IN RE KNAUF FIBER GLASS, GMBH

PSD Appeal Nos. 98–3 through 98–20

ORDER DENYING REVIEW IN PART AND REMANDING IN PART

Decided February 4, 1999

Syllabus

On March 30, 1998, the Shasta County, California, Air Quality Management District ("AQMD") issued a federal Clean Air Act prevention of significant deterioration ("PSD") permit to Knauf Fiber Glass, GmbH, authorizing the construction of a new fiberglass manufacturing plant to be located in the City of Shasta Lake, California. Petitions for review of the PSD permit were filed by seventeen private citizens and citizens' groups and by EPA Region IX.

The petitions for review cover the spectrum of issues relating to PSD review, as well as several issues that fall outside of the Board's jurisdiction over PSD permit decisions. This decision discusses each of the issues raised in the petitions for review in reaching the holdings summarized below.

Held: Review is granted and AQMD's permit decision is remanded as to the following issues:

• The BACT determination is being remanded to AQMD due to an incomplete BACT analysis. Petitioners have raised legitimate questions about the particular control technology and emission limits for the proposed facility in light of alternative pollution control equipment configurations at other fiberglass manufacturing facilities. The record does not show that AQMD adequately considered the comments received on BACT. AQMD is to prepare a supplemental BACT analysis that identifies multiple pollution control options and provides infeasibility analyses as necessary. In preparing the supplemental BACT analysis, AQMD need not require Knauf to pursue its competitors' trade secrets, but it must consider pollution control designs for other facilities that are a matter of public record. (Section II.B.1.)

• The issue regarding environmental justice considerations is being remanded to AQMD in order that an environmental justice determination prepared by EPA Region IX may be added to the administrative record and made available for public comment. (Section II.E.)

Review is denied as to all other issues raised in the petitions for review, including the following:

• AQMD's explanation for its use of PM_{10} monitoring data and meteorological data from Redding, California, in lieu of on-site data, was adequate in light of the general comments on data representativeness raised during the public comment period. (Section II.B.2.a.)

• The air quality analysis for the proposed facility takes into account emissions from other sources and adequately demonstrates compliance with the PM_{10} NAAQS and PSD increments. (Section II.B.2.b.)

• Potential adverse impacts in nearby Class I and Class II areas have been adequately addressed in the administrative record. The air quality analysis demonstrates that there will be no significant air quality impacts in Class I areas. A visibility analysis was performed for three Class II National Recreation Areas and AQMD concluded that visibility impacts from the proposed facility would be less than significant. (Section II.B.3.)

• Review of issues pertaining to hazardous air pollutants and/or unregulated pollutants is denied because control of such pollutants is not an explicit requirement of the federal PSD program and petitioners have not shown that their concerns otherwise fall within the purview of the federal PSD program. (Section II.C.1.)

• The use of a local landfill for disposal of solid waste from the proposed facility is not subject to PSD review because: 1) waste disposal practices, including controls on the types of waste that may be handled at a particular landfill, are not governed by the Clean Air Act; and 2) petitioners have not established that potential emissions from a landfill site constitute "secondary emissions" within the meaning of 40 C.F.R. § 52.21(b)(18). (Section II.C.2.)

• Requirements in the permit calling for PM_{10} offsets and mitigation measures are not requirements of the federal PSD program and petitioners have not shown that these issues otherwise come within the purview of the federal PSD program. Therefore, the Board denies review of these issues. (Section II.C.3.)

• The Board denies review of petitioners' allegations regarding the impact of Shasta County politics on the permit review process because the issues raised do not pertain to requirements of the federal PSD program. (Section II.C.4.)

Before Environmental Appeals Judges Ronald L. McCallum and Edward E. Reich.[1]

Opinion of the Board by Judge McCallum:

On March 30, 1998, the Shasta County, California, Air Quality Management District ("AQMD") issued a federal prevention of significant deterioration ("PSD") permit, pursuant to Clean Air Act § 165, 42 U.S.C. § 7475, to Knauf Fiber Glass, GmbH ("Knauf"). The permit authorizes the construction of a new fiberglass manufacturing plant to be located in the City of Shasta Lake, California. AQMD is authorized to make PSD permit

[1] Environmental Appeals Judge Kathie A. Stein did not participate in this decision.

Pursuant to an order issued February 4, 1999, the Board revised portions of its November 30, 1998 Order Denying Review in Part and Remanding in Part in this case to clarify certain language in the interest of avoiding possible misinterpretation. *See* Order on Motions for Reconsideration (EAB, Feb. 4, 1999). This revised decision replaces and supersedes the November 30, 1998 decision. The November 30th decision, therefore, has no precedential value in this or any other case.

decisions for new and modified stationary sources of air pollution in Shasta County pursuant to a 1985 delegation agreement with EPA Region IX. Because AQMD acts as EPA's delegate under the PSD program, permits are considered EPA-issued permits, and appeals of the permit decisions are heard by the Environmental Appeals Board pursuant to 40 C.F.R. § 124.19. *See In re Maui Elec. Co.*, 8 E.A.D. 1, 2 n.1 (EAB 1998). In this case, appeals of AQMD's permit decision for Knauf were filed by seventeen private citizens and citizens' groups and by EPA Region IX.

I. *BACKGROUND*

The City of Shasta Lake ("COSL") is a recently incorporated city in Shasta County, California, looking to create economic growth through business development. Knauf would like to construct a new fiberglass insulation manufacturing plant in COSL to serve the fiberglass market on the west coast. COSL and the rest of Shasta County enjoy relatively clean air. Shasta County has been designated an attainment or unclassifiable area for national ambient air quality standards ("NAAQS") pursuant to section 107 of the Clean Air Act ("CAA").[2] 42 U.S.C. § 7407; *see also* 40 C.F.R. § 81.305 (attainment status designations for California). COSL is in close proximity to several national recreation areas, national wilderness areas, and a national park.

Thus, the setting for this case involves virtually all of the factors enumerated in the congressional declaration of purpose for the prevention of significant deterioration provisions of the CAA. CAA § 160, 42 U.S.C. § 7470. The PSD provisions outline a framework for managing economic growth in areas of the country that meet NAAQS (or are designated as "unclassifiable"). The provisions also call for special attention to air quality in certain national parks and national wilderness areas. CAA §§ 160(2), 165(d), 42 U.S.C. §§ 7470(2), 7475(d).

The statutory PSD provisions are carried out through a regulatory process that requires preconstruction permits for new and modified major stationary sources. *See* 40 C.F.R. § 52.21. PSD permitting requires that several important analyses be performed and taken into consideration in setting permit terms and conditions. One of the most critical elements of the permit process is the selection of "best available control technology" or

[2] NAAQS are maximum ambient air concentrations for the following six pollutants: sulfur dioxide, particulate matter ("PM"), carbon monoxide, ozone, nitrogen dioxide, and lead. 40 C.F.R. §§ 50.4-50.12.

"BACT" for pollutants subject to PSD review.[3] An air quality analysis is also required, the primary purpose of which is to determine whether a proposed project would cause or contribute to exceedances of NAAQS or PSD increments.[4] Special review procedures apply to those projects whose emissions may impact certain national parks, wilderness areas, or other designated areas with "special national or regional natural, recreational scenic, or historic value." CAA §§ 160(2), 165(d), 42 U.S.C. §§ 7470(2), 7475(d). In addition to the technical requirements of PSD review, the Clean Air Act emphasizes the importance of public participation and input into the decisionmaking process. *See* CAA §§ 160(5), 165(a)(2), 42 U.S.C. §§ 7470(5), 7475(a)(2). Each of these elements, and several collateral concerns are at issue in this case and are discussed more fully *infra* Sections II.B. and II.C.

A major industrial development project potentially involves numerous permitting and approval requirements by federal, state, and local agencies. The PSD permit process is just one of these requirements. The proposed Knauf project required a variety of permits and approvals in addition to the PSD permit that is presently before us. In this case, PSD review began after other review and approval procedures were underway. In particular, in November 1996, COSL initiated a review process required by the California Environmental Quality Act ("CEQA"), Cal. Pub. Res. Code § 21000 *et seq.* The principal product of the CEQA process was the generation of an environmental impact report ("EIR").[5] In conjunction with the CEQA process, COSL issued a conditional use permit, containing conditions on a wide variety of issues affecting construction and operation of the proposed facility. CEQA, the EIR, and the conditional use permit are distinct from PSD review and the PSD permit decision issued by the AQMD pursuant to the Clean Air Act.

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[3] PSD review is triggered only for those pollutants that a new source has the potential to emit at rates equal to or in excess of "significant" rates specified in 40 C.F.R. § 52.21(b)(23). *See infra* note 6 and accompanying text for a discussion of the significant levels as applied to this case.

[4] PSD increments are maximum allowable increases in pollutant concentrations permissible by regulation. *See* 40 C.F.R. § 52.21(c). The amount of the allowable increase depends upon the classification of the area impacted by the emissions. *See infra* Section II.B.3 for a discussion of area classifications.

[5] Three versions of the EIR were prepared over the course of the CEQA process. They are cited in this decision as follows: CH2MHill, City of Shasta Lake Industrial Project Draft EIR (Feb. 1997) ("Draft EIR"); CH_2MHill, Knauf Fiber Glass Manufacturing Facility Revised Draft EIR (July 1997) ("Revised EIR"); CH2MHill, Final EIR Knauf Fiber Glass Manufacturing Facility (Oct. 1997) ("Final EIR").

Knauf submitted a PSD permit application for the proposed fiberglass facility to the AQMD in March 1997. The facility is designed to manufacture fiberglass insulation via a rotary spin manufacturing process. The plans for the facility include production of 195 tons of insulation per day and 24-hour operations. The proposed facility is subject to the PSD permitting process because it constitutes a "major stationary source" under the PSD regulations. 40 C.F.R. § 52.21(b)(1)(i)(a). Federal PSD review is required for emissions of particulate matter less than 10 micrometers in diameter ("PM_{10}") because the potential PM_{10} emissions from the proposed Knauf facility exceed the "significant" level specified in the PSD regulations.[6] Emissions of other pollutants do not exceed the regulatory significant levels and are not subject to PSD review.

On November 24, 1997, the AQMD issued a draft PSD permit for the proposed Knauf facility and opened a 45–day public comment period. A public hearing was held on January 7, 1998. AQMD issued its final permit decision on March 30, 1998. Federal Prevention of Significant Deterioration (PSD) Authority to Construct (Mar. 30, 1998) ("Permit"). At that time, AQMD also published two documents responding to comments received during the public comment period and at the hearing. Response to Comments, Written Comments Submitted During Public Comment Period ("RTC"); Response to Comments, Public Hearing 1/7/98 ("RTPH").

The Board received eighteen petitions for review regarding AQMD's permit decision for Knauf. Seventeen of the petitions for review were filed by local citizens or citizens' groups.[7] One petition for review was filed by EPA Region IX, the EPA regional office with responsibility for activities in California. Petition No. 98–19.

A large number of the citizen petitions express displeasure over the decision to site the Knauf facility in COSL, or the Shasta County region generally. Several petitioners requested that the permit be denied. In addition, each petition raised one or more issues challenging conditions of the permit and/or elements of the permitting process.

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[6] PSD review is triggered for PM_{10} if a source has the potential to emit 15 tons per year or more of PM_{10} emissions. 40 C.F.R. § 52.21(b)(23)(i). The proposed Knauf facility is expected to emit PM_{10} at a rate of 191 tons per year.

[7] The petitioners (and corresponding appeal numbers) are: Bryan Hill, Mother Lode Chapter, Sierra Club (98–3), Laurie Holstein, Citizens for Cleaner Air (98–4), Ivan Hall (98–5), Mary Scott, Citizens for Cleaner Air (98–6), Citizens for Responsible Growth & Valley Advocates, Inc. (98–7), Colleen Leavitt (98–8), Barbara Frisbie (98–9), Robert Swendiman (98–10), Fulton M. Doty (98-11), Linda Andrews (98–12), Arnold Erickson (98–13), Laurie O'Connell (98–14), Betty Doty (98–15), Warren L. Teel (98–16), John Hickey (98–17), Patricia Cogburn (98–18), and Deborah Lynn Fisher (98–20). The petitions for review are cited throughout this decision as "Petition No. __."

In accordance with the Board's practice in permit appeals, the Board requested that AQMD prepare responses to the petitions for review.[8] In addition, acting on motions, the Board granted Knauf an opportunity to file a response to the petitions and accepted an amicus brief from COSL. Order on Pending Motions (June 23, 1998). The Board also provided petitioners an opportunity to file replies to the materials submitted by Knauf, AQMD, and COSL.[9] *Id*. Region IX's reply memorandum presented a proposed settlement of the issue presented in its petition for review.[10] In response to a motion, the Board granted petitioners who had raised the same issue as Region IX an opportunity to submit a response to the settlement proposed in Region IX's memorandum. Order Granting Opportunity to Respond to Reply Memorandum Submitted by EPA Region IX (Aug. 6, 1998).[11]

II. *DISCUSSION*

A. *Standard of Review*

The role of the Environmental Appeals Board in the PSD permitting process is to consider issues raised in petitions for review that pertain to the PSD program and that meet the threshold procedural requirements of the permit appeal regulations. *See* 40 C.F.R. § 124.19. A petitioner must have both standing to appeal and must be seeking review of issues that have been properly preserved for review. If these threshold requirements are satisfied, the Board will consider whether to "grant review" of any of the issues included in a petition for review.

The permit appeal regulations provide for review only if a permit decision was based on either a clearly erroneous finding of fact or

[8] AQMD's responses are cited in this decision as "AQMD [Petition #] Resp."

[9] The Board considered all petitioner replies that related to issues raised in the petitions for review. The Board did not consider new issues raised in the reply briefs. New issues raised for the first time at the reply stage of these proceedings are equivalent to late filed appeals and must be denied on the basis of timeliness. *See In re Beckman Prod. Servs.*, 5 E.A.D. 10, 15 (EAB 1994) (denying review of a petition that was filed after the thirty-day period specified in 40 C.F.R. § 124.19(a)). The petitioner replies are cited as "Reply [Petition #]."

[10] The details of the proposed settlement are discussed *infra* notes 35–36 and accompanying text.

[11] The Board's August 6, 1998 order provided the final opportunity for submitting materials to be considered by the Board in reaching a decision on whether or not to grant review. Correspondence received after the deadline set forth in the order was not considered by the Board.

conclusion of law, or if the decision involves an important matter of policy or exercise of discretion that warrants review. 40 C.F.R. § 124.19(a). In applying this standard for granting review, the Board has been guided by the following language in the preamble to section 124.19: the "power of review should be only sparingly exercised" and "most permit conditions should be finally determined at the [permitting authority] level." 45 Fed. Reg. 33,290, 33,412 (May 19, 1980); *accord In re Maui Elec. Co.*, 8 E.A.D. 1, 7 (EAB 1998); *In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 114 (EAB 1997).

One way that the Board implements the standard of review in 40 C.F.R. § 124.19 is to require petitioners to state their objections to a permit and to explain why the permitting authority's response to those objections (for example, in a response to comments document) is clearly erroneous or otherwise warrants review. *Kawaihae*, 7 E.A.D. at 114; *In re Puerto Rico Elec. Power Auth.*, 6 E.A.D. 253, 255 (EAB 1995). It is not enough to simply reiterate comments made to the permitting authority. *In re LCP Chems.*, 4 E.A.D. 661, 664 (EAB 1993).

Despite the strict standard of review and the Board's expectations in petitions for review, the Board tries to construe petitions filed by persons unrepresented by legal counsel broadly. *See In re Envotech, L.P.*, 6 E.A.D. 260, 268 (EAB 1996); *In re Beckman Prod. Servs.*, 5 E.A.D. 10, 19 (EAB 1994). The Board does not expect such petitions to contain sophisticated legal arguments or to employ precise technical or legal terms. However, the Board does expect such petitions to provide sufficient specificity such that the Board can ascertain what issue is being raised. *Puerto Rico*, 6 E.A.D. at 255. The Board also expects the petition to articulate some supportable reason as to why the permitting authority erred or why review is otherwise warranted. *Beckman*, 5 E.A.D. at 19.

Finally, it is possible that some issues will still not warrant a grant of review, even if the issues have been properly preserved for review and the petitions contain sufficient specificity. Issues that are not covered by the PSD program fall into this category. The PSD review process is not an open forum for consideration of every environmental aspect of a proposed project, or even every issue that bears on air quality. In fact, certain issues are expressly excluded from the PSD permitting process. The Board will deny review of issues that are not governed by the PSD regulations because it lacks jurisdiction over them.

The majority of issues raised in the petitions for review can be loosely categorized into three groups. The first group includes issues that are reviewable under the PSD program and that were properly preserved for

review in this case. We refer to these issues as "PSD issues." The PSD issues include, among others: questions about AQMD's BACT determination, adequacy of the air quality analysis, and issues relating to impacts in Class I and Class II areas. The second group of issues are items that fall outside of the Board's jurisdiction over PSD permit decisions because, as presented in the petitions, they lack a nexus to the PSD program. These issues are denominated "non-PSD" issues for convenient reference. Some of the non-PSD issues are: control of hazardous air pollutants and "unregulated" pollutants, disposal of fiberglass waste at local landfills, plans for PM_{10} mitigation, adequacy of the EIR prepared pursuant to CEQA, and the role of Shasta County politics in the permitting process. In the third category are a few issues that must be denied because the threshold requirements for review under 40 C.F.R. § 124.19 were not satisfied. Last, we address the issue of environmental justice, which does not readily fit into one of the three categories mentioned above.

B. *PSD Issues*

1. *BACT Determination*

The Clean Air Act and the PSD regulations require that major new stationary sources such as the proposed Knauf facility employ the "best available control technology" to limit emissions of certain pollutants. CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4); 40 C.F.R. § 52.21(j)(2). BACT is defined in the PSD regulations as follows:

> *Best available control technology* means an emissions limitation * * * based on the maximum degree of reduction for each pollutant subject to regulation under [the] Act which would be emitted from any proposed major stationary source * * * which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source * * * through application of production processes or available methods, systems, and techniques * * * for control of such pollutant.

40 C.F.R. § 52.21(b)(12). As the definition indicates, there are several considerations that form a part of the BACT determination. The combined result of these considerations is the selection of an emission limitation[12] and control technology that are specific to a particular facility. In reaching

[12] The term "emission limitation" is defined broadly in the CAA:

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this facility-specific result, the emission limitations achieved by other facilities and corresponding control technologies used at other facilities are an important source of information in determining what constitutes *best available*.

In an effort to lend some consistency and a framework to BACT determinations being made by permit issuing authorities such as AQMD, EPA has issued a guidance document that is widely used in PSD reviews. U.S. EPA, New Source Review Workshop Manual (Draft Oct. 1990) ("NSR Manual").[13] A section of the NSR Manual addresses the BACT determination process. The NSR Manual's approach is structured to take into account all of the elements in the regulatory definition of BACT. The essence of the BACT determination process as described in the NSR Manual is to look for the most stringent emissions limits achieved in practice at similar facilities and to evaluate the technical feasibility of implementing such limits and/or control technologies for the project under consideration.

The BACT process leads to the selection of specific emission limitations through an analysis of pollution control options for the proposed project. A control option may be an "add-on" air pollution control technology that removes pollutants from a facility's emissions stream, or an "inherently lower-polluting process/practice" that prevents emissions from being generated in the first instance. NSR Manual at B.10, B.13. The petitioners' challenges to the BACT determination in this case raise issues relating to both add-on control technology and inherently lower-polluting processes.

The BACT selection process, as set forth in the NSR Manual, was most recently outlined by the Board in *Maui Elec.*, 8 E.A.D. at 6.[14] The first step in the BACT selection process involves identifying and listing all

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> '[E]mission limitation' * * * mean[s] a requirement * * * which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice, or operational standard promulgated under [the CAA].

CAA § 302(k), 42 U.S.C. § 7602(k). An emission limitation is ordinarily expressed as a numerical limit on the rate of emissions.

[13] Although the NSR Manual is not a binding rule, we have looked to it as a statement of the Agency's thinking on certain PSD issues. *See*, e.g., *In re Maui Elec. Co.*, 8 E.A.D. 1, 5 (EAB 1998); *In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 112 (EAB 1997).

[14] The BACT process described in the NSR Manual is not a mandatory methodology, but permitting authorities normally use it. *See Kawaihae*, 7 E.A.D. at 113. EPA recommends use of the NSR Manual methodology because it provides for application of all of the BACT regulatory criteria through a step-wise framework, that if followed, should yield a

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"available" control options. NSR Manual at B.5. The term available is used in its broadest sense under the first step and refers to control options with a "practical *potential* for application to the emissions unit" under evaluation. *Id*. (emphasis added). The goal of this step is to develop a comprehensive list of control options. In compiling the list of available control options, a variety of information sources may be reviewed, including information on pollution control and emission limitations for other industrial facilities.

The second step of the BACT analysis is to consider the technical feasibility of the control options identified in step one. During the course of this step, technically infeasible control options are eliminated from consideration. *Id*. at B.7. The purpose of this step of the BACT analysis is to determine which of the options identified in step one can be practically deployed on the proposed project.

The technical feasibility step focuses on whether a control option is "available" and "applicable." *Id*. at B.17. Availability in this context is somewhat different from the concept of "available" in step one. For purposes of technical feasibility, available refers to commercial availability. *Id*. A technology is considered applicable if it can be "reasonably installed and operated on the source type under consideration." *Id*. Applicability focuses on how a particular control option has been used in the past and how those uses compare to the project under consideration. A control option is presumed applicable if it has been used on the same or similar type of source as the proposed project. *Id*. at B.18. Issues of applicability may be particularly critical in analyzing inherently lower-polluting processes and other types of process controls.

If a permit applicant asserts that a particular control option is technically infeasible, the applicant should provide factual support for that assertion. Such factual support may address commercial unavailability or difficulties associated with application of a particular control to the permit applicant's project. *Id*. at B.19. A control option is not considered infeasible simply based upon the cost of applying that option to the proposed project. Economic feasibility is evaluated in a subsequent step of the BACT process. *Id*. at B.20.

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defensible BACT determination. We would not reject a BACT determination simply because the permitting authority deviated from the NSR Manual, but we would scrutinize such a determination carefully to ensure that all regulatory criteria were considered and applied appropriately.

The technical feasibility analysis requires application of technical judgment on the part of the permitting authority. The permitting authority must assess the materials presented by the permit applicant and ultimately must decide which options are technically feasible. *Id.* at B.22.

Once technical feasibility has been considered and any infeasible options are eliminated, the third step of the BACT analysis is to list the remaining options in order of stringency, with the most stringent option listed first. In step four, collateral energy, environmental, and economic impacts are considered, beginning with the "top" control option.[15] Consideration of these collateral impacts "operates primarily as a safety valve whenever unusual circumstances specific to the facility make it appropriate to use less than the most effective technology." *In re Columbia Gulf Transmission Co.*, 2 E.A.D. 824, 827 (Adm'r 1989). Collateral impacts are generally reviewed in determining which of several available control technologies produces less adverse collateral effects, and whether such effects justify the use of a less stringent control technology.[16] *In re Old Dominion Elec. Coop.*, 3 E.A.D. 779, 792 (Adm'r 1992). In short, under the NSR Manual methodology, consideration of collateral impacts is used to either confirm the top BACT option as appropriate or to demonstrate that it is inappropriate. *Maui Elec.*, 8 E.A.D. at 6. If the top option is eliminated based on one of these considerations, the next most stringent option is considered. Ultimately, "[t]he most effective control alternative not eliminated * * * is selected as BACT." NSR Manual at B.53.

The BACT analysis is one of the most critical elements of the PSD permitting process. As such, it should be well documented in the administrative record. A permitting authority's decision to eliminate potential control options as a matter of technical infeasibility, or due to collateral impacts, must be adequately explained and justified. *See In re Masonite Corp.*, 5 E.A.D. 551, 566 (EAB 1994) (remanding PSD permit decision in part because BACT determination for one emission source was based on an incomplete cost-effectiveness analysis); *In re Pennsauken County, N.J., Resource Recovery Facility*, 2 E.A.D. 667, 672 (Adm'r 1988) (remanding PSD permit decision because "[t]he applicant's BACT analysis * * * does not contain the level of detail and analysis necessary to satisfy the applicant's burden" of showing that a particular control technology is

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[15] Collateral energy and economic impacts need not be analyzed if the permit applicant accepts the top control option. NSR Manual at B.26. Consideration of collateral environmental impacts is nonetheless expected at this step. *Id.*

[16] In some cases—for example, when BACT is analyzed outside the structured approach of the NSR Manual—consideration of collateral impacts, particularly collateral environmental impacts, may require rejection of a less stringent control option in favor of a more stringent option. *See In re North County Resource Recovery Assocs.*, 2 E.A.D. 229, 230-31 (Adm'r 1986).

technically or economically unachievable); *Columbia Gulf*, 2 E.A.D. at 830 (permit applicant and permit issuer must provide substantiation when rejecting the most effective technology). In the context of a permit appeal, 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. *See In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417–19 (EAB 1997) (remanding RCRA permit because permitting authority's rationale for certain permit limits was not clear and therefore did not reflect considered judgment); *In re Austin Powder Co.*, 6 E.A.D. 713, 720 (EAB 1997) (remand due to lack of clarity in permitting authority's explanation).

The BACT determination at issue in this case involves control of PM_{10} emissions from the forming section of the proposed Knauf facility. Virtually all of the PM_{10} emissions from the plant are generated by the forming process. AQMD's PM_{10} BACT determination for Knauf's forming section is memorialized in a permit condition requiring installation of seven venturi[17] scrubbers followed by a wet electrostatic precipitator ("WEP").[18] Permit ¶ 48.a. These items are add-on pollution control technologies that remove particulate matter from the exhaust gas stream before release through the main stack. The PM_{10} emission limit (i.e., maximum allowable emission rate) from the main stack is 43.6 lbs/hr or 5.37 lbs/ton of glass pulled.[19] Permit ¶ 53. Although these limits are for PM_{10}, the values in the permit are expressed as total suspended particulate ("TSP").[20] The permit also imposes a production limit of 195 tons of glass per day.[21] Permit ¶ 36.

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[17] The permit specifically calls for venturi scrubbers, although other documents in the administrative record refer to the scrubbers simply as "wet" scrubbers. We will follow the terminology as used in the particular record document being cited in our discussion.

[18] Six of the venturi scrubbers are designated for the bonded wool forming line; one scrubber is to be used on the unbonded wool forming line. All seven scrubbers will vent to the WEP. Permit ¶ 48.a. The venturi scrubbers remove suspended particulate matter and provide "pretreatment" of the exhaust gas prior to the WEP. *Id.* ¶ 49. Operating parameters for the pollution control devices are specified in the permit and must be measured every 15 minutes. *Id.* ¶ 51.

[19] Emission limits for the fiberglass industry are commonly expressed in units of pounds per ton of glass pulled. *See* 49 Fed. Reg. 4590, 4596 (Feb. 7, 1984). This type of limit pegs the allowable emissions to the plant's production rate. We abbreviate these units as "lbs/ton."

[20] AQMD does not explain why PM_{10} limits are expressed in terms of TSP, but it appears that the test method designated in the permit for measuring PM_{10} emissions yields results as TSP rather than PM_{10}. *See* Permit ¶ 53 (designating EPA test method 5E for determining PM_{10} emissions); 40 C.F.R. part 60 app. A, Method 5E.

[21] Both the per hour emission limit and per ton of glass pulled limit produce nearly identical PM_{10} emission rates, differing by only one pound per day. The hourly emission limit, multiplied by 24 hours, yields a daily emission rate of 1,046 lbs/day. The daily production limit multiplied by the per ton of glass pulled emission limit for PM_{10} yields a daily emission rate for PM_{10} of 1,047 lbs/day.

The challenges to these permit terms raised by some of the petitioners require a further examination of AQMD's BACT determination as documented in the administrative record.[22] The documentation of the BACT analysis and decision is principally in Knauf's permit application, AQMD's permit evaluation, the RTC, and the RTPH.

Table 1 is our summary of information in the administrative record pertaining to control technologies and emission limits for PM_{10} on fiberglass forming lines. Each row in the table corresponds to a specific fiberglass manufacturing facility mentioned in the administrative record. For each facility, we have listed the control technology used to limit PM_{10} emissions from the forming line, the PM_{10} emission limit, and the source of information on the facility from the Knauf administrative record. As far as we can discern, this is the primary information that underlies the PM_{10} BACT determination for the proposed Knauf plant. The background of each of the entries in the table is explained in the subsequent discussion.

TABLE 1
Administrative Record Information on PM_{10} Permit Limits for Fiberglass Forming Lines

	Company/ Location	Control Technology	PM_{10} Emission Limit	Source in the Admin. Record
A	Knauf/ Lanett,AL	wet scrubber with thermal oxidizer	7.71 lbs/ton	Permit Application
B	CertainTeed/ Chowchilla,CA	wet scrubber(s) plus three WEPs	~1.0 lb/ton	AQMD Evaluation/ Public Comments
C	Owens Corning/ Santa Clara,CA	Unknown[23]	Unknown	AQMD Evaluation
D	Schuller/ Willows,CA	Unknown	Unknown	AQMD Evaluation
E	CertainTeed/ Kansas City, KS	three WEPs	3.63 lbs/ton (as TSP) 2.02 lbs/ton (as PM_{10})	Public Comments
F	Knauf/ COSL,CA (proposed)	7 venturi scrubbers plus one WEP	5.37 lbs/ton (as TSP)	Permit

[22] Our assessment of this issue is largely based upon the administrative record documents provided for our review. In addition, we reviewed the administrative record index for additional materials that appear to relate to AQMD's BACT determination.

[23] We found no information on PM_{10} permit limits for the forming sections of the Owens Corning or Schuller plants in the excerpts of the administrative record that were provided to us for review.

Knauf's permit application contains the initial BACT analysis for the proposed facility. PSD Permit Application Revision 2 at 26–29 (July 17, 1997) ("Permit App."). Knauf's BACT analysis indicates that EPA's RACT/BACT/LAER Clearinghouse[24] ("RBLC") was searched for all fiberglass manufacturing entries since 1985. Permit App. at 28. Without discussing the results of that search, the application concludes that only one facility in the RBLC was similar to the proposed facility for Shasta Lake. "The similar facility is the Knauf GmbH Lanett, Alabama facility." *Id*. The PM_{10} control technology used at the Lanett facility is a wet scrubber with thermal oxidizer and a corresponding emission limit of 7.71 lbs/ton. *Id*. *See supra* Table 1, Row A. The permit application for the proposed facility in COSL also discusses use of an electrostatic precipitator in order to comply with one of AQMD's local rules. Permit App. at 29. The permit application concludes that "seven (7) wet scrubbers * * * and a wet ESP" constitute BACT and "no further evaluation of particulate control technologies is necessary." *Id*.

Although the permit application describes the conclusion of Knauf's BACT analysis, it lacks a clearly ascertainable basis for the conclusion. The overall discussion is cursory and does not explain how the decision satisfies the regulatory criteria. The basis for the conclusion might have been ascertainable had Knauf documented the preliminary steps of a BACT determination as outlined in the NSR Manual and described above.[25] As it stands, the permit application does not include a listing of all possible control options, a discussion of emission control technologies and limits for fiberglass manufacturing facilities other than the Knauf plant in Alabama, or a technical feasibility analysis. Without this type of information, it is impossible to know if Knauf really adopted the most stringent option available as BACT.

AQMD's Authority to Construct/PSD Permit Evaluation (Nov. 21, 1997) ("AQMD Evaluation") provides slightly more detail on selection of BACT than the permit application. AQMD states that a survey of other

[24] RACT/BACT/LAER stands for Reasonably Available Control Technology/Best Available Control Technology/Lowest Achievable Emission Rate. Each of these acronyms refers to technological standards established by different sections of the CAA. BACT is the standard from the PSD provisions of the CAA. *See* CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4). The RBLC contains information on emission controls and emission limits for industrial facilities across the country. The RBLC is organized by source category, thereby making it relatively easy to access emission control information for a particular industrial enterprise.

[25] As noted *supra* note 14, a strict application of the methodology described in the NSR Manual is not mandatory, but we expect an analysis that is as sufficiently detailed as the model in the NSR Manual.

fiberglass facilities with similar emissions units in California was conducted. AQMD Evaluation at 9. The document lists three California facilities that were reviewed in addition to Knauf's Alabama facility. The owners and locations of these other facilities are: 1) CertainTeed, in Chowchilla, CA; 2) Owens Corning, in Santa Clara, CA; and 3) Schuller/Johns Manville[26] in Willows, CA. The permit evaluation states that the CertainTeed Chowchilla plant uses a wet scrubber followed by a WEP to control PM_{10} emissions. *Id.* at 11. *See supra* Table 1, Row B. "No other facility appeared to have emission control equipment with this level of control." AQMD Evaluation at 11. Presumably, this statement means that the Chowchilla facility had the best emissions control equipment of the facilities reviewed. However, there is no discussion of what controls or emission limitations are in place at the Owens Corning or Schuller/Johns Manville facilities in order to confirm that conclusion. *See supra* Table 1, Rows C&D. AQMD ultimately concurs in Knauf's conclusion that wet scrubbers and a WEP is BACT for PM_{10}. AQMD Evaluation at 11.

Despite the minimal discussion in the permit application and AQMD's evaluation regarding other facilities, the administrative record index for this project includes several items regarding the above mentioned California fiberglass facilities.[27] We do not know what these items consist of and the record does not appear to contain any analysis of the contents. It may be that some or all of these items would support the BACT determination here, however, no argument has been raised along these lines.

During the public comment period on the draft permit, several commenters questioned why the PM_{10} BACT determination for Knauf resulted in less stringent PM_{10} limits than the limits at the CertainTeed Chowchilla facility. Commenters pointed out that the Chowchilla facility has a PM_{10} emission limit of approximately 1.0 lb/ton. *See* RTC at 14, 20. In addition, EPA Region IX identified a CertainTeed facility in Kansas City, Kansas, (*see supra* Table 1, Row E) with lower PM_{10} limits than those proposed for Knauf. *See* RTC at 20.

In response, AQMD reiterated that the control technology selected for the Knauf plant (venturi scrubbers and a WEP) constitute the most

[26] The facility in Willows is referred to as both Schuller and Johns Manville in the administrative record.

[27] Items pertaining to the CertainTeed Chowchilla facility appear to be included in the administrative record index as follows: Vol. I.A. at 278-306, Vol. I.B. at 801. References to the Owens Corning facility include: Vol I.A. at 307, Vol II.E. Schuller/Johns Manville materials are listed at: Vol. I.A. at 800, Vol. II.D.

effective emission control devices demonstrated in practice for control of PM_{10} from fiberglass forming lines. RTC at 15, 21. AQMD also attempted to explain the reason for the discrepancy between emission limits at the CertainTeed facilities and the proposed Knauf plant. "[T]he emission limits established for PM_{10} in other issued permits for fiberglass manufacturing facilities vary considerably since each process is different and uses patented process design techniques that are not available to others in the industry." RTC at 21. The CertainTeed facilities use unique forming process technology that is proprietary and not available to other manufacturers. *Id*. CertainTeed's unique process in Kansas City was identified only as a "European" process, the details of which are not publicly available. *Id*. Apparently, AQMD focused on the different process technologies used by Knauf and CertainTeed because the process "influences profoundly" the amount of PM_{10} emissions generated before control equipment is applied. Knauf Resp. at 22. Hence, even the use of the same add-on controls may not yield the same emission rate when deployed on different processes.

AQMD's response to comments also asserted that a commenter's request that Knauf achieve the same emission rates as the CertainTeed plants would amount to a redefinition of the source. RTC at 15, 21. AQMD presumed that Knauf would have to adopt CertainTeed's process technology in order to achieve emission rates comparable to CertainTeed's plants.

"Redefining the source" is a term of art described in the NSR Manual. The Manual states that it is legitimate to look at inherently lower-polluting processes in the BACT analysis, but EPA has not generally required a source to change (i.e., redefine) its basic design. NSR Manual at B.13. The classic example of redefining a source involves a proposal to construct a coal-fired power plant or boiler. *See In re SEI Birchwood, Inc.*, 5 E.A.D. 25, 29 n.8 (EAB 1994). Such a proposal need not consider the alternative of a natural gas-fired unit as part of the BACT determination, even though a natural gas unit would be inherently less polluting than the coal-fired unit. *Id.; In re Hawaiian Commercial & Sugar Co.*, 4 E.A.D. 95, 99–100 (EAB 1992); *In re Old Dominion Elec. Coop.*, 3 E.A.D. 779, 793 (Adm'r 1992). Substitution of a gas-fired power plant for a planned coal-fired plant would amount to redefining the source. Although it is not EPA's policy to require a source to employ a different design, redefinition of the source is not always prohibited. This is a matter for the permitting authority's discretion. The permitting authority may require consideration of alternative production processes in the BACT analysis when appropriate. *See* NSR Manual at B.13–B.14; *Old Dominion*, 3 E.A.D. at 793 (permit issuer has discretion "to consider clean fuels other than those proposed by the permit applicant.").

The petitions for review that raise the BACT issue generally reiterate the comments submitted on the draft permit.[28] Several of the petitioners echo arguments made by Region IX, namely, that the PM_{10} emission limit for Knauf should be lowered in light of the more stringent limits in place at the CertainTeed facilities, or that Knauf should be required to demonstrate why such lower limits are infeasible. Petition No. 98–19 at 4; *see also* Petition Nos. 98–4, 98–5, 98–17 & 98–18. Other petitioners point out differences in the control technology configuration between CertainTeed's Kansas City plant and Knauf's proposal. The permit for the Kansas City facility requires use of three WEPs in its forming section, whereas the Knauf permit calls for only one WEP. Petition Nos. 98–3, 98–5 & 98–6. One petitioner, reacting to AQMD's discussion of redefining the source, asserts that Knauf should be required to license or purchase the lower-polluting process technology used by CertainTeed. Petition No. 98–16.

AQMD and Knauf present several arguments in defense of both the selected control option (i.e., venturi scrubbers and a WEP) and the emission limits (i.e., 5.37 lbs/ton and glass production limit of 195 lbs/day). With regard to the emission limits, AQMD and Knauf emphasize the differences between CertainTeed's facilities and the proposed Knauf facility. First, AQMD argues that the CertainTeed facilities are not similar to the Knauf facility. AQMD 98–19 Resp. at 1. AQMD notes that the CertainTeed facilities use proprietary process technologies including: molten glass chemistry, glass fiberization techniques, binder chemistry, binder application techniques, mat formation methods, and product mix. *Id*. According to Knauf, these unique and proprietary processes affect the amount of PM_{10} generated during manufacturing before application of any pollution control technology. Knauf Resp. at 22. Thus, Knauf attributes the different emission rates among various facilities to the underlying process technologies.

AQMD and Knauf also point out that even the emission limits for the two CertainTeed facilities vary widely. The Chowchilla facility has a PM_{10} limit of approximately 1.0 lb/ton. In contrast, the PM_{10} limits for the Kansas City facility are 2.02 lbs/ton for PM_{10} and 3.63 lbs/ton for PM (as TSP). Moreover, the Kansas City permit, with the higher emission limits, is the more recent permit decision.[29] AQMD 98–19 Resp. at 4; Knauf Resp. at 25.

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[28] Petition Nos. 98–3 through 98–6, and 98–16 through 98–19 challenge the BACT determination for PM_{10}.

[29] The PSD permit for CertainTeed's facility in Kansas City, KS was issued on May 23, 1997. The permit for the Chowchilla, CA facility dates back to November 1983, with modifications in 1986, 1992, and 1995. Petition No. 98-19 atts. 5 & 6.

AQMD adds that the PM_{10} emission limit in this case is based on the WEP vendor's performance guarantee, which in turn depends on the nature of the exhaust stream entering the WEP. AQMD 98–19 Resp. at 2. AQMD claims that it cannot justify an emission limit lower than what the pollution control technology vendor can supply. *Id*. at 2, 5. Proposals from three different WEP vendors attached to AQMD's response each indicate approximately the same guaranteed emission limit.[30]

Both Knauf and AQMD repeat the suggestion that Region IX is seeking to require Knauf to redefine its source. AQMD 98–19 Resp. at 6; Knauf Resp. at 30–31. AQMD and Knauf believe that the only way to achieve the CertainTeed emission limits would be to apply CertainTeed's process technology, and such a requirement would amount to redefinition of the source, even if Knauf could obtain CertainTeed's proprietary technology.

In response to Region IX's suggestion that Knauf should be required to show that stricter emission limits are technically infeasible, AQMD states that such a showing cannot be performed because the manufacturing techniques and process technologies used by CertainTeed are unknown. AQMD 98–19 Resp. at 6. AQMD also represents that it previously requested Knauf to "respond to the possibility of achieving the lowest achievable emission rate of approximately 1.0 lb PM_{10} per ton of glass pulled." *Id*. at 3. Knauf responded that in light of the proprietary processes at CertainTeed, the specific characteristics of Knauf's own process, and the performance guarantees from Knauf's WEP vendors, the emission rate would have to be 5.37 lbs/ton. *Id*.

With regard to the differences in control technology configuration at CertainTeed's Kansas City facility and the proposed Knauf plant, both AQMD and Knauf reject the concept that CertainTeed's lower emission limits are due to the fact that CertainTeed has three WEPs on its forming section as compared to one WEP for Knauf. AQMD states that CertainTeed splits the air flow from its forming section and each of the three WEPs treats a portion of that flow. "[A]ll of the WEPs are not operating to reduce emissions from one source." AQMD 98–5 Resp. at 3. Knauf plans to use a single, larger WEP that receives combined air flow. *Id*. Knauf claims that the WEP design for its plant is the equivalent of two parallel WEPs. Knauf Resp. at 35. In addition, the proposed Knauf facility will use scrubbers. *Id*. Again, AQMD and Knauf attribute the difference in emission limits to the differences in the underlying processes rather than the WEP configuration. AQMD 98–3 Resp. at 2; Knauf Resp. at 35.

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[30] Emission limit guarantees were expressed as WEP outlet loadings of 0.015 grains/scfd.

In sum, AQMD and Knauf's responses to the BACT challenges focus on the inherent differences between the CertainTeed and Knauf manufacturing processes. The differences are allegedly so great, that despite the fact that both companies are operating (or planning to operate) rotary spin manufacturing plants with substantially the same pollution control technology (WEPs or scrubbers plus a WEP), the emission limits for one company cannot be considered applicable to the other.

EPA's history of regulating the fiberglass industry lends some support to AQMD and Knauf's position. For example, when EPA was proposing New Source Performance Standards ("NSPS") for the fiberglass manufacturing industry in the mid-1980s, the Agency addressed the fact that certain plants used process modifications in lieu of or in addition to add-on pollution control technologies:

> [B]ecause of the differences in the process design and operation employed among firms, and in the products produced by different firms (and in some cases by different plants within the same firm), the Agency does not have a basis upon which to conclude that a process modification which has been demonstrated at one plant will necessarily be applicable to another plant. Therefore, the Administrator has determined that process modifications are not an appropriate candidate [best demonstrated technology] for this industry.

49 Fed. Reg. 4590, 4593 (Feb. 7, 1984). In the preamble to the final NSPS, the Agency furthered explained why process modifications did not form the basis for the NSPS standard, even though such modifications could result in lower emissions:

> The Agency agrees that use of [process] modifications, alone or in combination with add-on control devices, can achieve lower emissions than those allowed by the standard. However, process modifications are considered confidential by the companies that comprise the fiberglass industry and are not generally available to the entire industry.

50 Fed. Reg. 7694, 7696 (Feb. 25, 1985). In the course of the NSPS rulemaking, EPA rejected more stringent PM emission limits because such limits would be based on confidential process modifications. *See* 49 Fed. Reg. at 4597.

More recently, EPA proposed a National Emissions Standards for Hazardous Air Pollutants ("NESHAP") rule for the fiberglass manufacturing industry. 62 Fed. Reg. 15,228 (Mar. 31, 1997). This proposed rule would apply to hazardous air pollutant emissions rather than PM emissions from the forming process, but the issue of proprietary process technology was also addressed in this context. In selecting a formaldehyde emission standard, EPA eliminated from consideration the emission level achieved at one plant because "[t]he emission level * * * is from a proprietary forming process not available to the rest of the industry." *Id.* at 15,242.

From this background and the arguments presented in this case, we conclude that the fiberglass manufacturing process is indeed characterized by specialized processes and raw material mixtures that vary from firm to firm and product to product. Notwithstanding these differences, the pollution control devices that individual companies apply are legitimate avenues of inquiry, which must be explored fully. It is therefore appropriate to look at control technologies and emission limits at other rotary spin plants when searching for potential control options in the first step of the BACT determination.

We are unpersuaded by Knauf's argument that the only facility within the fiberglass manufacturing industry that is suitable for comparison to the proposed COSL facility is Knauf's plant in Lanett, Alabama. While the Lanett plant may well be the most similar to the proposed plant because Knauf intends to use the Lanett process technology in Shasta Lake, that fact should not foreclose Knauf's obligation to look at its competitors' plants in identifying potential control options. The approach used by Knauf has the potential to circumvent the purpose of BACT, which is to promote use of the best control technologies as widely as possible. If a company can claim that the only facilities similar to a proposed project are its own facilities, this objective of the BACT program would not be fulfilled.

Petitioners raise legitimate questions about how the particular control technology and emission limits for Knauf were selected. Based on the record information and arguments made on appeal, we cannot determine if the particular control technology and emission limit selected for this facility truly qualify as BACT. Answers to still open questions are needed in order to assess AQMD's BACT determination. For example, what control technologies are in use on the forming sections of the Owens Corning and Schuller fiberglass plants reportedly evaluated by Knauf and AQMD? What are their emission limits for PM_{10}? How did Knauf and AQMD select the number of PM_{10} control devices and their configuration? Would a different configuration, similar to what is being used at

CertainTeed's facilities, result in a different level of emissions reduction?[31] If WEPs can be designed in a variety of sizes, how did Knauf and AQMD choose the size of the WEP for this facility? As the record stands, we cannot find that AQMD adequately considered the comments received on the BACT issue. AQMD's response to comments and the petitions for review have not convinced us that the particular design of the control technology (i.e., size and configuration of pollution control equipment) or the selected PM_{10} emission limit necessarily constitutes BACT.

We are remanding the BACT determination in the interest of obtaining the benefit of further analysis on this issue. We are ordering AQMD to prepare a supplemental BACT analysis for this proposed facility. We suggest that the supplemental analysis employ the format described in the NSR Manual guidance. We would therefore expect to see a list of all control options considered, including identification of the information source for each option. At a minimum, it appears that such a list would include Knauf's Lanett, Alabama facility, the three California fiberglass facilities discussed in the permit evaluation document, and CertainTeed's Kansas City, Kansas facility.[32] A technical feasibility analysis should be documented for each identified control option for which there is an infeasibility claim. Conclusions that one or more of the options are not available or applicable need to be justified. After the technical feasibility analysis, remaining control options should be listed in order of stringency, with the most stringent option first. AQMD should also present its conclusions regarding the collateral environmental impacts of the top control option and any necessary analysis of other collateral impacts (i.e., energy or economic). If the top option is rejected, the collateral impacts of each subsequent control option should be documented.

The purpose of this grant of review is to provide AQMD an opportunity to correct some serious deficiencies in the record pertaining to the

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[31] In response to the petitions for review, Knauf supplied an engineering and cost analysis for expanding the size of the WEP designed for the Shasta Lake facility. Knauf Resp. Ex. 4. The analysis compares the PM_{10} removal and capital costs for the WEP as designed, a 50% larger WEP, and a 100% larger WEP. Larger WEPs can achieve greater removal efficiencies by increasing treatment time for an exhaust gas stream. *Id.* The WEP as designed removes approximately 238 tons of particulate per year at a cost of $3,344,000. The analysis shows that a 50% larger WEP will remove an additional 11.9 tons of particulate per year at an additional capital cost of $1,361,000. A 100% larger WEP can remove 19.1 additional tons of particulate at an additional cost of $2,721,000. *Id.* A similar analysis could have provided a basis for comparing the WEP as designed with a multiple WEP design, as used at CertainTeed.

[32] These are the facilities for which there is some documentation in the record. *See supra* Table 1. To the extent that other facilities or information sources were considered or are considered in the course of the remand, those should also be included in the list.

BACT determination. The petitioners' arguments regarding WEP design and the PM_{10} emission limit are legitimate questions that were rejected without adequate explanation. Thus, the PM_{10} BACT determination for the proposed Knauf facility is clearly erroneous because the analysis of control options was incomplete. Incomplete BACT analyses are grounds for remand. *See In re Masonite Corp.*, 5 E.A.D. 551, 568–69, 572 (EAB 1994) (remand of PSD permit in light of incomplete analyses in BACT determination); *In re Brooklyn Navy Yard Resource Recovery Facility*, 3 E.A.D. 867, 875 (Adm'r 1992) (PSD permit remanded for failure to adequately consider viability of measures suggested by petitioner for reduction of NO_X emissions).

In ordering a remand on BACT, it is also appropriate to provide a few clarifying comments relating to particular issues raised on appeal. First, Petition No. 98–16 suggests that Knauf should obtain and employ CertainTeed's manufacturing process technology in lieu of its own. While this may be included as one of the alternatives in the first step of the BACT analysis, this option may well turn out to be technically infeasible. We acknowledge that there are differences in features of the manufacturing process among companies, and that such differences have historically been treated as proprietary and confidential.[33] Process technologies that are treated as proprietary and are not commercially available may be considered technically infeasible and eliminated from the BACT consideration process.[34] Individual permit applicants and permitting authorities ordinarily should not have to negotiate with owners of proprietary process technologies in order to satisfy BACT requirements.

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[33] We accept the Agency's characterization of confidential and proprietary process technology used by the fiberglass industry as articulated in the standard setting context. The national standards (i.e., NSPS and NESHAPs) are the best tools for effecting industry wide adoption of lower emitting processes. The program offices in charge of developing such standards are better equipped than we are to assess confidentiality claims regarding process technology.

[34] We believe that the commercial availability test is the proper way to deal with proprietary and confidential technologies rather than an inquiry into redefining the source. A request to redefine a source presumes that an alternative (and lower-polluting) process is available. Here, it is not clear that lower-polluting processes are available to Knauf (although that is a legitimate area of inquiry in preparing a supplemental BACT analysis on remand). Even if such processes are not available, however, Knauf and AQMD are not exempt from fully investigating available add-on pollution controls.

We reject AQMD and Knauf's argument regarding redefining the source to the extent that they seek to avoid performing and/or documenting a BACT analysis that considers pollution control options used by their competitors. While we are not requiring Knauf to pursue its competitors' trade secrets, we do expect serious consideration of pollution control designs for other facilities that are a matter of public record.

Second, at some point in the BACT analysis, AQMD should take into account and discuss any difference in the numerical emission limits due to the application of a particular control option to the Knauf plant. A particular control technology may be available and applicable but the specific numerical emission limit achievable by Knauf may not be the same limitation achieved elsewhere. To the extent that the emission limit difference is a matter of technical feasibility, this issue falls under step two of the BACT analysis as outlined in the NSR Manual. To the extent that a different limit is justified due to collateral energy, economic, or environmental considerations, the issue falls under step four. Due to characteristics of individual plant processes, we recognize that application of identical technology may not yield identical emission limits. However, the BACT analysis should contain a comparison of these limits and provide an explanation for the differences.

The conclusion of AQMD's supplemental response regarding BACT may be that the emission limits and control technology currently required by the permit still constitute BACT. Alternatively, AQMD may determine that a different control technology and/or emission limit constitutes BACT. We express no opinion as to what AQMD's conclusion ought to be. However, we do expect to see a more complete analysis and justification of the BACT determination than is currently provided in the record.

Finally, we address Region IX's Reply Memorandum, which sets forth a proposed settlement of the BACT issue and addresses the confidentiality claims raised by AQMD and Knauf.[35] In essence, Region IX is offering to investigate process technology used by other fiberglass manufacturers and to assess (and litigate, if necessary) any claims of confidentiality asserted by the manufacturers. If Region IX obtains any promising information regarding lower-emitting process technologies, the Region will pass that information on to Knauf. Knauf has committed to study the feasibility and cost of employing such alternative processes and to implement those processes if certain conditions are met. The Region IX proposal is commendable for seeking to address the problem of inherently lower-polluting processes and methods that are not in widespread use because of confidentiality claims. However, we are skeptical about the possibility of actually achieving any transfer of process technology under

[35] Region IX's BACT proposal would be implemented through addition of a new permit condition and execution of a Memorandum of Understanding ("MOU") between Region IX and Knauf. Knauf and AQMD concur with the proposed approach. The Board invited other petitioners to express an opinion on the proposal. Order Granting Opportunity to Respond to Reply Memorandum Submitted by EPA Region IX (Aug. 6, 1998). The petitioners who responded to the Board's order all opposed the proposal.

the terms of this proposal.[36] In any event, this proposal does not address the deficiencies in the current BACT analysis, and cannot substitute for a properly done analysis. Therefore, we are not ordering a modification of the permit to add the new permit condition nor are we ordering execution of the MOU. If the parties desire to proceed with the process outlined in the proposed permit condition and MOU, they are welcome to pursue that process through some vehicle other than the permit itself.

The specific terms of the remand order covering the BACT issue are presented in Section III of this decision.

2. *Air Quality Analysis*

A PSD application must include an air quality analysis for any regulated pollutant that the proposed source plans to emit in significant amounts. 40 C.F.R. § 52.21(m)(1)(i). In this case, the PM_{10} emissions from the proposed Knauf facility exceed the regulatory significance level, and the air quality analysis requirements apply.[37] The purpose of the air quality analysis is to demonstrate that emissions from a proposed new source and other existing sources will not cause or contribute to a violation of a NAAQS or PSD increment. NSR Manual at C.1. The petitions for review raise several issues relating to the air quality analysis (referred to in the record as the air quality impact analysis ("AQIA")) prepared by Knauf.

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[36] The number and nature of the conditions included within Region IX's proposal leave us wondering whether the technology transfer objectives could ever be realized. Most notably, there are several mandatory time frames specified in the MOU that have the potential to terminate the entire effort to discover and implement potentially lower-polluting processes. For example, EPA has just 60 days to complete its investigation of other manufacturers and turn over information on lower-polluting processes to Knauf. Reply 98–19 att. A § 2.0. This deadline is extended to six months if EPA has to litigate confidentiality claims with the other manufacturers. *Id*. In light of the fiberglass industry's history of asserting confidentiality claims, we would expect litigation to be a likely scenario under the MOU, and six months does not appear to be an adequate period of time for resolution of litigation.

If EPA is unable to produce fruits of its investigation of other manufacturers within 60 days (or 6 months if there is litigation), Knauf has no obligation to attempt to use potentially lower-polluting processes. *Id*. § 5.1. In addition, even if EPA can obtain some information on alternative process technology within the specified time period, Knauf must use reasonable efforts to obtain permission to use the technology within another 30 days. *Id*. § 2.0. If Knauf is unable to secure the requisite permissions, it has no obligation to use the lower-polluting process. Finally, the MOU specifies several technical and cost criteria that may prevent application of an alternative process technology. Knauf is to determine if any of these criteria would preclude use of the technology. *Id*. §§ 3.0, 4.0.

[37] The regulatory significance level for PM_{10} is 15 tons per year. *See supra* note 6.

(a) *Ambient Air Monitoring Data and Meteorological Data*

In order to perform an air quality analysis, certain data must be obtained, including information on existing ambient air quality, emission rates for the proposed source, and meteorological data to predict how emissions will behave once released from the stack. The petitions for review challenge AQMD's decision to use existing ambient air quality and meteorological data from Redding, California, rather than requiring collection of on-site data for Knauf's AQIA.

For ambient air quality data, the PSD regulations generally require "continuous air quality monitoring data * * * gathered over a period of at least one year and shall represent at least the year preceding receipt of the application." 40 C.F.R. § 52.21(m)(1)(iv). This requirement may be satisfied by conducting pre-construction monitoring at the proposed site, or by using existing ambient air quality data when the permitting authority has determined that such data are representative of the air quality at the site. NSR Manual at C.18–C.19.

Meteorological data requirements are outlined in EPA's Guideline on Air Quality Models ("Guideline on AQM"). 40 C.F.R. part 51 app. W. The Guideline on AQM is incorporated by reference into the PSD regulations. 40 C.F.R. § 52.21(2)(1). The Guideline on AQM emphasizes the need for representative meteorological data and points out that such data are typically obtained from the National Weather Service or from on-site monitoring stations. Guideline on AQM § 9.3. The NSR Manual notes that meteorological data should "be representative of the atmospheric dispersion and climatological conditions at the site of the proposed source * * * and at locations where the source may have a significant impact on air quality." NSR Manual at C.22.

Petitioners have challenged Knauf's use and AQMD's acceptance of ambient air quality data and meteorological data collected from sites in Redding, California, approximately nine miles from the proposed plant location. Petition Nos. 98–4, 98–7, 98–17. The meteorological data were obtained from a National Weather Service station at the Redding airport; ambient air quality data for PM_{10} were collected from AQMD's ambient monitoring station in Redding. The petitioners argue that both the ambient PM_{10} data and the meteorological data from Redding are not representative of site conditions. The response to comments documents indicate that the data representativeness issue was raised generically during

the public comment period. *See* RTC at 23, 24; RTPH at 6.[38] In other words, commenters complained that the Redding data were not representative, but they did not provide supporting reasons. More detailed arguments were provided in the petitions for review.

In particular, petitioners point out that the ambient PM_{10} data are not likely to be representative because Redding is a well-populated area with paved roads and advanced development. In contrast, the proposed Knauf site is in a rural area, where roads are largely unpaved, and dust is also generated from agriculture and construction activities. Petition No. 98–7 at 16. With regard to meteorological data, petitioners claim that the proposed Knauf site is surrounded by complex terrain and that meteorological conditions at the height of the stack are less stable than those measured at the airport. *Id*. at 17–18.

AQMD's response to comments regarding the ambient PM_{10} data was as generic as the original comments received. AQMD noted that the NSR Manual permits use of existing ambient air quality data in lieu of requiring pre-construction monitoring on-site. RTC at 23. AQMD also asserted that use of the ambient PM_{10} data from Redding provide a conservative estimate of ambient PM_{10} conditions at the site. *Id.;* AQMD 98–7 Resp. at 3. In responding to the more specific allegations in the petitions for review, AQMD states that ambient PM_{10} levels in Redding are expected to be greater than those near the Knauf site because sources of PM_{10} near Redding are more densely concentrated. AQMD 98–7 Resp. at 3.

As for the meteorological data, AQMD stated in the response to comments documents that "[t]he meteorological data from the Redding airport was selected because it was the most complete and accurate data available in the format required for modeling." RTC at 24; *see also* RTPH at 6 ("National Weather Service data available from the nearest airport provides the most complete surface data in the format needed to do the modeling * * *."). AQMD also provided the opinion that even if on-site meteorological data were available, the results of the air quality analysis would be the same as when the Redding data were used. RTC at 24. In response to the petitions for review, AQMD asserts that in light of the distance from the Redding airport to the site, the meteorological data from Redding "is not expected to reflect radical differences in wind speeds, temperatures, and inversion tendencies from that at the project site." AQMD 98–7 Resp. at 3.

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[38] Our understanding of the issues raised below is based on the comment excerpts included in the RTC and RTPH. The petitioners who raised the data issues to the Board have not suggested that the comment excerpts are inaccurate or incomplete.

AQMD and Knauf also point out that the permit requires Knauf to purchase ambient air monitors and establish a meteorological station at the site. Permit ¶¶ 24, 25. The ambient monitors will measure PM_{10} and $PM_{2.5}$ concentrations during construction and for at least two years post-construction. Permit ¶ 24; RTC at 23; Knauf Resp. at 40. No time limit on operation of the meteorological station is provided. However, neither of these permit conditions are relevant to the issue of pre-construction data acquisition for use in the air quality analysis. Post-construction monitoring is governed by a separate regulatory provision and is generally left to the discretion of the permitting authority. 40 C.F.R. § 52.21(m)(2); *see In re Valero Gathering Co.*, 1 E.A.D. 828, 829 (Adm'r 1983) (finding no error in PSD permit for failure to require post-construction monitoring).

The choice of appropriate data sets for the air quality analysis is an issue largely left to the discretion of the permitting authority. *In re Hibbing Taconite Co.*, 2 E.A.D. 838, 851 (Adm'r 1989) (upholding permitting authority's exercise of discretion in using existing ambient air data rather than requiring on-site monitoring). Guidance documents on representativeness of data identify important factors to consider in evaluating the need for on-site data collection, but do not dictate exactly when on-site data must be used rather than data from nearby locations, such as the Redding data in this case. We will be inclined to support a permitting authority's technical judgment on this issue, provided that its decision is adequately justified in the record.

AQMD's response to comments regarding data representativeness provided general justifications for issues that had been raised in a general manner. This is all that was required, given that the more detailed articulation of the issues as presented in the petitions for review apparently was not submitted to AQMD during the public comment period. The regulations governing the permitting process require persons to "submit all reasonably available arguments supporting their position by the close of the public comment period * * *." 40 C.F.R. § 124.13. In this case, it is not

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[39] In responding to the more specific concerns included in the petitions for review, AQMD states that PM_{10} sources are more densely concentrated in Redding than at the site. As such, the ambient PM_{10} data from Redding should reflect higher PM_{10} background concentrations than actually exist at the site. Since background conditions are be taken into account in determining whether Knauf's proposed emissions satisfy CAA requirements, use of the Redding data actually provides an additional margin of safety for future air quality at the site.

As to the use of Redding meteorological data, the National Weather Service station in Redding is not far from the site and can provide a number of years of data such that a variety of meteorological conditions can be considered in the course of air quality modeling.

Continued

evident that the specific arguments raised on appeal were submitted to AQMD below.[39]

We are not convinced that AQMD's decision to exempt Knauf from collection of pre-construction, on-site ambient air data or meteorological data was clearly erroneous or implicated an important policy issue. Therefore we are denying review of this issue.

(b) *Air Quality Modeling: Demonstrating Compliance with NAAQS and PSD Increments*

An air quality analysis provides predictions of pollutant concentrations in ambient air by modeling the impacts of new emissions from a proposed source. The air quality analysis looks at two specific endpoints. First, the analysis must determine whether emissions from a proposed source will cause or contribute to a violation of NAAQS. NAAQS are maximum ambient air concentrations for certain pollutants that apply nationwide. *See supra* note 2. The standards are set at levels that the Administrator of EPA has determined are necessary to protect the public health and welfare. 40 C.F.R. § 50.2(b).

Second, the analysis must calculate whether the proposed emissions will be within the applicable PSD increment. A PSD increment is the maximum allowable *increase* in pollutant concentration over a baseline concentration. *See* 40 C.F.R. § 52.21(c). The PSD increment concept was designed to accommodate economic growth and increased pollution associated with such growth while placing limits on new pollution. Significant deterioration is prevented if the amount of new pollution from the proposed source, in conjunction with pollution from certain existing sources, is less than the amount permitted by the PSD increment. *See* NSR Manual at C.3.

The PSD regulations state that emissions from a proposed source may not cause or contribute to a violation of either the NAAQS or the PSD increment. 40 C.F.R. § 52.21(k). Compliance with this requirement is demonstrated through the air quality analysis. If, after taking into account emissions from a proposed source and emissions from certain existing

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Petitioners mention complex terrain in the vicinity of the site. The permit application also refers to complex terrain. Permit App. at 32. While acknowledging the existence of complex terrain, AQMD concludes that the meteorological conditions at the site are not expected to be radically different from those measured in Redding. Petitioners have not shown why either of these explanations is clearly erroneous, particularly given the broad discretion afforded the permitting authority in selecting appropriate data for use in the air quality analysis.

sources, the modeled ambient air concentration of a pollutant is below the NAAQS, and the increase in concentration for that pollutant is less than the applicable PSD increment, the permit applicant has successfully demonstrated compliance. NSR Manual at C.51.

Several petitions for review raise issues relating to the air quality analysis that was performed for the proposed Knauf facility (i.e., Knauf's AQIA). One petitioner specifically claims that certain elements of the AQIA do not comport with EPA's guidance. Petition No. 98–7. Petitioners also question whether pollutant contributions from other sources in the vicinity of the proposed Knauf facility were considered. Petition Nos. 98–4, 98–7, 98–17. Two petitioners make general arguments that the Knauf permit conditions do not ensure that there will be no significant deterioration of air quality. *See* Petition Nos. 98–3, 98–17. One petitioner argues generally that expected emissions are not compatible with the surrounding area. Petition No. 98–10. We consider all of these objections in looking at the adequacy of the modeling in Knauf's AQIA and its conclusions regarding NAAQS and PSD increment compliance.

EPA's guidance on PSD air quality analyses suggests that a preliminary analysis be conducted in order to determine whether a full impact analysis is necessary. NSR Manual at C.24. The preliminary analysis only models the pollutant concentrations attributable to the proposed source. The preliminary analysis does not take into account existing ambient air quality or pollutant contributions from other sources. *Id*. Thus, the ambient air monitoring data discussed in the previous section are not used in a preliminary analysis. The results of the preliminary analysis are compared to so-called "significant ambient impact levels."[40] *Id*. If a modeled pollutant concentration from the proposed source exceeds the relevant significant ambient impact level, a full impact analysis must be conducted.

The significant ambient impact levels relevant to this discussion are presented in Table 2:

TABLE 2
Significant Ambient Impact Levels for PM_{10}

Pollutant	Significant Ambient Impact Level
PM_{10} (24-hour average)	5 $\mu g/m^3$
PM_{10} (annual average)	1 $\mu g/m^3$

[40] Significant ambient impact levels are defined in the NSR Manual and are used specifically in the context of the air quality analysis. *See* NSR Manual at C.28. Significant ambient impact levels are just one set of several standards in the PSD program that make use of the word "significant." These levels are not to be confused with the significance levels that govern PSD review generally. *See*, e.g., *supra* notes 3, 6.

NSR Manual at C.28. Knauf's AQIA predicts ambient air concentrations of PM_{10} in excess of the PM_{10} (24-hour) significant ambient impact level. The AQIA does not predict any ambient air concentrations in excess of the PM_{10} (annual) significant ambient impact level. Permit App. at 33, app. C. Thus, Knauf was required to conduct a full impact analysis for 24-hour ambient impacts of PM_{10}.[41]

Knauf's full impact analysis for PM_{10} is documented in its permit application and in a letter from Knauf's consultant addressing several AQIA questions raised during the public comment period. Letter from Joseph Macak, Mostardi-Platt Associates, Inc., to Michael Kussow, Shasta County AQMD (Feb. 17, 1998) ("Mostardi-Platt letter"). Knauf modeled PM_{10} impacts out to a 48-kilometer radius around the proposed plant site. Permit App. at 42. The maximum PM_{10} (24-hour) concentration was modeled at approximately 11 $\mu g/m^3$ and is predicted to occur approximately 1.2 kilometers (¾ of a mile) from the plant site. Permit App. at app. C. This location is the top of a hill west of the proposed site. *See*, e.g., Mostardi-Platt letter at 4, 5; RTC at 12; RTPH at 5, 18.

There are also at least two figures in the record illustrating all predicted PM_{10} (24-hour) significant ambient impacts (i.e., concentrations above 5 $\mu g/m^3$) attributable to the Knauf plant. Mostardi-Platt letter Figure 1; Revised EIR Figure 4–1. These two figures are presented in different formats and use different scales. However, they appear to present substantially the same information, and both support Knauf's AQIA conclusions. Both figures indicate that the most distant point at which the PM_{10} (24-hour) significant ambient impact level of 5 $\mu g/m^3$ is predicted to occur is not far beyond the location of predicted maximum impact (i.e., the top of the hill west of the site). The record does not indicate exactly how far the edge of the 5 $\mu g/m^3$ area is from the plant, but our imprecise calculations from these two figures place it at less than 2 kilometers (approximately 1.2 miles) from the proposed site.[42]

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[41] Although only the PM_{10} (24-hour) significant ambient impact level is predicted to be exceeded, Knauf nonetheless conducted a full impact analysis for both 24-hour and annual PM_{10} impacts. *See* Permit App. at 33–36.

[42] An exhibit to Petition No. 98-7 suggests that the most distant point at which the PM_{10} (24-hour) significant ambient impact level of 5 $\mu g/m^3$ occurs is approximately 2.7 kilometers (1.7 miles) from the site. Petition No. 98-7 Ex. C (Draft EIR Figure 5–7, annotated by petitioner). This exhibit is an earlier version of Revised EIR Figure 4–1. The exhibit supplied by the petitioner is an illustration of predicted PM_{10} (24-hour) impacts from the proposed Knauf facility without use of a WEP. The updated figure in the Revised EIR illustrates predicted ambient PM_{10} (24-hour) concentrations from WEP controlled emissions.

The most distant point at which a significant ambient impact will occur is used to define an "impact area." NSR Manual at C.26. The remaining elements of an air quality analysis are carried out within the defined impact area. An impact area is defined as "a circular area with a radius extending from the source to (1) the most distant point where approved dispersion modeling predicts a significant ambient impact will occur, or (2) a modeling receptor distance of 50 km, whichever is less." *Id*. Using this definition and our own calculation of the distance to the farthest point at which a PM_{10} (24-hour) concentration of 5 $\mu g/m^3$ will occur, the impact area for the proposed Knauf facility is a circle with a radius extending less than 2 kilometers from the facility.

Petitioner 98–7 complains that Knauf did not define a "significant impact area" in accordance with EPA's guidance in the NSR Manual. Petition No. 98–7 at 7. In response, Knauf and AQMD point to the illustration of significant impact areas in the Mostardi-Platt letter. AQMD 98–7 Resp. at 2; Knauf Resp. at 49–50. It appears that the parties are using the term "significant impact area" differently. Petitioner 98–7 is using the term to refer to the "impact area" as defined in the NSR Manual and described above. The use of the term significant impact area in the Mostardi-Platt letter refers only to those specific areas where Knauf's predicted impact will exceed a significant ambient impact level. The Mostardi-Platt letter does not refer to the circular area surrounding the plant site. The difference in terminology makes for some confusion in parsing the petition and responses on AQIA issues, but has no impact on the merits of the underlying objections.

It is true that Knauf did not supply a figure depicting a circular area labeled "impact area." However, this failure does not mean that the default impact area of 50 kilometers should be applied as suggested by the petitioner. Petition No. 98–7 at 7–8. By providing figures indicating the most distant point at which the significant ambient impact level is predicted to occur, Knauf did define the dimensions of an impact area in accordance with the NSR Manual methodology. Moreover, Knauf's AQIA proceeds to analyze overall air quality impacts within the impact area.

The next step in the full impact analysis involves modeling emissions from sources in addition to the proposed new source whose emissions may affect the air quality within the impact area. NSR Manual at C.30–C.31. In this case, Knauf modeled the emissions from a Sierra Pacific lumber mill located 1.4 miles from the proposed site. Permit App. at 33; Mostardi-Platt letter at 3. The Sierra Pacific mill is either within the impact

area for the proposed Knauf plant, or just outside the impact area.[43] Either way, the decision to model the Sierra Pacific emissions shows prudent judgment. As a matter of discretion, a permitting authority may require multi-source modeling as part of the air quality analysis. *In re EcoEléctrica, L.P.*, 7 E.A.D. 56, 65–66 (EAB 1997). Knauf determined that a PM_{10} concentration of 1.77 $\mu g/m^3$ attributable to Sierra Pacific is predicted to occur at the location of Knauf's own maximum impact. Permit App. at 36. Thus, the Sierra Pacific analysis demonstrates that PM_{10} contributions from other sources that may affect Knauf's impact area were incorporated into the air quality analysis.

Petitioners claimed that other nearby sources should also be taken into account in order to assess the cumulative emissions impact in the area. Petition Nos. 98–4, 98–7. Each of the sources identified by petitioners is located well outside the <2 kilometer impact area. Nonetheless, the Mostardi-Platt letter provides a further analysis of multi-source emissions. The analysis predicts PM_{10} impacts from Knauf and four other sources in addition to Sierra Pacific. Mostardi-Platt letter at 3, 8. A figure shows so-called significant impact areas ("SIAs"), i.e., areas with PM_{10} (24-hour) concentrations greater than 5 $\mu g/m^3$, from each of the modeled sources. Mostardi-Platt Figure 3. None of the SIAs overlap with the SIA for the Knauf facility. *Id.* The Mostardi-Platt figures provide helpful illustrations and are responsive to the comments requesting additional multi-source modeling.

The final element of an air quality analysis is to determine whether the predicted emissions from a new source, in conjunction with emissions from other sources impacting the impact area, would cause or contribute to a violation of the NAAQS or the applicable PSD increment. Knauf presented this analysis in its permit application. Permit App. at 36.

For the NAAQS analysis, the maximum modeled PM_{10} concentration from Knauf was added to the background ambient air concentration obtained from monitoring data and the modeled PM_{10} contribution from Sierra Pacific. The total PM_{10} impact was compared to the PM_{10} NAAQS as illustrated in Table 3:

[43] We have estimated the radius of the impact area at less than 2 kilometers, which would put the Sierra Pacific mill just outside the Knauf impact area. However, we have acknowledged that our calculation is imprecise, and it may be that the Sierra Pacific plant actually falls within the impact area.

TABLE 3
PM_{10} (24–hour) NAAQS Compliance Demonstration*

Maximum PM_{10} (24-hour) Concentration from Knauf	Maximum Ambient Background Concentration	PM_{10} (24-hour) Contribution from Sierra Pacific	Total PM (24-hour) Impact	NAAQS
11.42	60	1.77	73.2	150

* All concentrations presented in g/m^3.

As 73.2 is less than 150, the air quality analysis adequately demonstrates compliance with the PM_{10} NAAQS.[44]

The PSD increment analysis involved adding the maximum modeled PM_{10} concentration from Knauf to the estimated contribution from Sierra Pacific[45] and comparing the total to the PM_{10} (24-hour) PSD increment as shown in Table 4:

TABLE 4
PM_{10} (24–hour) PSD Increment Compliance Demonstration*

Maximum PM_{10} (24-hour) Concentration from Knauf	PM_{10} (24-hour) Contribution from Sierra Pacific	Combined PM_{10} (24-hour) Impact	PSD Increment for Class II Areas
11.42	1.77	13.19	30

* All concentrations presented in $\mu g/m^3$.

[44] The AQIA conclusions in the permit application also compare the total PM_{10} (24-hour) impact to California's ambient air quality standard for PM_{10} (24-hour). The state standard is 50 $\mu g/m^3$, stricter than the federal NAAQS. The total PM_{10} (24-hour) impact of 73.2 $\mu g/m^3$ is greater than 50 g/m^3 and therefore does not demonstrate compliance with the California standard. To the extent that petitioners' generalized claims regarding deterioration of air quality are in reference to the state air standards, we note that enforcement of state air standards is beyond our jurisdiction. The scope of the Board's review is limited to *federal* PSD issues. *In re West Suburban Recycling and Energy Ctr.*, 6 E.A.D. 692, 704 (EAB 1996). *See* discussion *infra* Section II.C.

[45] Knauf and AQMD identified Sierra Pacific as the only other facility in the area to have consumed PSD increment. Permit App. at 34. None of the petitioners specifically challenged this determination.

13.19 is less than 30 and the AQIA thus demonstrates that the PSD increment for PM_{10} is satisfied. This analysis supports the conclusion that the permit limits will prevent significant deterioration of air quality.

In sum, we find that Knauf's AQIA adequately demonstrates compliance with the PM_{10} NAAQS and PSD increments. We therefore decline to grant review of petitioners' challenges to the AQIA.

3. *Impacts on Class I and Class II Areas*

All areas subject to PSD review are classified as Class I, II or III. "Class I areas are areas of special national or regional value from a natural, scenic, recreational, or historic perspective." NSR Manual at E.1. These areas must be specifically designated as Class I. Several national parks and wilderness areas were designated Class I areas by statute. CAA § 162(a), 42 U.S.C. § 7472(a). All other areas within the PSD program (i.e., attainment areas or unclassifiable areas) were originally classified as Class II. CAA § 162(b), 42 U.S.C. § 7472(b). Class II areas are designed to "accommodate normal well-managed industrial growth." NSR Manual at C.5. It is possible to reclassify a Class II area to Class III in order to provide for a larger amount of development than Class I or Class II would permit. It is also possible to reclassify a Class II area to Class I, a move which restricts the amount of permissible new pollution.

This case involves issues relating to Class I and Class II areas. The site for the proposed Knauf facility and the surrounding area are Class II areas. However, Knauf's permit application identified seven Class I areas within 160 kilometers (100 miles) of the proposed plant site. Permit App. at 42–43. The closest Class I area is the Yolla-Bolly Middle Eel National Wilderness ("Yolla-Bolly"), located 50 kilometers from Knauf's site. *Id.* Closer to the site are three national recreation areas ("NRAs").[46] The NRAs are all Class II areas.

The PSD review process contains special procedures and provisions to protect Class I areas. *See In re Commonwealth Chesapeake Corp.*, 6 E.A.D. 764, 768 (EAB 1997); *In re Hadson Power 14-Buena Vista*, 4 E.A.D. 258, 260–61 (EAB 1992). Class I areas receive special attention in the PSD review process largely because Federal Land Managers ("FLMs") are required to receive notice of PSD permit applications for facilities whose emissions may affect a Class I area. CAA § 165(d)(2)(A), 42 U.S.C.

[46] The closest NRA is Shasta Lake NRA, located approximately 4 miles northwest of the proposed site. Final EIR at 3-45. Whiskeytown NRA is approximately 8 miles southwest of the proposed site. *Id.* Trinity NRA is further removed from the proposed site in the northwest direction.

§ 7475(d)(2)(A). The FLMs have an important role in ensuring that issues relating to Class I areas are raised with the permitting authority. An FLM may comment on any aspect of a permit application, although the FLM's primary focus is on visibility impacts and other air quality related values of Class I areas. 40 C.F.R. § 52.21(p); NSR Manual at E.20. The ultimate permit decision is made by the permitting authority, but the recommendations of an FLM are important and must be adequately addressed by the permitting authority when issuing a permit decision.

As a matter of policy, EPA considers that proposed sources "may affect" a Class I area if the source will locate within 100 kilometers (approximately 62 miles) of any such area. NSR Manual at E.16.[47] Proposed sources within this range may be required to perform a variety of analyses relating to the Class I area. Possible analyses include an air quality analysis and a visibility impact analysis. *Id.* at E.16, E.22.

One petitioner claims that AQMD and Knauf failed to adequately assess air quality impacts for the five Class I areas located within 100 kilometers of the proposed facility.[48] Petition No. 98–7. The petitioner asserts that Knauf's AQIA was inadequate because it only modeled PM_{10} concentrations to a distance of 48 kilometers from the site. The closest Class I area, Yolla-Bolly, is located 50 kilometers away. *Id.* at 5. AQMD responds that the predicted PM_{10} concentrations at 48 kilometers were less than 0.3 $\mu g/m^3$. PM_{10} concentrations will further decrease with distance. RTC at 23. Thus, AQMD concluded that PM_{10} impacts in Yolla-Bolly and the other Class I areas attributable to the Knauf facility would not be significant. AQMD 98–7 Resp. at 1. AQMD also represented that the FLMs for the various Class I areas have accepted the conclusion that the proposed facility will not impact Class I areas. *Id.;* RTC at 10.

We find that AQMD's conclusion regarding the Class I areas is supported by the record and EPA's guidance. As discussed in the previous section, if an air quality analysis shows that emissions from a proposed source will not exceed significant ambient impact levels in ambient air, that showing is generally sufficient to demonstrate compliance with NAAQS and PSD increment requirements. This same concept may be used in determining whether a proposed source may have a significant impact on a Class I area. The NSR Manual suggests a significant ambient

[47] The NSR Manual also makes clear that under certain circumstances not relevant here, the phrase "may affect" may be interpreted to apply to sources at a distance greater than 100 kilometers from a Class I area. NSR Manual at E.16.

[48] Knauf's permit application identified seven Class I areas within 100 miles of the proposed site. Of the seven, five are within 100 kilometers of the site. The petitioner's argument focuses only on those areas within the 100-kilometer radius mentioned in the NSR Manual.

impact level of 1 $\mu g/m^3$ for all pollutants in Class I areas.[49] NSR Manual at C.28, E.16–E.17. Here, the air quality analysis shows that concentrations of PM_{10} attributable to Knauf emissions are less than 1 $\mu g/m^3$ even before reaching any Class I areas. Since concentrations of PM_{10} will only decrease with additional distance, any PM_{10} concentrations in the Class I areas that are attributable to the proposed facility will necessarily be less than the significant ambient impact level. The AQIA modeling is adequate to demonstrate that there will be no significant air quality impacts in Class I areas. Review is therefore denied on petitioner's challenge to the AQIA for Class I areas.

Class II areas are not subject to the special review procedures and requirements for Class I areas. Nonetheless in this case, the FLMs involved in the PSD review process for the Class I areas also made recommendations regarding the Class II NRAs. As a result additional analyses were conducted in relation to the NRAs.

Petitioners argue that the emissions allowed pursuant to Knauf's permit will cause adverse impacts in Class II areas. Petition Nos. 98–4, 98–5, 98–17. The petitioners seem to be primarily concerned with visibility impacts in the Whiskeytown, Shasta Lake, and Trinity NRAs.[50] In responding to public comments regarding the NRAs, AQMD noted that the FLM for the National Park Service had requested that an impact analysis be conducted for the three NRAs. RTC at 10, 14; RTPH at 12. A visibility analysis was performed and documented in the Final EIR. RTPH at 12; *see* Final EIR at 3–45 to 3–51.

A visibility analysis is one of the "additional impact analyses" required by 40 C.F.R. § 52.21(o).[51] The regulation, however, does not specify how

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[49] We emphasize that the use of significant ambient impact levels for Class I areas and the 1 $\mu g/m^3$ value in particular are not regulatory requirements. However, as a matter of policy, EPA has applied the concept of a significant ambient impact level to Class I areas. Values other than 1 $\mu g/m^3$ have also been used or proposed. For example, one policy document references a level of 1.35 $\mu g/m^3$ for PM_{10} (24-hour average). Memorandum from John Calcagni, Air Quality Management Division, to Thomas J. Maslany, Air, Radiation & Toxics Division (Sept. 10, 1991). A more recent regulatory proposal suggests a significant ambient impact level of 0.3 $\mu g/m^3$ for PM_{10} (24-hour average). 61 Fed. Reg. 38,250, 38,292 (July 23, 1996). AQMD's conclusion that PM10 impacts from the proposed Knauf facility would not be significant in Class I areas is supported by any of these values.

[50] One petitioner does not mention the NRAs but argues that AQMD did not assess visibility impairment in the local area generally. Petition No. 98–7.

[51] 40 C.F.R. § 52.21(o) is one of the general PSD requirements that applies to all areas, regardless of classification. *See* 40 C.F.R. § 52.21(i)(3) (requirements of 40 C.F.R.

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the analysis is to be performed or what constitutes visibility impairment. EPA guidance outlines a visibility screening process and recommends which models to use. NSR Manual at D.6, D.7. A visibility analysis can involve three levels of screening. *Id.* Each level is more complex and site-specific than the previous. The Level 1 analysis typically utilizes the VISCREEN model and a large number of worst-case default values. Level 2 introduces more site-specific data into the VISCREEN model. A Level 3 analysis is the most detailed and requires special visibility models.

The visibility analysis documented in the Final EIR involved Level 1 and Level 2 VISCREEN analyses. The screening criteria for a Level 1 analysis were exceeded, so a Level 2 analysis was performed.[52] The Level 2 analysis concluded that impacts from the proposed facility will not exceed visibility criteria for the Trinity or Whiskeytown NRAs. Final EIR at 3–48, 3–49. The analysis also predicted that visibility criteria will be exceeded at Shasta Lake NRA during 8% of daylight hours. Final EIR at 3–51; AQMD 98–5 Resp. at 2. A Level 3 screening was not performed. AQMD concludes that these visibility impacts are less than significant. AQMD 98–7 Resp. at 3. Notably, the FLM who initially requested the visibility analysis for the Class II NRAs did not submit further comments after the Level 2 screening was performed. RTPH at 12.

The VISCREEN analysis documented in the Final EIR and referenced by AQMD satisfies the regulatory requirement to analyze potential impairment to visibility. The PSD regulations do not specify maximum impairment levels or other mandatory criteria for addressing visibility. This is one of the many determinations in the permitting process that are appropriately left to the reasoned judgment and expertise of the permitting authority. The record adequately documents the visibility analysis and provides a rational conclusion regarding the results of that analysis. Petitioners have not demonstrated that the visibility analysis process or AQMD's interpretation of the results of the analysis are clearly erroneous.

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§§ 52.21(j)–(r) apply to major stationary sources that would be constructed in attainment areas). Therefore, we reject Knauf's argument that a "formal visibility analysis is not required to be performed in Class II areas." Knauf Resp. at 40. It is true that the PSD program involves more rigorous requirements as to visibility impacts in Class I areas, 40 C.F.R. § 52.21(p)(3), but the special treatment for Class I areas does not negate the requirements of section 52.21(o) as to all areas.

[52] As evidence of her claim that there will be adverse impacts in the NRAs, Petitioner 98-4 submitted copies of the data sets from the Level 1 screening for the Whiskeytown NRA. Reply 98-4. The Final EIR acknowledges that the Level 1 screening criteria were exceeded for the Whiskeytown and Shasta Lake NRAs. Final EIR at 3-46. Because a Level 2 screening was subsequently conducted, we do not consider petitioner's data submission as evidence of the final results of the visibility analysis.

In sum, we deny review of the issues pertaining to potential adverse impacts in Class I and Class II areas. We find that the administrative record adequately addresses the issues presented by the petitioners and there is no evidence of clear error or important policy considerations that warrant our review.

4. *Adequacy of Emission Estimates*

Multiple petitioners raise issues pertaining to estimates of emissions from the proposed facility. One petitioner challenges the accuracy of several emission estimates included in the permit application. Petition No. 98–7. Another petitioner requests a specific estimate of emissions from equipment malfunctions. Petition No. 98–16. A third petitioner questioned whether zero emissions are possible and is dissatisfied with AQMD's response to that inquiry. Petition No. 98–20.

The issues raised in Petition No. 98–7 regarding accuracy of emission estimates were all adequately addressed in AQMD's response to comment documents and further explained in AQMD and Knauf's responses to the petition. AQMD 98–7 Resp. at 3–4; Knauf Resp. at 52–53. Review is therefore denied as to these issues. We will not address each of petitioner's contentions in detail, but make a few observations on two of the issues.

First, petitioner challenges the basis for expected PM emissions and the PM emission limit on the glass melting furnace. Petition No. 98–7 at 19–20. As support for this objection, petitioner points to PM emission rates for glass furnaces published in the proposed National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Wool Fiberglass Manufacturing, 62 Fed. Reg. 15,228 (Mar. 31, 1997). The glass furnace emission rates discussed in the NESHAP preamble are ostensibly higher than the emission rate planned for the new Knauf facility. The proposed NESHAP discusses several varieties of glass furnaces, but with regard to cold top electric furnaces (the type of furnace to be used in this plant), the preamble notes that the design of the furnace limits particulate emissions, and add-on control devices are not expected to be necessary to meet the proposed NESHAP standard. *Id.* at 15,239. Nonetheless, the Knauf permit requires use of two baghouse dust collectors as an add-on pollution control on the glass melting furnace. Permit ¶ 37. The combination of the lower polluting furnace and the add-on control technology explains the low emission estimate for this source.

The second issue raised in Petition No. 98–7 relating to emissions is petitioner's claim that the emission estimate for dust collectors in the packaging area is unsupported. Petition No. 98–7 at 20–21. Although

Knauf's permit application and the draft permit indeed included an emission limit for the packaging area dust collectors, AQMD changed this limit in the final permit. The permit now allows no outside emissions from the packaging area. Permit ¶ 60. The dust collectors may only exhaust indoors in compliance with state occupational safety and health standards. *Id*. Thus, the emission source that was the subject of petitioner's objection has been eliminated.

Petition No. 98–16 seeks estimates of emissions during periods of equipment malfunction. Petition No. 98–16 at 6. Petitioner raised this issue during the public hearing, and AQMD responded by referencing the permit condition that governs periods of upsets, breakdowns, and malfunctions. RTPH at 16; Permit ¶ 7. This condition requires correction of malfunctioning equipment within specific time frames and includes a requirement to report such problems to AQMD. However, the permit condition does not specifically address petitioner's concern, which pertains to the amount of emissions that may occur during a period of malfunction. The answer to petitioner's question is in the permit emission limits. *See* Permit ¶¶ 32, 42, 53, and 60. These conditions indicate the amount of allowable emissions from the plant. There are no exceptions to the permit limits for periods of equipment malfunction, breakdown, or upset.

Petition No. 98–20 requests an answer to the question: "Are zero emissions possible?" The petitioner made the same inquiry during the public hearing and was dissatisfied with AQMD's response. AQMD apparently viewed the question as an implicit request to set an emission limit at zero. AQMD therefore responded to the comment by stating, "[t]he commentor offers no support for the suggested zero emission standard." RTPH at 2. AQMD continues by describing the BACT determination for the proposed facility. *Id*. We do not interpret petitioner's question as requesting a zero emission standard. It seems that this individual may simply have wanted a better understanding of the type of facility being proposed and its associated emissions. It appears that the answer to petitioner's question is, no, zero emissions are not possible for this type of facility. Despite the misunderstanding, we nonetheless find that Petition No. 98–20 does not warrant review. The petition does not allege clear error and does not raise an important policy consideration.

In sum, review is denied as to each of the issues relating to emission estimates in Petition Nos. 98–7, 98–16, and 98–20.

5. *Facility Expansion*

A number of petitioners assert that Knauf ultimately intends to build a much larger facility than the one described in the permit application. Petition Nos. 98–6, 98–16, 98–17. These petitioners are concerned that after Knauf builds the permitted facility, it will seek to increase production and add additional manufacturing lines. Petitioners believe that Knauf should be required to apply for a PSD permit for the full plant build-out at this time. Petition No. 98–16 at 3.

In response to these concerns, AQMD modified a permit condition so as to explicitly prohibit expansion of production beyond 195 tons of fiberglass/day. Permit ¶ 3. This condition also states that a new PSD application will be required should Knauf seek to increase production. *Id*. In the response to comments, AQMD explained that a new PSD permit and CEQA review is required before any expansion will be permitted. RTC at 5, 13.

The express prohibition in the permit is fully adequate to address petitioners' concerns. A permit will be required before construction can commence on any major modification to the plant. The purpose of a new PSD review process for major modifications of facilities like the proposed Knauf plant is to allow issues such as BACT and the air quality analysis to be revisited before any expansion takes place. The public participation requirements are also applicable to PSD modification applications. The fact that an existing facility is requesting a PSD permit confers no entitlement to receipt of the permit.

Requiring a PSD review of potential expansion plans (that may or may not ever be implemented) would circumvent several important aspects of the PSD program. The PSD regulations require that a permittee begin construction within 18 months of receiving approval to construct (i.e., a final PSD permit). 40 C.F.R. § 52.21(r)(2). If construction is not commenced within that time period, the permit becomes invalid. *Id*.[53] Therefore, even if Knauf were to include potential expansion plans in its permit application now, any permit approving such plans would become invalid unless Knauf began work on the expansion within 18 months. In addition, a benefit of conducting a permitting process for an expansion at a later date is that advances in air pollution control technology and any

[53] Section 52.21(r)(2) provides for extensions to the construction deadline if the permitting authority agrees that an extension is justified. It would be disingenuous to try to use this extension provision merely to preserve an old permit decision for a possible future modification to the facility. It is important that PSD review occur contemporaneously with the planned modification.

reduction in the available PSD increment will be taken into account at that time. *In re New York Power Auth.*, 1 E.A.D. 825, 826 (Adm'r 1983) (the time limits in section 52.21(r)(2) are to ensure that facilities "are constructed in accordance with reasonably current pollution control standards and on the basis of current information regarding the level of air pollution in the locality where the facility is to be located.").

We deny review of the issues pertaining to a potential expansion as petitioners have not demonstrated that AQMD's response to these concerns was clearly erroneous or otherwise warrants review.

6. *Adequacy of AQMD's Response to Comments*

Many of the petitioners express dissatisfaction with AQMD's attention to their concerns and responses to their comments. One petitioner claims that AQMD did not take the public's comments seriously because AQMD made only limited changes in the final permit. Petition No. 98–6.

The regulation governing response to comments in a PSD proceeding requires that the permitting authority "[b]riefly describe and respond to all significant comments." 40 C.F.R. § 124.17(a)(2). Significantly, the regulation does not require a permitting authority to make changes in the permit as part of this process. *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 583 (EAB 1998). Of course, a permitting authority may use public comments as a basis for changing the permit, but we do not judge the adequacy of the response to comments based on the number of changes made in the permit.

Nonetheless, we note that AQMD modified 31 of the 64 conditions in the draft permit. AQMD 98–6 Resp. at 1. Several of these changes were made as a direct result of public comments. *See*, e.g., RTC at 2, 4–6, 9, 12, 13, 18–22. We consider the adequacy of AQMD's responses to specific issues raised by petitioners in conjunction with our discussion of those issues in this decision. However, we deny review of the generalized challenge to AQMD's responsiveness based on the number of changes made to the permit.

C. *Non-PSD Issues*

Most of the remaining issues raised in the petitions for review fall outside of the Board's jurisdiction over PSD permit decisions. The Board's jurisdiction to review PSD permits extends to those issues directly relating to permit conditions that implement the federal PSD program. In

determining whether we have jurisdiction, the Board places considerable reliance on how the issue is framed in the petition for review, such as the basis upon which relief is being sought.

The Board does not have authority to review every environmental concern associated with this project. Rather, the Board is charged with ensuring that AQMD's PSD permit decision comports with the applicable requirements of the federal PSD program. Often, permitting authorities that issue PSD permit decisions pursuant to a delegation agreement with EPA include requirements in a permit under both federal and state law. In this case, AQMD's local rules are also a source for certain permit requirements. Including such provisions in a PSD permit is legitimate, it consolidates all relevant requirements in one document and obviates the need for separate federal, state, and local permits. However, "the Board will not assume jurisdiction over permit issues unrelated to the federal PSD program." *In re West Suburban Recycling and Energy Ctr., L.P.*, 6 E.A.D. 692, 704 (EAB 1996); *see also In re American Ref-Fuel Co.*, 2 E.A.D. 280, 281 (Adm'r 1986) (matters not related to federally delegated PSD authority are not reviewable under 40 C.F.R. § 124.19).

We refer to issues outside the Board's PSD authority as "non-PSD" issues. The term "non-PSD" is used as a matter of convenience for purposes of this decision, and refers to issues that are not explicit requirements of the PSD provisions of the Clean Air Act or EPA's implementing regulations and have not been otherwise linked to the federal PSD program in the context of this case.[54] For virtually all of these issues, there are other regulatory programs in place designed to address petitioners' concerns and protect the public health. In many cases, avenues of review are available for persons dissatisfied with a particular decision. We discuss each of the non-PSD issues that were preserved for review simply to explain why the issue is outside of the Board's jurisdiction over PSD appeals and to indicate, where appropriate, which other regulatory program covers the issue.

1. *Hazardous Air Pollutants and Unregulated Pollutants*

Not all air pollutants are covered by the federal PSD review requirements. For example, the PSD statutory provisions and regulations do not apply to hazardous air pollutants listed in CAA section 112(b). CAA § 112(b)(6), 42 U.S.C. § 7412(b)(6). *See In re Genesee Power Station*, 4 E.A.D. 832, 849 (EAB 1993) ("emissions of * * * toxic substances are exempt

[54] Although the issues identified as "non-PSD" issues in this decision are not subject to review in the permit appeals process, permit conditions associated with these issues nonetheless become federally enforceable permit terms upon final approval of the permit.

from PSD regulation, pursuant to the 1990 Amendments to the Clean Air Act."). Congress chose to control hazardous air pollutants under the independent requirements of section 112(b), and therefore exempted such pollutants from the PSD program. In addition, because PSD review otherwise applies only to pollutants subject to regulation under the CAA,[55] so-called "unregulated pollutants" are also not subject to PSD requirements.[56]

Petitioners raise several issues relating to hazardous air pollutants and/or unregulated pollutants. One petitioner objects to the Knauf permit because it does not provide for adequate monitoring of "toxic" air pollutants. Petition No. 98–9. Another petitioner believes that PM_{10} emissions should be analyzed to determine the composition and toxicity of emissions. Petition No. 98–16. The same petitioner claims that AQMD did not adequately assess odor impacts from the proposed facility. *Id*. A third petitioner seeks additional permit conditions relating to emissions of respirable glass fibers and requests that an ambient air analysis for glass fibers be conducted. Petition No. 98–5. We must deny review of each of these issues because control of hazardous and unregulated air pollutants is not an explicit requirement of the federal PSD program and petitioners have not shown that their concerns otherwise fall within the purview of the federal PSD program.[57]

Even though these issues are "non-PSD" issues as defined above, AQMD nonetheless provided responses to these types of concerns raised during the public comment period. For example, with regard to monitoring of hazardous air pollutants, AQMD pointed out that the permit contains several conditions requiring emissions monitoring and testing,

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[55] *See,* e.g., 40 C.F.R. § 52.21(i)(2) ("the requirements of paragraphs (j) through (r) of this section [PSD requirements] shall apply * * * with respect to each pollutant subject to regulation under the Act.").

[56] There is one exception to the general rule that hazardous air pollutants and unregulated pollutants are not covered by the PSD program. It is legitimate to consider unregulated pollutants as a collateral environmental impact in the context of the BACT determination. *See supra* Section II.B.1. If a technology has "an incidental effect of increasing or decreasing emissions of unregulated pollutants," consideration of that effect may be taken into account in selecting BACT for a facility. *Genesee Power,* 4 E.A.D. at 848; *see also In re North County Resource Recovery Assocs.,* 2 E.A.D. 229, 230 (Adm'r 1986). Petitioners' challenges regarding hazardous air pollutants and unregulated pollutants in this case do not claim error in the BACT determination on the basis of this exception.

[57] The petitioners seeking review of issues pertaining to toxic air pollutants and toxicity of emissions are raising issues that are subject to the section 112(b)(6) exemption for hazardous air pollutants. The issue of odor falls into the category of unregulated pollutants. *In re Texas Indus., Inc.,* 2 E.A.D. 277, 278 n.2 (Adm'r 1986). The issues pertaining to respirable fiberglass emissions also involve unregulated pollutants except to the extent that such emissions are regulated by the PM_{10} standards and emission limits.

including an initial emission test to quantify toxic pollutants such as formaldehyde and phenol. RTPH at 4; Permit ¶ 56. On the issue of toxicity of emissions, AQMD pointed out that a toxicological assessment of PM_{10} emissions was presented in an appendix to the Draft EIR. RTPH at 15. Odor impacts are addressed through a permit condition that expressly prohibits "odorous chemical releases" that create a public nuisance "beyond the plant property boundaries[.]" Permit ¶ 22.e. Finally, with regard to respirable fiberglass, AQMD notes that fiberglass particles are a component of PM_{10} emissions and will be controlled pursuant to the permit limits for PM_{10}. RTC at 7.

The respirable fiberglass emissions at issue in this case are an example of unregulated pollutants under the Clean Air Act. AQMD states that the average diameter of glass fibers from the proposed Knauf facility will be 3 to 4 micrometers. Smaller glass fibers (1 micrometer in diameter or less) are listed hazardous air pollutants.[58] CAA § 112(b)(1), 42 U.S.C. § 7412(b)(1). Although emissions of hazardous air pollutants are not subject to PSD review, they may be subject to regulation under the section 112(b) program. The glass fiber emissions expected from the proposed Knauf facility do not fall within either the PSD or the 112(b) program. Despite the unregulated status of these emissions, the Knauf permit contains a requirement that Knauf finance an ambient air monitoring program for respirable fiberglass particles. Permit ¶ 26. The monitoring program will be conducted by AQMD. *Id*. In addition, the permit requires PM_{10} emissions to be tested for glass fiber content. Permit ¶ 29. These two conditions are not requirements of the federal PSD program but will provide important information to AQMD and the public regarding fiberglass emissions from the facility.

2. *Use of Local Landfills for Waste Disposal*

Many of the petitions for review include objections to Knauf's plan to dispose of waste from plant operations at a local landfill. Petition Nos. 98–5, 98–6, 98–12, 98–13, 98–14, 98–16, 98–17. The Final EIR states that 8 tons of solid waste per day are destined for landfill disposal. The waste stream will be composed of off-specification fiberglass, off-specification raw materials, packaging and office wastes, and filter cake from the WEPs. Final EIR at 3–59.

Petitioners' concerns regarding the expected landfilling can be aggregated into two categories. First, petitioners are concerned about "toxic"

[58] Glass fibers are included in the category of "Fine mineral fibers" in CAA section 112(b)(1).

chemicals in Knauf's waste stream, and they question whether such materials can be safely disposed of at either of the two sanitary (i.e., nonhazardous) landfills that have been identified as candidates for receiving Knauf waste. This is a classic non-PSD issue. Disposal practices at landfills, including controls on what types of wastes may be handled at a particular landfill, are not governed by the Clean Air Act.[59] AQMD explained that landfill disposal issues are governed by state law and are administered by a state agency. RTPH at 5, 14, 16. Waste disposal issues relating to the proposed Knauf plant were analyzed during the course of the EIR process, and many of the concerns raised by petitioners are addressed in the Final EIR. *See* Final EIR 3–59 to 3–63. We will not review the adequacy of the specific responses in the Final EIR because such issues are beyond the scope of the PSD program and our review authority.

Second, some of the petitioners raise concerns about the potential for emissions from the landfill selected to receive Knauf wastes. Unlike basic disposal issues, landfill emissions may be an issue covered by the PSD program. Emissions from a landfill used by Knauf must be considered during the PSD review process if such emissions qualify as "secondary emissions" under the PSD regulations.[60] Two petitioners specifically allege that secondary emissions will result from disposal of Knauf's waste at a landfill. Petition Nos. 98–5, 98–6.

Secondary emissions are defined as:

> [E]missions which would occur as a result of the construction or operation of a major stationary source * * *, but do not come from the major stationary source * * * itself. Secondary emissions include emissions from any off-site support facility which would not be constructed or increase its emissions except as a result of the construction or operation of the major stationary source * * *.

40 C.F.R. § 52.21(b)(18). AQMD asserts, without explanation, that the landfills are not support facilities within the meaning of section 52.21(b)(18). AQMD 98–5 Resp. at 2. Knauf relies upon AQMD's determination on this issue. Knauf Resp. at 42. We do not know the basis for

[59] Hypothetically, waste issues might be legitimate subjects of PSD review if such issues were raised in the context of the BACT determination as collateral environmental impacts. *See supra* Section II.B.1 and note 56. We note, however, no such argument has been raised in this case.

[60] Secondary emissions are factored into the full impact analysis step of the air quality analysis. Such emissions are quantified for purposes of determining NAAQS and PSD increment compliance. *See* NSR Manual at C.25, C.34.

AQMD's argument, but we note that landfills used by major sources are not subject to a blanket exemption from the secondary emissions regulation. Therefore, it is possible that a landfill operation could constitute a support facility. Whether a landfill is likely to generate emissions that constitute secondary emissions depends on the particulars of the project under consideration.

In this case, petitioners believe that a substantial portion of the Knauf waste materials sent to a landfill will become airborne and create secondary emissions of respirable fiberglass and hazardous air pollutants.[61] *See*, e.g., Petition Nos. 98–5, 98–12. In essence, petitioners are arguing that landfill emissions will increase as a consequence of the Knauf plant, and therefore such emissions must be factored into the PSD review process. Knauf argues that emissions of fiberglass or chemicals in the fiberglass waste "are only possible if the waste material is handled inappropriately at the landfill." Knauf Resp. at 46.

To identify secondary emissions for purposes of PSD review, EPA guidance indicates that "secondary emissions must be specific, well-defined, quantifiable, and impact the same general area as the stationary source * * * undergoing review." NSR Manual at A.18; *see also* 54 Fed. Reg. 27,286, 27,289 (June 28, 1989).[62] Although it is possible that Knauf's waste materials could generate emissions at a landfill site, we see no evidence that such emissions would amount to a specific, well-defined, or quantifiable source. Petitioners have not supported their claims that a substantial fraction of the wastes would become airborne.[63] Such a result would indicate a poor landfilling operation. *See In re Genesee Power*

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[61] As discussed in the previous Section, respirable fiberglass and hazardous air pollutants are exempt or excluded from regulation pursuant to the PSD program. However, these substances may be components of PM_{10}, which is subject to PSD review. For purposes of analyzing petitioners' secondary emissions argument, we will treat petitioners' objection as an objection to the potential PM_{10} emissions from the landfill rather than the discrete components.

[62] The four criteria for identifying secondary emissions (i.e., specific, well-defined, quantifiable, and impacting the same general area as the source being permitted) were apparently inadvertently omitted from the regulatory definition of "secondary emissions" at 40 C.F.R. § 52.21(b)(18) when the definition was amended in 1982. *See* 47 Fed. Reg. 27,554, 27,561 (June 25, 1982). Although the omission has not yet been corrected, the criteria have been used in EPA's discussion of secondary emissions in various policy statements, including the NSR Manual and 1989 Federal Register preamble cited in the text. The four criteria also appear in the companion definition of "secondary emissions" at 40 C.F.R. § 51.166(b)(18).

[63] Petitioner 98-12 makes much of the tonnage reflected in the waste flow estimates to argue that more than 25 tons/year of hazardous air pollutants will become airborne. Reply

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Station, 4 E.A.D. 832, 864 (EAB 1993) (denying review of secondary emissions issue where petitioner did not show that waste handling at the particular facility under consideration presented a real possibility of secondary emissions).

More importantly, petitioners have not shown that potential emissions from either of the candidate landfills will impact the same general area as the proposed Knauf plant. This criterion requires that emissions from the primary source (i.e., the proposed fiberglass plant) and the alleged secondary source (i.e., a landfill) overlap. In assessing potential overlap, we start with the significant impact areas for the primary source. The significant PM_{10} impacts from the fiberglass plant are predicted to occur in the vicinity of the hill located approximately 2 kilometers (1.2 miles) west of the plant site. *See supra* Section II.B.2.b. The Final EIR states that the two candidate landfills are near Igo, California and Anderson, California, communities neighboring COSL, but several miles south of the proposed Knauf site. Petitioners have articulated concerns about air quality in the vicinity of the landfills, but have not alleged that potential emissions from the landfills will impact the hill west of the proposed site in COSL. Therefore, petitioners have not given us cause to believe that landfill emissions will impact the same general area as the Knauf plant. For purposes of PSD review, we find that petitioners have not satisfied their burden of showing that the waste materials to be landfilled constitute a source of secondary emissions.

In a related issue, two petitioners claim that ambient air monitoring should be conducted at the landfill before and after plant startup. Petition Nos. 98–5, 98–16. We must deny review of this item as a non-PSD issue for reasons similar to those articulated above.[64] The landfill to be used for disposal of wastes from the proposed Knauf plant has not been shown to constitute a source of secondary emissions. Thus, other PSD requirements, including ambient air monitoring and an air quality analysis do not apply to the landfill. In addition, to the extent that petitioners seek

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98–12. As noted in the text, that assertion is unsupported by the petitioner. Even if the waste stream includes "raw, toxic, uncooked, chemicals" as the petitioner states, such chemicals will not necessarily become air pollutants. In addition, the 25 ton/year value is a reference to EPA's hazardous air pollutant ("HAP") program under section 112 of the CAA. The HAP program addresses HAP emissions from all types of sources, including landfills. However, the HAP program under section 112 is entirely separate from PSD review, and its operation is outside the scope of the Board's jurisdiction. *See supra* Section II.C.1.

[64] Although this issue does not fall within the strictures of the PSD program, AQMD noted that air testing at a landfill could be ordered if the landfill is suspected of creating a public nuisance. RTPH at 16-17. In addition, as one petitioner points out, AQMD may regulate landfill emissions directly, under other regulatory authority. *See* Reply 98–12.

monitoring or control of hazardous air pollutants and/or unregulated pollutants, such matters are not requirements of the federal PSD program and petitioners have not established that the issues otherwise fall within the purview of the federal PSD program.

We deny review of all issues pertaining to waste disposal, emissions, and air monitoring at local landfills.

3. *PM_{10} Emission Offsets and Mitigation Measures*

AQMD's PSD permit decision requires Knauf to offset its PM_{10} emissions in accordance with the conditional use permit issued by COSL. Permit ¶ 21. The permit sets forth several PM_{10} mitigation options that may be used to satisfy the offset requirement. One of the mitigation options involves paving selected dirt roads within approximately 2 miles of the site. Permit ¶ 21.c. The particulars of the road paving plan and the PM_{10} mitigation options in general are the subject of objections from multiple petitioners. *See* Petition Nos. 98–3, 98–4, 98–6, 98–11, 98–16, 98–17.

Permit condition 21 is an example of a requirement that is based on state or local rules and is not a requirement of the federal PSD program. Emission offsets are not required in the PSD context. *See In re Multitrade Ltd. Partnership,* 4 E.A.D. 24, 27 (EAB 1992) (denying review of a petition objecting to a permit condition on offsets because the Clean Air Act and the PSD regulations do not require such a condition). Under the PSD program, air quality is primarily protected through the NAAQS and PSD increment analyses. If anticipated emissions from a proposed facility can demonstrate compliance with these air quality standards, there is no additional obligation to undertake mitigation measures or to obtain offsets.[65]

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[65] One petitioner claims that the PM_{10} mitigation requirements are insufficient because they will not prevent a violation of an air quality standard. Petition No. 98-16. We disagree with the petitioner as far as the federal NAAQS and PSD increments are concerned. As discussed *supra* Section II.B.2.b, the air quality analysis for the proposed Knauf facility fully demonstrates compliance with the applicable federal air quality standards. Compliance was demonstrated *without* taking into account the effect of PM_{10} mitigation. Additional analyses illustrated the effect of PM_{10} mitigation, although such analyses were not required for purposes of federal PSD review. *See* Mostardi-Platt letter at 4, 9, 13.

To the extent that the petitioner is referencing the state air quality standard for PM_{10}, he is correct in noting that even the PM_{10} reductions achieved through expected mitigation measures are not sufficient to prevent a violation of the state standard. Violations of the state standard are largely influenced by background PM_{10} levels that already exceed California's PM_{10} (24-hour) standard. *See* Permit App. at 33. The consequences of this situation must be addressed through state channels as we do not have authority to enforce state standards. *See supra* note 44.

The PM_{10} mitigation provisions in the PSD permit are derived from a former requirement of AQMD's local rules. At the time Knauf submitted its permit application, one of AQMD's rules required emission offsets for new sources with the potential to emit a criteria pollutant such as PM_{10} at a rate of more than 25 tons per year. AQMD Rule 2:1 § 302 (repealed June 24, 1997); *see* Permit App. at 23. Thus, the permit application indicates that Knauf will offset its excess PM_{10} emissions at a ratio of 1.2 to 1. Permit App. at 37. The amount of offsets will actually exceed the amount of predicted PM_{10} emissions from the facility.[66] This offset requirement was incorporated into the draft and final permit decisions even though the local rule had since been repealed.

The offset requirement and the mitigation options included in the PSD permit are not requirements of the federal PSD program. Neither have petitioners shown that these issues come within the purview of the federal PSD program. Therefore, we deny review of issues pertaining to the specific mitigation options, including the draft road paving plan.

4. *Political Atmosphere in Shasta County*

The issue raised most frequently by petitioners is that the PSD permit process was tainted by the political atmosphere in Shasta County.[67] Several petitioners are adamant that the AQMD did not fulfill its obligations as the permitting authority in an objective and unbiased manner. Petitioners believe that the AQMD was pressured to issue the Knauf permit by local politicians. Petitioners are also unhappy with the local politicians, whom they blame for lowering local air quality standards and for brokering a "done deal" with Knauf, prior to any significant public involvement. *See* Petition Nos. 98–4, 98–6, 98–9, 98–10, 98–15 through 98–18. Each of the petitioners present their own version of the local political scene and its impact on this project. We address just a couple of the recurring themes.

Petitioners believe that AQMD could not conduct an objective review of the permit application because AQMD's governing board is comprised of the same individuals who serve as the Shasta County Board of

[66] PM_{10} emissions from the proposed facility are not to exceed 191 tons/year. The planned PM_{10} offsets amount to 200 tons/year.

[67] By including petitioners' allegations regarding local politics among the "non-PSD" issues in this decision, we are not suggesting that issues relating to the integrity of the permit process are never reviewable by the Board. In this case, however, the specific complaints raised by the petitioners do not pertain to particular PSD requirements or determinations but involve challenges to certain political decisions per se.

Supervisors ("Supervisors"). The Supervisors were intimately involved in the effort to bring Knauf to Shasta County and offered the company a number of inducements to encourage Knauf to locate in COSL. Petitioners provide anecdotes of instances in which the Supervisors made statements in favor of the Knauf project or predicted certain outcomes of permitting processes such as the PSD review. *See*, e.g., Petition Nos. 98–15, 98–16, 98–18.

We do not doubt that the Supervisors acted as advocates for this project. Very often, business and industrial development in a particular area only occurs with facilitation and support from local politicians. Local politicians are ultimately accountable for their actions through the electoral process. AQMD's permit process is not necessarily tainted simply because local politicians who may have been working in support of the Knauf project also provide policy oversight as the AQMD board. There is no indication that any of the Supervisors were personally involved in the PSD review process. With the exception of specific areas where we have found deficiencies, the administrative record demonstrates that the AQMD fulfilled its obligations under the federal PSD regulations and the delegation agreement with EPA. The AQMD solicited and accepted public comment on a wide range of issues and responded to those comments by altering permit conditions and preparing written responses. Finally, one of the purposes of this appeal process is to ensure that permitting authorities with delegated PSD programs are implementing those programs in accordance with the CAA and PSD regulations. The Supervisors have no direct or indirect influence over us and we have independently considered each of the issues raised in the petitions for review. Therefore, we do not believe that the identity in membership of the Supervisors and AQMD's board is an issue that warrants our review.

Another common complaint from petitioners is that the Supervisors, sitting as the AQMD board, voted to eliminate a local AQMD rule requiring emission offsets.[68] Petition Nos. 98–4, 98–6, 98–10, 98–15, 98–16. The AQMD board made this decision pursuant to a state statute authorizing such action. Cal. Health & Safety Code § 40918.5 (Deering 1997) (referred to in the petitions as AB 3319). Of course we have no authority to review an action of the California legislature. In addition, we will not review the AQMD board's decision to amend its local regulations when the subject of the amendment is beyond the scope of the federal PSD program, as is the case with AQMD's offset provision. *See supra* Section II.C.3. Moreover, the AQMD board's action in eliminating the offset rule did not even affect the permit decision in this case because AQMD nonetheless included a permit condition calling for Knauf to provide PM_{10} offsets.

[68] For a discussion of AQMD's former offset rule, *see supra* Section II.C.3.

We deny review of petitioners' allegations regarding the impact of Shasta County politics on the permit review process because the issues raised do not pertain to requirements of the federal PSD program.

5. *Issues Pertaining to California Environmental Quality Act ("CEQA") Review Procedures*

Three petitioners raise issues that pertain to the CEQA review of the proposed Knauf project. CEQA is a state law, and its requirements are wholly separate from federal PSD review. One of the requirements under CEQA is preparation of an Environmental Impact Report ("EIR"). Petitioners claim that the EIR is flawed and is the subject of litigation.[69] Petition Nos. 98–4, 98–6, 98–16. In addition, petitioners contend that it was inappropriate to use a "statement of overriding consideration" to approve the Knauf project. Petition Nos. 98–4, 98–6. Both of these issues are related to the CEQA process rather than PSD review, and we have no authority over them. Therefore, we must deny review of them.[70]

6. *NEPA Review*

One petitioner calls for preparation of an environmental impact statement or environmental assessment pursuant to the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321–4370d. Petition No. 98–5. However, PSD permit decisions are exempt from the environmental impact statement requirement in NEPA. 40 C.F.R. § 124.9(b)(6); *In re Kawaihae Cogeneration Project,* 7 E.A.D. 107, 129 (EAB 1997); *EcoEléctrica,* 7 E.A.D. at 75 n.27 (exemption from NEPA supplied by the Energy Supply and Environmental Coordination Act of 1974, 15 U.S.C. § 793(c)(1)). The lack of a NEPA environmental impact statement in this case does not implicate any federal PSD requirements. Therefore, review is denied on this issue.

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[69] It is not clear that the EIR litigation mentioned by petitioners is still active. However, the status of this litigation is irrelevant to our decision not to review this issue. Final action on a PSD appeal is independent of resolution of any non-PSD issues (such as CEQA matters) that are awaiting determination in another forum. *See In re EcoEléctrica, L.P.,* 7 E.A.D. 56, 76 (EAB 1997). Our decision speaks only to the PSD requirements for this project. To the extent that other local, state, or federal requirements are at issue, these must be resolved independent of the PSD process.

[70] In several instances, AQMD referred to sections of the EIR in its response to comments documents and in its responses to the petitions for review. To the extent that AQMD has relied upon the EIR as support for its PSD decisions, we have considered those portions of the EIR cited by AQMD. However, we decline to undertake a wholesale review of the EIR as urged by petitioners.

7. *Opacity Limits*

The Knauf permit contains two limits on opacity of emissions. The opacity of the exhaust from the glass melting furnace may not exceed 5% for more than a three-minute period per hour. Permit ¶ 41. A similar condition limits the opacity of the exhaust from the main stack to 20%. Permit ¶ 47. Both conditions require an audible alarm in the plant control room if opacity exceeds the permit limits. *Id.*

One petitioner described these limits as allowing emission of "100% opacity smoke" for "three minutes every hour of every day of the year." Petition No. 98–13. The petitioner questioned the means for enforcing the limits. *Id.* The same concern was raised during the public comment period. AQMD noted that the opacity limits in the permit are enforceable under state and federal law. RTPH at 14. In addition, laws prohibiting public nuisances apply even if the opacity is within the permit limits. *Id.*

The petition for review expresses doubt as to whether a public nuisance remedy for obnoxious exhaust will be effective. This is an issue of enforcement and state law, both of which are beyond the scope of the Board's review authority. The Board can review specific permit conditions that might affect subsequent enforcement actions, such as monitoring or reporting requirements, but the petitioner has not challenged these conditions. EcoEléctrica, 7 E.A.D. at 70–71; *In re Federated Oil & Gas,* 6 E.A.D. 722, 730 (EAB 1997). We deny review of the issue related to enforcement of opacity limits because this issue is not a requirement of the federal PSD program and the petitioner has not shown that the issue otherwise falls within the purview of the federal PSD program.

8. *Chemicals in Proximity to Populations*

One petitioner urges our review of the proposed plant's plans for use and storage of chemicals in close proximity to civilian, student, and retired populations. Petition No. 98–17. As AQMD explained in responding to a similar comment, basic chemical safety issues are not governed by the PSD program, but must be addressed in emergency response plans to be submitted to local authorities. RTPH at 10. Issues of safe chemical handling are generally outside the scope of the PSD program unless raised in the context of the BACT determination as collateral environmental impacts. *See Kawaihae,* 7 E.A.D. at 117. Petitioner has not claimed that the proposed plant's chemical use and storage plans would impact the BACT determination for the facility. This issue is not a requirement of the federal PSD program and the petitioner has not shown that the issue otherwise falls within the purview of the federal PSD program. We must deny review.

D. *Petitioners That Lack Standing*

The regulations that govern appeals of permit decisions require that petitioners have standing to appeal. In order to achieve standing to appeal, a petitioner must have participated in the public review process either by filing written comments or participating in a public hearing. 40 C.F.R. § 124.19(a). If a petitioner did not participate in the public review process, he or she may only appeal issues pertaining to changes from the draft to the final permit. *Id.; In re Envotech, L.P.*, 6 E.A.D. 260, 266 (EAB 1996) (citing *In re Beckman Prod. Servs.*, 5 E.A.D. 10, 16 (EAB 1994)).

AQMD asserts that the petitioners who submitted Petition Nos. 98–14 and 98–17 do not meet the requirements for standing and that the Board should deny review of their petitions. AQMD 98–14 Resp. at 1; AQMD 98–17 Resp. at 1. It appears from our review of the administrative record materials that neither of these petitioners submitted written comments or participated in the public hearing. The petitioner filing Petition No. 98–14 does not contest the standing issue. The petitioner filing Petition No. 98–17 claims that he has standing because the issues he raises address subjects in the PSD permit that were "altered in some manner prior to * * * final release." Reply 98–17 at 1. However, the petitioner does not identify which changed permit conditions he is challenging on appeal.

The consequences of denying review on standing grounds are not particularly critical in this case. The issue raised in Petition No. 98–14 and most of the issues raised in Petition No. 98–17 were also raised by other petitioners whose standing is not in question. As a matter of thoroughness, we cited these two petitions for review along with others in our discussion of each of the common issues. We identified only four issues in Petition No. 98–17 that were not raised by other petitioners. Three of these issues do not involve any change between the draft and final permit.[71] We therefore deny review of those issues due to petitioner's failure to satisfy the standing requirement. The fourth issue arguably involved a change from the draft to the final permit, and we therefore addressed that issue in Section II.C.8.[72]

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[71] These three issues are: (1) petitioner's challenge to the permit emission limits in light of the PSD threshold; (2) challenge to the VISCREEN analysis; and (3) concern about noise impacts from trucks and trains servicing the plant.

[72] Petitioner's concern about the volume of chemicals in proximity to certain populations arguably relates to a change made in the final permit. The final permit authorizes an outdoor aqueous ammonia tank that was not included in the draft permit. In our effort to be generous in reading petitions filed by unrepresented parties, we find that that issue should not be dismissed for lack of standing.

E. *Environmental Justice*

One of the petitions for review raises the issue of environmental justice. Petition No. 98–8. During the public hearing, this petitioner requested that environmental justice be considered during the permitting process in accordance with Executive Order 12,898. AQMD Hearing Transcript at 23. The petitioner specifically asserted that COSL is a low-income area and claimed that environmental justice guidelines had been violated. *Id.* at 24. In the petition for review, petitioner provided statistics on average income levels for COSL and Shasta County. Petition No. 98–8.

The issue raised by the petitioner relates to the environmental justice mandate issued by the President of the United States to the federal agencies. Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 16, 1994) ("Executive Order"). The Executive Order requires federal agencies to identify and address, as appropriate "disproportionately high and adverse human health or environmental effects of [their] programs, policies, and activities on minority populations and low-income populations in the United States * * *." *Id.* § 1–101. The EPA issued an environmental justice strategy as required by the Executive Order in 1995. EPA's environmental justice strategy does not specifically address if or how the broad goals of the Executive Order are to be implemented in the context of a PSD permit process carried out by a delegated permitting authority such as AQMD.

AQMD, of course, is not a federal agency, and thus the Executive Order does not apply to AQMD directly. However, AQMD exercises delegated authority to administer and enforce the federal PSD program. As such, AQMD "stands in the shoes" of EPA for purposes of implementing the federal PSD program, and PSD permits issued by AQMD are considered federal permits. *See* 45 Fed. Reg. 33,290, 33,413 (May 19, 1980) ("For the purposes of part 124, a delegate * * * stands in the shoes of the Regional Administrator. Like the Regional Administrator, the delegate must follow the procedural requirements of Part 124. * * * A permit issued by a delegate is still an 'EPA-issued permit' * * *."). Clarification is needed regarding how the Executive Order should be implemented in the context of delegated PSD programs.

We may not need to solve that problem, however, for purposes of this case. Here, AQMD asserts that Region IX took the initial responsibility for making an environmental justice determination. In the response to comments, AQMD states that EPA Region IX reviewed environmental justice policies with respect to the proposed Knauf plant and did not find a

violation of those guidelines. RTPH at 10. AQMD also added a memorandum to the administrative record on this subject after issuing the final permit decision and after this petition for review was filed. The memorandum documents a prior consultation between AQMD and an employee of Region IX regarding environmental justice issues. Memorandum from R. Michael Kussow to Knauf Fiberglass File (June 3, 1998). The memorandum states, "[i]t was his [the Region IX employee's] conclusion after reviewing the project location and surrounding demographics that it was unlikely that an Environmental Justice issue applied." *Id*.

Unfortunately, there are no details regarding Region IX's determination in the administrative record. As such, we cannot judge the adequacy of the Region's analysis. *See In re EcoEléctrica, L.P.*, 7 E.A.D. 56, 67–68 (EAB 1997) (describing environmental justice analysis performed by Region in light of claim of low-income communities proximate to proposed facility). At a minimum, the petitioner's comment invoking the Executive Order deserves a more complete response than the cursory denial that is currently in the record. If an environmental justice issue is unlikely in the context of this proposed project, we need to know the basis for that conclusion. Therefore, we are including this issue as part of our remand order. AQMD should obtain the Region's environmental justice determination and make it available during the remand process.

III. *REMAND ORDER*

We hereby remand the permit decision for the proposed Knauf fiberglass manufacturing facility to AQMD for the following limited purposes:

> 1) *BACT Determination:* AQMD must provide adequate documentation of its BACT determination for the PM_{10} emissions from the proposed Knauf facility. The documentation should identify multiple control options and the sources of those options. A technical infeasibility analysis must be provided for any control option that is rejected as not available or applicable to this plant. The remaining options should be listed in order of stringency and AQMD should present any conclusions regarding collateral energy, environmental, and economic impacts of the most stringent option. The objective of this remand is to ensure that both the control technology selected, and the numerical PM_{10} emission limit for the proposed Knauf plant, are based on a complete review of relevant control technologies.

2) *Environmental Justice:* AQMD should obtain documentation of the environmental justice analysis conducted by EPA Region IX and include it in the administrative record for this permit decision.

The results of the analyses described in items 1) and 2) must be made available for public comment. If as a result of these supplemental analyses AQMD proposes to change any permit conditions, AQMD must revise the permit and provide a justification for the revised conditions.

IV. *CONCLUSION*

The PSD permit for the proposed Knauf fiberglass manufacturing facility in the City of Shasta Lake, California, is remanded with respect to the following issues: 1) the completeness of the BACT determination for PM_{10}; and 2) environmental justice.[73] Review is denied as to all other issues. AQMD is directed to reopen the permit proceedings for the limited purposes identified in the Remand Order section of this decision. Any party who participates in the remand process may file an appeal with the Board pursuant to 40 C.F.R. § 124.19. The subject matter of any such appeal must be limited to the issues identified in the remand order.

So ordered.

[73] Although 40 C.F.R. § 124.19(c) contemplates that additional briefing typically will be submitted upon a grant of review, a direct remand without additional submissions is appropriate where, as here, it does not appear as though further briefs on appeal would shed light on the issues to be addressed on remand.