IN RE PEABODY WESTERN COAL COMPANY

CAA Appeal No. 04-01

ORDER DENYING REVIEW

Decided February 18, 2005

Syllabus

On July 1, 2004, Peabody Western Coal Company ("Peabody") filed a petition with the Environmental Appeals Board ("Board") requesting review of a May 21, 2004 U.S. Environmental Protection Agency ("EPA") permit decision ("Permit"), issued by EPA Region IX under 40 C.F.R. Part 71, which implements Title V of the Clean Air Act. The Permit covered certain coal preparation operations at Peabody's Kayenta and Black Mesa surface coal mines (collectively the "Black Mesa Complex" or "Facility") located on Hopi and Navajo Nation tribal lands. The Permit incorporated opacity requirements established by the New Source Performance Standards ("NSPS") for coal preparation plants, as well as related monitoring and recordkeeping requirements. The Permit did not include a potential to emit ("PTE") limit to officially restrict the Facility's capacity to emit particulate matter ("PM"), as Peabody had requested.

Peabody argued in its Petition that Region IX had clearly erred in two respects. First, Peabody claimed that Region IX impermissibly denied Peabody's request for a PTE limit. Specifically, Peabody claimed that Region IX had not adequately justified its decision not to establish a PTE limit for the Black Mesa Complex, and that this decision was contrary to historical practice since States had established such limits in comparable Title V permitting decisions under 40 C.F.R. Part 70. Second, Peabody argued that the monitoring, recordkeeping, and reporting requirements of the Permit were unreasonably burdensome, and therefore impermissible. Specifically, Peabody claimed that the Permit provisions requiring daily visible emission monitoring survey ("VEMS") and periodic Method 9 opacity observations were unduly burdensome and inconsistent with the monitoring requirements that EPA had included in other similar permits. Additionally, Peabody argued that the requirement for weekly inspection of the water sprays used to control opacity, and the associated corrective action requirements, exceeded EPA's authority under Title V.

Held: The Board denies review as to each of the issues in the Petition. First, the Board finds that Region IX's decision not to establish a PTE limit for the Facility was, at its core, a technical determination. In light of the considerable deference that the Board typically affords the permit issuer on questions of technical judgment, the Board concludes that the Region adequately explained the basis for its decision, and that the Region's rationale was reasonable based on the information in the administrative record. Among other things, because of the Facility's size, and Peabody's reliance on unverified emission factors and assumed control efficiencies for establishing and demonstrating compliance with its proposed PTE limit, Region IX's decision not to include a PTE limit in Peabody's permit was not clearly erroneous on technical grounds.

Additionally, the Board finds that Peabody failed to demonstrate adequately that the State Title V permits it cited as precedent for its proposed PTE limit involved facilities that were truly similar to the Black Mesa Complex, or that these State permits relied on emission factors and estimated control efficiencies in the same manner as did the approach that Peabody proposed in this case. Absent a clear demonstration by Peabody that the State permitting decisions are sufficiently similar to serve as useful precedent here, and given Region IX's facially reasonable technical assessment that a PTE limit was inappropriate for the Black Mesa Complex based on site-specific factors, the Board concludes that it will not substitute its judgment for the Region's on this technical issue. Accordingly, the Board denies review of Region IX's decision not to establish a PTE limit.

The Board concludes also that Peabody failed to demonstrate that Region IX's inclusion in the Permit of daily VEMS and periodic Method 9 opacity observation requirements was clearly erroneous. In this regard, the Board finds that Peabody did not provide an adequate explanation of why it believed the monitoring requirements to be unduly burdensome. Nor did Peabody provide any meaningful discussion of the similarities or difference between the Black Mesa Complex and the facilities that it relied upon as precedent for proposing less stringent monitoring requirements. The Board finds that the record provides adequate support for Region IX's conclusion that Peabody's proposed alternative monitoring requirements were inadequate to ensure compliance given the Facility's size and relatively unreliable emission controls. Thus, absent any specific factual or technical analysis demonstrating that the Region's monitoring and recordkeeping provisions were unreasonable, and given Region IX's apparently rational consideration of relevant factors, the Board concludes that Peabody has failed to carry its burden of demonstrating that the Region's exercise of its technical judgment in this regard was clearly erroneous.

Finally, the Board finds that Peabody failed to address Region IX's response to Peabody's comments on the draft permit regarding EPA's authority to require monitoring and repair of water sprays at the Black Mesa Complex. In general, petitioners may not simply repeat objections made during the comment period, but rather must demonstrate why the permitting authority's response to those comments warrants review. Because Peabody did not address the Region's response to Peabody's earlier comments on this issue, the Board denies review of the Permit on this basis.

Before Environmental Appeals Judges Edward E. Reich and Kathie A. Stein.

Opinion of the Board by Judge Stein:

On May 21, 2004, Region IX of the United States Environmental Protection Agency ("EPA" or "Agency") issued a permit to the Peabody Western Coal Company ("Peabody") pursuant to Title V of the Clean Air Act ("CAA" or "Act"), 42 U.S.C. § 7661 et seq. ("Title V"), for operation of Peabody's Black Mesa and Kayenta coal mines. The Title V permit incorporates opacity limits and other requirements associated with the New Source Performance Standards ("NSPS") for coal preparation plants (40 C.F.R. pt. 60, subpt. Y), along with related monitoring, recordkeeping, and reporting requirements. On July 1, 2004, Peabody filed a petition for review ("Petition") with the Environmental Appeals Board ("EAB" or "Board") challenging certain elements of Region IX's permit decision. Peabody argues that the Region's decision was clearly erroneous in two respects. First, Peabody claims that Region IX impermissibly declined to issue Peabody a poten-

tial to emit ("PTE") limit for the two mines.[1] Second, Peabody claims that the monitoring, recordkeeping, and reporting requirements in the Title V permit are unreasonably burdensome and therefore impermissible.

For the reasons discussed below, we deny review as to each of the issues raised in Peabody's Petition.

I. *BACKGROUND*

A. *Factual and Procedural Background*

Peabody operates the Kayenta and Black Mesa mines, two contiguous surface coal mines which are treated as a single stationary source for purposes of the permitting program under Title V of the CAA.[2] The mines are located on the Navajo Nation and Hopi Tribe reservations just west of Kayenta, Arizona, and process more than twelve million tons of coal per year.[3] *See* Petition at 3; Response at 6; Respondent's Exhibit ("R Ex") 2 (U.S. Dept. of Energy, Energy Information Admin., Major U.S. Coal Mines (2000)) at tbl. 14. The Facility includes, in addition to the mines themselves, coal preparation operations where the extracted coal is crushed and screened to prepare it for use as fuel. *See* Title V Permit Application (Oct. 15, 1999) ("1999 Permit Application"), Transmittal Letter at 1-2; Response at 6. Coal processing operations at the Facility that were constructed, reconstructed, or modified subsequent to the effective date of the NSPS (October 10, 1974) are subject to the NSPS for coal preparation plants. *See* 40 C.F.R. §§ 60.251(b), (g), (h), (i), 60.252(c);[4] *see also* Title V Permit Application (February 1, 2002) ("Final Permit Application"), Transmittal Letter at 3 (explaining that because of modifications to certain of the Facility's coal processing units these units are subject to the NSPS for coal preparation plants).[5]

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[1] We discuss PTE and PTE limits in detail in Part I.B.2 below.

[2] EPA's regulations define a "stationary source" as "any building, structure, facility, or installation that emits or may emit any regulated air pollutant or any [hazardous air] pollutant listed under section 112(b) of the Act." 40 C.F.R. § 71.2.

[3] The Black Mesa and Kayenta mines have been operating since 1970 and 1973, respectively. *See* Response to Peabody Western Coal Company's Petition for Review ("Response") at 6. For ease of reference, we will refer to the coal processing operations at the two mines collectively as the "Black Mesa Complex" or the "Facility."

[4] The NSPS defines a "coal preparation plant" as "any facility (excluding underground mining operations) which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying." 40 C.F.R. § 60.251(a).

[5] The relevant EPA regulations define "modification" as "any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to

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The Facility is subject to Title V, pursuant to 40 C.F.R. § 71.3(a), because the Facility has the potential to emit particulate matter with a diameter of ten microns or less ("PM_{10}") in quantities exceeding 100 tons per year ("tpy") — making it a "major source" under 40 C.F.R. § 71.2. Part 71 requires that sources subject to Title V must submit Title V permit applications. 40 C.F.R. § 71.5. Peabody submitted an application for a Title V permit on October 15, 1999, for operation of its coal preparation plant.[6] *See generally* 1999 Permit Application. This was followed by a revised application submitted on June 13, 2000 ("2000 Permit Application"), and the Final Permit Application on February 1, 2002.

On September 23, 2003, Region IX issued a CAA Title V operating permit for the Facility ("2003 Permit"). On October 21, 2003, Region IX informed Peabody that it intended to reopen the permit to address certain issues that Peabody had raised with respect to the 2003 Permit. *See* R Ex 1 (Certified List of Documents Comprising the Record ("Cert. Index")), item III.B (Letter from Region IX to Peabody extending permit effective date and appeal deadline); *see also* Petitioner's Exhibit ("P Ex") D (Region IX's Supplemental Statement of Basis ("Supp. SOB")) at 2. The Region issued a final Title V operating permit on May 21, 2004 ("Final Permit"). The Final Permit incorporates the opacity standards established by the NSPS for coal preparation plants. *See* 40 C.F.R. pt. 60, subpt. Y. The NSPS establishes a 20% opacity limit for coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems. The NSPS opacity limit relies upon six-minute Method 9 testing.[7] *See* 40 C.F.R. §§ 60.254(c), 60.11, app. A; *see also* Final Permit at 5. As relevant to this Petition, the Final Permit also includes the following specific monitoring and recordkeeping requirements:

- Peabody must conduct a daily visual emission monitoring survey ("VEMS") of each crusher, screen, and transfer point;

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which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted." 40 C.F.R. § 60.2.

[6] Because the Facility began operation before the establishment of any CAA permit program, it was not required to obtain preconstruction air quality permits (such as a Prevention of Significant Deterioration ("PSD") permit under CAA § 165, 42 U.S.C. § 7475). *See* Response at 8 n.8.

[7] Method 9 is an official EPA test method for making visual determinations of the opacity of emissions from stationary sources. *See* 40 C.F.R. pt. 60, app. A-4, Meth. 9. A six-minute Method 9 test quantifies the average opacity of emissions over a period of approximately six minutes. *Id.*

- When a VEMS detects opacity of 10% or greater, Peabody must conduct a six-minute Method 9 observation within 24 hours, and record the results;[8]

- Peabody must conduct a Method 9 observation of each emission point subject to the opacity standard at least once per month;

- Peabody must conduct weekly inspections of all water sprays associated with emission points subject to the opacity standard, and take action to correct malfunctioning sprays within 24 hours.[9]

Final Permit at 6-7. These requirements apply only to those emission points at Peabody's Facility that are part of the coal preparation operations.[10] *See id*. at 5, tbl. 1 (listing nineteen individual emission units subject to the NSPS).

The Final Permit includes generally applicable recordkeeping provisions that require documentation of: the date, place, and time of sampling or measurement; the date(s) analyses were performed; the company or entity that performed the analyses; the analytical techniques or methods used; the results of such analyses; and the operating conditions that exist at the time of sampling or measurement. *Id*. at 10. The Final Permit establishes a five-year record retention requirement running from the date of monitoring. *Id.* Peabody must report all monitoring results semiannually, and monitoring reports must contain certain specified information. *Id.* at 11. Peabody must also promptly report any "deviations" — a term that is defined in the Final Permit. *Id.* at 12.

During the permit proceedings below, but well after it had submitted its Final Permit Application, Peabody requested that Region IX include a provision in the permit limiting the Facility's potential to emit PM_{10}.[11] *See, e.g.*, R Ex 10 (Letter from Brian P. Dunfee, Peabody Group, to Steve Branoff, Region IX (May

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[8] However, "[i]f one or more NSPS affected facilities is housed within a single structure, [Peabody] shall observe the opacity at each opening where gasses vent to the atmosphere." Final Permit at 6. Peabody must make all VEMS and Method 9 observations while equipment is operating. *Id*.

[9] Peabody must also keep records of its water spray inspections, any malfunctions, and any repairs it conducts. Final Permit at 7.

[10] Certain inaccessible operations (i.e., underground coal transfer points), as well as the sample system crushers and associated equipment, are excluded from the VEMS and routine Method 9 monitoring requirements. *See* Final Permit at 6; R Ex 22 (Region IX's Response to Comments (Sept. 23, 2004) ("RTC")) at 4.

[11] As discussed in more detail in Part I.B.2, a PTE limit may allow a facility to escape subsequent regulation. *See generally* R Ex 13 (Memorandum from John S. Seitz, Director, EPA Office of Air Quality Planning and Standards, to EPA Regional Air Division Directors: Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act) ("Options for Limiting PTE") at 5. In this case, Peabody's stated objective was to escape possible future regulation under the PSD program. *See* Peabody's May 12, 2002 Letter at 1.

12, 2002) ("Peabody's May 12, 2002 Letter")) at 1. Peabody also requested that Region IX modify the monitoring and recordkeeping requirements to make them less stringent. *See* R Ex 27 (Letter from Brian P. Dunfee, Peabody Group, to Geraldo C. Rios, Region IX (August 21, 2002) ("August 21, 2002 Comments")) at 2-4. Region IX declined to include either a PTE limit or Peabody's suggested alternative monitoring and recordkeeping provisions in the Final Permit. *See* RTC at 4-6, 10.

Peabody filed a timely Petition for Review with the Board on July 1, 2004, challenging Region IX's permit decision on two grounds. First, Peabody claims that Region IX impermissibly denied Peabody's request for a PTE limit. Petition at 1. Second, Peabody argues that the monitoring, recordkeeping, and reporting requirements of the Final Permit are unreasonably burdensome. *Id.*

B. *Statutory and Regulatory Background*

1. *Title V of the CAA*

In general, Title V of the CAA requires creation and implementation of an operating permit program for major sources of air pollutants.[12] This section of the Act, however, does not itself establish substantive emission reduction requirements. That is, Title V contemplates a permit program that incorporates and ensures compliance with the substantive emission limitations established under other provisions of the Act, but that does not independently establish its own emission standards.[13] *See Ohio Pub. Interest Research Group, Inc. v. Whitman*, 386 F.3d 792, 794 (6th Cir. 2004) ("Title V does not impose new obligations; rather, it consolidates pre-existing requirements into a single, comprehensive document for each source, which requires monitoring, record-keeping, and reporting of the source's compliance with the Act." (citing 42 U.S.C. § 7661c(a), (c); 40 C.F.R. § 70.6(a)(3), (c)(1))). However, where the applicable underlying standard does not include "periodic" monitoring, Title V permitting authorities generally may impose monitoring and recordkeeping requirements as necessary to assure a

[12] For purposes of Title V, "major source" means any stationary source (or any group of stationary sources located within a contiguous area and under common control) that is a major source under CAA § 112 of the Act (the hazardous air pollutant provisions), a major stationary source as defined in CAA § 302 of the Act (the CAA general definitions), or a major stationary source under part D of title I of the Act (criteria air pollutant provisions). CAA § 501(2), 42 U.S.C. § 7661(2); 40 C.F.R. § 71.2.

[13] The Title V program targets stationary sources of air pollution emissions, and Title V permits may incorporate, for example, NSPS, as well as standards established under the PSD program (CAA § 165), and the National Emission Standards for Hazardous Air Pollutants ("NESHAP") program (CAA § 112).

facility's compliance with applicable requirements.[14] *See* 40 C.F.R. § 71.6(a)(3)(i)(B) ("Each permit shall contain * * * periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit."); Part 70 Operating Permit Program, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992) ("Part 70 Rulemaking"); *see also Appalachian Power Co. v. EPA*, 208 F.3d 1015, 1019, 1028 (D.C. Cir. 2000) (addressing whether EPA guidance appropriately could require that permitting authorities include additional "enhanced" monitoring even where the underlying standard already included periodic monitoring).

As a general rule, the CAA delegates responsibility for the administration and enforcement of Title V to the States, and requires that EPA promulgate regulations that set minimum standards for State Title V operating permit programs. *See* CAA § 502(b), 42 U.S.C. § 7661a(b).[15] EPA's regulations must include the elements set forth in the Act.[16] *Id*. States are required to adopt permit programs under State or local law (or interstate compact) consistent with EPA's Title V regulations, and submit such programs for EPA approval. *See* CAA § 502(d), 42 U.S.C. § 7661a(d). If any State fails to submit an approvable Title V permit program, or if the State does not adequately administer or enforce its approved program, EPA must promulgate, administer, and enforce a federal Title V program within the State. CAA § 502(d)(3), 42 U.S.C. § 7661a(d)(3). In 1996, EPA promulgated a federal Title V program applicable in any State without an approvable Title V program. *See* Part 71 Operating Permit Program, 61 Fed. Reg. 34,202 (July 1, 1996). These regulations are codified at 40 C.F.R. pt. 71 ("Part 71").

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[14] "Applicable requirement" is a term of art in the Title V program that, in general, refers to any substantive requirement that applies to an emissions source under any CAA regulatory provision. *See* 40 C.F.R. § 71.2.

[15] The EPA promulgated requirements governing State Title V programs in 1992. *See* Part 70 Rulemaking, 57 Fed. Reg. 32,250 (July 21, 1992). These regulations are codified at 40 C.F.R. pt. 70 ("Part 70"). In connection with litigation over these rules EPA proposed revisions to the Part 70 regulations on August 29, 1994 (59 Fed. Reg. 44,460), which, to date, have not been finalized.

[16] These elements include: requirements addressing permit applications; monitoring and reporting requirements; fee requirements; requirements for adequate personnel and funding to administer the program; a requirement that State permitting authorities have adequate legal authority to effectively administer and enforce Title V programs; procedural requirements for permit review, public notice, and final approval; procedures to prevent unreasonable delay in permit actions; procedures to make permit-related material publicly available; a requirement for permits to incorporate new applicable requirements in a timely manner; and provisions allowing certain changes at a facility without permit revision. CAA § 502(b), 42 U.S.C. § 7661a(b).

Section 301(d) of the Act allows EPA to treat Indian Tribes in a manner similar to States under certain circumstances.[17] In general, however, EPA does not require that Indian Tribes develop Title V programs. As EPA has explained:

> The EPA expects that most Tribes will not develop title V operating permit programs, in part due to the resources required to develop such a program. Within Indian Country, EPA believes it is generally appropriate that EPA promulgate, administer, and enforce a part 71 Federal operating permits program for stationary sources until Tribes receive approval to administer their own operating permits programs.

Federal Operating Permits Program, 64 Fed. Reg. 8247, 8248-49 (Feb. 19, 1999);[18] *see also* Indian Tribes: Air Quality Planning and Management, 63 Fed. Reg. 7253 (Feb. 12, 1998) ("Tribal Authority Rule").

In any area where the federal Title V program applies, covered major sources of air pollutants must submit Title V permit applications directly to the appropriate EPA Regional office for approval. 40 C.F.R. § 71.3(e)(3). In accordance with the Part 71 regulations, such applications must provide for compliance with all applicable requirements. 40 C.F.R. §§ 71.1(b), 71.6(a)(1). In general, after reviewing a Title V permit application, and requesting modifications as necessary, EPA issues a draft permit for public comment followed by a final Title V permit for the source.

In this case, because the Facility is located within the borders of the Navajo Nation and Hopi Tribe reservations, and because neither Tribe has obtained approval to administer its own Title V program, Region IX issued Peabody's Final Permit under the authority of Part 71. Peabody has petitioned the Board for review of the Region's permitting decision.

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[17] CAA § 301(d) reads in pertinent part: "Subject to the provisions of paragraph (2), the Administrator * * * is authorized to treat Indian tribes as States under this Act * * * ." CAA § 301(d), 42 U.S.C. § 7601(d). The second paragraph of § 301(d) enumerates certain limitations on EPA's authority in this regard; however, those limitations are not germane to our analysis here. *See* CAA § 301(d)(2), 42 U.S.C. § 7601(d)(2).

[18] This rulemaking promulgated revisions to the Part 71 regulations that were intended to establish EPA's policy for administering Title V programs in Indian Country. These revisions were challenged in the D.C. Circuit, which partially vacated and remanded the rulemaking. *See Mich. Dept. of Envtl. Quality v. EPA*, 268 F.3d 1075 (D.C. Cir. 2001). The narrow ruling of the court in that case, relating to EPA's jurisdiction over disputed lands, does not affect our analysis here. *See id*. at 1088-89.

2. *Potential to Emit*

To provide additional context for our discussion of the Petition, it is useful at this juncture to provide some background regarding the concept of PTE, and the role of PTE limits in the overall CAA regulatory framework. In general, PTE has a statutory nexus which relates to EPA's need to identify which sources qualify as "major sources" subject to regulation under the Act. *See, e.g.*, CAA § 165(a), 42 U.S.C. § 7475(a) (requiring new source review ("NSR") or PSD permits for any "major emitting facility on which construction is commenced after the date of the enactment of this part"); 40 C.F.R. § 52.21(b)(1)(i) (defining "major stationary source" for PSD purposes in part as "any stationary source which emits, *or has the potential to emit*, 250 tons per year or more" of a regulated pollutant) (emphasis added). Thus, PTE is a technical determination that "is jurisdictional in nature." *Ala. Power Co. v. Costle*, 636 F.3d 323, 352 (D.C. Cir. 1979).

At its core, potential to emit relates to a source's inherent capacity to emit air pollutants. That is, PTE reflects the maximum capacity of a source to emit any given air pollutant, based on the source's physical design and operational limitations. *See* 40 C.F.R. § 70.2;[19] R Ex 21 (Region IX's Statement of Basis (Sept. 23, 2003)) ("SOB") at 4. Given the relatively broad scope of PTE, a source's PTE may be significantly higher than its typical actual emissions.[20] *See* RTC at 10. How-

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[19] The PSD regulations define PTE as:

> [T]he maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit a pollutant including air pollution control equipment and restriction on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

40 C.F.R. § 52.21(4). While the federal enforceability element of the "potential to emit" definitions in EPA's PSD regulations and EPA's regulations under § 112 of the Act was successfully challenged, those regulatory definitions still serve as valuable reference points. *See Nat'l Mining Ass's. v. EPA*, 59 F.3d 1351, 1361-65 (July 21, 1995)(hereinafter "*National Mining*"*); Chem. Mfr. Ass'n. v. EPA*, No. 89-1514 (D.C. Cir., filed Sept. 15, 1995) 1995 U.S. App. LEXIS 31475. *See also* R Ex 14 (Policy Memorandum from John S. Seitz, Director, EPA Office of Air Quality Planning and Standards: Release of Interim Policy on Federal Enforceabilty of Limitations on Potential to Emit (Jan. 22, 1996)) ("Interim Policy Memorandum") (discussing the practical impact of *National Mining*).

[20] EPA guidance generally discusses the meaning of "maximum capacity." *See* Options for Limiting PTE at 8. Typically, however, "an emissions unit's actual emissions [are] less than its PTE because the unit does not actually operate at maximum production rate for an entire year." Approval of Implementation Plans; Texas, 65 Fed. Reg. 2,560, 2,567 (Proposed Rule, Jan. 18, 2000); *see also* Approval and Promulgation of Air Quality Implementation Plans; Connecticut, 68 Fed. Reg. 2,722, 2,725 (Jan. 21, 2003) ("Absent an inherent physical or operational restriction [or other enforceable restriction], EPA calculates PTE assuming the source operating full time * * * at its maximum emission rate.").

ever, in identifying a source's PTE, the Agency must consider whether existing restrictions on emissions capacity are legally and practically enforceable. *See National Mining*, 59 F.3d at 1362-62 (discussing the contours of potential to emit); *Alabama Power*, 636 F.3d at 352-55 (rejecting EPA's interpretation of PTE as worst case uncontrolled emissions); *see generally* Interim Policy Memorandum. In sum, therefore, PTE reflects a source's maximum emissions capacity considering the application of any emission control equipment, or other capacity-limiting restrictions, that effectively and enforceably limit emissions capacity. *See* Part 71 Rulemaking, 61 Fed. Reg. 34,202, 34,212 (July 1, 1996); *see generally* Interim Policy Memorandum.

In many cases, a source may seek to limit its PTE, if possible, to avoid potentially more burdensome regulation in the future. In order to accomplish this, a facility may ask the permitting authority to impose enforceable limits on the source's capacity to emit. Title V permits (and other permits as well) may function as vehicles for establishing such PTE limits, potentially allowing a source to avoid more burdensome permitting requirements for "major sources" by instead qualifying as a "synthetic minor" source for purposes of some other regulatory program.[21] *See generally* Options for Limiting PTE at 5.[22] For example, the PSD program establishes certain permitting requirements for construction or modification of "major sources" of air pollutants. *See generally* 40 C.F.R. § 52.21. As relevant in this case, the PSD program includes a provision defining a major source as any stationary source which emits, or has the potential to emit, 250 tons per year or more of any pollutant regulated under the CAA's NSR requirements.[23] *Id*. § 52.21(b)(1). However, if a source accepts limitations through a Title V permit program that restrict the source's capacity to emit air pollutants to a level below the PSD major source threshold, that source will be a synthetic minor source under the PSD program and will not be subject to the PSD permitting requirements unless future facility modifications increase emission capacity enough

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[21] EPA guidance defines the term "synthetic minor" as "air pollution sources whose maximum capacity to emit air pollution under their physical and operational design is large enough to exceed the major source threshold but [is] limited by an enforceable emissions restriction that prevents this physical potential from being realized." R Ex 23 (Memorandum from John S. Seitz, Director, EPA Office of Air Quality Planning and Standards: Potential to Emit Transition Policy for Part 71 Implementation in Indian Country (March 7, 1999)) ("Part 71 Transition Policy") at 2 n.2.

[22] Again, subsequent court cases potentially affect the applicability of the federal enforceability requirement for PTE limits. *See supra* note 19; *see generally* Interim Policy Memorandum. EPA guidance indicates that in certain circumstances (e.g., for PSD) language in EPA's regulations or guidance materials regarding federal enforceability "should now be read to mean federally enforceable or legally and practically enforceable by a state or local air pollution agency." Interim Policy Memorandum at 3 (internal quotation marks omitted).

[23] EPA's regulations define "regulated NSR pollutant" at 40 C.F.R. § 52.21(b)(50).

to exceed the PSD major source threshold.[24]

In order to be cognizable as a PTE limit, however, a capacity restriction must meet certain minimum criteria. Specifically, it must be practically enforceable, which EPA guidance has interpreted to mean "that the permit's provisions must specify[:] (1) a technically-accurate limitation and the portions of the source subject to the limitation; (2) the time period for the limitation (hourly, daily, monthly, and annual limits such as rolling annual limits); and (3) the method to determine compliance including appropriate monitoring, recordkeeping, and reporting." Options for Limiting PTE at 6.

In this case, Peabody requested that Region IX issue a PTE limit for the Black Mesa Complex, in connection with issuance of its Part 71 permit, restricting the Facility's capacity to emit PM_{10}. *See* Peabody's May 12, 2002 Letter at 1. Peabody's stated objective was to establish the Facility as a synthetic minor source for purposes of PSD.[25] *Id.*

II. *DISCUSSION*

A. *Standard of Review*

In general, the Board will grant petitions for review only if it appears from the petition that the permitting authority's decision involved a clearly erroneous finding of fact or conclusion of law, or that the decision involves an important policy consideration which the Board, in its discretion, should review. *See* 40 C.F.R. § 71.11(l)(1); *see In re Teck Cominco Alaska Inc.*, 11 E.A.D. 457, 472 (EAB 2004) (applying similar language under 40 C.F.R. § 124.19(a)); *In re City*

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[24] In this case, because the Facility was constructed prior to the effective date of the PSD program, it was not required to apply for a PSD permit initially. However, if in the future the Facility were to undertake a major modification, as defined by the PSD regulations (40 C.F.R. § 52.21(b)(2)), it would be required first to obtain a PSD permit, unless, at that time, it had in place a PTE limit making the Facility a synthetic minor source for purposes of the PSD program. *See* Response at 8 n.9; 40 C.F.R. § 52.21(a)(2), (r)(1).

[25] According to statements in the record, apparently Peabody believed that the Facility's PTE limit would have restricted PM_{10} emissions to no more than 185 tpy. *See* Final Permit Application, Form PTE. The major source threshold for the Facility under the PSD program is 250 tpy. See 40 C.F.R. § 52.21(b)(1)(i). However, Region IX disputes whether the requested limit would have the intended effect. *See* Response at 8, n.10. According to the Region, total suspended particulate ("TSP"), and not just PM_{10}, must be counted for purposes of determining major source status under the PSD program. *Id.* (citing 40 C.F.R. § 52.21 (definition of "regulated NSR pollutant")). Thus, because TSP is typically about twice the level of PM_{10} alone, Region IX believes that Peabody has failed to demonstrate that the Facility would qualify as a synthetic minor under the PSD program even with the PTE limit it requests.

of Moscow, 10 E.A.D. 135, 140-41 (EAB 2001) (same).[26] It is clear from the history of the applicable regulatory language that the Administrator intended for the Board to exercise its broad powers of review "only sparingly," and that "most permit conditions should be finally determined at the Regional level." 45 Fed. Reg. 33,290, 33,412 (May 19, 1980) (preamble to rulemaking that established 40 C.F.R. pt. 124); *see Teck Cominco*, 11 E.A.D. at 472; *In re Rohm & Hass Co.*, 9 E.A.D. 499, 504 (EAB 2000). Moreover, the burden of demonstrating that review is warranted rests squarely with the petitioner. 40 C.F.R. § 71.11(l)(1); *see Rohm & Hass*, 9 E.A.D. at 504; *In re Wash. Aqueduct Water Supply Sys.*, 11 E.A.D. 565, 573 (EAB 2004).

To obtain review, a petitioner must clearly and specifically identify the basis for its objection(s) to the permit, and explain why, in light of the permit issuer's rationale, the permit is clearly erroneous or otherwise deserving of review. *See Zion Energy, LLC*, 9 E.A.D. 701, 705 (EAB 2001). In order to carry this burden the petitioner must address the permit issuer's responses to relevant comments made during the process of permit development; the petitioner may not simply reiterate comments made during the public comment period, but must substantively confront the permit issuer's subsequent explanations. *Id.; see also In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 5 (EAB 2000)("Petitions for review may not simply repeat objections made during the comment period; instead they must demonstrate why the permitting authority's response to those objections warrants review."); *In re City of Irving, Tex. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 111, 129-30 (EAB 2001).

Additionally, when a petitioner seeks review of a permit based on issues that are fundamentally technical in nature, the Board assigns a particularly heavy burden to the petitioner. *See In re Carlota Copper Co.*, 11 E.A.D. 692, 708 (EAB 2004) (explaining that "a petitioner seeking review of issues that are technical in nature bears a heavy burden because the Board generally defers to the Region on questions of technical judgment."); *Teck Cominco*, 11 E.A.D. at 473 (same); *City of Moscow*, 10 E.A.D. at 142 (same). This demanding standard serves an important function within the framework of the Agency's administrative process; it ensures that the locus of responsibility for important technical decisionmaking rests primarily with the permitting authority, which has the relevant specialized expertise and experience. *See In re NE Hub Partners, L.P.*,

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[26] The Board has not previously addressed the standard of review under the Title V regulations. However, the applicable regulatory language is nearly identical to the regulatory language governing the review of other types of permits (such as PSD and NPDES permits). *Compare* 40 C.F.R. § 71.11(l)(1) *with* 40 C.F.R. § 124.19. Accordingly, we believe that our prior discussions of the standard of review under these other permit programs serve as valuable precedent in this context. *See* Part 71 rulemaking, 61 Fed. Reg. 34,202, 34,226 (July 1, 1996) (suggesting, in general, that EPA intended for the administrative appeal provisions in Part 71 to reflect the Agency's longstanding approach under 40 C.F.R. pt. 124).

7 E.A.D. 561, 567-68 (EAB 1998), *rev. denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999). In other words, where a permit decision pivots on the resolution of a genuine technical dispute or disagreement, the Board prefers not to substitute its judgment for the judgment of the decisionmaker specifically tasked with making such determinations in the first instance. Thus, as we explained in *NE Hub*, the Board typically will not grant review where the record demonstrates merely "a difference of opinion or an alternative theory regarding a technical matter." *Id*. at 567. Instead, where "the views of the Region and the petitioner indicate bona fide differences of expert opinion or judgment on a technical issue," deference to the Region's decision is generally appropriate if "the record demonstrates that the Region duly considered the issues raised in the comments and if the approach ultimately selected by the Region is rational in light of all of the information in the record."[27] *Id.* at 567-68.

B. *PTE Limit*

1. *Adequacy of the Proposed PTE Limit*

As discussed above, during the course of the permitting process Peabody requested that Region IX issue a PTE limit restricting the Facility's PM_{10} emissions capacity. *See* Peabody's May 12, 2002 Letter at 1. Because the PM emissions from the Facility's coal processing operations are primarily fugitive in nature,[28] it was not possible for Peabody to conduct emission testing to directly measure its PM emissions rate.[29] *See* Final Permit Application, Transmittal Letter at 2; SOB at 5. Therefore, Peabody's request for a PTE limit of 185 tpy relied on a quantitative estimate of the Facility's capacity to emit PM_{10}.[30] *See* Final Permit Application, Transmittal Letter at 2-3. This estimate, in turn, relied on emission

[27] This standard is similar to the standard of review applied by federal courts when reviewing agency rulemaking decisions involving significant technical or scientific issues. *See NE Hub* at 568 n.6 (*citing Appalachian Power Co. v. EPA*, 135 F.3d 791, 801-02 (D.C. Cir. 1998)). Unlike the federal courts, however, the Board is not required to give deference to other components of the Agency. *Id. (citing In re Mobil Oil Corp.*, 5 E.A.D. 490, 509 n.30 (EAB 1994)).

[28] EPA's regulations define fugitive emissions as "those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening." 40 C.F.R. § 52.21(b)(20).

[29] Such direct measurement typically requires the use of equipment that captures and channels emissions though a stack where testing can occur.

[30] Peabody originally estimated the PM_{10} emissions capacity of the facility at 244 tpy; however, after it incorporated different emission factors it revised its estimate downward to 185 tpy. *See* Response at 17 n.17.

factors and assumed emission control efficiencies.[31] *Id.* Peabody estimated the uncontrolled emissions from each emissions unit based on the application of AP-42 emission factors. Peabody then estimated the net emissions from these units by applying assumed control efficiencies, and requested that Region IX establish a PTE limit for the Facility based on the cumulative total estimated net emissions.[32] *See* Final Permit Application, Transmittal Letter and Form PTE.

Similarly, Peabody's proposed compliance regimen did not include direct measurement of PM emissions. *See* Final Permit Application, Periodic Monitoring Plan. Rather, Peabody proposed that its continued use of enclosures and water sprays (and compliance with the other terms of the Final Permit) could adequately demonstrate compliance with the PTE limit. *See id.*; Peabody's May 12, 2002 Letter at 1 ("Peabody would voluntarily accept conditions in the final permit requiring [it] to continue the present controls at the Black Mesa Complex"). Peabody did not propose any additional compliance monitoring or reporting requirements aimed at ensuring compliance with its proposed PTE limit.[33] Because Peabody's approach would rely entirely on the application of emission factors and assumed control efficiencies, for purposes of both estimating maximum emissions capacity

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[31] In general, an emission factor is a numerical emissions estimate that represents the anticipated rate of pollutant release from a given type of industrial operation, assuming no emission controls are employed. *See* R Ex 15 (Compilation of Air Pollutant Emission Factors, AP-42, Stationary Point and Area Sources (5th ed., vol. 1, 1995) ("AP-42"), Introduction) at 1 ("An emission factor is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. * * * Such factors facilitate the estimation of emission from various sources of air pollution."). In principle, an estimate of the net emissions from an operation can be calculated by applying an emission factor and then reducing the resulting emissions outcome based on the assumed emission control efficiency of the control equipment used at the relevant facility.

[32] In conducting this exercise Peabody used emission factors which AP-42 identifies as generally representative of uncontrolled emissions from crushed stone processing operations. *See* Final Permit Application, Transmittal Letter at 2-3; R Ex 16 (AP-42 § 11.19.2). Peabody explained that "[d]ue to the similarities in processing and equipment, it is not unreasonable to consider the use of crushed stone processing factors for coal processing operations." Final Permit Application, Transmittal Letter at 2. Peabody then assumed a control efficiency of 95% for the enclosures and water sprays used at the Black Mesa Complex to control PM_{10} emissions, based on efficiency levels identified for similar types of controls in other Title V permits. *See* August 21, 2002 Comments at 6; Response at 17 n.17.

[33] In theory, Peabody argues, by demonstrating that it is using the appropriate control strategy (enclosures and/or water sprays), it could adequately calculate ongoing PM_{10} emissions capacity using emission factors, reflecting the uncontrolled emissions performance of its emissions units, and assumptions regarding efficiency of its control equipment. *See* Peabody's May 12, 2002 Letter at 1; Final Permit Application, Transmittal Letter at 2-3. The Final Permit also calls for opacity monitoring; however, nothing in the record suggests a quantifiable relationship between opacity and PM_{10} emissions performance that might allow the Final Permit's opacity monitoring provisions to serve as a basis for demonstrating ongoing performance with a tons per year PTE limit for PM_{10}. Interestingly, Peabody challenges both the Final Permit's opacity monitoring provisions, as well as the Final Permit's requirement for weekly inspection of the water sprays used to control PM emissions. Petition at 17-21.

and monitoring ongoing compliance, the accuracy and appropriateness of the emission factors and the control efficiency assumptions were the focal point of Region IX's analysis of Peabody's proposal. *See* SOB at 4-5; R Ex 20 (Letter from Gerardo C. Rios, Region IX, to Brian Dunfee, Peabody Western Coal Co. (March 21, 2001) ("Region IX's March 21, 2001 Letter"); RTC at 10; Supplemental RTC at 3.

During the course of the permitting process, Peabody explained that it "determined the effectiveness of the control equipment * * * us[ing] data on control efficiencies calculated for comparable control devices that have been accepted by state permitting authorities." August 21, 2002 Comments at 6. Peabody explained further that "annual PTE emissions were based on anticipated maximum annual coal sales," and AP-42 emission factors. Final Application at 2. Peabody justifies its use of emission factors as follows:

> [Peabody] based its potential to emit calculations on emission factors used routinely in permit applications for these types of facilities. These emission factors are considered technically accurate and appropriate for use in calculating potential to emit. * * * The use of these methods of calculation in the context of limiting potential to emit has been accepted by state permitting agencies for numerous other mine facilities. For example, below we list many mines in which the permitting agency has established (or will soon establish) source PTE, at least in part, by using emission factors and assumed control efficiencies and then based on the PTE limit, granted the source synthetic minor status for Title V purposes. This approach is no different than the case here, whereby [Peabody] is seeking to qualify as a synthetic minor source for purposes of PSD by agreeing to permit limitations on the facilities [sic] PTE.[34]

Peabody's August 21, 2002 Comments at 5-6.

Region IX points out, however, that there is a fundamental conceptual difference between PTE and actual emission performance that makes Peabody's complete reliance on emission factors inappropriate in this instance. While PTE is

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[34] Peabody's comments went on to list without detailed explanation, some 17 mines with permits that purportedly relied on emission factors and assumed control efficiencies in the same way that Peabody was proposing for its permit. Peabody's August 21, 2002 Comments at 6. We were unable, anywhere in the record, to find any more detailed discussion of Peabody's reliance on the State permits that it cited.

intended to identify the highest possible level of emissions that a facility is capable of releasing in light of its physical design and operational characteristics (considering enforceable restrictions on emission capacity), emission factors are intended to provide a generalized estimate of the *average* emissions performance of a particular type of emission source. RTC at 10; SOB at 4; March 21, 2002 letter to Peabody. According to AP-42, "[i]n most cases, these factors are simply averages of all available data of acceptable quality, and are generally assumed to be representative of long-term averages for all facilities in the source category (i.e., a population average)." AP-42 Introduction at 1. As a result, according to Region IX, emission factors do not necessarily reflect the level of emission appropriate for calculating PTE. Response at 13.

In its RTC document Region IX stated that it was not "disputing Peabody's use of emission factors and control efficiencies for the purpose of calculating actual emissions," but that because "PTE is meant to be a worst case emissions calculation," Peabody's approach was not adequate for "the creation of a practically enforceable PTE limit for regulatory purposes." RTC at 10. In an earlier communication, referenced in the RTC, Region IX explained further that because the estimated emissions were relatively close to the PSD major source threshold of 250 tpy, and because the proposed PTE limit was "based on emission factors and estimated control efficiencies," it would be difficult to establish adequate monitoring to assure compliance "[g]iven the nature of emission units at the coal mines."[35] Region IX's March 21, 2001 Letter at 1. Additionally, Region IX explained that "[p]arametric monitoring to ensure proper operation of control equipment (e.g., water pressure in the sprays), while useful to assure compliance with the opacity limit, does not provide direct data on actual PM_{10} emissions" adequate to establish a PTE limit.[36] *Id.* at 1-2. Thus, Region IX concluded that "even if the title V permit contained conditions for operation and maintenance of emission controls * * * those conditions would not be sufficient to create an enforceable PTE limit. * * * Because of the uncertainties inherent in emission factors and [assumed] control efficiencies, EPA would consider a PTE limit [here] * * * only in con-

[35] In light of Peabody's then estimated PTE of 244 tpy, Region IX explained that it was "unlikely that [Peabody could] propose adequate monitoring to assure compliance." Region IX's March 21, 2001 Letter at 1. Because Peabody's requested PTE limit was "so close to the PSD major source threshold," the Region believed that "either source testing or the use of a continuous emissions monitoring system," would be necessary. *Id.* Region IX also observed that the fugitive nature of Peabody's emissions generally precluded such options. *Id.*

[36] Parameter monitoring is an indirect method of monitoring a unit's emissions performance by monitoring one or more operational parameters of the emissions unit itself and/or of the emission unit's control equipment — the underlying assumption being that specific parameter values can be correlated with a particular level of ongoing emissions performance. *See Sierra Club v. EPA*, 353 F.3d 976, 982, 991 (D.C. Cir. 2004).

junction with stringent monitoring and testing provisions."[37] *Id.*

With respect to the AP-42 emission factors from which Peabody derived its proposed PTE limit, Region IX observes that such factors are specifically not intended for use in establishing emission limits or for measuring compliance with such limits. *See* Response at 12-13. EPA's guidance acknowledges its own limitations in this regard:

> Use of these factors as source-specific permit limits and/or emission regulation compliance determinations is not recommended by EPA. Because emission factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emission factor and the other half will have emission rates less than the factors. As such, a permit limit using an AP-42 emission factor would result in half of the sources being in noncompliance.

AP-42 Introduction at 2. Here, as Region IX points out, Peabody not only proposes to rely on the AP-42 factors to establish both its PTE limit and to demonstrate compliance with that limit, Peabody compounds the potential inaccuracy of this approach by using unverified emission control assumptions in both calculations.[38] *See* Region IX's March 21, 2001 Letter at 2. Another potential element of uncertainty relates to the fact that the AP-42 factors that Peabody uses are not

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[37] Through a consultant, Peabody submitted arguments in support of using an assumed control efficiency of 95% for its enclosures and water sprays. *See* Cert. Index items II.I and II.J (Letters from William Monnett, McVehl-Monnett Assoc., Inc., to Region IX, December 18, 2000, and January 10, 2001). The Region explains in response that:

> The letter identified two other permits where a 95% control efficiency was used for what it referred to as [an] "atomized and/or fogging spray" system. However, as recognized in that same letter, the facility does not use [this type of equipment]. The letter also argues that the 95% efficiency should be accepted because the material is "flushed at multiple points with considerable water." However, Peabody presented no actual on-site verification to support its claimed water usage, nor proof that higher water usage necessarily results in additional control efficiency.

RTC at 15 n.15. Region IX also observes that other permits have sometimes ascribed significantly lower control efficiencies to water sprays at coal preparation facilities. *Id.* at 16 n.16. Additionally, Region IX notes that Peabody's proposal would require that only 75% of the water spray nozzles be operational. *See id.*; Final Permit Application, Periodic Monitoring Plan.

[38] In this respect Region IX noted that the proposal does not include "'those operating parameters and assumptions which the permitting agency depended upon to determine that the control equipment would have a given efficiency,'" as EPA guidance recommends. *See* Response at 15 and n.15 (quoting R Ex 12 (EPA Guidance on Limiting Potential to Emit in New Source Permitting (June 13, 1989)) ("1989 PTE Guidance") at 7).

factors for coal preparation facilities at all, but factors for crushed stone processing, which Peabody claims, without detailed analysis "operate in a similar fashion and use the same fundamental equipment."[39] Final Permit Application, Transmittal Letter at 2.

Finally, AP-42 includes a rating of each emission factor on a scale from A to E, with A being the most reliable and E the least. *See* AP-42 Introduction at 8. As AP-42 explains:

> A factor's rating is a general indication of the reliability, or robustness, of that factor. This rating is assigned based on the estimated reliability of the tests used to develop the factor and on both the amount and the representative characteristics of those data. In general, factors based on many observations, or on more widely accepted test procedures, are assigned higher ranking. Conversely, a factor based on a single observation of questionable quality, or one extrapolated from another factor for a similar process, would probably be rated much lower.

Id. In this case, the factors that Peabody used in developing its proposal carried relatively low reliability rankings; depending on the source type, from C (average — while no specific bias, not clear if the facilities tested represent a random sample of the industry) to E (poor — may be reasons to suspect that the facilities tested do not represent a random sample or evidence of variability within the source category population).[40] *See* AP-42 Introduction at 9-10, § 11.19.2-4, tbl. 11.19.2-1.

Based on its evaluation of the proposed PTE limit, Region IX concluded that Peabody had not sufficiently demonstrated that it met the central criteria for establishing such limits — technical accuracy and a reliable method of determining compliance. Region IX explained its reasoning this way: "Although Peabody had previously commented to EPA that it would like a PTE limit, other than rely-

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[39] Peabody states that "EPA suggested using this approach because the Aerometric Information Retrieval System (AIRS) factors used in the previous versions of this application were judged to be outdated." Final Permit Application, Transmittal Letter at 2. We make no judgment here about the appropriateness of using the emission factors for crushed stone processing to estimate emissions at a coal processing facility. We simply note that in the context of establishing and enforcing a PTE limit it is not unreasonable to expect that this substitution may introduce additional uncertainty.

[40] Additionally, the AP-42 factors for crushed stone processing identify numerous variables that may affect the rate of emissions from processing operations at any particular facility (e.g., stone size distribution and surface moisture content of processed material, process throughput rate, topographical and climatic factors, wind, material moisture content, seasonal conditions, and a variety of equipment and operational factors). AP-42 at 11.19.2-3.

ing on AP-42 emission factors, it has not previously provided to EPA any test data, site-specific emission factors, or proposed monitoring sufficient to establish a practically enforceable PTE limit."[41] Supp. SOB at 4.

While Region IX ultimately decided to issue Peabody's Title V permit without a PTE limit, the Region made it clear that a PTE limit was not a conceptual impossibility for the Black Mesa Complex. In this respect Region IX observed that it was reviewing the emission factor testing protocol and parametric monitoring proposal that Peabody submitted to Region IX on March 4, 2004, and that "[i]f EPA approves the testing protocol, Peabody may then submit the test results in support of a final request for a PTE limit in the permit." Supp. SOB at 5. Thus, as of the date of permit issuance, Region IX believed that the data were inadequate to conclude either that the AP-42 emission factors that Peabody used or the assumed control equipment efficiencies were appropriate to establish a PTE limit for the Black Mesa Complex.[42] Nonetheless, the Region did not rule out the possibility that Peabody might be able to make the technical case with additional analysis. In fact, Region IX made it clear that Peabody could seek to modify its Title V permit to include a PTE limit if Peabody was ultimately able to make a satisfactory technical case. Supp. RTC at 3; Supp. SOB at 5 (indicating that Peabody could "apply[] for a significant permit modification in the future to add a PTE limit if its approach is deemed technically and practically enforceable"); *see also* 40 C.F.R. § 71.7(e)(3)(addressing requirements for significant permit modifications).

It is clear from the record that Region IX's decision not to issue Peabody a PTE limit for PM_{10} emissions from the Black Mesa Complex was, at its core, a technical determination. This is significant, because, as we have explained, the

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[41] Notably, Peabody does not dispute the relevance of the criteria that Region IX identifies as critical for demonstrating the appropriateness of a PTE limit. Nor does Peabody point to any specific technical rationale in the administrative record to bolster its argument that its assumed control efficiencies and the AP-42 emission factors satisfy these criteria. Rather, as discussed in the following section, Peabody seemingly relies on its generalized reference to several State Title V permit decisions that purportedly involved PTE limits issued under similar circumstances. As discussed below, however, Peabody does not adequately explain why those permit decisions function as precedent for its proposed PTE limit, particularly in light of apparently significant factual and technical differences.

[42] We note here that Peabody's submission of a validation report after close of the comment period and issuance of the Final Permit in this case cannot serve as a basis for granting review. *See* Cert. Index, item VI.D (indicating transmittal of the emission factor testing document to Region IX on June 8, 2004, 18 days after Region IX issued the Final Permit). Despite its inclusion in the Certified Index, because Peabody provided Region IX with this document after the Permit had been issued, it was not part of the administrative record for the Region's permit decision. *See* 40 C.F.R. § 124.17(c)(defining the administrative record for final permits and stating that "[t]he record shall be complete on the date the final permit is issued"); *see also In re Weber # 4-8*, 11 E.A.D. 241, 243 n.2 (EAB 2003) (finding that "Region[V's] response [to comments] is not officially part of the administrative record as it postdates permit issuance").

burden of demonstrating that review is warranted rests squarely with the petitioner, and where a petitioner seeks review of issues that are fundamentally technical in nature the petitioner bears a particularly heavy burden because the Board generally defers to the permit issuer on questions of technical judgment. *See, e.g.*, *In re Carlota Copper Co.*, 11 E.A.D. 692, 708 (EAB 2004); *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 567 (EAB 1998), *rev. denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999). With this in mind, we believe that, given the size of the Facility and the nature of its emissions,[43] it was not clearly erroneous for Region IX to conclude that Peabody's proposed PTE limit was not justified, based on the administrative record and in light of the significant uncertainties inherent in Peabody's proposed approach.[44] While we also consider Peabody's argument that Region IX's decision in this case impermissibly departs from established precedent (Part II.B.2 below), we cannot conclude purely as a technical matter that Region IX clearly erred in declining to issue Peabody a PTE limit.

2. *State-Issued PTE Limits Cited by Peabody*

In its petition Peabody argues that Region IX's decision in this case departs significantly, and without adequate discussion or justification, from established EPA policy regarding the issuance of PTE limits. *See* Petition at 9-17. Specifically, Peabody contends that States have issued numerous PTE limits under similar circumstances, to sources that are similar to the Black Mesa Complex, and that these permit decisions are in direct conflict with Region IX's decision in this case. *Id.*; see P Ex I (consisting of a collection of Part 70 permit decisions and related documents). While Part 70 permits are State-issued Title V permits, and not EPA-issued permits, Peabody argues that by failing to intervene to prevent States from issuing these Title V permits EPA has tacitly acknowledged the States' decisions as acceptable under the Title V program.[45] Petition at 12-15. Thus, according to Peabody, by its inaction EPA has created a general policy, for purposes of Part 70 and Part 71, of accepting PTE limits that are "based on emission factors

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[43] As Region IX observes the Facility is one of the largest surface coal mines in the country, processing more than twelve million tons of coal per year. *See* Response at 6.

[44] Peabody contends that Region IX based its decision not to issue a PTE limit merely on fact that "the crushers and screens at the facility are not completely enclosed and emissions from the units therefore cannot be measured using EPA Method 5 [stack testing]," Petition at 10 (citing SOB at 5). However, Region IX denies this, and examination of the full record, as reflected above, demonstrates that the Region's consideration of this issue was considerably more nuanced than Peabody suggests. *See also* Response at 13-14.

[45] Peabody argues that EPA has several mechanisms through which it could have and should have intervened if it was dissatisfied with State permitting practices. *See* Petition at 12-14.

and parametric monitoring."[46] *Id*. at 11. Peabody argues:

> These examples illustrate that state permitting agencies routinely use emission limits based on emission factors and parametric monitoring for mines and other sources with similar emission units. These sources are not required to conduct [Method 5 stack] testing to verify compliance with these limits. Many of these mines qualify as "synthetic minor sources" because their PTEs have been limited in state air permits through the use of emissions factors and parametric monitoring.

Id.

At the core of Peabody's argument are two critical propositions: (1) that the facilities Peabody identifies are truly similar to the Black Mesa Complex; and (2) that the operating permits issued for these facilities rely on emission factors and estimated control efficiencies in a manner "no different than the case here." August 21, 2002 Comments at 6. In our view, Peabody fails to sufficiently demonstrate the accuracy of either proposition.

Region IX considered Peabody's comments on the draft permit and explained that it did not find Peabody's mere reference to other permit decisions persuasive. *See* RTC at 10. In the RTC, the Region restated Peabody's comment and explained that "decisions by other permitting authorities to limit PTE are case specific, and depend on the configuration and operation of a particular facility." *Id.* Peabody, however, did not explain whether or how the configuration and operation of the facilities it cited were similar to the configuration and operation of the Black Mesa Complex. *See* Petitioner's August 21 Comments at 6-7. Accordingly, Region IX concluded that the mere fact that "other permitting authorities have created PTE limits in permits for other mines does not bind EPA in this case." RTC at 10.[47]

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[46] Peabody explains in its comments on the 2002 draft permit that its request for a PTE limit is based on "emission factors used routinely in permit applications * * * [and] considered technically accurate and appropriate for calculating [PTE]." August 21, 2002 Comments at 5-6. However, as discussed in the previous section, AP-42 itself appears, in general, to contemplate a more limited role for emission factors than Peabody proposes here, and the emission factor rankings appear to reflect serious reservations about the reliability of the particular factors upon which Peabody relies.

[47] We believe, as a procedural matter, that this response was adequate to address Peabody's comment, particularly in light of Peabody's failure to provide any detailed explanation of the similarities between the permitting exercise here and the State-issued permits upon which Peabody's argument relied. As we have explained in the past, the Region need not "respond to each comment in an individualized manner," and the Region's responses need not be "of the same length or level of detail as the
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Region IX observes further that the factual circumstances underlying the permit limits cited by Peabody are different from the circumstances in this case in ways that are potentially significant for purposes of determining the appropriateness of establishing a PTE limit. *See* Response at 20-22. Region IX points out that many of the permits that Peabody identifies were issued to mines that "use one or more baghouses, with most using multiple baghouses."[48] *Id*. at 21. According to the Region, because baghouses are particularly effective at reducing PM emissions, and provide much greater certainty regarding emission performance, the presence of baghouses represents a material difference that is potentially relevant in determining whether a PTE limit should be issued.[49] Indeed, Region IX explains that because baghouses are particularly effective at removing PM, use of this control technology generally assures that actual emissions will be reduced well below the major source threshold. *See id.* at 22.

Our examination of the record confirms that most of the permits that Peabody references involve operations at which at least some sources are controlled by baghouses. For example, the permit for the Kemmerer/Skull Point mine, which Peabody references in its Petition, covers nine sources (including crushers, silos, and transfers) that are controlled with baghouses and seven sources (including truck dumps and stock piles) that are not.[50] Wyo. Dept. of Envtl. Quality, Air Quality Permit MD-379 (Oct. 19, 1998) tbls. I, II ("Kemmerer/Skull Point Permit"). Similarly, the permit for Buckskin Mine involves 19 sources controlled with baghouses. Only truck dump emissions are not controlled by a baghouse, and this emissions source was estimated to account for less than ten percent of the total emissions covered by the permit.[51] Wyo. Dept. of Envtl. Quality, Air Quality Permit No. MD-707 (Feb. 15, 2002) ("Buckskin Permit").

(continued)
comment." *See In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 583 (EAB 1998), *rev. denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999).

[48] A baghouse is an emission control device that removes particulates by mechanically filtering the emission stream. *See Davis County Solid Waste Mgmt*. v. EPA, 101 F.3d 1395, 1398 n.1 (D.C. Cir. 1996).

[49] Use of a baghouse also typically involves conveyance of emissions through a stack, which allows for direct emissions monitoring if necessary. *See* Response at 21.

[50] Significantly, the sources not controlled with baghouses are subject to size or throughput restrictions in addition to tons-per-year emission limits and water spray requirements, and the sources with baghouses are subject to limits on hours of operation, pound-per-hour emission limits, tons-per-year limits, and grain loading limits (gr/dscf). *Id*. at 2 & tbls. I, II.

[51] The truck dump emissions are subject to a 20% opacity limit and are controlled through the use of a "stilling shed," which must be inspected weekly. Buckskin Permit at 2-3. Additionally, the facility as a whole is subject to a coal production limit, and the individual sources other than the truck dump are subject to limits on hours of operation, in addition to flow rate, grain loading, lb/hr, and tpy emission limits. *Id*. at 2 & tbl. I.

Most of the other permits among those Peabody references also cover sources controlled by baghouses. *See* P Ex I.

Region IX observes also that, in addition to requiring baghouses for many emission sources, the permits that Peabody identifies include other elements that are not present in Peabody's Final Permit. Most of the referenced permits include short-term emission limits (such as lb/hr limits), limits on hours of operation, restrictions on process rates or throughput, and/or parametric monitoring requirements for at least some of the covered emission sources, in addition to requirements for specific control equipment (such as baghouses, stilling sheds, water sprays, etc.).[52] As discussed above, according to the Region, such limits are potentially important because they can provide additional certainty regarding the ongoing emissions performance of a facility covered by a permit, and offer an additional means of verifying compliance with applicable limits. *See also* 1989 PTE Guidance at 5-8.

Conversely, none of the sources covered under Peabody's Title V permit use a baghouse (or other capture and control equipment) to control emissions. The only control measure Peabody proposes to use to ensure compliance with a PTE limit at the Black Mesa Complex is a requirement to continue using water sprays and enclosures and to periodically inspect and repair malfunctioning equipment.[53] In sum, it appears that the factual circumstances underlying the State Part 70 permits that Peabody cites are materially different than the underlying facts of this case, and, significantly, it appears that the Part 70 permits that Peabody relies upon include provisions that account for the bulk of the respective facilities' emissions much more reliably than does the approach Peabody proposed here.

With respect to Peabody's assertion that the permits issued for other facilities employ emission factors and estimated control efficiencies in the same manner as Peabody's proposed approach in this case, Region IX disagrees. *See*

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[52] *See, e.g.*, Kemmerer/Skull Point Permit; Buckskin Permit; Wyo. Dept. of Envtl. Quality, Air Quality Permit No. MD-616 (April 30, 2001) at 3-4 (Antelope Coal Mine permit including flow rate, grain loading, lb/yr, and tpy limits for many sources, as well as maximum coal production limits); N.M. Envtl Dept. Air Quality Bureau, Permit No. 1010-M-2 (February 9, 1999) (permit for York Canyon Complex coal mine including limits on production rate, hours of operation, and feed rate); Colo. Dept.of Pub. Health and Env't, Permit No. 93RO1204 (April 10, 2001) at 2 (permit for Twentymile Coal Company includes throughput and process rate limits, and short term (per day) limits calculated as "annual limits divided by 143").

[53] It is somewhat unclear from the record whether the Final Permit actually establishes an enforceable requirement for Peabody to operate water sprays. During the course of permit development both Peabody and Region IX indicated that Peabody was under no obligation to continue using water sprays. *See* SOB at 5; Peabody's August 21, 2002 Comments at 4. On the other hand, the Final Permit includes a requirement to inspect water sprays on a weekly basis and conduct repairs if the sprays are not functioning properly, suggesting (although not expressly stating) that Peabody must continue to operate the sprays. Final Permit at 7; RTC at 6.

Response at 20 ("Peabody grossly mischaracterizes the true nature of these permits and appears to not fully understand how emission factors were used in these other permitting contexts."). According to the Region, the examples that Peabody cites "use emission factors only for emission inventories and applicability determinations with respect to whether the source is major, uses that are considered acceptable" under relevant EPA guidance.[54] *Id*. Indeed, we conclude that Peabody has not satisfactorily demonstrated that the permits it cites reflect a reliance on emission factors and assumed control efficiencies that is of the same nature and degree as it proposed for the Black Mesa Complex.

By its own admission, Peabody cites only one case in which a State permit, in Peabody's words, "us[es] emission factors to directly monitor compliance," as would be the case under the approach Peabody proposed in this case. August 21, 2002 Comments at 7 (referencing the Technical Review Document for the Public Service Company — Arapahoe Station in Colorado (Operating Permit 96OPDE136) ("Arapahoe Station TRD")).[55] Specifically, Peabody argues that the requirements for the "new rail car unloading station" at the Arapahoe Station relied upon emission factors for purposes of monitoring compliance. *Id.* at 7; Arapahoe Station TRD at 25. It appears, however, that this permit is dissimilar from Peabody's Final Permit in ways that Region IX suggests are important. For example, in addition to PM and PM_{10} emission limits, and water spray and enclosure requirements, the Arapahoe Station's rail car unloading station standards include a process rate limitation — something not present in Peabody's Final Permit. Arapahoe Station TRD at 24. The coal processing operations in that case were also significantly smaller than the operations at the Black Mesa Complex, involving only about 1.5 million tons of coal per year (compared with more than 12 million tons at the Black Mesa Complex). *Id.* Additionally, the Arapahoe Station's rail car unloading station constitutes just one of many emission sources at the facility, many of which utilize more effective and reliable PM emission controls (such as baghouses and electrostatic precipitators). *See id.* at 2. Ultimately, it is not clear from the Arapahoe Station TRD that the permit even establishes a PTE limit for the facility which would allow it to avoid coverage under other regulations — for example, it appears that the facility's overall PTE for PM emissions is well above the level required to trigger the application of PSD. *Id.* at 4.[56]

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[54] *See* AP-42 Introduction at 2-3 (uses of emission factors).

[55] Peabody stated: "The emission factor used to estimate emissions from this unit is the same factor used by [Peabody] to estimate emissions from conveyor transfers (the drop/transfer equation from AP-42 Section 13.2.4 dated January 1995)." August 21, 2002 Comments at 7.

[56] Moreover, even if this permit were factually similar to the case at hand, we question whether a single relevant Part 70 permit would be sufficient to demonstrate that Region IX's Part 71 permit decision here constitutes an impermissible departure from an established Agency policy as Peabody argues.

Finally, with respect to the one federal Title V permit decision that Peabody cites (a decision related to the McKinley Coal Mine in McKinley County, New Mexico), as Region IX explains, it does not involve issuance of a PTE limit at all. Rather, it reflects an example of EPA's implementation of the PTE transitional policy for Part 71 in Indian Land, under which EPA will forego Title V permitting for sources whose *actual emissions* (not PTE) are less than 50% of the applicable major source threshold.[57] *See* P Ex F (letter from Matt Haber, EPA, to William Sanderford, Pittsburg & Midway Coal Co., (Nov. 17, 1999)); Part 71 Transition Policy. Thus, in this case emission factors and assumed control efficiencies were utilized only for purposes of estimating *actual emissions* to determine whether application of the Part 71 Transition Policy was appropriate. Because in the McKinley mine example Region IX did not address PTE at all, it does not support Peabody's claims and certainly does not serve as precedent here.

In the end, we find that Peabody has failed to demonstrate adequately that the State Part 70 permits it cites are sufficiently similar to the Final Permit at issue here to serve as useful precedent. Given the heavy burden on a petitioner seeking review of a Region's technical determination, this failure on the part of Peabody is fatal to its Petition.[58] In our view, Region IX appears to have exercised its technical judgment appropriately in deciding not to establish a PTE limit for the Black Mesa Complex. As discussed above, Region IX's conclusion in this regard has a solid basis in the record, and Region IX's Final Permit decision was based on a facially reasonable technical assessment that, given the data Peabody submitted, a PTE limit was inappropriate for the Black Mesa Complex. Peabody's arguments in its Petition do not demonstrate clear error on the part of Region IX, and absent such a demonstration we will not substitute our judgment for the Region's on this

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[57] Because the total estimated *actual emissions* from the McKinley mine were less than 35 tpy, compared to the 100 tpy Title V major source limit, EPA applied the Part 71 Transition Policy thereby temporarily exempting the facility from Part 71 permitting. The Transition Policy is not held out as equivalent to establishing a PTE limit. As Region IX notes in its brief, it informed the McKinley mine at the time that it would need to apply for appropriate PTE limits if and when a minor source permit program became available on the Navajo reservation. *See* Response at 21.

[58] Again, the Petitioner bears the burden of demonstrating that the Region's decision was clearly erroneous, and that this burden is particularly heavy when a petitioner "'seek[s] review of issues that are quintessentially technical.'" *NE Hub*, 7 E.A.D. at 567 (quoting *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 403 (EAB 1997)); *In re Carlota Copper Co.*, 11 E.A.D. 692, 708 (EAB 2004). Additionally, in its Petition, Peabody fails to respond to the Region's substantive response to its comments on the draft permit. Specifically, Peabody does not address Region IX's assertion, discussed above, that because of difference in the configuration and operation of individual facilities, the Part 70 permits that Peabody cites cannot serve as useful precedent in this case. As we have repeatedly held "Petitions for review may not simply repeat objections made during the comment period; instead they must demonstrate why the permitting authority's response to those objections warrants review." *In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 5 (EAB 2000); *accord In re City of Irving, Tex. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 111, 129-30 (EAB 2001); *Zion Energy, LLC*, 9 E.A.D. 701, 705 (EAB 2001).

technical issue.[59] Accordingly, because Peabody has failed to carry its burden, we deny review of Final Permit on this issue.

C. *Monitoring, Recordkeeping, and Reporting Requirements*

Peabody challenges the inclusion in the Final Permit of certain monitoring and recordkeeping requirements. Primarily, Peabody argues that the requirement for daily VEMS and the 10% instantaneous opacity trigger for conducting Method 9 opacity observations are onerous and unreasonable. Petition at 17-20. Additionally, Peabody argues that Region IX lacks authority to adopt inspection and repair provisions for water sprays at the Black Mesa Complex. *Id.* at 20-21. We address each of Peabody's arguments in turn below.

With respect to the Final Permit's VEMS and opacity monitoring requirements, Peabody's argument distills to two general propositions. First, in Peabody's view, the opacity monitoring provisions are impermissible because they are more stringent than the monitoring provisions incorporated into other Title V permits for purportedly similar facilities. Second, Peabody believes that the opacity provisions are clearly erroneous because they will unnecessarily impose a greater burden on Peabody than would its alternative proposal, purportedly without corresponding environmental benefit.

Interestingly, Peabody does not in fact develop its argument that the Final Permit's compliance monitoring provisions will be unduly burdensome. While Peabody "estimates that up to two full-time Method 9 observers would be required to comply with the opacity monitoring, visual emission survey, and recordkeeping provisions of the Permit," Petition at 18, this generalized concern is not accompanied by any factual assessment — for example, describing the economic burden or logistical difficulty of implementing these requirements at a facility like the Black Mesa Complex — or by any relevant reference to the materials in the record.[60] Rather, the substance of Peabody's argument focuses entirely on its assertion that "[o]ther operations that handle large quantities of coal are not subject to such onerous requirements." Petition at 18.

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[59] As we conclude that Peabody has failed to demonstrate clear error on this issue, even considering the State-issued permits it references, we need not decide in general whether or not State permit decisions issued under Part 70 may serve as binding precedent on EPA permitting activities under Part 71. *See* Response at 18-19.

[60] Indeed, at least one document in the record is seemingly inconsistent with the Peabody's conclusions regarding resource demands. *See* R Ex 24 (Letter from Peabody to Region IX (Nov. 25, 2001)) at 1 (including a comment regarding "the daily routine, continuous visible emission survey of all crushers, screens, and transfer points *that is estimated to take two to three hours*" (emphasis added)).

In this regard, Peabody provides two specific examples of purportedly similar sources whose Title V permits include less stringent opacity monitoring requirements.[61] Petition at 18. These sources, according to Peabody, are subject to weekly, rather than daily, VEMS requirements, and must conduct Method 9 observations only when a VEMS detects instantaneous emissions greater than the applicable regulatory opacity limitation. *Id*. Peabody alludes to "similar disparities" in monitoring requirements for "other coal handling operations," citing without explanation two additional power plants. *Id.* Finally, Peabody identifies two coal mines which it contends "do not have requirements to monitor opacity from fugitive sources on the frequency required of Peabody," one of which "is required to conduct only quarterly Reference Method 9 opacity observations at its truck dump." Petition at 18-19. Peabody provides no additional explanation of the factual similarities between the Black Mesa Complex and the sources that it cites, no more precise analysis of these sources' Title V permit requirements, and no detailed discussion of the significance of any similarities and differences.[62]

Peabody then identifies its proposed alternative monitoring requirements.[63] It concludes, again without explanation, that its proposed opacity provisions "would be as protective of the environment as the provisions that Region IX included in the Permit, without imposing unreasonable burdens on the company."[64]

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[61] Both of these sources are coal-fired power plants. *See* Petition at 18.

[62] While, all else being equal, one might expect more stringent requirements to be more burdensome, given site-specific factors (such as facility size, number of emission units, other regulatory obligations, etc.), this might not always be the case. We note in this regard that Peabody identifies no evidence whatsoever suggesting that the provisions included in its Final Permit would, in fact, be relatively more burdensome to Peabody than the seemingly less stringent provisions in other permits are for the sources to which they apply.

[63] These consist of weekly VEMS of NSPS-affected units and Method 9 observations whenever instantaneous observations appear to exceed the regulatory limit (20% based on a six-minute average). Peabody August 21, 2002 Comments at 3; Petition at 19. In its comments on the draft permit, Peabody suggested annual routine Method 9 observations for NSPS-covered units; however, the Petition does not mention this as an element of Peabody's proposed alternative monitoring requirements. *See* Petition at 19; Peabody August 21, 2002 Comments at 3.

[64] During the permitting process Peabody argued that "because a trained Method 9 observer can distinguish between ten percent and twenty percent opacity, there is no basis for requiring a Method 9 test whenever a visual emission survey detects opacity of ten percent or more." Petition at 19; *see also* Peabody August 21, 2002 Comments at 3. Region IX responded by observing that Peabody's approach of requiring Method 9 testing when opacity "on an instantaneous basis[] appears to exceed the regulatory threshold" was "not enforceable as a practical matter" because it did not "account for the fact that a Method 9 test is a six minute average." RTC at 5. That is, Region IX did not believe that one could reliably judge the six-minute average opacity of emissions from a source (the standard for the regulatory threshold) based on an instantaneous observation — what Peabody's language appeared to require in order to determine whether a Method 9 test was warranted. In its brief, Peabody argues that Region IX's response was inadequate because "particulate matter emissions do not fluctuate rapidly, [so] there is no reasonable basis for believing that an instantaneous reading of ten

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Id. at 19. Because "[t]he Region never justified its disparate treatment of the Mine as compared to other similar sources with the same opacity limit," Peabody reasons, "EPA's inclusion of the onerous provisions in the Permit is clearly erroneous."[65]

In response to Peabody's comments on the 2002 Draft Permit,[66] Region IX explained that it agreed with Peabody's assertion that the presence of a minimal opacity was an inherent consequence of normal operations at the Black Mesa Complex. RTC at 5. Region IX therefore changed the opacity monitoring provisions in the Final Permit to require six-minute Method 9 observations only where instantaneous observations detected opacity of greater than 10% — instead of requiring Method 9 testing in response to any visible emissions as originally contemplated. *Id.* It seems clear from the record that Region IX views the daily VEMS and the 10% opacity trigger in the Final Permit as a means of systematically identifying units with increased opacity to allow for remedial action before emissions become serious enough to cause a violation of the applicable opacity standard. RTC at 5.

In this respect, Region IX acknowledges that "10% opacity is not a regulatory requirement" but a "useful gatekeeper" to ensure that potentially significant opacity events are properly scrutinized. RTC at 5. Additionally, Region IX expressed concern that Peabody's proposed alternative requirements were inadequate given the Facility's use of relatively less reliable emissions controls:

> The language suggested by Peabody * * * is insufficiently protective because it would only trigger Method 9 testing if an instantaneous opacity reading appeared to be above the 20% limit. * * * We do not believe that Peabody's proposal of weekly visible emission surveys and annual method 9 testing are sufficient to assure compliance with a 20% opacity limit at coal handling equipment without baghouses.

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percent would signal a probable exceedance of the twenty percent limit." Petition at 20. Peabody's argument in this regard appears to miss the point of Region IX's objection.

[65] Again, Peabody provides no explanation, based on specific resources concerns or technical considerations, why the monitoring provisions included in the Final Permit are "onerous." Despite Peabody's gratuitous description of the monitoring provisions throughout its brief as "burdensome," "unreasonable," and "onerous," it cites nothing in the record to support its assertions.

[66] These comments largely mirror Peabody's argument in its Petition, and are similarly lacking in technical detail and analysis. *See* Peabody's August 21, 2002 Comments at 2-3.

Id.; see supra note 49 and accompanying text (discussing the relative reliability and effectiveness of baghouses). In our view, Region IX's reasoning is clear: because baghouses are particularly reliable and generally reduce emissions well below the regulatory limit, there is less chance of opacity excursions leading to violations where baghouses are employed, and therefore less stringent monitoring may be justified. Accordingly, otherwise similar units may reasonably require different levels of ongoing scrutiny (including frequency of testing and the sensitivity of triggering events) depending on the type of equipment they utilize to control emissions. In this instance, because the Facility's emission are entirely fugitive in nature, because the control technologies employed are relatively less reliable and less effective, and because the Facility processes such a large quantity of material, Region IX concluded that relatively close scrutiny of its compliance with applicable emission standards was justified. *See* RTC at 5; Response at 26 n.23.

Peabody provides little basis for us to question Region IX's technical conclusions in this regard.[67] Indeed, as discussed above, Peabody offers no facts or technical analysis to support its claim that the Final Permit's monitoring and recordkeeping provisions are unreasonable or unduly burdensome.[68] Ultimately, Region IX appears to have selected a monitoring approach based on the consideration of relevant factors. *See* RTC at 5 (identifying factors including type of control equipment, size of the facility, etc.).[69] Nothing about the Region's approach

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[67] With respect to the Final Permit's required monthly Method 9 observations, Peabody states only that "[t]hese requirements are onerous and go far beyond opacity monitoring required for other mines." Petition at 17-18. While Peabody implies that some sources are not required to conduct routine Method 9 observations at all, and observes that at least one source is obligated to conduct quarterly (rather than monthly) Method 9 tests, nowhere does Peabody provide any specific assessment of the burden imposed by the monthly testing requirement, or any explanation of why the monthly requirement is unnecessary or of limited value in this case.

[68] We note that Peabody itself apparently proposed the daily VEMS that it now challenges. *See* Final Permit Application, Periodic Monitoring Plan; Response at 24. While Peabody obviously changed its position at some point regarding the desirability of such a requirement, we find no factual discussion or analysis in the record addressing why Peabody abandoned its support for this approach or why it now views the approach as unreasonable.

[69] While Peabody argues on appeal that, in response to its comments on the draft permit, Region IX failed to explain how it applied the factors relevant to making case-specific decisions regarding opacity monitoring requirements, we find that the record speaks for itself in this regard. Region IX clearly considered important, among other things, the fact that the Black Mesa Complex is one of the largest coal mining operations in the country, the fact that it is not currently subject to any other permitting requirement, the fact that the facility does not utilize more effective capture and control equipment (such as baghouses), and the fact that the facility is not subject to any operational or process restrictions (such as limits on hours of operation or throughput). *See* RTC at 5, 10. Moreover, the significance of these factors in determining the stringency of Peabody's monitoring requirements is clear from the record. Region IX's March 21 Letter; RTC at 5, 10; SOB at 14. Region IX's failure to reiterate the details of its concerns in the context of a particular comment response does not in this case render the Region's decision arbitrary. *See, e.g., In re Kendall New Century Dev.*, 11 E.A.D. 40,

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strikes us as inherently unreasonable or inappropriate, especially in light of the deference we typically afford Regional decisionmakers on technical matters in general and monitoring issues in particular. *See supra* note 58; *see also In re Haw. Elec. Light Co.*, 10 E.A.D. 219, 233 (EAB 2001) (deferring to permit issuer's technical judgment in selection of monitoring data for its ambient air quality analysis).

While Peabody cites permit examples intended to show that similar sources of emissions are not required to conduct daily VEMS or six-minute Method 9 observations in response to instantaneous opacity that is lower than the regulatory limit, there are also examples of permit decisions that require daily VEMS, and that include mandatory Method 9 testing in response to any visible emissions. *See* Response at 26-31 (citing numerous permit decisions that include similarly stringent monitoring). The fact that permits exist with monitoring requirements of varying stringency is not surprising. As Region IX notes, Title V permit terms are established on a case-by-case basis, taking into consideration a multitude of factors. The range of stringency of monitoring requirements in existing permits, from more stringent than those in Peabody's Final Permit to significantly less stringent, seems to confirm Region IX's observation that establishing such limits is a fundamentally case-specific exercise. *See* RTC at 5.

We conclude, based on the record as a whole, that Region IX reasonably considered relevant factors in deciding what monitoring provisions to include in Peabody's Final Permit. Peabody fails to carry the heavy burden of demonstrating that the Region's exercise of its technical judgment in this regard was clearly erroneous. Accordingly, we deny review on this issue.

D. *Water Sprays*

Finally, Peabody argues that the requirement for weekly inspection of the water sprays used to control opacity at units subject to the NSPS, and the associated corrective action and recordkeeping requirements, exceed EPA's authority under Title V. Peabody's argument in its entirety is as follows:

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50 n.13 (EAB 2003) (finding that the absence of a "direct response" was not grounds for granting review where the permitting authority's "general explanation in its response to comments was sufficient to articulate the basis for its decision."); *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 583 (EAB 1998), *rev. denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999) (finding Region III's comment responses adequate even though they "were short in comparison to Petitioners' comment documents, and * * * did not provide individual responses to each comment"); *see also In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 191 (EAB 2000)("Thus, while [the permit issuer] should have clearly explained its decision-making process in the record, * * * the reality in this case is that petitioners could deduce the likely basis for [the permit issuer's] choice * * * and we are able to discern that [the permit issuer] applied its considered judgment * * * .").

> The water sprays are not subject to NSPS requirements or to any other requirement under the Clean Air Act, and EPA may not impose any new requirements in the facility's Title V permit. In the absence of a federally enforceable PTE limitation that incorporates the spraying, EPA has no legal basis for imposing these requirements.

Petition at 21.

Peabody made a virtually identical argument in its comments on the 2002 Draft Permit. *See* August 21, 2002 Comments at 4. However, in its Petition Peabody fails to acknowledge or address Region IX's response to those comments. Region IX explained that:

> EPA disagrees with Peabody's contention that "EPA may not impose any new requirements in the facility's title V permit." Title V permitting authorities have the statutory and regulatory authority to add monitoring to title V permits. EPA and air pollution districts routinely add periodic and other title V monitoring to title V permits when the monitoring associated with applicable requirements is inadequate. The 1990 Clean Air Act requires that all title V permits have "monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions." (Section 504(c)). Section 114(a)(3) of the Act requires "enhanced monitoring at all major stationary sources," and section 504(a) require[s] title V permits to include "such other conditions as are necessary to assure compliance with applicable requirements" of the Act. In addition, there are regulatory provisions in 40 C.F.R. Part 71 that implement these statutory requirements.
>
> As noted in EPA's Statement of Basis for the Black Mesa [Complex] title V permit, when an underlying applicable requirement does not require periodic testing or monitoring, Part 71 requires that title V permits must contain "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." (40 C.F.R. 71.6(a)(3)(i)(B)). Permitting authorities have an obligation to add monitoring provision to title V permits when applicable requirements have no periodic monitoring or [have] insufficient monitoring. For opacity, such conditions typically include visible emission surveys, Method 9 tests, water spray ob-

> servation, pressure drop monitoring and leak detection for baghouses, as well as associated record-keeping requirements. Since Peabody uses sprayers to comply with an opacity limit in an NSPS that does not require any ongoing monitoring, EPA is using its statutory and regulatory authority to require sprayer inspection and maintenance as part of the periodic monitoring needed to assure compliance with the opacity limit. EPA believes it is reasonable to expect Peabody to conduct weekly observations of its water sprays and record the results.

RTC at 5-6.

Peabody's failure to address Region IX's detailed response to Peabody's earlier comments on this issue is fatal to its petition for review of this issue. As we have noted already (*see supra* note 58), "Petitions for review may not simply repeat objections made during the comment period; instead they must demonstrate why the permitting authority's response to those objections warrants review." *In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 5 (EAB 2000). Accordingly, we deny review of the Final Permit on this issue.

III. *CONCLUSION*

For the reasons describe above, we find that Peabody has failed to demonstrate clear error with respect to Region IX's decision not to include a PTE limit in Peabody's Title V permit, and Region IX's inclusion of opacity monitoring provisions in the Title V permit for the Black Mesa Complex. Additionally, we find that Peabody failed to adequately address Region IX's response to Peabody's comments regarding the Region's authority under Title V to adopt monitoring requirements for water sprays. Accordingly, Peabody's petition for review is hereby DENIED.

So ordered.