant*, 8 E.A.D. at 687. Mr. Simpson has not demonstrated that the Region's actions in this regard constituted clear error, or an abuse of discretion, or raise an important policy issue that the Board should clearly review, and the Board should therefore deny review of this issue.[7]

III. Petitioners Fail to Demonstrate That the Region's Elimination of CCGT Was Clearly Erroneous or Otherwise Warrants Board Review

Petitioner SC alleges error in Region 9's GHG BACT analysis, asserting that Region 9 erred when it determined that a combined-cycle gas turbine ("CCGT") would be technically infeasible for the PPEC. However, SC fails to demonstrate that the Region's decision to eliminate CCGT was clearly erroneous or an abuse of discretion, or raises an important policy issue warranting Board review.

The Region's Fact Sheet noted that the Project was proposed as a 300 MW facility consisting of three 100 MW turbines designed to directly satisfy San Diego area peaking and load-shaping generation current and long-term requirements. Ex. 2 at 3, 10 n.4, 18-19. It explained that a CCGT would not be technically feasible for the PPEC, given its incompatibility with the Project's purpose and design parameters, as outlined in the PSD permit application, which are necessary in order to meet the specific objectives of the 2009 Request for Offers (RFO) by San Diego Gas & Electric (SDG&E) and resulting contractual requirements contained

[7] Mr. Simpson's attempts to raise substantive arguments concerning these documents for the first time in this petition for review (Simpson Pet. at 3-5) are equally unavailing. Given the failure of his comments to explain how the documents specifically related to the PSD permit decision for the PPEC, Mr. Simpson cannot raise these issues for the first time in his petition. *See, e.g.*, *In re BP Cherry Point* ("*BP Cherry Point*"), 12 E.A.D. 209, 218-20 (EAB 2005); *Steel Dynamics, Inc.*, 9 E.A.D. at 230.

in the Power Purchase Agreement (PPA) between SDG&E and PPEC LLC.[8] Ex. 2 at 16. As the Region explained:

> Key among these requirements is supporting renewable power generation such as wind and solar, whose overall output varies. *As output from these renewable resources drops, the PPEC must be able to come online quickly to make up the lost grid capacity. Thus, in order to satisfy its business purpose, the PPEC 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. There are a number of issues that make combined-cycle gas turbines technically infeasible for such a project.*
>
> The start-up sequence for a combined-cycle plant includes three phases…. The third phase of this process is dependent on the amount of time that the plant has been shut down prior to being restarted; the HRSG and steam turbine contain parts that can be damaged by thermal stress and they require time to heat up and prepare for normal operation. For this reason, the complete startup time for a combined-cycle plant is typically longer than that of a similarly-sized simple cycle plant. For example, the PPEC can be dispatched from "cold iron" to 300 MW in less than 30 minutes. By comparison, the most likely combined-cycle alternative in GE's product offering – a 107FA power block – would be capable of providing at most 160 MW in approximately the same amount of time.
>
> Even with fast-start technology, new combined-cycle units like the GE 7FA may require 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.

Ex. 2 at 16-17 (emphasis added; footnote and citation omitted).

In its comments on the Proposed Permit, SC stated its belief that a CCGT would be technically feasible for the Project. To support its position, SC argued that the Project's purpose was not to provide 300 MW of power as proposed by the Applicant but only 100 MW of power based on language in the RFO,[9] then it referenced a CCGT that could achieve 160 MW of power quickly as evidence of technical feasibility. RTC at 27-28. SC also argued that the fact that a

[8] The PPEC PSD Application states that the terms of the PPA provide that PPEC would have three General Electric LMS100 combustion turbine machines, each of which would provide approximately 100MW of capacity in summer peak conditions for a total of 300MW, and that SDG&E must have the ability to dispatch each of the units as system conditions require. Ex. D at PSD-3.4.

[9] SC asserts that the RFO is not in the administrative record for the PPEC. However, the RFO is included in the record at Index No. I.56.

CCGT cannot complete a cold start as quickly as a simple-cycle turbine, and specifically that a complete (cold) start for a simple-cycle turbine is less than 30 minutes, whereas the cold start period for a CCGT is up to 3.5 hours, does not demonstrate technological infeasibility, but SC did not provide further explanation as to why it believed that to be the case. *Id.*

In response, the Region clarified:

> In response to this RFO, the applicant proposed to construct a 300 MW power plant and SDG&E subsequently accepted that offer by establishing a 20-year [PPA] with the applicant…. [T]he statement that the Project should include "a minimum of 100 megawatts" merely specifies a minimum requirement for any offers that SDG&E would consider during its procurement process. The Project is appropriately defined at this time, and for our current purposes, by the applicant's ultimate contractual obligation and its proposal to meet that obligation, which in this case is a 300 MW generating facility.

RTC at 27-29; see also Ex. D at PSD-3.2-PSD-3.4.[10] The Region also explained that when assessing the technological 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. The Region reiterated that the longer startup times associated with a CCGT are not compatible with the operational characteristics of the type of peaking and load-shaping facility proposed and that these technical difficulties would preclude successful deployment of a CCGT on this type of unit, *id.*, as explained previously in more detail in the Fact Sheet.

In its petition, SC raises for the first time new issues concerning the technical infeasibility of a CCGT for the PPEC. First, SC argues that the Region considered factors that are unduly vague – such as the need for the peaking and load-shaping plant to be highly flexible, to provide regulation during the morning and evening ramps, to be repeatedly started and shut down as needed, and to be brought online quickly, even under cold-start conditions – and that the Region's reference to the fact that the proposed turbines can achieve a startup rate of 100 MW in

[10] The Applicant noted that the project's purpose is to provide 300 MW of peaking and load-shaping resources consistent with SDG&E's RFO. A more complete statement of SDG&E's criterion related to plant capacity is that SDG&E was seeking projects with a minimum of 100 MW, and up to 400 MW of capacity. RTC at 28.

10 minutes and 300 MW in 30 minutes improperly narrows the attributes of the Project. SC Pet. at 18. SC also argues that in evaluating the technical feasibility of a CCGT for the Project's source type, the Region may not allow the applicant to define its source type based on qualities specific to itself and a specific production process design based on its specific contractual obligations, asserting that "source type" considers similar facilities with similar physical and chemical emission characteristics and not the particular design put forth by the applicant. *Id.* at 13-18. SC also argues that aspects of project purpose and design may not be considered during step 2 of the top-down BACT analysis. *Id.* However, SC has not demonstrated that these issues were raised in comments, or were not reasonably ascertainable during the comment period, and therefore has not demonstrated that these issues were preserved for Board review, thus Board review should be denied. *BP Cherry Point*, 12 E.A.D. at 218-20. Even if SC had shown that these issues were preserved for review, its arguments are without merit, as explained below.

First, the PSD permit application for the PPEC is very clear that the source type under consideration is a peaking and load-shaping unit, and that the nature of the plant's design is inherent to the peaking and load-shaping purpose of that unit. The Applicant provided specific information from the RFO regarding SDG&E's objectives for the Project, including "flexible resources that are capable of providing regulation during the morning and evening ramps and/or units that can be started and shut down as needed," as well as "quick start operations" and "black start capability". Ex. D, pages PSD–2.1, PSD-3.2–PSD-3.3. The Applicant explained that the PPEC, including the specific simple-cycle turbine system proposed, was "designed to directly satisfy the San Diego area peaking and load-shaping generation current and long-term requirements," and that as renewable resource output drops, "PPEC can be dispatched from 'cold iron' to 300 megawatts (MW) in fewer than 10 minutes to make up the lost grid capacity" in

order to "support and allow heightened penetration of renewable energy into SDG&E's service territory" *Id.* at PSD-3.9. The Applicant noted that the LMS100 is designed for cyclic applications with 10-minute starts that provide flexible power generation for peaking and load-shaping solutions to support variable demand and the variable renewable energy sources used by SDG&E. *Id.* at PSD-2.1.

The record makes clear that in this case, the overall design of the peaking and load-shaping facility must feature controls that would enable the PPEC to "come online quickly," "be highly flexible," "provide regulation during the morning and evening ramps," "be repeatedly started and shut down as needed," and "be brought online quickly, even under cold-start conditions." Ex. 2 at 16.[11] Although SC's petition suggests that these objectives are somehow unnecessary, unsupported or overly prescriptive, the Region finds that they are consistent with purpose and design of peaking and load-shaping power plants in general, and the purpose and nature of this facility in particular, as explained above, and SC provides no information to the contrary. The information provided by the Applicant in its application materials, including details concerning the applicable RFO and PPA and the characteristics of the turbines being used, illustrates that the design elements of this specific peaking and load-shaping unit source type are associated with its business purpose, and are independent of air permitting requirements.

The EAB has made clear that it is appropriate for the PSD permitting agency to consider the applicant's definition of the proposed facility's purpose or "basic design" in conducting the BACT analysis:

> [T]he permit applicant initially defines the proposed facility's end, object, aim, or purpose — that is the facility's basic *design*, although the applicant's definition must be for reasons independent of air permitting. The inquiry, however, does not end there.

[11] The Region's reference in the Fact Sheet to the fact that the turbines being used can achieve a startup rate of 100 MW in 10 minutes and 300 MW in 30 minutes was used to illustrate the fact that the simple-cycle turbine proposed can, in fact, serve the design parameters necessary for this peaking and load-shaping project. *Id.* at 16.

> The permit issuer … should take a hard look at the applicant's determination in order to *discern which design elements are inherent for the applicant's purpose* and which design elements may be changed to achieve pollutant emissions reductions without *disrupting the applicant's basic business purpose for the proposed facility, while keeping in mind that BACT, in most cases, should not be applied to regulate the applicant's purpose or objective for the proposed facility*.

See In re Desert Rock Energy Co., LLC ("*Desert Rock*"), PSD Appeal Nos. 08-03- 08-06, slip op. at 64 (EAB Sept. 24, 2009), 14 E.A.D ___ (citing *In re Prairie State Generating Co.*, 13 E.A.D. 1, 23-24, 26-28 and n. 23 (EAB 2006) ("*Prairie State*")) (internal citations and quotations omitted; emphasis added). While the EAB's discussion of this issue in the *Desert Rock* and *Prairie State* decisions was made in the context of identifying available control options in step 1 of the BACT analysis rather than evaluating the technical feasibility of those control options in step 2, the EAB did not suggest that these elements may not also be considered in determining "source type" for purposes of the step 2 analysis. In fact, the Board went on to say that "when evaluating an applicant's assertion that a *design element* is fundamental, the permit issuer should consider whether the facts underlying that assertion are better considered within the framework of steps 2 through 5 of the top-down method, rather than grounds for excluding redesign at step 1." *Prairie State*, 13 E.A.D. at 23 n. 23 (emphasis added). Design elements or parameters are characteristics that can define a source and are appropriate considerations when the permitting authority evaluates BACT in any of the five steps of the top-down analysis, including the step 2 technical feasibility analysis, which specifically considers whether there are "technical difficulties that would preclude the successful use of the control option on the emissions unit under review." PSD and Title V Permitting Guidance for Greenhouse Gases, EPA Office of Air Quality Planning and Analysis, EPA-457/B-11-001, March 2011 ("GHG Permitting Guidance") at 33. SC cites no authority for the proposition that project purpose and associated design elements may not be considered at step 2 of the BACT analysis, and its assertion that EPA may

not consider the Applicant's purpose or associated design elements in step 2 – as we have done in this case – is simply incorrect.

Determining the "technical feasibility" of a particular control technology under step 2 of the BACT analysis usually consists of:

> first, a determination whether the technology in question has been demonstrated, and, second, if not demonstrated, then a determination whether the technology is available and applicable.... [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.

In re Cardinal FG Company, 12 E.A.D. 153, 163-164 (EAB 2005) (internal citations and quotations omitted); *see also* GHG Permitting Guidance at 33. In addition to the traditional analysis described above, "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*)." *Cardinal FG*, 12 E.A.D. at 164 (internal citations and quotations omitted; emphasis added). Given that the "specific circumstances" of a source necessarily involve the applicant's purpose and the resulting design of the source type under review, it follows that the technical problems flowing from the specific purpose and design for a source can be considered in determining whether a technology is technically feasible for that specific source type.

In this case, the type of source under review is a peaking and load-shaping unit. In examining whether CCGT is feasible for this specific unit, Region 9 examined the design of the Project as it related to the specific operating criteria expected of the unit, as explained above (*e.g.*, ability to come online quickly, even under cold-start conditions, be highly flexible, provide regulation during the morning and evening ramps, and be repeatedly started and shut down as needed), and determined that CCGT could not meet the specific power deployment

circumstances needed for this peaking and load-shaping unit. Such a finding is consistent with the Board's prior determination that control options can be eliminated as technically infeasible at step 2 of the BACT analysis based on operating problems specific to the source under consideration. *See id.* at 163-68 (finding that the permitting authority reasonably determined that a particular oxy-fuel technology was technically infeasible, even though it had been utilized in glass production generally, in part because it could lead to glass imperfections in the specific type of production unit under review).

Furthermore, even if the Board were to agree with SC that a technical feasibility analysis can only be conducted using a generically defined "source type" that reflects no consideration of the particulars of the design elements needed to achieve an applicant's purpose, the record in this case is clearly sufficient to justify elimination of the CCGT as "redefining the source" under step 1 of the BACT analysis.

We also note that in the step 1 context, the EAB has emphasized that "the Board first looks to the administrative record *to see how the applicant defined its 'goal, objectives, purpose, or basic design' for the proposed Facility in its application*." *Desert Rock*, slip op. at 65 (emphasis added). SC's assertion that the Region's consideration of and reliance on information provided by the Applicant in its permit application concerning the PPEC's business purpose and related fundamental design elements for providing peaking and load-shaping class power were inappropriate or otherwise erroneous is thus unfounded.

The record demonstrates that Region 9 took a hard look at whether a CCGT was achievable for the PPEC given the fundamental design elements necessary to meet the Project's purpose as a peaking and load-shaping facility, and correctly concluded that a CCGT would be incompatible with that purpose. SC has not explained how a CCGT *would* serve as a peaking

and load-shaping power plant that can come online quickly, be highly flexible, provide regulation during the morning and evening ramps, be repeatedly started and shut down as needed, and be brought online quickly, even under cold-start conditions, as is necessary for this power plant.

SC's comments had suggested that even if the project purpose did require the ability to achieve a full 300 MW within a short (c. 30-minute) period, an oversized CCGT or a combination of a CCGT and a simple-cycle turbine could be used to ensure that 300MW of peaking power could be provided quickly fulfill that purpose while offering the increased efficiency and associated lower emissions of a combined-cycle unit. RTC at 29-30. However, the Region clearly considered and rejected this approach, explaining that:

> 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.

RTC at 30. Here, the Region explained why the oversized CCGT or combined CCGT/simple-cycle plant proposed by the SC would lead to technical problems that would be incompatible with the specific circumstances of this Project, and SC's petition does not refute this response.

In sum, Region 9 articulated a sufficient basis in the record to eliminate CCGT technology on either step 1 or step 2 grounds, and SC has not met its burden of demonstrating that the Region's decision in this regard was clearly erroneous or otherwise merits Board review, thus Board review of this issue should be denied.

Petitioner Rob Simpson raises a related argument, stating that the Region ignored his comments on the issue of whether a CCGT should be required to reduce GHG emissions at the

facility. Simpson Pet. at 8. In fact, the Region fully responded to Mr. Simpson's comments in this regard. See RTC at 52-54. In addition to failing to mention the Region's response, Mr. Simpson does not explain why the Region's response was incorrect. For these reasons, review should be denied. *Palmdale*, slip op. at 10. Even if this were not the case, the Region's response to Mr. Simpson's comment, and the discussion above concerning the basis for the Region's elimination of CCGT for the Project, make clear that the Region's determination on this issue was reasonable and does not warrant Board review.

Board review of Mr. Simpson's assertions that the "underlying basis for concluding that simple cycle was needed for the project was the proposed PPA that is now being rejected by the State," and that therefore "EPA's GHG and other analysis which relies on this PPA should be moot," see Simpson Pet. at 7, is also unwarranted, for a number of reasons. First, the California Public Utilities Commission's ("CPUC") November 20, 2012 proposed decision regarding approval of the PPA for the Project was not before the Region at the time the Region issued its final permit decision for the PPEC, and there is no reason to reopen the question of the Project's purpose and design based on new information concerning this proposed decision that is not in the administrative record.[12] Second, as explained above, while consideration of the PPA's terms provided detailed information concerning the PPEC's purpose and associated design, the PPA was not the sole basis for the Region's decision in this regard, as noted by the many pieces of information in the PSD permit application and record, and therefore its approval or disapproval before the CPUC, does not *per se* change the purpose and design of the Project for PSD purposes. Third, the CPUC's decision concerning the PPA is only *proposed* at this time, and the final outcome and impact of the CPUC proceeding is uncertain at present and will be for some

[12] The CPUC's proposed decision was issued following the Region's issuance of the Final Permit and was not part of the Region's administrative record for its decision. See Section VI below.

time, as discussed in detail below in Section VI. Thus, any attempts to determine the effect of a potential CPUC disapproval of the PPA on the purpose and design of the PPEC would be speculative at best at this time. Petitioner Simpson fails to demonstrate that the Region's GHG BACT analysis is moot or otherwise erroneous on this basis, and therefore Board review should be denied.

IV. Sierra Club Fails to Show That the GHG BACT Limit for the PPEC is Clearly Erroneous or Otherwise Warrants Board Review

SC next argues that the CO_2 BACT limits changed dramatically from the Proposed Permit to the Final Permit. SC acknowledges that this change resulted from comments from the Applicant stating that the PPEC could not achieve the heat rates on which the proposed permit limits were based at low-load conditions. SC, argues, however, that the Region's setting a BACT limit with a long-term (30 days or greater) averaging period based on the highest heat rate and emission rate was erroneous. SC's contentions are unfounded.

The Region provided a clear, detailed explanation for its setting the Final Permit's GHG BACT limit for the life of the facility[13] at 50% load. See RTC at 15-17. The RTC noted that EPA must ensure that BACT is achieved at all times, and that the permit record is clear that each turbine is designed and intended to operate anywhere from 100% load down to 50% load during normal operation. *Id.* at 16. In setting the limit at 50% load, the Region considered the fact that the facility will not use add-on controls to comply with this limit. *Id.* at 16. That is, the heat rate (CO_2 lb/MWh) of the facility will be affected only by good combustion and maintenance practices, and Region 9 added conditions to the Final Permit for developing and following a maintenance plan for the turbines to provide further assurance that the turbines are operating efficiently as a general matter at all loads. See Ex. 1, Condition IX.D.6; RTC at 16. Aside from

[13] The Final Permit also continues to include a separate, initial heat rate demonstration requirement. RTC at 16-17.

good combustion and maintenance practices, there are no actions the Permittee could take that would affect whether or not the limit is met, and the permit requires that it be met on a continuous basis. This situation warrants a limit that can be met under a variety of operating conditions consistent with the project design.

SC argues that the Region contradicted itself by assuming that the facility would operate at 50% load when setting the CO_2 BACT limit, but assuming that the facility would operate at full load when setting the annual fuel limit. SC's argument is again without merit. As explained above, the PPEC is intended to operate anywhere between 50% and 100% load, and when establishing an emission limit (particularly a limit that does not reflect the use of an add-on control device) we must consider the worst-case operating conditions. Given that fuel usage and CO_2 emissions vary based on the specific loads, the Region has a sound basis for making different assumptions about load for different purposes.

SC seems to suggest that the Region should somehow establish BACT based on the achievable emission rate "at the various operating rates that the plant proposes to operate at." SC Pet. at 7. However, this suggestion is impractical if not altogether impossible since the plant may operate at 50% load, 100% load, or any of the countless points in between. Region 9 cannot anticipate what the actual operating schedule will be for the facility over its entire life, and we clearly explained our rationale for not setting the limit according to an arbitrary load level between 100% and 50%. The BACT limit must be set at a level that is achievable under a variety of conditions and that allows the facility to operate as designed – down to 50% load.

SC also argues that Region 9 erred by setting the Final Permit's GHG BACT limit to account for safety factors that are not based on record evidence. This argument also fails. First, the need for adjustment factors in setting the GHG BACT limit was clearly described in the Fact

Sheet accompanying the Proposed Permit: "Both the initial and 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". Ex. 2 at 20. The Fact Sheet indicated that the Region set the adjustment factors "to account for slight variations in the manufacturing, assembly, construction, and actual performance of the new turbines" and, specifically, in order for the ongoing limit "to account for unrecoverable losses in efficiency the plant will experience over its entire lifetime as well as seasonal variations in site-specific factors that affect turbine performance such as temperature and humidity." *Id.* at 20-21. We note that SC did not comment on the use of these adjustment factors during the public comment period, and the Region used the same premise in setting the GHG BACT limit in the Final Permit, see RTC at 16-17, so there is no basis for SC to question this premise now.

The adjustments that the Region made to the Final Permit's GHG limit to account for these factors were relatively small and entirely reasonable given the limited information available concerning the precise magnitude of the variations in heat rate that may be expected based on these factors. As discussed in the RTC, the heat rate information provided by the manufacturer is used as an initial performance metric at ISO conditions and does not represent the long term expected heat rate at the local ambient conditions. RTC at 16, 53. In this case, the variability in heat rate at different ambient conditions is documented in the record by the Applicant, and amounts to 1.4%. Ex. D at PSD-3.18, Table 3.5-2. However, there is limited information available regarding the differences in heat rate that may result from the other factors considered and discussed above. The Petitioner does not demonstrate that the adjustments made by the Region were inappropriate. Given the limited information available concerning the variability in emissions based on such factors, the small percentage adjustments made by the

Region to account for the factors cited were a reasonable exercise of the Agency's best professional judgment to ensure that the limits would be achievable over time. The Region appropriately exercised its discretion to set BACT levels that "do not necessarily reflect the highest possible control efficiencies but, rather, will allow [the permittee] to achieve compliance on a consistent basis." *Newmont Nev. Energy Inv., LLC ("Newmont"),* 12 E.A.D. 429, 442 (EAB 2005) (quoting *In re Steel Dynamics*, *Inc.*, 9 E.A.D. 165, 188 (EAB 2000)); *accord Prairie State*, 13 E.A.D. at 55. SC fails to show that the Region erred in this regard, and Board review of this issue should be denied.

V. Petitioners Fail to Demonstrate that the Final Permit Limits for PM Are Clearly Erroneous or Otherwise Warrant Board Review

Petitioner SC argues that the PM BACT limits for the combustion turbines in the Final Permit are not supported by sufficient evidence in the record or sufficient explanation by the Region. SC's argument fails, as explained below.

SC first argues that the PM BACT limit of 0.0065 lb/MMBtu is not adequately supported by the record. Region 9 included this PM BACT limit in the Proposed Permit. Ex. 5 at 6. The Fact Sheet explained that the Applicant had proposed this limit, to be achieved through the use of pipeline-quality natural gas and good combustion practices (including air inlet filter), and that the Region evaluated this proposal by reviewing recent PM performance test data from other simple-cycle plants in southern California, which were conducted in 2010 and 2011 on GE LMS 6000 turbines. Ex. 2 at 14. As explained in the Fact Sheet, after reviewing the performance test data, the Region concluded that the Applicant's proposed PM emission limit for the Project was reasonable for simple-cycle gas turbines located in southern California, and explained that the limit was being included in order to ensure the use of low sulfur natural gas and good combustion practices. The Region noted that this limit represented the expected PM emissions

based on the engineering design of this specific model (GE LMS100) of natural-gas fired turbine. *Id.*

In its comments on the Proposed Permit, SC asserted that that the PM BACT limit lacked a basis in the record, arguing that the performance test data the Region had considered showed lower emissions levels had been achieved in practice, and that the Region needed to justify the basis for the PM BACT limit set higher than the levels shown in the performance test data. RTC at 26. In response, the Region disagreed that the test data considered showed emission levels that had been achieved in practice for the GE LMS100 turbine that would be used by the PPEC, and continued to include a 0.0065 lb/MMBtu PM limit in the Final Permit.[14] RTC at 26-27. As the Region explained:

> When making a PM BACT determination for natural gas-fired combustion turbines, EPA must set a limit that is technically feasible to meet on an ongoing basis.... [W]here the emission unit does not use add-on control equipment, it is not appropriate to set the limit based on the lowest emission rate measured during a single source test for other equipment. The two primary contributors of PM emissions from natural gas-fired turbines are the sulfur content of the natural gas and the burning off of various lubricating oils. The quantity of PM emissions produced by this oil is low in new turbines, but increases over time until maintenance is performed. Following maintenance, PM emissions produced by the oil decrease, and this cycle of increasing and decreasing PM emissions produced by the oil repeats over time as periodic maintenance is performed. Therefore, the PM BACT limit that EPA sets must account for this PM emission variability. While the sulfur content of the natural gas to be used in the Project is limited to 0.25 grains per 100 dscf on an annual average, the sulfur content of the fuel used in the referenced source test data is unknown.

Id. The Region also explained that the limit "must consider several factors, including the ability to achieve the limit under varying normal operating conditions and over the life of the equipment." *Id*. It noted that an emission rate "measured in a single source test does not mean that the emission unit will be able to achieve that rate on an on-going basis" and, explained that,

[14] In response to other comments, the Region also changed the PM limits in the Final Permit so that the 0.0065 lb/MMBtu limit would be applicable only at loads of 80% or above, and added another PM limit of 5.5 lb/hr that would apply at all times. These changes are discussed below.

as shown by the source test data for the GE LMS 6000 turbine model, the "source test results vary, even on identical turbine models, based on actual operating conditions including fuel sulfur content and how recently turbine maintenance was performed." *Id.* The Region noted that it had modified the Final Permit's PM limits in response to another comment, and concluded that it did not believe there was sufficient evidence to set a PM BACT limit lower than the 0.0065 lb/MMBtu and 5.5 lb/hr limit in the Final Permit. *Id.*

SC's petition effectively restates the arguments it made in its comments concerning the PM limit, asserting that the Region did not provide adequate justification for the 0.0065 lb/MMBtu limit that was selected, and continues to suggest that the performance test data from the LMS 6000 turbines provide evidence of what has been achieved in practice as BACT for the turbine to be used for the PPEC. SC does not demonstrate that the Region's explanation of the considerations the Region used to set the limit was incorrect, but instead argues that the Region should have provided more detail to support the specific level that was selected and the size of the "compliance margins used" as compared with the performance test data. SC tries to rely on *Newmont* to support its arguments, but that case actually supports the Region's final emission limit here, where the record does not support the conclusion that the performance test data that was considered is achievable in practice on an ongoing basis, in general, or in particular for the turbine being used at this facility, given the factors discussed in the Region's RTC. *See Newmont*, 12 E.A.D. at 429. Notably, SC does not identify any lb/MMBtu permit limits for the facilities from which the LMS 6000 performance test data was taken or otherwise identify any lb/MMBtu permit limits established as BACT for comparable simple-cycle turbines.[15]

[15] 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 in Kern County was submitted to the Region by the Applicant on January 5, 2012. This 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

In light of all of the evidence in the record, the Region has more than adequately justified the 0.0065 lb/MMBtu PM BACT limit, which the Fact Sheet made clear represents the expected PM emissions based on the engineering design of the specific model (GE LMS100) of natural-gas fired turbine used for the PPEC. This limit reflects the Region's technical expertise and considered judgment in light of considerations discussed above. *See, e.g.*, *Prairie State*, 13 E.A.D. at 58 ("Variability in the observed performance of a control technology has long been recognized as an appropriate circumstance for the permitting authority to use a safety factor in setting the permit's BACT limit. …To account for such variability, 'a permitting authority must be allowed a certain degree of discretion to set a consistently achievable emissions limitation.'" (citing *In re Masonite Corp.,* 5 E.A.D. 551, 560-61 (EAB 1994)).

SC further argues that the Region erred when it revised the PM BACT limit at the request of the Applicant to specify that the 0.0065 lb/MMBtu limit should apply only at loads of 80% or higher, and that the record lacks a basis for the Region's conclusion that for the operating range below 80% load, 5.5 lb/hr represents BACT for PM. SC does not appear to dispute the 5.5 lb/hr limit in general, but argues that different emissions limits should be established for lower loads. These arguments are also without merit, as explained below.

The Applicant's comments demonstrated that the proposed BACT limit for PM was not achievable at low loads, because the turbines will be less efficient at low loads. RTC at 6; *see also* Ex. F at 4. [16] Region 9 responded to this comment by applying the lb/MMBtu limit to "high

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conclusion that the 0.0065 lb/MMBtu PM limit selected for the PPEC was reasonable, given the performance test data variability and related considerations discussed in the Region's RTC and above, and the factors noted by the Applicant in its January 5, 2012 letter. *See* Ex. E.

[16] A December 8, 2011 letter from the Applicant, cited in the RTC, footnote 3 states: "Because the hourly emissions are expected to be about the same for the Pio Pico Energy Center turbines (5.5 lb/hr) at all loads, the highest emission rate (in lbs/MMbtu) will occur at the lowest fuel usage, or low load…The expected emission rate at low load is 0.01 lb/MMBtu." Ex. F at 4. SC appears to generally discount the information provided by the Applicant in this regard, but provides no other information that should be considered instead.

loads", which it defined as loads of 80% or higher, based on its best professional judgment concerning the load levels below which this limit could not be achieved. The Region also recognized that BACT must apply at all times, however, and therefore added an additional PM limit to the Final Permit of 5.5 lb/hr that would apply at all loads. *Id.* The Region explained, among other things, that because there is no control device for PM emissions, the applicant cannot take measures to improve the PM emissions at lower loads; that the lb/MMBtu limit is being applied at high loads because it represents the testing conditions that will be used to demonstrate compliance during performance testing; and that the final PM limits were appropriate given the nature of peaking turbine operation, *i.e.*, intermittent operation at varying loads. RTC at 6. Moreover, as previously discussed, PM performance test data is highly variable from combustion turbines, which makes it difficult to use when determining PM BACT limits.

The Region exercised its best professional judgment in setting the PM limits given the factors discussed above. As is the case here, where a petitioner seeks review of issues that are fundamentally technical or scientific in nature, the Board typically defers to the expertise of the permit issuer on such matters if the permit issuer adequately explains its rationale and supports its reasons in the record. *See Palmdale*, slip op. at 9. For the reasons stated above, SC fails to meet its burden of demonstrating that the Region's final PM permit conditions are clearly erroneous.

Petitioner HHT argues that the Region did not adequately demonstrate the appropriateness of the PM BACT limit of 5.5 lb/hr, given a commenter's argument that BACT for PM should be 5 lb/hr because the CPV Sentinel project with the same model turbine is achieving this rate in practice. This argument is not persuasive. The Region concluded that "the

difference between the two limits is trivial" and opted to include the 5.5 lb/hr limit in the Final Permit because it has a significantly smaller margin of compliance, as it explained in the RTC. RTC at 51. Regarding the trivial nature of the difference, as mentioned by HHT, a stack test result of 5.54 lb/hr would be in compliance with the 5.5 lb/hr limit but would not be in compliance with a 5 lb/hr limit; in other words, at the CPV facility, compliance would be demonstrated by results at 5.5 lb/hr or less, and at the PPEC, compliance would be show by results of 5.55 lb/hr or less. Therefore, the difference between the 5.5 lb/hr and 5 lb/hr limits amounts to a trivial difference of 0.04 lb/hr -- or 0.1 tons per year of PM emissions, as compared with 37.2 tons per year in overall potential emissions of PM from the PPEC facility. HHT has not shown that the Region's reasoning was erroneous or otherwise merits Board review.

VI. Petitioner Simpson Fails to Demonstrate that The PPEC Permit Should be Remanded Due to a Lack of Need for the Project

Petitioner Simpson's argument that the EAB should remand the PPEC PSD permit as the Project is not needed is also without merit. During the public comment period, Mr. Simpson's comments included only a very general statement that the Project was not needed, and did not provide any explanation as to why he believed that that was the case other than a statement that the State has not fully addressed the need issue in this case, and a quotation of the Region's response to a comment about need in the context of the Palmdale PSD permit. See RTC at 72-73. Region 9 provided a reasonable and detailed response to this very general comment, *id.* at 73-74, explaining that in order to conduct the type of analysis the commenter was suggesting:

> 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. This reasoning also applies in this case. *The Region has the discretion, but is not required, to conduct an independent analysis of the need for the PPEC in the context of this PSD permit proceeding.* See In re City of Palmdale, PSD Appeal No. 11-07, slip op. at 56-60 (EAB Sept. 17, 2012), 15 E.A.D. ___ (upholding Region 9's decision not to conduct an independent analysis of the need for the facility at issue). *In 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.* Even if EPA did have the expertise and resources to conduct such an analysis, the commenter has not provided any information on which to conduct such an analysis.

Id. (emphasis added). The Region also cited to some information in the record indicating that "there is, in fact, need for the Project." Region 9 concluded by explaining:

> Finally, to the extent the commenter is suggesting that EPA should wait for agencies within the State of California to conduct a detailed needs analysis before EPA proceeds with its final PSD permit decision, the commenter cites no authority for such a proposition nor is EPA aware of any. *We are not deferring in this case to any agency's specific determination of need for the PPEC, and the commenter did not point to any specific information related to any such determination that we should consider. Rather, we have recognized that the State agencies in California are better suited than EPA to assess California's energy needs in general.*

Id. (emphasis added). Mr. Simpson fails to demonstrate that Region 9's response was clearly erroneous, particularly given that his comments did not provide any specific explanation as to why he believed the Project was not needed, much less the type of detailed information that Region 9 indicated would be necessary to conduct a needs analysis.[17]

Mr. Simpson also introduces new information in his petition to support his argument that there is no need for the PPEC, arguing that the CPUC's November 20, 2012 proposed decision[18] not to approve the PPA for the PPEC demonstrates that there is no need for the Project and that on that basis, the EAB should remand the permit. This argument also fails, as demonstrated below.

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[17] To the extent Mr. Simpson is now attempting to argue that specific documents he submitted as comments demonstrated that there was no need for the Project in the context of the Region's PSD permit decision, as explained above in Section II, Mr. Simpson did not raise such issues with the requisite specificity during the public comment period and cannot now raise them for the first time in his petition for review.

[18] The CPUC actually issued two similar but distinct proposed decision documents concerning the PPAs for the PPEC and two other electric generating facilities on November 20, 2012. See http://delaps1.cpuc.ca.gov/CPUCProceedingLookup/f?p=401:57:1323710629911701::NO. Numerous parties including, for example, the California Independent System Operator, have continued to provide information to the CPUC concerning its proposed decision.

First, the Region reasonably determined that it would not conduct a comprehensive and detailed, resource-intensive needs analysis in this case. RTC at 72-74; *see also Palmdale*, slip op. at 56-60. While the Region's RTC recognized that information in the record, including information concerning the PPA, supported a finding of need for the Project, the Region did not rely on the PPA to conduct a needs analysis or otherwise reach an ultimate conclusion on whether the Project was needed. Rather, the Region declined to conduct such a needs analysis given the State of California's role in determining such matters. RTC at 72-74. Therefore, the fact that the CPUC has proposed to disapprove the PPA at this time does not demonstrate error in, or warrant review of, the Region's PSD permit decision or a remand by the Board.

Furthermore, it is important to note that even if the CPUC's new proposed decision were appropriate to consider at this late stage of the PPEC PSD permit proceeding, the CPUC's proposed decision concerning the Pio Pico PPA does not constitute the final decision on the issues considered therein. For example, the CPUC could elect to approve the PPA in its final decision, or, if it does not, it is possible that parties may appeal the CPUC's decision or may submit a somewhat modified PPA or a PPA with different supporting information that would result in CPUC approval. As discussed at length in its RTC, the Region believes that the issue of need for the Project is appropriately left to entities within the State of California to decide in appropriate State fora. Mr. Simpson has not demonstrated that remand of the PPEC PSD permit is warranted based on a lack of need for the Project, and review should therefore be denied.

VII. Petitioner HHT's CO Argument Does Not Merit Board Review

Petitioner HHT argues that Region 9 erred by failing to properly evaluate whether the PPEC would emit levels of carbon monoxide (CO) that would be subject to PSD review, and that the Region cannot rely on the District's erroneous permit calculations in this regard. HHT Pet. at

3-4. HHT raised this issue in public comments, and the Region provided a detailed response explaining the reasoning behind its determination that the facility would not emit CO in excess of levels that would trigger PSD review, including reference to the fact that an oxidation catalyst at the facility would ensure compliance at all loads with the emission rates indicated in the PPEC PSD application and consistent with District permit requirements. *See* RTC at 75-6. Region 9's response emphasized that the District's permit includes Federally enforceable limits on CO that would preclude the PPEC from emitting CO at levels subject to PSD review in any event. *Id*.

HHT disagrees with the Region's reasoning on this issue, but does not demonstrate that the Region's explanation or ultimate determination is erroneous. HHT contends that it is unsatisfied with Region 9's explanation in the RTC that the maximum CO emissions referenced will apply at all loads, asserting that the Region failed to explain how the oxidation catalyst leads to identical emission rates at different loads. It appears that HHT is simply confused on this point. As explained in the RTC, the oxidation catalyst is able to control CO emissions to 4.0 ppmv@15% O_2, the limit imposed by the District, at all load levels, excluding periods of startup and shutdown. To clarify further, an emission rate based on ppmv is a measure of concentration, which means that at all load levels the concentration (or percentage) of CO in the exhaust gas will not exceed 4.0 ppmv (or 0.0040%). Because a greater volume of gas will pass through the exhaust at higher loads, the mass of CO emitted on a lb/hr basis is greater at higher loads than at lower loads. Therefore, under worst-case conditions for the PPEC, the greatest CO emissions will occur when the volume of exhaust gas is the greatest – at 100% load. As such, potential CO emissions were properly calculated at full load, as this represents the worst-case emissions under normal operating conditions when using the catalyst, and the use of the oxidation catalysts will ensure that CO emissions remain below the PSD threshold.

HHT also argues in its petition that if the Region is attempting to allow PPEC to avoid PSD review for CO by relying on enforceable permit limits for CO rather than a limit based on the facility's physical and operational design, the synthetic minor status must be "made clear and examined in more detail." HHT Pet. at 4. In response, the RTC made clear that the District permit's CO limits are Federally enforceable and provide the necessary assurance that the facility will not exceed the PSD threshold for CO. RTC at 76. This issue is straightforward and requires no further examination. *See, e.g.*, EPA's *Guidance on Limiting Potential to Emit in New Source Permitting,* Terrell Hunt and John Seitz (June 13, 1989). In sum, HHT has not demonstrated that the Region's decision that the PPEC was not subject to PSD review for CO was clearly erroneous or otherwise warrants Board review.

VIII. The Air Quality Monitoring Issues Raised by Petitioners Do Not Warrant Board Review

Petitioner Simpson's brief argues that Region 9 failed to utilize the correct air quality monitor, stating that the Region "allowed the applicant to utilize a distant monitor instead of the nearly adjacent ones, including the one at the prison." Simpson Pet. at 8. Mr. Simpson's petition does not point to where this issue had been raised in comments or explain whether or how Region 9 responded to any such comments, much less explain why the Region's response was inadequate. Review of this issue should therefore be denied with respect to Mr. Simpson's petition, based on his failure to adhere to the procedural prerequisites for Board review. [19] *Palmdale*, slip op. at 10.

Petitioner HHT makes what appears to be a related argument, which is that Region 9 did not provide an adequate response to Robert Sarvey's comment that "environmental justice

[19] Even if Mr. Simpson had satisfied these procedural prerequisites, it is clear that the Region adequately responded to issues raised in comments concerning the locations of the monitors used in the air quality analysis for the PPEC, thus denial of Board review would be warranted on that basis as well, as explained *infra* in this Section.

considerations require on-site monitoring at the nearby correctional facilities." HHT Pet. at 4. HHT argues that while the Region responded to this comment by citing responses to other comments regarding on-site monitoring, none of the other responses cited refer to on-site monitoring at the correctional facilities to address the environmental justice concerns, and HHT concludes that the Region did not adequately respond to this comment.

HHT's argument is baseless. The comments from Mr. Sarvey on this point were general statements that environmental justice considerations require on-site monitoring, or on-site monitoring at the nearby correctional facilities, to collect data to provide proper background concentrations to assess the localized air quality impact of the Pio Pico Project and the nearby Otay Mesa Power Plant on the large inmate populations. See RTC 59 and 63 (RTC at 65, 68). Mr. Sarvey did not explain further why he believed that monitoring at the prisons was necessary. *Id.* Nevertheless, Region 9's responses to these very general comments fully addressed the issues raised, by referring to the Region's responses to comments 45 and 53-60, which discussed these and related issues at length, as explained below. See RTC at 65, 68 (referencing RTC at 36-44, 54-66).

First, the Region's RTC provided an extensive explanation regarding why the air quality monitoring locations that were selected for purposes of the PPEC PSD cumulative impact analysis were adequately representative of background air quality in the area and otherwise appropriate for use in that analysis, without the need for additional monitoring in different locations. RTC at 36-44, 64-6. $PM_{2.5}$ and NO_2 were the only pollutants for which PSD cumulative impact analyses needed to be conducted in this case, and thus are the only pollutants for which preconstruction monitoring data were necessary. *Id.* We note that there is no monitor

for either $PM_{2.5}$ or NO_2 at the Donovan monitoring site near the Donovan prison.[20] The monitoring data were used in the CAA PSD cumulative impact analysis to demonstrate that the emissions from the PPEC would not cause or contribute to a violation of the NAAQS, and the Region specifically noted that the Otay Mesa Power Plant's emissions were appropriately considered in the modeling analysis that was conducted. *Id.* To the extent HHT's challenge to the locations of the monitors or modeling approach is directed at a technical judgment based on the Region's expertise, it must meet a heavy burden to show that review is justified. *E.g., In re Shell Offshore, Inc.,* slip op. at 27-28 (March 30, 2012), 15 E.A.D. __. It has not done so.

Further, the Region's RTC explained that in its EJ Analysis the Region noted that the modeled results of the NAAQS analysis indicate that emissions of the pollutants regulated under the Region's PSD permit for the PPEC would not cause or contribute to a violation of the NAAQS. Compliance with the NAAQS is relevant to an environmental justice claim to the extent that the NAAQS are health-based standards, designed to protect public health with an adequate margin of safety, including sensitive subpopulations such as children, the elderly, and asthmatics. Thus, the Region concluded that the permitted emissions will not result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations, and noted that this conclusion would extend to potential effects to nearby correctional facility populations[21] given that the NAAQS are health-based standards. The Region also noted that it was not aware of information, nor had the commenter presented any specific information, indicating that the environmental or health

[20] While PM_{10} is monitored at Donovan, the Region determined that a PM_{10} cumulative impact analysis was not required for the PPEC, thus the use of monitoring background concentrations for PM_{10} was unnecessary. RTC at 44.
[21] In the RTC, the Region also explained in detail the nature of its environmental justice responsibilities under EO 12898 and how it fulfilled them, including the EJ Analysis that it conducted in this case, and described its consideration of the demographics of the nearby prison populations and particular health concerns and other challenges faced by such populations. See RTC at 54-63.

conditions faced by the prison population would call into question this conclusion. See RTC at 58-63.

HHT does not address the substance of the Region's extensive responses, much less explain why it believes these responses were inadequate, thus review should be denied. *Palmdale*, slip op. at 10. Even if that were not the case, given the general nature of the comment that was made, the record makes abundantly clear that the RTC fully addressed the issue, and that HHT fails to show that this issue warrants Board review. *See, e.g., Steel Dynamics, Inc.*, 9 E.A.D. at 230-31; *Encogen*, 8 E.A.D. at 251 n.12 (where issue raised only generally during public comment period, permit issuer not required to provide more than general justification in response).

IX. Petitioner Simpson Fails to Demonstrate That His Arguments Concerning Mitigation Merit Board Review

Mr. Simpson's petition states that "EPA failed to require adequate mitigation, and as detailed [in] April Sommer's comment, the air pollution credits are invalid." Simpson Pet. at 8. However, Mr. Simpson fails to explain exactly 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.[22] Petitioner Simpson therefore fails to meet the prerequisites for EAB review, and review should be denied on that basis alone. *Palmdale*, slip op. at 10.

Even if Mr. Simpson had satisfied such prerequisites, he fails to explain how the issue of mitigation or air pollution credits is relevant to the PSD permit decision in this case or PSD review in general. As stated in the Region's RTC:

[22] To the extent Mr. Simpson is referring to an attachment authored by Ms. Sommer concerning additional comments on the District's permit action that he forwarded as a comment on the instant PSD permit decision (EPA PPEC Record Index No. VI.26), as discussed in Section II *supra*, Mr. Simpson failed to raise such issues in his comments with the required specificity, and cannot raise them for the first time in his petition for review.

> 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…. [T]he commenter's assertions about emission reduction credits focus on matters …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 56, 61. *See Sutter,* 8 E.A.D. at 690. Mr. Simpson's argument therefore fails on this basis as well, and Board review should be denied.

CONCLUSION

For all of the reasons stated above, Region 9 respectfully requests that the Board deny review of Region 9's Final Permit for the PPEC.

Date: February 6, 2013

Respectfully submitted,

/S/ Julie Walters

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STATEMENT OF COMPLIANCE WITH WORD COUNT LIMITATION

I hereby certify that this Response to Petition for Review submitted by EPA Region 9, exclusive of the Table of Contents, this Statement of Compliance, and the attached Certificate of Service, contains 13,916 words, as calculated using Microsoft Word word-processing software.

/S/ Julie Walters

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Julie Walters

CERTIFICATE OF SERVICE

I hereby certify that I caused a copy of **EPA REGION 9'S RESPONSE TO PETITIONS FOR REVIEW** and **EPA REGION 9'S EXCERPTS OF RECORD** in the matter of Pio Pico Energy Center, EAB Appeal Nos. PSD 12-04, PSD 12-05, and PSD 12-06 , to be served by electronic mail upon the persons listed below.

Dated: February 6, 2013

/S/ Julie Walters

_____
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