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

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| In re: | ) | |
| Sierra Pacific Industries—Anderson Division | ) | Appeal No. PSD 14-____ |
| PSD Permit No. SAC 12-01 | ) | |

# PETITION FOR REVIEW

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## INTRODUCTION

The selection of best available control technology ("BACT") for new and modified major stationary sources of air pollution is the heart of the Clean Air Act's prevention of significant deterioration ("PSD") program. For decades, the Environmental Protection Agency ("EPA") and other permitting authorities have followed a clear "top-down" process in determining BACT and establishing emissions limitations in accordance with the Act's requirements.

Generating electricity from biomass combustion is extremely carbon-intensive relative to the amount of power produced. Measured at the stack, biomass produces even more carbon dioxide ("$CO_2$") than coal-fired generation on a pounds per megawatt-hour basis, and more than *three times* as much $CO_2$ as gas-fired, combined cycle generation.[1] Proper consideration of these emissions in the BACT process is required by the Clean Air Act and essential to developing and implementing techniques for control of this pollution.

Here, however, EPA Region 9 ("the Region") dramatically and unlawfully deviated from the long-established "top-down" process in its analysis of BACT for greenhouse gas emissions from a 31-megawatt biomass-fueled power plant proposed by Sierra Pacific Industries ("SPI"). The Region illogically chose to treat biomass combustion in general as a "control measure" for the greenhouse gas emissions produced by biomass combustion—while simultaneously refusing to consider whether specific

[1] Center for Biological Diversity, *Comments Re: Sierra Pacific Industries Anderson Division Revised Draft Prevention of Significant Deterioration Permit* 3 n.3 (Jan. 10, 2014) (hereafter "Center Jan. 2014 Comments"). Further references to documents in the Administrative Record will be designated by the abbreviation "AR" followed by the index number for the document in the Region's Online Record Index, available at www.regulations.gov (EPA Docket ID No. EPA-R09-OAR-2012-0634-0040) and a parallel citation to the document name. Accordingly, further references to the Center's comments will use the citation form "AR IV.49, Center Jan. 2014 Comments at [page]."

forms of biomass fuel might be inherently lower-emitting than others based on life cycle considerations. As discussed below, these decisions appear to have been driven by recent EPA guidance documents stressing broad policy considerations—including *non*-air quality related federal and state policies favoring biomass energy—that are unrelated to and in fact in conflict with the statutory requirements of the BACT process. On the basis of these policy considerations, EPA's guidance documents go so far as to suggest that biomass combustion itself may be considered BACT for the emissions from biomass combustion.

The notion that biomass combustion somehow could be BACT for itself has no basis in law, fact, or logic. The Region's BACT analysis here was clearly erroneous, inadequately explained, and not justified on the record before the agency. Accordingly, the Center for Biological Diversity ("Center" or "Petitioner") petitions for review to address the Region's clear errors of fact and law and the important policy considerations at stake.

## STATEMENT OF APPEALABILITY

Petitioner is a non-profit environmental organization dedicated to the protection of imperiled species, their habitats, and the environment through science, policy, and environmental law. The Center has some 775,000 members and online activists throughout the United States. The goal of the Center's Climate Law Institute is to reduce U.S. greenhouse gas emissions and other air pollution to protect biological diversity, the environment, and public health. Specific objectives include securing protections for species threatened by the impacts of global warming, ensuring compliance with applicable law in order to reduce greenhouse gas emissions and other air pollution, and educating and mobilizing the public on global warming and air quality issues. Petitioner

has participated extensively in public processes related to greenhouse gas emissions, conventional air pollution, and forest management issues connected with biomass-fueled energy development, including litigation challenging EPA's now-vacated exemption of biogenic $CO_2$ emissions from regulation under the Clean Air Act's Title V and Prevention of Significant Deterioration ("PSD") programs. *See Ctr. for Biological Diversity v. EPA*, 722 F.3d 401 (D.C. Cir. 2013).

This Petition satisfies the threshold procedural requirements set out in 40 C.F.R. Part 124. The Petition has been timely filed with the Environmental Appeals Board ("EAB" or "Board") within 30 days after service of notice of the Regional Administrator's decision. *See* 40 C.F.R. §§ 124.19(a)(3), 124.20(c)-(d). Petitioner submitted comments on the draft permit during the public comment period. 40 C.F.R. § 124.19(a)(2). As set forth in further detail below, the issues raised in this Petition were raised in the Center's comments, and the Petition further explains why the Regional Administrator's responses to those comments were clearly erroneous or otherwise warrant review. *See* 40 C.F.R. §§ 124.13, 124.19(a)(4)(ii).

A prior version of this Permit was appealed to the EAB and remanded to the Region. *In re Sierra Pacific Industries (Anderson Processing Facility)*, 15 E.A.D. __, PSD Appeal Nos. 13-01 through 13-04 (EAB July 18, 2013) (hereafter "*SPI Anderson I*"). In its remand order, the Board held that once the Region took action on remand, the Region's action would become final for purposes of judicial review. *SPI Anderson I*, slip op. at 67. In particular, the Board stated that it "is not requiring, and will not accept, an appeal to the Board on the final permit decision following remand in this case." *Id.*

On remand, however, the Region undertook a new BACT analysis for greenhouse gases, issued a Supplemental Statement of Basis and Ambient Air Quality Impact Report,[2] and revised the proposed permit to include new emissions limitations for greenhouse gases and new biomass fuel conditions.[3] The Supplemental AAQIR and proposed permit containing the greenhouse gas emissions limits and BACT determination were circulated for public review in November 2013.[4] As a result, challenges to the greenhouse gas emissions limits and BACT determination adopted by the Region could not have been raised in prior proceedings before either the Region or the Board.

The Center understands that the Board is not requiring a further appeal as a prerequisite to seeking judicial review. *SPI Anderson I*, slip op. at 67 (citing 40 C.F.R. § 124.19(*l*)(2)(iii)). The Region similarly has confirmed that judicial review of these matters may be sought without an appeal to the Board.[5] Nonetheless, the Center wishes to give EPA an opportunity in the first instance to address the important policy issues—and to correct the clear errors of law and fact—identified in this petition, rather than seeking initial review of these potential matters of first impression in a federal court.[6]

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[2] AR III.06 (hereafter "Supp. AAQIR").
[3] AR III.05, Sierra Pacific Industries - Anderson (SAC 12-01) Prevention of Significant Deterioration Permit 2, 8-9 (Nov. 2013).
[4] *See* AR III.13, Notice of Extension of Public Comment Period 1 (Nov. 22, 2013) (explaining that comment period opened November 8, 2013, would be extended to January 10, 2014).
[5] AR VI.11, Public Notice, Sierra Pacific Industries – Anderson Division, Announcement of Final Permit Decision to Issue a Clean Air Act Prevention of Significant Deterioration Permit 2 (April 25, 2014) (hereafter "Final Permit Notice").
[6] The Board has anticipated that additional review of new issues arising out of proceedings on remand may be warranted. *See* Revised Order Governing Petitions for Review of Clean Air Act New Source Review Permits ¶ 10 (EAB Mar. 27, 2013) ("Where an NSR appeal is filed following a Board remand, the Board generally will consider only issues arising out of the remand and will not consider any new issues that could have been raised in the initial appeal but were not.")

This Board often has cited general principles of administrative exhaustion in declining to reach issues that could have been raised before, and addressed by, the local permitting authority. *See, e.g.*, *In re BP Cherry Point*, 12 E.A.D. 209, 219-220 (EAB 2005) (discussing inappropriateness of and potential delays occasioned by allowing the Board to become the "first-level decision maker as to . . . newly raised issues"). Those same principles are applicable here. If the Board were to refuse consideration of this Petition, and the Center were to seek judicial review, a federal court would, in effect, become the "first-level decision maker" with respect to issues that the Board—and EPA as a whole—has not had an opportunity to address, and as to clear errors that the agency as a whole has not had an opportunity to correct. Accordingly, even if the Center is not required to bring this appeal in order to exhaust administrative remedies before seeking judicial review, *SPI Anderson I*, slip op. at 67, the Board nonetheless should grant review.

## FACTUAL AND PROCEDURAL BACKGROUND

SPI seeks to modify the existing PSD permit for its Anderson, California facility to permit construction of a 31-megawatt biomass-fired power plant.[7] The proposed biomass boiler—the primary source of emissions from the modification—would have a maximum annual average heat input rate of 468 million British thermal units per hour ("MMBtu/hr") and a steam generation rate of 250,000 lbs/hr.[8] Although the facility would consume natural gas at startup, "the vast majority of emissions will be from combustion of wood and wood residual solid biomass fuel."[9] The facility expects to

[7] AR III.06, Supp. AAQIR at 7.
[8] *Id.* at 10.
[9] *Id.* at 10-11.

consume 220,000 bone dry tons per year of "woody biomass gathered from a variety of sources."[10]

The Region originally issued a draft PSD permit in September 2012,[11] along with a Statement of Basis and Ambient Air Quality Impact Report identifying BACT for several pollutants.[12] The Region declined, however, to establish emissions limits or determine BACT for the facility's "biogenic" $CO_2$ emissions—that is, emissions of $CO_2$ resulting from combustion of wood in the facility's biomass boiler.[13] Rather, the Region expressly relied on EPA's July 2011 rule exempting biogenic $CO_2$ from regulation under the PSD program for a three-year period (known in agency parlance as the "deferral" rule).[14] As a result, the vast majority of the facility's greenhouse gas emissions—381,885 tons of biogenic $CO_2$ per year—was not subject to BACT or any emissions limitation in the proposed permit.[15]

The Region issued a final permit determination on February 19, 2013.[16] Several petitioners sought review before this Board. The Board issued a decision on July 18, 2013, denying review of most of the petitioners' challenges but finding that the Region had clearly erred in declining to hold a public hearing. *See SPI Anderson I*, slip op. at 67. The Board also declined to reach any aspect of the petitions related to EPA's "deferral"

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[10] AR IV.49M, Second Recirculated Draft Environmental Impact Report (excerpt) at 2.0-30.
[11] AR III.01 (proposed permit); AR III.03 (public notice).
[12] *See generally* AR III.02, Statement of Basis and Ambient Air Quality Impact Report 10-26 (Sept. 2012) (hereafter "Orig. AAQIR").
[13] *Id.* at 9 & n.3, 49-50.
[14] *Id.* at 9 n.3; *see* Deferral for $CO_2$ Emissions from Bioenergy and Other Biogenic Sources under the Prevention of Significant Deterioration and Title V Programs, 76 Fed. Reg. 43,490 (July 20, 2011).
[15] *See* AR III.02, Orig. AAQIR at 49-50 & Table ("Boiler Worst Case Annual Emission Rate").
[16] *See* AR III.06, Supp. AAQIR at 8.

rule, noting that the D.C. Circuit Court of Appeal had issued an opinion vacating the rule only a few days before the Board rendered its own decision. *See id.*, slip op. at 65-66. Given that the court's mandate had not yet issued, the Board simply stated its expectation that that the Agency would need to "determine how to proceed" and that the Region would further "consider" these issues "in light of the decisions the Agency makes regarding the Court's ruling on the Deferral Rule." *Id.*, slip op. at 66.[17]

On remand, the Region not only conducted the public hearing mandated by the Board,[18] but also prepared a new permit and AAQIR addressing BACT for the facility's greenhouse gas emissions. The Region explained that although "EPA [had] not made any decisions at this time with respect to application of PSD permitting requirements after the Court's opinion on the Deferral Rule," SPI nonetheless requested that EPA address emission limits and BACT requirements for all of the facility's greenhouse gas emissions in the proposed permit.[19]

SPI submitted additional information estimating that the facility had the potential to emit 433,000 tons per year (expressed as carbon dioxide equivalent or "$CO_2e$") of greenhouse gases.[20] The Region estimated the facility's potential to emit as 432,426 tons

[17] As of the date of this Petition, the mandate of the Court of Appeal remains stayed pending a decision from the United States Supreme Court in *Utility Air Regulatory Group v. EPA*, No. 12-1146 and consolidated cases (cert. granted Oct. 15, 2013; argued Feb. 24, 2014).
[18] AR III.07 (public notice) at 3; *see also* AR IV.51 (transcript of hearing).
[19] AR III.06, Supp. AAQIR at 9.
[20] AR III.06, Supp. AAQIR at 11 (summing emissions of the greenhouse gases $CO_2$, nitrous oxide, and methane as $CO_2e$); *see also* AR I.46, Environ Int'l Corp., Biomass-Fired Cogeneration Project: Best Available Control Technology Analysis for Greenhouse Gases 11, Table 2-1 (Aug. 2013) (hereafter "SPI GHG BACT Analysis").

$CO_2e$ per year, 423,513 tons of which would consist of $CO_2$.[21] Because the facility's potential to emit greenhouse gases exceeded applicable thresholds for PSD permitting, the Region undertook to determine BACT and establish a greenhouse gas emissions limitation.[22]

The Region employed the five-step, "top-down" BACT analysis process recommended in EPA's 1990 New Source Review Workshop Manual.[23] At Step 1 of the analysis, the Region identified three categories of potentially applicable control measures for $CO_2$: "Add-on control options" (carbon capture and sequestration), "Inherently Lower-Emitting Control Options" (consisting of "[g]ood boiler design, good combustion practices, and efficient operation"), and "Other Control Options."[24] This latter, "other" category included both "[u]tilization of biomass fuel alone" and "[b]oiler design alternatives."[25]

At Step 2 of the analysis, the Region rejected boiler design alternatives and pre-combustion carbon capture and sequestration techniques as technologically infeasible.[26]

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[21] AR III.06, Supp. AAQIR at 11 & Table 3-2. The Region subsequently updated these figures to include new global warming potential information for nitrous oxide; estimates of $CO_2$ emissions, however, were not affected. *See* AR V.47, Revised GHG Emissions for the SPI-Anderson Prevention of Significant Deterioration (PSD) Permit Project 3 & Table 2-2 (April 25, 2014).

[22] AR III.06, Supp. AAQIR at 15-16 & Table 4-1.

[23] *Id.* at 17; *see generally* U.S. EPA, *New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Area Permitting* B.5-B.53 (Oct. 1990) (hereafter "NSR Manual"). Specific legal and factual requirements pertaining to the "top-down" BACT analysis process are addressed in greater detail in the "Argument" section of this Petition.

[24] AR III.06, Supp. AAQIR at 19 & Table 5-2. Although the Region also evaluated control measures for the greenhouse gases nitrous oxide and methane, only the Region's decisions related to control of $CO_2$ are at issue here. Accordingly, measures for other greenhouse gases will not be discussed in detail.

[25] *Id.*

[26] *Id.* at 19-21.

At Step 3, the Region ranked the control effectiveness of the remaining measures. The region concluded that post-combustion carbon capture and sequestration was the most effective control measure (capable of achieving an 88.1 percent reduction in $CO_2e$).[27] "Utilization of biomass fuel alone," in contrast, along with good combustion and efficient operation was simply considered "the baseline from which all other alternatives will be evaluated."[28] In other words, the AAQIR effectively concluded that combustion of biomass fuels had zero effectiveness as a control measure.

At Step 4, the Region rejected the most effective control alternative—post-combustion carbon capture and sequestration—due to its "disproportionate costs."[29] Elimination of this option left only "utilization of biomass fuel alone" and other good combustion and efficiency practices available for control of $CO_2$. The Region's Step 4 discussion of these measures stated as follows:

> These control options are considered the baseline level. SPI anticipates that the proposed biomass boiler will be constructed with an energy efficient design that will ensure proper combustion. SPI will operate the boiler according to the manufacturer's specifications to ensure that it is operated efficiently. SPI will operate the boiler in a cogeneration unit, generating electricity as well as steam for drying lumber. SPI will use biomass as its primary fuel. These control options are expected to have a positive energy and environmental impacts [*sic*].[30]

The Region did not explain how these measures could simultaneously be considered both "control options" and the "baseline level" against which all control options would be evaluated. Nor did the Region explain why it expected these control options to have "positive energy and environmental impacts" or offer any appropriate point of

[27] *Id.* at 26 & Table 5-7.
[28] *Id.* at 26.
[29] *Id.* at 27-28.
[30] *Id.* at 28-29.

comparison—that is, any other control alternative—against which such a conclusion could be reached.

At Step 5, the Region reached its BACT determination: (1) an emissions limit of 0.36 pounds of $CO_2e$ per pound of steam produced (on a 12-month rolling average basis); (2) "combustion of biomass at all times except during periods of startup, shutdown, and flame stabilization"; and (3) "energy efficient design and use of good combustion and operation and maintenance practices."[31] The BACT emissions limit selected by the Region, when converted into annual mass emissions at the facility's maximum steam production rate, is actually *higher* than the facility's potential to emit, as estimated by SPI in its application materials, *before* application of BACT.[32]

The Center filed detailed comments on the revised proposed permit and BACT analysis, along with numerous exhibits, on January 10, 2014.[33] The Region issued notice of its final permit decision and responses to comments on April 25, 2014.[34] Relevant portions of the Center's comments, the Region's responses thereto, and the largely non-substantive changes the Region made to the Final Permit in response to comments are addressed in detail below.

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[31] *Id.* at 29.
[32] AR IV.49, Center for Biological Diversity, *Comments Re: Sierra Pacific Industries Anderson Division Revised Draft Prevention of Significant Deterioration Permit* 4 & n.4 (Jan. 10, 2014) (hereafter "Center Jan. 2014 Comments").
[33] *See generally* AR IV.49 (Center Jan. 2014 Comments), IV.49A-IV.49O (Exhibits 1-15 to Center Jan. 2014 Comments).
[34] AR VI.11, Final Permit Notice; *see also* AR VI.08, Prevention of Significant Deterioration Permit Proposed Pursuant to the Requirements at 40 CFR § 52.21 (April 25, 2014) (hereafter "Final Permit"); AR VI.09, Responses to Public Comments on the Proposed Prevention of Significant Deterioration Permit Major Modification for Sierra Pacific Industries – Anderson Division (April 2014) (hereafter "RTC").

## STATUTORY AND LEGAL BACKGROUND

This Petition challenges the Region's clear legal and factual errors in applying the top-down BACT analysis process to emissions of $CO_2$ from biomass combustion. The Clean Air Act requires each "major emitting facility" to obtain a permit setting forth specific "emission limitations" and demonstrating that "the proposed facility is subject to the best available control technology for each pollutant subject to regulation under this chapter emitted from, or which results from, such facility." 42 U.S.C. § 7475(a)(1), (4). These requirements apply both to new facilities and to major modifications of existing facilities. *See* 42 U.S.C. § 7479(2)(C) (cross-referencing definition of "modification" at 42 U.S.C. § 7411(a)); *see also* 40 C.F.R. § 52.21(j)(2), (3) (requiring new major stationary sources and major modifications to apply "best available control technology" for significant emissions of "each regulated NSR pollutant").

A "major emitting facility" is one that for certain enumerated categories of sources emits more than 100 tons per year of air pollutants, and for all other source categories emits more than 250 tons per year of air pollutants. 42 U.S.C. § 7479(1); *see also* 40 C.F.R. § 52.21(b)(1) (defining "major stationary source"). EPA has further defined a "major modification" to include a physical change in a facility that would result in a significant net emissions increase of a regulated pollutant. *See* 40 C.F.R. § 52.21(b)(2). The permit for the SPI Anderson facility here has been processed as a "major modification."

EPA has interpreted the Clean Air Act as requiring PSD permits and BACT analyses for facilities emitting greenhouse gases as of the date those pollutants became "subject to regulation" under other provisions of the Act. *See generally Coalition for*

*Responsible Regulation v. EPA*, 684 F.3d 102 (D.C. Cir. 2012) *cert. granted in part sub nom. Utility Air Regulatory Group v. EPA*, 134 S. Ct. 418 (Oct. 15, 2013). For purposes of regulating modifications of existing major sources of non-greenhouse gas pollutants, however, EPA considers greenhouse gases "subject to regulation" only if the modification increases greenhouse gas emissions by 75,000 tons per year $CO_2e$ or more. *See* 40 C.F.R. § 52.21(b)(49)(iv)(*b*).

The Clean Air Act defines BACT as

> an emission limitation based on the *maximum degree of reduction* of each pollutant subject to regulation under this chapter emitted from 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.

42 U.S.C. § 7479(3) (emphasis added); *see also* 40 C.F.R. § 52.21(b)(12) (similarly defining BACT as "an emissions limitation . . . based on the maximum degree of reduction for each pollutant subject to regulation" that is determined to be "achievable" through application of various "techniques for control of such pollutant"). As these definitions make clear, the purpose of the BACT requirement is to *reduce* pollution—or, as this Board has held, "to *minimize emissions* of regulated pollutants." *In re Prairie State Generating Co.*, 13 E.A.D. 1, 11 (EAB 2006) (emphasis added).

Although the top-down BACT process set forth in EPA's NSR Manual is not legally binding, it nonetheless "provides a framework for determining BACT that assures adequate consideration of the statutory and regulatory criteria" and thus "has guided state and federal permit issuers, as well as PSD permit applicants, on PSD requirements and

policy for years." *In re Desert Rock Energy Co., LLC*, 14 E.A.D. __, slip op. at 53 (EAB Sept. 24, 2009) Under the top-down approach, which is done on "a case-by-case basis," the permitting authority "evaluates the energy, environmental, economic and other costs" associated with alternative pollution reduction technologies and considers "the benefit of reduced emissions that the technology will bring."[35] The permitting authority then "specifies an emissions limitation for the source that reflects the maximum degree of reduction achievable for each pollutant regulated under the Act."[36]

This analysis proceeds in five steps.[37] At Step 1, the permitting authority identifies all pollution control options with a "practical potential for application" to the facility. Step 2 involves eliminating technically infeasible options, based on physical, chemical, or engineering difficulties that preclude their successful use at the particular facility. In Step 3, the authority ranks the remaining control technologies by their effectiveness at controlling emissions. Step 4 analysis involves a case-by-case comparison of the energy, economic, and environmental impacts of each control alternative, beginning with the most effective, to determine whether those impacts render use of the measure inappropriate. And at Step 5, "[t]he most effective control option not eliminated in step 4 is proposed as BACT for the pollutant and emission unit under review."[38]

Finally, EPA has issued two guidance documents on which the Region also relied here: (1) general guidance on applying top-down BACT analysis to sources of

[35] NSR Manual at B.1-B.2.
[36] *Id.* at B.2.
[37] *See id.* at B.5-B.9; *see also Desert Rock*, slip op. at 54-56
[38] *Id.* at B.9.

greenhouse gases,[39] and (2) specific guidance on greenhouse gas BACT determinations in bioenergy applications.[40] Relevant aspects of these documents are discussed in further detail below.

## STANDARD OF REVIEW

A petition for review must demonstrate that each challenge to the permit decision is based on a finding of fact or conclusion of law that is clearly erroneous or an exercise of discretion or important policy consideration that the Board should review. 40 C.F.R. § 124.19(a)(4)(i)(A), (B).

Because BACT analysis is "one of the most critical elements of the PSD permitting process," it should be "well documented in the administrative record," and any decision "to eliminate potential control options as a matter of technical infeasibility, or due to collateral impacts, must be adequately explained and justified." *In re Knauf Fiber Glass, GMBH*, 8 E.A.D. 121, 131 (EAB 1999). The Board will "look at the BACT determination, as documented in the record, to determine whether it reflects 'considered judgment' on the part of the permitting authority," and will remand determinations where the rationale for a permit limit was unclear or where the permitting authority's explanation lacked clarity. *Id.* at 132 (citing *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417-19 (EAB 1997); *In re Austin Powder Co.*, 6 E.A.D. 713, 720 (EAB 1997)). Indeed, the Board has remanded permits, even on technical issues, where the rationale for a BACT determination was unclear, incomplete, illogical, or unsupported by the record.

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[39] AR I.64, U.S. EPA, *PSD and Title V Permitting Guidance for Greenhouse Gases* (March 2011) (hereafter "PSD GHG Guidance").

[40] AR I.90, U.S. EPA, *Guidance for Determining Best Available Control Technology for Reducing Carbon Dioxide Emissions from Bioenergy Production* (March 2013) (hereafter "Bioenergy BACT Guidance").

*Desert Rock*, slip op. at 50-51 (collecting cases). At Step 1 of the BACT process in particular, "failure to consider all potentially applicable control options is grounds for remand." *Id.*, slip op. at 54 *accord Prairie State*, 13 E.A.D. at 15 ("[a]n incomplete BACT analysis, including failure to consider all potentially applicable control alternatives, constitutes clear error and, therefore, is grounds for remand").

## ARGUMENT

### I. THE BOARD CLEARLY ERRED IN IDENTIFYING BIOMASS COMBUSTION IN GENERAL AS A "CONTROL ALTERNATIVE" AT BACT STEP 1

Biomass combustion in general—"[u]tilization of biomass fuel alone"—should not have been considered a "control alternative" at Step 1 of the BACT analysis for one simple reason: biomass combustion, in a facility designed to combust biomass as its primary fuel, does nothing to reduce or control emissions from biomass combustion.[41] Including a purported "control alternative" in the BACT analysis that is identical to the facility's primary purpose thus contradicts the Clean Air Act, which defines BACT as "the maximum degree of reduction" achievable through various "technologies" to "control" emissions. 42 U.S.C. § 7479(3).

As set forth in detail below, the Region's reasons for including biomass combustion at Step 1—without any attempt to identify whether certain biomass fuels might be considered "clean fuels" or "inherently lower-emitting" in relation to other fuels—are clearly erroneous as a matter of law and unsupported by the record. Indeed, the Region claims it identified biomass combustion at Step 1 *because* it is the primary

[41] As discussed in Part II below, the Region could and should have examined whether cleaner forms of biomass were available for analysis as "clean fuels" at Step 1, but erroneously decided not to do so.

fuel proposed for use in the facility, so as to facilitate further discussion of what EPA views as the "unique" properties of biomass at Step 4. This represents a dramatic deviation from the normal top-down BACT process—one that undermines rather than serves the purposes of the statute, and thus constitutes clear error. Moreover, to the extent the Region sought support in similarly erroneous statements in recent EPA guidance documents, its decision involves important policy considerations that warrant review.

### A. Combustion of Biomass Is Not a "Control Alternative" for the Emissions from Combustion of Biomass

The Region identified "[u]tilization of biomass fuel alone" as a greenhouse gas "control alternative" at Step 1 of the revised BACT analysis.[42] The Region did so despite acknowledging at Step 2 of the analysis that "biomass is the primary fuel that will be used at the facility,"[43] and despite characterizing "[u]tilization of biomass fuel alone" as part of the "baseline from which all other alternatives will be evaluated"—that is, functionally identical to the proposed facility *prior to* BACT analysis—at Step 3.[44] At Step 4, the Region confirmed that biomass combustion is merely part of the "baseline level."[45] Yet at Step 5, the Region nonetheless chose "combustion of biomass" as a key component of BACT.[46]

During the public comment period, the Center objected that these conclusions were both illogical and unlawful. Specifically, the Center's comments argued that EPA had not explained or established a valid basis in the record for identifying biomass

[42] AR III.06, Supp. AAQIR at 19 & Table 5-2.
[43] *Id.* at 21.
[44] *Id.* at 26.
[45] *Id.* at 28.
[46] *Id.* at 29.

combustion as a control measure at Step 1 when biomass combustion was identified as both the primary purpose of the project and the baseline from which all other control alternatives would be considered.[47] Biomass combustion is not "inherently lower-emitting" than, and thus cannot "control" or "reduce" emissions from, biomass combustion.[48] The Center also pointed out that EPA's proposed permit limit on $CO_2e$ emissions, when expressed as total annual emissions (i.e., in tons per year), is *higher* than the *uncontrolled* emissions estimate provided in the applicant's GHG BACT analysis, conclusively demonstrating that labeling biomass a "control measure" had no effect on emissions.[49] Therefore, as the Center's comments made clear, the Region's apparent conclusion that the "'maximum degree of reduction . . . achievable'" required by the Clean Air Act was in fact *no reduction at all* was clearly contrary to statute and unsupported by reasoned explanation or justification.[50] Finally, although the Region had not expressly relied on EPA's Boenergy BACT Guidance, the Center included extensive comments demonstrating that this guidance—particularly its suggestion that biomass combustion could be identified as BACT for itself—was unlawful in any event.[51] These issues are thus preserved for review here. 40 C.F.R. §§ 124.13, 124.19(a)(4)(ii).

[47] AR IV.49, Center Jan. 2014 Comments at 3-4; *see also id.* at 8.
[48] *Id.* at 4.
[49] *Id.* at 4 & n.4 (citing Environ Int'l Corp., *Biomass-Fired Cogeneration Project: Best Available Control Technology Analysis for Greenhouse Gases* 11 & Table 2-1 (Aug. 15, 2013)).
[50] *Id.* at 4 (citing 42 U.S.C. § 7479(3)).
[51] AR IV.49, Center Jan. 2014 Comments at 4 & n.6; *see also* AR IV.49A (Center Jan. 2014 Comments, Ex. 1).

### B. The Region's Responses to Comments Are Clearly Erroneous and Warrant Further Review

#### 1. The Region Failed to Explain its Decision to Treat the "Primary Purpose" of the Facility as a "Control Measure," When Doing So Did Nothing to "Control" Emissions

The Region's responses to the Center's comments only exacerbate these errors. For example, the Region plainly stated that it "identified the use of biomass fuel as a Step 1 option in the GHG AAQIR" precisely *because* "utilizing biomass fuel is fundamental to the primary purpose of SPI's project."[52] The Region also expressly "disagree[d] with the commenter's view that the Agency should not list an option for consideration at Step 1 of the BACT analysis based on an initial judgment that it is not 'inherently lower emitting' *or in fact 'control.'*"[53] The Region thus essentially conceded that it was listing biomass combustion at Step 1 despite acknowledging that it is *not* "in fact [a] 'control' [measure]."[54]

Listing biomass combustion at Step 1 clearly contravenes the Clean Air Act, the Board's precedent, and the logical purpose of BACT analysis. Under the plain text of the

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[52] AR VI.09, RTC at 6; *id.* at 8 ("biomass fuel was appropriately listed at Step 1 of the BACT analysis because it was a fundamental part of the design of the facility").
[53] *Id.* at 7 (emphasis added). Again, as pointed out in the Center's comments, the Region's $CO_2e$ emissions limit, converted to annual mass emissions, was *higher* than SPI's original estimate of the facility's potential to emit *before* application of BACT. AR IV.49, Center Jan. 2014 Comments at 4 & n.4. In response to this comment, the Region claimed that the Center "did not provide its calculations or any other basis upon which EPA might further evaluate this conversion or any discrepancy as alleged by the commenter." AR VI.09, RTC at 8. This is incorrect; the Center did provide its calculations, reproduced here verbatim for convenience of reference: "The Revised Draft Permit limits steam production to 275,000 lbs/hour. Revised Draft Permit Condition X.C.3. Conversion to mass annual $CO_2e$ emissions at permit limits is as follows: 275,000 lbs steam/hr * 8,760 hrs/yr = 2,409,000,000 lbs steam/yr * .36 lbs $CO_2e$/lb steam = 867,240,000 lbs $CO_2e$/yr = 433,620 tons $CO_2e$/yr." AR IV.49, Center Jan. 2014 Comments at 4 n.4.
[54] *Id.* at 7.

statute, BACT is "an emission limitation based on *the maximum degree of reduction* of each pollutant subject to regulation . . . which the permitting authority . . . determines is achievable" 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 such pollutant." 42 U.S.C. § 7479(3) (emphasis added). Combustion of biomass does nothing to "reduce" or "control" emissions caused by combustion of biomass in a facility specifically designed to combust biomass.

Listing a fuel as a "control measure" solely because use of that fuel is integral to the facility design also obliterates a careful distinction that has long run through this Board's precedents: the distinction between "design elements" of a facility that are "inherent to the applicant's basic purpose or objective" and "elements [that] could be changed to achieve pollutant emissions reductions without disrupting the purpose." *Desert Rock*, slip op. at 65 *see also id.* at 69; *SPI Anderson I*, slip op. at 59-60. As the Board in *Prairie State* put it, "[t]he source itself is not a condition of the permit." *Prairie State*, 13 E.A.D. at 23; *see also Desert Rock*, slip op. at 60, 64. Indeed, permitting agencies must ensure that "the proposed facility design was derived for reasons independent of air quality permitting." *In re City of Palmdale (City of Palmdale Hybrid Power Project)*, PSD Appeal No. 11-07, 15 E.A.D. __ (EAB Sept. 17, 2012), slip op. at 43.

Here, burning biomass has been identified not only by SPI and the Region,[55] but also by this Board, as a design element inherent to the basic purpose and objectives of the

[55] *See, e.g.*, AR VI.03, Responses to Public Comments on the Proposed PSD Permit Major Modification for Sierra Pacific Industries – Anderson Division 13 (Feb. 2013)

project. *SPI Anderson I*, slip op. at 61-65. Because biomass combustion effectively *is* the project's purpose, it cannot *also* be an "element [that] could be changed to achieve pollutant emissions reductions without disrupting the [project's] purpose." Put another way, if the fundamental design of a source generally cannot be made a condition of or regulated through BACT, then the applicant's proposed design in and of itself cannot be considered a control measure in the BACT analysis. The fundamental design of a source does nothing to "achieve pollutant emissions reductions," which this Board has identified as the purpose of BACT. *See Desert Rock*, slip op. at 65.

The Center recognizes that permitting agencies may consider control options that potentially "redefine the source" (i.e., require a shift in the project's primary purpose) in a BACT analysis. In particular, permitting authorities retain discretion to evaluate "clean fuels" *other* than the primary fuel proposed for use by a facility at Step 1,[56] as well as to evaluate use of a greater proportion of a fuel otherwise available to the facility. *See City of Palmdale*, slip op. at 43-44. By the same token, permitting agencies must at least identify cleaner types of the same primary fuel for evaluation in the BACT process.[57] This makes sense; cleaner alternative fuels, cleaner fuel mixes, and cleaner versions of the primary proposed fuel can reduce facility emissions, and thus are appropriate for analysis as BACT. In contrast, there is no basis for listing *exactly the same* primary fuel proposed for use in the facility as a "control alternative" at Step 1 because use of that fuel

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(discussing purpose stated in SPI's application and concluding that "an inherent aspect of the project is that its fuel use be primarily biomass").

[56] AR I.64, PSD GHG Guidance at 29.

[57] *Id.* at 29 & n.73 (citing *In re Inter-Power of New York*, 5 E.A.D. 130, 145-150 (EAB 1994); *In re Old Dominion Electric Cooperative*, 3 E.A.D. 779, 793 (Adm. 1992).

does not "control" anything. The Region's action thus conflicts with the statutory purpose of BACT.

The Region's attempt to categorize biomass combustion as an "other" control option (as opposed to an "inherently lower-emitting" process or an "add-on" control) also fails.[58] As set forth in EPA's guidance, the NSR Manual, and the Board's precedent, Step 1 control measures include (1) inherently lower-emitting processes or practices, (2) add-on controls, and (3) *combinations of the two*. *See, e.g.*, *Desert Rock*, slip op. at 53; *In re General Motors*, 10 E.A.D. 360, 382 n.18 (EAB 2002).[59] There is no catch-all "other" category, especially for "options" that—as the Region conceded—are not "in fact 'control.'"[60] The Region's error is plain, and remand is required.

2. There Is No Basis for Listing Biomass Combustion at Step 1 Solely to Enable "Further Evaluation" at Later Steps of the BACT Process

The Region claimed it listed biomass combustion at Step 1 not because it did anything to control emissions, but rather in order to facilitate further "examination" or "evaluation" of biomass combustion at later steps of the BACT process.[61] The Region argued that eliminating biomass combustion at Step 1 because it does not "control" emissions "would prejudge the outcome of subsequent steps of the BACT analysis," which in the Region's view "should include the option and examine how the direct

[58] AR VI.09, RTC at 6-7.
[59] *See also* NSR Manual at B.10; AR I.64, PSD GHG Guidance at 27.
[60] AR VI.09, RTC at 7.
[61] *See, e.g.*, AR VI.09, RTC at 6 ("EPA's purpose was to inform the public that we were not considering other fuel types to be potential control options for this facility and that biomass fuel was the only fuel option that would be subject to further examination in subsequent steps of the top-down process"), 8 ("biomass fuel was appropriately listed at Step 1 of the BACT analysis because it was a fundamental part of the design of the facility and the only fuel type subject to further evaluation at subsequent steps of the BACT analysis").

emissions from biomass combustion alone would rank in relation to other control techniques under consideration."[62]

These assertions are facially illogical. The selection of control alternatives at Step 1 always "prejudge[s] the outcome of subsequent steps of the BACT analysis." In fact, that is the purpose of Step 1: to identify "all demonstrated and potentially applicable control alternatives" so they can be evaluated and ranked at subsequent steps. *Desert Rock*, slip op. at 54. For example, EPA routinely "prejudge[s] the outcome" of subsequent BACT steps when it excludes from Step 1 control measures that would redefine the source. *See, e.g.*, *SPI Anderson I* at 59 ("permit issuers need not consider technology alternatives that would require 'redefining the design' of the source (or, as shorthand terminology, 'redefining the source'), as proposed by the permit applicant"); *Prairie State*, 13 E.A.D. at 28 (concluding that consideration of low-sulfur coal would "redefine the fundamental purpose or basic design" of a proposed "mine-mouth" facility and therefore "could appropriately be rejected from further BACT analysis at step 1"). Moreover, there is no need to identify "biomass combustion alone" as a control measure in order to evaluate how it ranks "in relation to other control techniques under consideration," because biomass combustion alone is the core purpose of the project against which all "other" control measures must be compared in any event.[63]

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[62] *Id.* at 7.

[63] *See, e.g.*, AR III.6, Supp. AAQIR at 7 (application seeks approval to construct a "new cogeneration unit" that will combust "clean cellulosic biomass during normal operation, and natural gas for periods of startup, shutdown, and flame stabilization"), 8 (describing biomass fuel as "a fundamental part of the design of the facility"); 10-11 (describing biomass boiler), 21 ("biomass is the primary fuel that will be used at the facility"); *see also In re SPI Anderson* at 61-65 (holding that combustion of waste biomass is inherent to the project purpose and that requiring greater natural gas combustion would "redefine the source").

Indeed, listing the basic design or purpose of a facility as a "control measure" at Step 1 adds nothing to *any* subsequent step of the BACT process. Subsequent steps in the BACT process are designed for evaluating and ranking the effectiveness of emissions control options, not for "further evaluation" of anything related to the basic purpose of the facility itself. *See Desert Rock*, slip op. at 54-56 (describing purpose of steps). There is no need, for example, to consider whether use of the proposed primary fuel is "technically infeasible" at Step 2; it never will be, because the applicant would not otherwise have proposed it. Nor is there any reason to pursue control measures that are of similar effectiveness, and thus essentially "redundant," beyond Step 2. *See Prairie State*, 13 E.A.D. at 35-37. Moreover, there is no utility in examining the control effectiveness of the use of the proposed primary fuel at Step 3; because it is identical to the proposed project, the control effectiveness will always by definition be zero.

The most serious problems with the Region's (and EPA's) approach arise at Step 4. The Region claimed that even if biomass combustion is "not . . . in fact 'control[,]' . . . it is still beneficial to examine the extent to which biomass fuel has other environmental benefits or adverse impacts" in the context of the "Step 4 environmental impacts analysis."[64] The Region noted that EPA is currently considering whether biomass can be "inherently lower-emitting," which is "not as straightforward" as with other fuels and pollutants "because of the role of offsite sequestration," and claimed that "EPA believes this unique attribute of biomass fuel is best considered in the context of Step 4 of the BACT analysis."[65] The Region sought support for this position in the Bioenergy BACT Guidance, in which (in the Region's view) "EPA has concluded . . . that the Act's

[64] AR VI.09, RTC at 7.
[65] *Id.*

instructions that permitting authorities consider 'environmental impacts' when establishing BACT may be construed to afford discretion to examine the net atmospheric contribution of using biomass fuel in the context of a Step 4 of the top-down BACT process [*sic*]."[66]

The Region and the guidance on which it relies are both clearly wrong. The Clean Air Act instructs permitting authorities to "tak[e] into account" environmental impacts when "determin[ing]" the "maximum degree of reduction of each pollutant subject to regulation . . . 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." 42 U.S.C. § 7479(3). The "environmental impacts" to be considered here are thus those of the "production processes and available methods . . . for control" of pollution that constitute BACT, not those of the proposed facility in general. There is no support in the statute for the Region's view or for the similar position taken in EPA's guidance.[67]

The NSR Manual underscores the plain error in the Region's approach. Reflecting the plain text of the statute, the manual confirms that the sole purpose of examining other environmental, economic, and energy impacts at Step 4 is to determine whether the most effective "control measure" remaining after Steps 1, 2, and 3 entails excessive costs or other impacts that justify adopting a less stringent alternative.[68] The deviation from the usual Step 4 inquiry proposed by the Region here would do nothing to

[66] *Id.* at 14; *see also id.* at 7 (citing Bioenergy BACT Guidance at 17-18).
[67] *See* AR I.64, PSD GHG Guidance at 9-10; AR I.90, Bioenergy BACT Guidance at 20-30.
[68] NSR Manual at B.8-B.9, B.26-B.29.

serve the purposes of BACT analysis as articulated in the statute, and is thus unlawful. *See Desert Rock*, slip op. at 53 (top-down process "assures adequate consideration of the statutory and regulatory criteria").

It is easy to imagine other common situations that illustrate the absurdity of the Region's approach. For example, under the Region's logic, nothing would stop a permitting agency conducting a BACT analysis of a mine-mouth coal plant from including combustion of coal from the adjacent mine as a "control measure"—even though this coal was identified as the primary fuel for the facility and its combustion would do nothing to control the facility's emissions—solely to permit a wide-ranging examination of the environmental impacts, or the economic benefits, of coal mining. A BACT analysis for a gas-fired power plant similarly could include a lengthy discussion at Step 4 of the benefits, for example, of providing jobs to workers in the gas fields of North Dakota. None of this analysis would have any relevance whatsoever to the purpose of either Step 4 or the BACT inquiry in general. BACT analysis would become completely unhinged from the statutory purpose.

The Region's response illustrates some of the key problems with its reliance on the Bioenergy BACT Guidance and the PSD GHG Guidance. As the Region's responses indicate, those guidance documents suggest that permitting authorities may undertake a wide-ranging inquiry into the purported benefits of biomass combustion—as expressed in state and federal policies favoring biomass utilization—in the guise of a Step 4 analysis.[69] But the fact that state and federal government agencies have expressed policy preferences for biomass—based on assertions that biomass utilization might create jobs or help

[69] *See, e.g.*, AR I.64, PSD GHG Guidance at 10-12; AR I.90, Bioenergy BACT Guidance at 9-10, 20-30.

certain parties achieve their forest management goals[70]—is irrelevant to BACT analysis. The Board has already held as much in non-biomass contexts. *See Prairie State*, 13 E.A.D. at 43-44 (holding Board had no jurisdiction to consider petitioners' arguments related to "labor negotiations or market advantage" in context of Step 4).

If biomass combustion, in the context of a particular facility, is not a control measure in the first place, then permitting authorities have no warrant to use subsequent steps of the BACT process to opine on broad policy considerations. BACT analysis must serve the purposes of the statute, not the unrelated policy goals of state and federal officials. The Bioenergy BACT Guidance is incorrect and unlawful to the extent it suggests that the various benefits and costs of biomass combustion should be addressed at Step 4, even if there is no basis for listing biomass as a "control measure" at Step 1.[71] And the PSD GHG Guidance is incorrect and unlawful to the extent it suggests that a permitting authority, based solely on the existence of state and federal policy preferences for biomass, could determine that "with respect to the biomass component of a facility's fuel stream, certain types of biomass by themselves are BACT for GHGs."[72] The Center's comments addressed these flaws, particularly in the context of the Bioenergy BACT Guidance, in detail.[73] The Region's responses to comments expressly relied on exactly these erroneous provisions of the guidance documents. The Region's assertion

[70] *See* AR I.64, PSD GHG Guidance at 10; AR I.90, Bioenergy BACT Guidance at 25-27.
[71] *See* AR I.90, Bioenergy BACT Guidance at 15 (asserting that biomass combustion should be listed as a control measure at Step 1 even when biomass combustion is "fundamental to the primary purpose of the project").
[72] AR I.64, PSD GHG Guidance at 10.
[73] *See* AR IV.49A (Center Jan. 2014 Comments, Ex. 1).

that the Center's comments on the Biomass BACT Guidance "do not appear relevant to the SPI Anderson project" is therefore baseless.[74]

The sole basis for this dramatic deviation from the usual BACT process appears to be EPA's belief that biomass combustion is "unique." The Region claims, for example, that the question as to whether biomass combustion can be "inherently lower-emitting" than other processes is "not as straightforward" as with other fuels and pollutants "because of the role of offsite sequestration."[75] It is this "unique attribute of biomass fuel" that EPA believes "is best considered in the context of Step 4 of the BACT analysis,"[76] even if there is no other basis for listing biomass fuel as a control alternative at Step 1.

Even if biomass were "unique" in some way, this would not permit the Region or EPA to evaluate emissions from biomass combustion in a manner inconsistent with the statute and the Board's precedent. Again, the NSR Manual and the Board's decisions draw a clear distinction between the proposed project and its core purpose—here combustion of "biomass alone"—and the "control measures" that can reduce emissions. *Desert Rock*, slip op. at 60, 65, 69. *Prairie State*, 13 E.A.D. at 23. Accordingly, whether a process, fuel, or technique is "inherently lower emitting" first must be evaluated *in relation to the proposed project* at Step 1—as a control *alternative* or control *option* to the project. *See Desert Rock*, slip op. at 54 (citing NSR Manual at B.10-B.11). The Region expressly and repeatedly declined to conduct any such evaluation here.[77] It cannot substitute mere conclusory assertions that the purportedly "unique" characteristics

[74] AR VI.09, RTC at 13.
[75] AR VI.09, RTC at 7.
[76] *Id.*
[77] *See* AR VI.09, RTC at 6-7.

of biomass are better addressed at Step 4 for the analysis that the BACT process, and the statute itself, clearly require. There is no legal or logical justification for listing the proposed project itself as a "control measure" at Step 1 for the sole purpose of "further evaluation" that cannot inform, and has no place in, the required analysis at Step 4 or any other step of the BACT process. The Region's decision to do so here was clearly erroneous.

### 3. EPA Has Failed to Discern a Statutory Basis for Considering Off-Site Sequestration at Step 1 or Any Other Step of the BACT Process.

At a fundamental level, EPA has failed to identify any sound statutory or regulatory basis for considering biomass combustion to be a "control" option or alternative at Step 1 in the context of a facility designed to burn biomass as its primary fuel. As the Center pointed out in its comments, different forms of biomass produce roughly the same amount of greenhouse gases from the stack, meaning that any relevant differences—whether among biomass feedstocks or in relation to non-biomass fuels—would have to derive from life cycle considerations (such as off-site and later-in-time sequestration of $CO_2$ by biomass growth).[78] The Region responded to these comments by citing EPA's determination in the Bioenergy BACT Guidance that off-site sequestration could be considered at Step 4.[79] Of course, as discussed above, this just begs the question: if EPA has no statutory basis for listing biomass fuel as a "control measure" at Step 1 in the first place, it cannot evaluate life cycle or net atmospheric emissions of that fuel at Step 4.

[78] *See* AR IV.49, Center Jan. 2014 Comments at 5, 7.
[79] AR VI.09, RTC at 9-10.

Although PSD applicability is not at issue in this appeal, it is important to note that the Clean Air Act does not provide EPA any discretion to consider off-site sequestration in determining whether a facility must obtain a PSD permit in the first instance (i.e., in determining a facility's "potential to emit"). This necessarily flows from the clear, unambiguous definition of a "major emitting facility" as a "stationary source[ ] of air pollutants which *emit*[*s*], or [*has*] *the potential to emit*," threshold amounts of any air pollutant "*from*" the source, 42 U.S.C. § 7479(1) (emphasis added), and the equally plain definition of the term "stationary source" as "any building, structure, facility, or installation which *emits* or *may emit* any air pollutant." 42 U.S.C. § 7411(a)(3) (emphasis added). Thus the "potential to emit" of a "stationary source"—defined as the "building, structure, facility or installation" which "emits" or "may emit" the pollutant at issue—cannot include off-site sequestration or uptake of that pollutant. Again, the applicability of PSD requirements to SPI's facility is not at issue here. Rather, the threshold legal question EPA must answer—and that the Region failed to answer here—is whether life cycle or net atmospheric impact considerations related to off-site sequestration can be considered in the BACT process, under the "clean fuels" rubric, once it is determined that a PSD permit is required.

EPA has not included such off-site considerations in past interpretations of its BACT authority. As the PSD GHG Guidance explains, "EPA has historically interpreted the BACT requirement to be inapplicable to secondary emissions, which are defined to include emissions that may occur as a result of the construction or operation of a major stationary source but do not come from the source itself."[80] Accordingly, "a BACT

[80] AR I.64, PSD GHG Guidance at 24.

analysis should not include (in Step 1 of the process) [options] that cannot be demonstrated to achieve reduction in emissions released from the stationary source (e.g., within the property boundary)."[81] This is why the Center pointed out in its comments that EPA must clearly evaluate and explicitly determine whether, in the specific context of evaluating biomass fuels, the statute allows for consideration of life cycle or "net atmospheric" emissions, which necessarily entail consideration of off-site biological sequestration occurring outside the property boundary, at Step 1 of the BACT process.[82] The Region never provided this evaluation, except to say that "EPA has reached no conclusion on this point."[83]

EPA must reach this conclusion before considering off-site sequestration and other life cycle characteristics of biomass combustion in the BACT process. As discussed above, the agency cannot avoid this problem by simply skipping ahead to Step 4. Again, Step 4 is meaningful only in comparing the relative environmental benefits of control alternatives properly listed at Step 1 and remaining under consideration after Steps 2 and 3. For this reason, the Region's claim in response to comments that "parts of the Bioenergy BACT Guidance reflect the legal analysis that the commenter's request [*sic*]" is incorrect, because it consists of nothing more than the plainly erroneous assertion that EPA has discretion to consider "the net atmospheric contribution of using biomass fuel" at Step 4.[84]

In sum, the Region's decision to list biomass combustion in general at Step 1 of its BACT analysis is contrary to law, unsupported by fact, inadequately explained in light

[81] *Id.*
[82] AR IV.49, Center Jan. 2014 Comments at 5, 7.
[83] AR VI.09, RTC at 9.
[84] *Id.* at 14.

of the record, and fundamentally illogical. The permit must be remanded so that the Region can remedy these failures.

## II. THE REGION FAILED TO EXAMINE WHETHER READILY AVAILABLE, INHERENTLY LOWER-EMITTING FORMS OF BIOMASS COULD BE CONSIDERED "CLEAN FUELS" AT STEP 1

### A. The Region Clearly Erred in Deciding to Forgo the Required "Clean Fuels" Analysis of Alternative Biomass Feedstocks at Step 1

The Region erroneously declined to follow the one potentially permissible path available for consideration of biomass fuels as "control measures" at Step 1: the legally required analysis of whether inherently lower-emitting forms of the primary fuel proposed for use at the facility were available for consideration as "clean fuels."[85]

In comments on the revised permit, the Center pointed out that a "clean fuels" analysis is required in a BACT determination, and that failure to conduct such an analysis constitutes reversible error.[86] *See In re Inter-Power of N.Y., Inc.*, 5 E.A.D. 130, 145 (EAB 1994). The Center's comments referenced and attached as exhibits a range of information, including published, peer-reviewed scientific articles, state agency studies, and a report from an EPA Science Advisory Board panel convened specifically to consider how $CO_2$ emissions from biomass combustion should be addressed in the PSD context. These articles and studies identified relevant differences in atmospheric emissions over time associated with combustion of different biomass feedstocks—in other words, the period of time during which biomass combustion increases atmospheric

[85] Of course, as a prerequisite to this analysis, EPA still would have had to determine whether it had any legal basis for considering off-site and later-in-time sequestration at Step 1. *See* Part I.B.3 above, at pp. 28-31.
[86] *See* AR IV.49, Center Jan. 2012 Comments at 4-5.

$CO_2$ concentrations relative to what otherwise would have occurred, a period often described as the "carbon debt" of biomass.[87]

The Center's comments also pointed out that there was at least one alternative source of fuel—mill waste—that was readily available in amounts sufficient to meet all of the facility's fuel requirements, technically feasible, and entirely consistent with the facility's primary purpose.[88] The comments proposed that limiting the facility to combustion of mill waste alone "could conceivably reduce the carbon debt associated with biomass combustion at the facility in comparison to the 'assumed' and permitted fuel mixes, depending on what would happen to the mill waste if it were not used as biomass fuel."[89] All of the issues raised in this Petition were therefore raised during the public comment period. 40 C.F.R. §§ 124.13, 124.19(a)(4)(ii).

In issuing the final Permit, however, the Region failed to evaluate particular feedstocks as "clean fuels" in light of the information in the record. This was clearly erroneous. As the Seventh Circuit Court of Appeal held in a leading case, "[t]he Act is explicit that 'clean fuels' is one of the control methods that the EPA has to consider," except where use of the "clean fuel" would require a "redesign of the 'proposed facility.'" *Sierra Club v. United States EPA*, 499 F.3d 653, 655 (7th Cir. 2007). The Board's own decisions are in accord. *See, e.g.*, *Prairie State*, 13 E.A.D. at 17 ("the Board has stated that consideration of 'clean fuels' must be part of the BACT analysis"); *Inter-Power*, 5 E.A.D. at 145 ("the 1990 Clean Air Act amendments . . . expressly require consideration of clean fuels in selecting BACT, as well as prior decisions of the

[87] AR IV.49, Center Jan. 2014 Comments at 5-7, nn.7-13, and Exhibits 2-12. These exhibits are indexed in the Administrative Record here as AR IV.49B-IV.49L.
[88] AR IV.49, Center Jan. 2014 Comments at 7-8.
[89] *Id.* at 8.

Administrator, which state that a proper BACT analysis must include consideration of cleaner forms of the fuel proposed by the source"). "Where a more stringent alternative is not evaluated because the permitting authority erred in not identifying it as an 'available' option, a remand is usually appropriate, because a proper BACT analysis requires consideration of all potentially 'available' control technologies." *Inter-Power*, 5 E.A.D. at 144. In light of this precedent, the Region's decision to forgo a clean fuels analysis was clearly erroneous. Remand is appropriate here.

### B. The Region's Responses to Comments Fail to Justify its Decision Not to Evaluate Comparative Emissions from Different Biomass Fuels

In responses to comments, the Region offered various justifications for its failure to conduct the required "clean fuels" analysis. None has merit.

#### 1. The Region's Assertions Concerning the Complexity of Comparative Feedstock Analysis Are Unsupported and Inconsistent

The Region correctly interpreted the Center's comments as requesting that the Region identify at Step 1 the different biomass feedstocks that could be considered "clean fuels" in relation to the facility's proposed biomass fuel supply, and then evaluate the relative control effectiveness of these feedstocks at Step 3.[90] As shown in Part I of this Petition, this is the approach that best comports with—and is in fact required by—the statute and the Board's precedent.

The Region, however, declined to follow this approach, primarily based on the assertion that case-by-case analysis of the net atmospheric emissions associated with

[90] AR VI.09, RTC at 10.

biomass feedstocks is "prohibitively time-consuming and complex."[91] Although the Region "agrees with the commenter that consideration of the carbon cycle is relevant" and that "case-by-case analysis that considers the attributes of particular feedstocks is preferable," the Region claims EPA is still in the "process" of developing a biomass carbon accounting framework, and thus "lacks the tools at this time to undertake a quantitative comparison of the net atmospheric contribution of different biomass feedstocks that might be utilized at the facility . . . ."[92]

These justifications fail as a matter of law. A case-by-case analysis is not just "preferable"; it is required by the statute. 42 U.S.C. § 7479(3) (requiring emission limitations to be determined on a "case-by-case basis"). Accordingly, this Board has held that the Act "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.'" *Desert Rock*, slip op. at 52 (quoting *In re Northern Michigan University*, PSD Appeal No. 08-02, 14 E.A.D. at __ (EAB Feb. 18, 2009), slip op. at 12). And it is clear that "clean fuels" must be considered as part of this "case-by-case" analysis. *See Sierra Club v. EPA*, 499 F.3d at 655; *Prairie State*, 13 E.A.D. at 17; *Inter-Power*, 5 E.A.D. at 145.

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[91] *Id.* at 10; *see also id.* at 13 ("assessment of the carbon cycle in connection with biogenic feedstocks is a complex evaluation involving a range of policy and technical issues").

[92] *Id.* at 11; *see also id.* at 10 (EPA has "begun the process of assessing the carbon cycle implications of biogenic feedstocks," but complicated "policy and technical issues require further consideration" before EPA can "specify particular categories of biomass as 'clean fuels' or 'inherently lower-emitting' fuels for the purposes of a BACT determination"). The Region's subsequent assertions that it *did* conduct a "case-by-case" analysis, *id.* at 13-14, are therefore not only contradictory but also without factual support.

Moreover, as this Board has recognized, BACT analysis is almost always technically complex. *Desert Rock*, slip op. at 50. The complexity of analysis is not a valid reason for rejecting any discussion whatsoever of "clean fuels" at Step 1. Rather, this Board's decisions require rejection of control alternatives, if at all, on technical feasibility grounds (at Step 2) or on other environmental, economic, or energy grounds (at Step 4). *See generally In re Knauf Fiber Glass GMBH*, 8 E.A.D. 121, 129-31 (EAB 1999).

Finally, the Region identifies nothing in the record—aside from general statements in EPA guidance documents—to support the assertion that case-by-case assessment of carbon cycle implications of different feedstocks is so overwhelmingly difficult as to be impossible.[93] Generic statements in EPA's guidance that case-by-case analysis would "likely" be complicated, or would "entail extensive workload requirements,"[94] do nothing to establish that conducting a case-by-case analysis for this facility, on this record, was so complex as to be literally impossible. The Region here is attempting to avoid a clear statutory requirement for "case-by-case" analysis of control technologies, which expressly include "clean fuels." 42 U.S.C. § 7479(3). To avoid such a requirement, EPA must meet the "especially heavy burden" of showing that compliance is literally "impossible"—not that it is merely difficult, complex, or time-consuming. *Alabama Power Co. v. Costle*, 636 F.2d 323, 358-59 (D.C. Cir. 1979); *see also Sierra Club v. EPA*, 719 F.2d 436, 462-63 (D.C. Cir. 1983); *Environmental Defense Fund v EPA*, 636 F.2d 1267, 1283 (D.C. Cir. 1980). The Region has not even attempted to meet

[93] *See* AR VI.09, RTC at 10 (citing AR I.90, Bioenergy BACT Guidance at 23).
[94] *See, e.g.*, AR I.90, Bioenergy BACT Guidance at 23 (observing in general terms that case-by-case analysis "would likely be prohibitively time-consuming and complex" and

this "heavy burden" here. In short, the Region's protestations of complexity cannot excuse its failure to conduct the "clean fuels" analysis required by law.

2. The Region's Conclusions Regarding Revisions to Condition X.G. Are Unsupported and Contradictory

Having claimed that any assessment of the relative atmospheric emissions of different biomass feedstocks would be prohibitively complicated, the Region changed course entirely, contradicting itself in the process. In responses to comments, the Region claimed it had revised the list of permitted fuels in Permit Condition X.G. based on "a basic, qualitative evaluation in a Step 4 context of the environmental impacts of the specific biomass feedstocks SPI intends to use."[95] On this evaluation, the Region claimed it was "able to make a rough qualitative assessment that the feedstocks SPI seeks to use are unlikely to result in a significant increase in atmospheric $CO_2$ loading."[96]

The Region fails to identify where in the record it conducted this "rough qualitative assessment," much less explain what record support it has for its conclusion that the range of feedstocks identified by SPI "are unlikely to result in a significant increase in atmospheric $CO_2$ loading." Although the Region claims it conducted this assessment "in a Step 4 context,"[97] the Step 4 analysis in the AAQIR contains no such discussion. Rather, it consists of only two conclusory sentences: "SPI will use biomass as its primary fuel. These control options are expected to have a positive energy and

[95] AR VI.09, RTC at 11.
[96] *Id.*; *see also id.* at 12 ("EPA believes that these revisions to Permit Condition X.G. will limit the facility to the types of biomass fuels that are generally considered to have lower net atmospheric contributions when combusted.").
[97] *Id.* at 11.

environmental impacts [*sic*]."[98] Had the Region conducted any "qualitative assessment" at Step 4—which, as discussed in Part I above, would have been inappropriate in any event due to the Region's failure to properly identify biomass combustion as a control alternative at Step 1—one would expect that "assessment" to appear in the AAQIR, which is supposed to "describe[] the legal and factual basis" for the BACT determination.[99] There is no such assessment in the AAQIR. As a result, EPA has failed to adequately explain and document its conclusion.

The Region's justification is fatally flawed in any event. Although the Region claims Permit Condition X.G. limits the facility to fuels with "*lower* net atmospheric contributions,"[100] this just begs the question: *lower* than what? The Region never explains what point of comparison it used to reach this conclusion. At best, the Region claims that "assessment of net atmospheric impacts of combustion of roundwood feedstocks is a more complex exercise," and claims to be "drawing no conclusions at this time with respect to how the net impact of such feedstocks compares to the feedstocks that SPI is authorized to use under the final permit conditions."[101] This not only ignores

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[98] AR III.06, Supp. AAQIR at 29. When the Region revised its greenhouse gas analysis (including its BACT analysis) to incorporate new emissions estimates—specifically, new global warming potential estimates for nitrous oxides—the Step 4 analysis and conclusions did not change. *See* AR V.47, Revised GHG Emissions Evaluation for the SPI-Anderson PSD Project 10 (April 25, 2014).)

[99] AR III.06, Supp. AAQIR at 8.

[100] AR VI.09, RTC at 12 (emphasis added).

[101] *Id.* at 12 n.5. The RTC does not explain what the Region means in referring to "roundwood" feedstocks. If this is a reference to the physical characteristics of the material, then it should include non-merchantable trees and sections of the stem that the facility is permitted to burn. If it is intended, rather, as a reference to materials harvested for the sole purpose of biomass fuel, then it adds nothing to the Region's analysis; it is the physical characteristics of the material and its alternate fate in the forest, not the intent of the person who harvested it, that matter for carbon accounting purposes. *See generally* AR IV.49H (Campbell 2011), AR IV.49I (Hudiburg 2011) (evaluating net changes in

that "non-merchantable sections of the stem" and other "non-merchantable forest biomass"—both permitted under Condition X.G.[102]—are physically indistinguishable from "roundwood," but also effectively concedes that the Region has no basis for concluding that "net atmospheric contributions" from SPI's permitted fuel mix will be "lower" than those from any other fuel mix. The Region's conclusion is arbitrary and unexplained.

Moreover, the changes made by the Region to the permit condition governing fuel supply are not substantive, and thus do not seem to reflect any meaningful assessment of the emissions associated with the fuel mix. The Final Permit simply expands the prior category of "wood and wood waste" to include a broad range of potential feedstocks.[103] Those feedstocks, however, still include whole "non-merchantable" trees as well as larger "residues" and "residuals."[104] These materials generally have relatively long "carbon debt" periods, and their combustion thus tends to increase atmospheric $CO_2$ emissions for significant amounts of time.[105] The facility also intends to burn not only mill waste and

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carbon stocks and atmospheric $CO_2$ emissions associated with forest thinning for purposes of fire threat reduction).

[102] AR VI.08, Final Permit at 12 (Condition X.G.1.d., X.G.1.e).

[103] *See* AR VI.10 at 12 (strikethru version of Final Permit showing changes to fuel condition). The facility also plans to burn "agricultural woody waste from the Sacramento Valley agricultural areas, and some urban wood waste," AR IV.49M, Second Recirculated Draft EIR Excerpt at 2.0-30, as expressly permitted by Permit Conditions X.G.1.a and X.G.1.b. AR VI.08, Final Permit at 12. The Region does not specifically discuss any of these materials, however, in either the AAQIR or responses to comments.

[104] AR VI.08, Final Permit at 12 (Condition X.G.1.d, X.G.1.e).

[105] *See, e.g.*, AR IV.49E (Mitchell 2012) at 2-3 (describing concept of "carbon sequestration parity," wherein emissions from harvests for bioenergy are compared to carbon sequestration that would occur if forests were left unharvested), 9 (concluding that many of the whole-tree harvesting regimes and landscapes analyzed "required more than 100 years to achieve C Sequestration Parity, even when the bioenergy conversion factor was set at near maximal level" and even when emissions from wildfire were taken into account); AR IV.49G (McKechnie 2011) at 793 (concluding that bioenergy produced

"harvest slash" from forest operations, but also materials from "forest thinning operations (to reduce wildfire hazards)."[106] These materials would be permitted as "residuals of forest management activities" under Permit Condition X.G.1.e., provided only that they were legally harvested.[107] Trees cut for "forest thinning operations" tend to include live, growing trees—i.e., "roundwood"—which may or may not be of "merchantable" size. Two peer-reviewed studies submitted with the Center's comments concluded that thinning of whole trees to reduce wildfire risk often reduced forest carbon stocks and increased near-term atmospheric $CO_2$ concentrations, even when reduced wildfire emissions were taken into account.[108] In short, it does not matter *why* whole trees burned in the facility are cut down—i.e., whether they were "harvested solely for the purpose of biomass combustion"[109] or cut in an effort to reduce wildfire risk. Regardless of the

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using whole tree pellets from Ontario forests would increase atmospheric $CO_2$ concentrations for 38 years, and that pellets produced from forest residues would increase $CO_2$ concentrations for 16 years, when biomass energy replaced coal-fired generation), 789 (acknowledging that debt periods would be even longer if less carbon-intensive generation than coal were replaced); AR IV.49K (Repo 2010) at 7 (concluding that "carbon debt" periods of large-diameter forest residues used for bioenergy could span several decades when compared to emissions from in-forest decomposition).

[106] AR IV.49M, Second Recirculated Draft EIR Excerpt at 2.0-30.

[107] AR VI.08, Final Permit at 12.

[108] *See* AR IV.49H (Campbell 2011) at 2 (observing that in Ponderosa pine forests, thinning operations removed roughly three units of carbon for each unit of carbon from avoided wildfire emissions), 7 (concluding that "it appears unlikely that forest fuel-reduction treatments have the additional benefit of increasing terrestrial C storage simply by reducing future combustive losses and that, more often, treatment would result in a reduction in C stocks over space and time"); AR IV49.I (Hudiburg 2011) at 1-2 (thinning for bioenergy production increases atmospheric $CO_2$ concentrations over at least a 20-year period in 16 of 19 West Coast ecoregions—all ecoregions that are currently functioning as carbon sinks—and that even more limited thinning for fire prevention increased emissions in 13 of 19 ecoregions); *see id.* at 2 Fig. 1a (showing that forests surrounding the northern end of California's Central Valley—i.e., the forests nearest the SPI Anderson facility—are currently carbon sinks).

[109] *See* AR VI.09, RTC at 12 (claiming changes to Condition X.G. were "intended to preclude the use" of "timber harvested solely for the purpose of biomass combustion.")

forest manager's intent, the physical and atmospheric consequences of using whole trees for bioenergy are exactly the same.

The Region not only failed to explain the basis for the "qualitative assessment" it claims to have conducted at Step 4, but also failed to conduct the "qualitative assessment" it *should have* conducted at Step 1. Materials submitted with the Center's comments and included in the record demonstrated that different feedstocks allowed under the permit—even if grouped in to very rough categories like "whole trees," "residues," and "mill waste"—likely would have discernible atmospheric loading consequences.[110] Indeed, if a "rough qualitative assessment" of $CO_2$ loading from the entirety of SPI's proposed fuel mix—which the Region claimed it conducted[111]—was possible, then a "rough qualitative assessment" of the $CO_2$ loading associated with the different feedstocks *within that same fuel mix* must also have been possible, the Region's protestations to the contrary notwithstanding.[112] Either an analysis of the emissions associated with these feedstocks is too complex, or it is not. It cannot be both, depending on which conclusion the Region wishes to reach.

Here, the record demonstrates that even a "rough qualitative assessment" would have allowed the Region to identify different categories of feedstocks at Step 1, ascertain

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[110] *Compare, e.g.*, AR IV.49E (Mitchell 2012), AR IV.49G (McKechnie 2011), *and* AR IV.49I (Hudiburg 2011) (all discussing lengthy carbon debt periods associated with combusting whole trees for bioenergy), *with* AR IV.49K (Repo 2010) (discussing carbon debt periods associated with combustion of forest residues); *see also* AR I.90, Bioenergy BACT Guidance at 23 (positing that net emissions associated with combustion of mill waste may be "negligible").

[111] AR VI.09, RTC at 11.

[112] *See id.* at 10 (claiming that "assessing the carbon cycle implications of biomass feedstocks . . . involves complex policy and technical issues that require further consideration before EPA can specify particular categories of biomass as 'clean fuels' or 'inherently lower-emitting' fuels for the purposes of a BACT determination").

which feedstocks were technically feasible to use at Step 2,[113] rank the feedstocks relative to one another in terms of their general atmospheric consequences (and thus their rough control effectiveness relative to one another) at Step 3, evaluate the relative non-air quality environmental, economic, and energy effects of each feedstock at Step 4, and choose the most effective option at Step 5. The Region's repeated claim that it is not yet ready to undertake a *quantitative* evaluation of different biomass feedstocks[114] is therefore beside the point—and in any event fails to establish that the Region could not have done at least a *qualitative* comparative assessment of the fuels included in SPI's proposed fuel mix based on the record here.

The Clean Air Act requires nothing less. The Region has not explained or justified its failure to proceed according to the law and the record here.

3. The Region Improperly Rejected a "Mill Waste Only" Condition

The Center urged the Region to consider whether mill waste alone could be deemed a "clean fuel" for purposes of greenhouse gas emissions, and if so, to limit the facility to using mill waste as fuel.[115] The Region declined to do so. In justification, the Region claimed that

> the assessment of the carbon cycle in connection with biogenic feedstocks is a complex evaluation involving a range of policy and technical issues. Thus, EPA is not prepared at this time to make the type of bright line determinations suggested by the commenter. . . . EPA has no grounds to require that the applicant adhere to a specific fuel mixture given the

[113] *See* AR VI.09, RTC at 11 (assuming "all of the specified feedstocks" in Condition X.G. are technically feasible).
[114] *See id.* (claiming variously that EPA is "not currently prepared . . . to engage in a quantitative ranking and comparison of the net atmospheric contribution of [biomass] fuels," and that "EPA lacks the tools at this time to undertake a quantitative comparison of different biomass feedstocks that might be utilized" at the facility).
[115] AR IV.49, Center Jan. 2014 Comments at 6-8.

complexities associated with comparing the net carbon contribution of the fuel types that are permissible under Permit Condition X.G.[116]

As with its general failure to assess whether different feedstocks could be considered "clean fuels," the Region also failed to demonstrate that specific analysis of a mill waste only alternative was so complex as to be impossible on this record. The Region does not dispute that mill waste is an available, technologically and economically feasible source of all the fuel the facility would need.[117] Nor does the Region dispute that net emissions from combusting mill waste may be lower than those from combustion of other feedstocks.[118] Given these facts, the Region has failed to explain why it could not analyze mill waste as a "clean fuel" in the BACT process. Accordingly, the Region's rejection of a "clean fuels" alternative based on combustion of mill waste alone was

[116] AR VI.09, RTC at 13.

[117] *See* AR VI.09, RTC at 11 (assuming all materials specified in Condition X.G. are "technically feasible"); *see also* AR IV.49, Center Jan. 2014 Comments at 7-8 & n. 14; *id.* at Ex. 13 (AR IV.49M, Second Recirculated Draft EIR Excerpt) at 2.0-30 ("It is reported that the SPI Anderson Sawmill facility has the capability to provide sixty-five percent (65%) of the fuel requirements of the proposed biomass facility by using 100% of the SPI Anderson mill residuals. The remaining 35% of the annual biomass needed can be mill residuals from the SPI Shasta Lake Sawmill facility, located eighteen (18) miles north of the SPI Anderson facility.").

[118] *See* AR VI.09, RTC at 11-12 & n.4 (noting that "there is no market for [SPI's] mill waste" as a feedstock for durable wood products); *see also* AR I.90, Bioenergy BACT Guidance at 23 (describing atmospheric contribution of greenhouse gases associated with mill waste combustion as "negligible"). That said, the Region misstates the Center's comments in referencing an "acknowledg[ment] that the carbon impacts from burning mill residues are generally viewed as less significant than the impact of burning trees harvested solely for the purpose of biomass fuel." RTC at 11-12 (citing AR IV.49, Center Jan. 2014 Comments at 5-7). To the extent the Center made any such "acknowledgment," it had nothing to do with a comparison to "trees harvested solely for the purpose of biomass fuel"; rather, the Center suggested that the carbon impacts of burning mill waste might be lower than those of burning *other fuels permitted for use at this facility*—specifically including logging residues and materials thinned for forest fire threat reduction. AR IV.49, Center Jan. 2014 Comments at 6 & nn.10-11.

clearly erroneous and unsupported by either an adequate explanation or a basis in the record before the agency.

## CONCLUSION

For the foregoing reasons, the Center respectfully requests that the Board grant review and remand the Final Permit to the Region for correction of all errors identified herein.

Respectfully submitted this 27th of May, 2014,

*/s/ Kevin P. Bundy*
Kevin P. Bundy
Center for Biological Diversity
Attorney for Petitioner

**STATEMENT OF COMPLIANCE WITH WORD LIMITATION**
(40 C.F.R. § 124.19(d)(1)(iv))

I hereby certify that this Petition for Review contains 10,008 words, according to the word count feature of the Microsoft Word word-processing system, and thus complies with the word limitation set forth in 40 C.F.R. section 124.19(d)(3).

Dated: May 27, 2014

*/s/ Kevin P. Bundy*
Kevin P. Bundy
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Attorney for Petitioner

**CERTIFICATE OF SERVICE**

I hereby certify that I caused a copy of the above PETITION FOR REVIEW to be served by Certified First Class U.S. Mail upon the parties and counsel listed below.

Dated: 6/27/14

Andrea Weber
Center for Biological Diversity

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