IN RE WASHINGTON AQUEDUCT WATER SUPPLY SYSTEM

NPDES Appeal No. 03-06

ORDER DENYING REVIEW IN PART AND REMANDING IN PART

Decided July 29, 2004

Syllabus

The Washington Aqueduct Water Supply System, a division of the U.S. Army Corps of Engineers, Baltimore District, provides drinking water to the Washington, D.C. metropolitan area. The Aqueduct "manufactures" drinking water by taking in raw Potomac River water, allowing a large percentage of sediments to settle out of the water, and then treating the water using a three-step process: (1) chemically induced sedimentation, in which aluminum sulfate, a widely used flocculant, is added to the water to induce further separation of solids from the water; (2) filtration; and (3) disinfection. The sedimentation step, which is at the heart of this appeal, occurs in six "sedimentation basins" that are adjacent to the Aqueduct's water treatment facilities in northwest Washington, D.C.

Over time, the aluminum sulfate flocculant added to the sedimentation basins and the resultant settled solids build up in the bottom of the basins and can interfere with the daily production of drinking water if they are not periodically removed. Accordingly, from two-to-five times per year per basin (depending on basin size and use), the Corps of Engineers cleans out the basins by discharging the treated sediments and supernatant into the Potomac River. Historically, each discharge episode has occurred over the course of several days in batch releases lasting approximately four-to-twelve hours.

On March 14, 2003, Region III of the U.S. Environmental Protection Agency ("EPA" or "Agency") issued a revised version of a National Pollutant Discharge Elimination System ("NPDES") permit to the Corps of Engineers' Baltimore District authorizing the discharges from the Washington Aqueduct into the waters of the United States, pursuant to section 402 of the Clean Water Act ("CWA"), 33 U.S.C. § 1342. On April 11, 2003, the National Wilderness Institute ("NWI"), a non-profit environmental organization based in Alexandria, Virginia, filed a petition for review of Region III's permit decision. NWI requested on several grounds that the permit be remanded to the Region for further consideration. Region III subsequently issued a modified version of the permit on February 27, 2004, which is now before the Environmental Appeals Board ("Board").

Held: NWI's petition for review of the Washington Aqueduct's NPDES permit is denied in part; however, with respect to one issue, the permit is remanded to EPA Region III for further consideration.

Under the federal regulations implementing section 402 of the CWA, 33 U.S.C. § 1342, permit issuers must determine, among many other things, whether a given point source discharge "causes, has the reasonable potential to cause, or contributes to" an exceedance of certain narrative and numeric criteria for various pollutants set forth in state water quality standards. If a discharge is found to cause, have the reasonable potential to cause, or contribute to such an exceedance, the permit writer must calculate water quality-based effluent limits ("WQBELs") for the relevant pollutants. The permit writer must then compare the resulting WQBELs to any technology-based effluent limits developed for particular pollutants and incorporate the more stringent set of effluent limitations into the NPDES permit.

In this case, Region III conducted the "reasonable potential" analysis for the Washington Aqueduct using grab samples of effluent that had been discharged from one of the sedimentation basins on October 21, 2002. After determining the concentrations of various metals, such as aluminum, arsenic, chromium, copper, iron, lead, mercury, selenium, and zinc, and other pollutants in the Aqueduct's effluent, the Region determined that only aluminum had a reasonable potential to exceed District of Columbia water quality standards. The Region therefore calculated WQBELs for aluminum but found that the technology-based effluent limits it had developed for that metal were slightly more stringent than the WQBELs. Accordingly, Region III did not include any WQBELs in the Aqueduct's NPDES permit.

In comments on the Aqueduct's draft permits, NWI raised questions about the representativeness of the data Region III chose to use to conduct the Aqueduct's reasonable potential analysis. NWI reviewed a decade of Discharge Monitoring Reports from the Aqueduct, which disclosed the concentrations of aluminum, iron, and total suspended solids discharged from the sedimentation basins into the Potomac River. NWI also collected several reports, prepared by the Corps of Engineers or its contractors, that contained measured concentrations of metals and other pollutants in the Aqueduct's effluent. Finally, NWI collected its own samples of Aqueduct discharges and had them evaluated for their metals concentrations. NWI argued, on the basis of these data sets, that the pollutant concentrations measured by Region III in the October 21, 2002 samples were uncharacteristically low and thus provided an unsuitable basis for the reasonable potential analysis.

In its response to these comments on the draft permits, Region III asserted that the pollutant concentrations detected in the October 21, 2002 samples fell within the range of other samples and thus apparently could legitimately be used in the reasonable potential analysis. In other instances, the Region did not respond to NWI's data sets at all. On appeal, NWI argues that Region III responded inadequately to its comments.

Upon review of the administrative record and applicable federal law and Agency guidance, the Board holds that Region III clearly erred by failing to respond, adequately or in some cases at all, to significant comments NWI submitted on the Washington Aqueduct's draft NPDES permits. According to the Board, a response to comments must address the issues raised in a meaningful fashion and be clear and thorough enough to adequately encompass the issues raised by the commenter. Moreover, the administrative record must reflect the permit issuer's considered judgment, meaning that the permit issuer must articulate with reasonable clarity the reasons for its conclusions and the significance of the crucial facts it relied upon in reaching those conclusions. In this case, Region III chose to conduct the reasonable potential analysis using pollutant concentration levels that appear, on the basis of competing data compiled by NWI, to be substantially lower than worst-case or even average pollutant levels discharged from the Aqueduct, and yet the record contains virtually nothing explaining the Region's decision to proceed as it did. The record also contains no explanation or acknowledgment of the NPDES regulatory require-

ment that permit issuers use procedures to evaluate pollutant variability in effluent samples when analyzing reasonable potential, despite NWI's comments that clearly indicated pollutant variability was a significant issue in Aqueduct discharges.

The Board therefore remands the NPDES permit to Region III so that the Region may revisit the reasonable potential analysis, ensure that its use of procedures to account for pollutant variability in conducting the analysis are clearly documented in the administrative record, and respond to NWI's comments in a meaningful fashion that is sufficiently clear and thorough enough to adequately encompass the issues raised. Review of all other issues is denied.

Before Environmental Appeals Judges Scott C. Fulton, Ronald L. McCallum, and Kathie A. Stein.

Opinion of the Board by Judge McCallum:

In the mid-1800s, the Congress of the United States enacted legislation creating the "Washington Aqueduct Water Supply System" ("Washington Aqueduct" or "Aqueduct") as a division of the U.S. Army Corps of Engineers, Baltimore District, for the purpose of providing drinking water to the Washington, D.C. metropolitan area. Today, the Washington Aqueduct supplies potable water to approximately one million residents of the District of Columbia, Arlington County, Virginia, the City of Falls Church, Virginia, and portions of Fairfax County, Virginia.

In the course of its operation of the Aqueduct over the past few decades, the Corps of Engineers' Baltimore District obtained a National Pollutant Discharge Elimination System ("NPDES") permit for discharges of pollutants from the Aqueduct into the waters of the United States, pursuant to section 402 of the Clean Water Act ("CWA" or "Act"), 33 U.S.C. § 1342. On March 14, 2003, Region III of the U.S. Environmental Protection Agency ("EPA" or "Agency") issued a revised version of the NPDES permit to the Corps of Engineers for discharges from the Washington Aqueduct into the Potomac River and Rock Creek.

On April 11, 2003, the National Wilderness Institute ("NWI"), a non-profit environmental organization based in Alexandria, Virginia, filed a petition for review of Region III's permit decision. NWI requested on several grounds that the permit be remanded to the Region for further consideration. Region III subsequently issued a modified version of the permit on February 27, 2004,[1] which is now before the Environmental Appeals Board ("Board"). For the reasons set forth below, we remand the Washington Aqueduct's NPDES permit to the Region for further consideration consistent with this decision.

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[1] As explained in Part I.B.2 below, we stayed our consideration of NWI's April 11, 2003 petition pending Region III's reconsideration of various portions of the revised permit.

I. *BACKGROUND*

A. *Statutory and Regulatory Background*

In 1972, Congress enacted the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." CWA § 101(a), 33 U.S.C. § 1251(a). To achieve this objective, the Act prohibits the discharge of pollutants into the waters of the United States unless such discharge proceeds in compliance with a CWA permit. CWA § 301(a), 33 U.S.C. § 1311(a). The CWA permitting program of relevance in the instant case is the NPDES program, set forth at section 402 of the CWA, 33 U.S.C. § 1342, and implementing regulations developed by EPA at 40 C.F.R. part 122. NPDES permits typically contain provisions that incorporate or otherwise address two central CWA elements: (1) effluent limitations, which are established by EPA or permit issuers; and (2) water quality standards, which are promulgated by states and approved by EPA. *See* CWA §§ 301, 303, 304(b), 33 U.S.C. §§ 1311, 1313, 1314(b); 40 C.F.R. pts. 122, 125, 131.

Effluent limitations control pollutant discharges into the waters of the United States by restricting the types and amounts of particular pollutants a permitted entity may lawfully discharge. CWA § 304(b), 33 U.S.C. § 1314(b); 40 C.F.R. § 122.44. Effluent limitations are either "technology-based" or "water quality-based," whichever is more stringent. CWA §§ 301(b)(1), 302, 33 U.S.C. §§ 1311(b)(1), 1312. Technology-based effluent limitations are generally developed on an industry-by-industry basis and establish a minimum level of treatment that is technologically available and economically achievable for facilities within a specific industry. CWA §§ 301(b), 304(b), 33 U.S.C. §§ 1311(b), 1314(b); 40 C.F.R. pt. 125, subpt. A; *see* 40 C.F.R. pts. 405-471 (effluent limitations guidelines for various point source categories). In some cases no industry-specific effluent limitations guidelines exist, and in those instances, permit issuers must use their "best professional judgment" to establish appropriate technology-based effluent limitations on a case-by-case basis. CWA § 402(a)(1), 33 U.S.C. § 1342(a)(1); 40 C.F.R. §§ 122.44, 125.3.

Water quality-based effluent limitations, on the other hand, are designed to ensure that state water quality standards are met regardless of the decisions made regarding technology and economics in establishing technology-based limits. State water quality standards are comprised of three parts: (1) one or more "designated uses" (i.e., public water supply, agriculture, recreation) for each water body or water body segment in the state; (2) water quality "criteria" expressed in numerical concentration levels for short ("acute") or longer ("chronic," "human health") exposure times and/or narrative statements specifying the amounts of various pollutants that may be present in the water without impairing designated uses; and (3) an antidegradation provision. CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. §§ 131.10-.12. Water quality-based effluent limita-

tions, or "WQBELs," are derived on the basis of the second component of water quality standards, i.e., the numeric or narrative water quality criteria for various pollutants established for particular water bodies.

Under the federal regulations implementing section 402 of the CWA, 33 U.S.C. § 1342, permit issuers must determine, among many other things, whether a given point source discharge "causes, has the reasonable potential to cause, or contributes to" an exceedance of the narrative or numeric criteria for various pollutants set forth in state water quality standards. 40 C.F.R. § 122.44(d)(1)(ii). This regulatory requirement, sometimes described as the "reasonable potential analysis," provides in full:

> When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a [s]tate water quality standard, the permitting authority shall use procedures [that] account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water.

Id. If a discharge is found to cause, have the reasonable potential to cause, or contribute to such an exceedance, the permit writer must calculate WQBELs for the relevant pollutants.[2] 40 C.F.R. § 122.44(d)(1)(i), (iii)-(vi). The permit writer must then compare the resulting WQBELs to any technology-based effluent limits developed for particular pollutants and incorporate the more stringent set of effluent limitations into the permit. CWA §§ 301(b)(1)(C), 302, 33 U.S.C. §§ 1311(b)(1)(C), 1312; 40 C.F.R. § 122.44(d).

B. *Factual and Procedural Background*

Over the course of the last few years, EPA Region III has issued several rounds of draft and final NPDES permits for the Washington Aqueduct and has attempted to respond to extensive comments on these permits from an array of governmental entities, public interest organizations, and private citizens. Various components of the permits have been challenged in federal court as well as before

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[2] EPA has developed guidance for permit issuers to use in developing WQBELs. *See, e.g.*, Office of Water, U.S. EPA, EPA/505/2-90-001, *Technical Support Document for Water Quality-Based Toxics Control* ch. 3 (Mar. 1991); *see also* Office of Water, U.S. EPA, EPA-833-B-96-003, *U.S. EPA NPDES Permit Writers' Manual* ch. 6 (Dec. 1996).

this tribunal, and some of that litigation is still ongoing.[3] For reasons of practicality and efficiency, we have chosen to limit our survey of the extensive background information in this case to only those matters that have relevance to the specific issues we have been asked to decide. We commend to interested parties the lengthy administrative record in this case as a starting place for research and further investigation into other details concerning the CWA and the Washington Aqueduct's NPDES-regulated discharges.

1. *Washington Aqueduct Operations*

We begin with a brief overview of the Washington Aqueduct's operations. The Aqueduct "manufactures" drinking water by taking in raw Potomac River water at two dams — Great Falls and Little Falls, Maryland — and piping the water to the Dalecarlia Reservoir, a forty-six-acre earthen basin situated on Washington, D.C.'s northwestern border with the State of Maryland. Once in the Reservoir, river water receives passive "pretreatment" of sorts, as approximately fifty-one percent of the sediments suspended in the water settle out, simply by virtue of gravity and the stillness of the water, and thus are removed from the water. These sediments are periodically dredged out of the bottom of the Reservoir and applied to land as a high-quality soil amendment. Meanwhile, the now-"pretreated" river water is sent from the Dalecarlia Reservoir to one of two drinking water treatment plants in the District of Columbia: the Dalecarlia plant and the McMillan plant.

At both of these plants, the drinking water "manufacturing" or treatment process consists of three steps: (1) chemically induced sedimentation, in which aluminum sulfate, a widely used flocculant, is added to the water to induce further separation of solids from the water;[4] (2) filtration; and (3) disinfection. The sedi-

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[3] *See Nat'l Wilderness Inst. v. U.S. Army Corps of Eng'rs*, No. 1:01-CV-00273 (TFH) (D.D.C. filed Feb. 6, 2001) (alleging Endangered Species Act violations at Washington Aqueduct); *see also Nat'l Wilderness Inst. v. U.S. Army Corps of Eng'rs*, No. 1:02-CV-01244 (TFH) (D.D.C. Mar. 29, 2004) (order granting motion to dismiss for lack of jurisdiction in a citizen suit case filed in June 2002, alleging effluent violations).

[4] As EPA explains:

> Flocculation refers to water treatment processes that combine small particles into larger particles, which settle out of the water as sediment. Aluminum sulfate (alum) and iron salts or synthetic organic polymers are generally used to promote coagulation. Alum added to water with carbonate alkalinity creates aluminum hydroxide in the form of a visible floc [that] settles to the bottom of the basin. Nutrients, silt, and organic matter sorb to the aluminum hydroxide and hydrogen ions are produced. This process tends to lower the pH of the water[;] however, if the pH remains in the range of 6-8, the nontoxic forms of aluminum will re-

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mentation step, which is at the heart of this appeal, occurs in "sedimentation basins" at the two water treatment plants. The Dalecarlia plant is served by four sedimentation basins, which are denoted "Dalecarlia Sedimentation Basins #1 through #4," while the McMillan plant is served by two sedimentation basins, called "Georgetown Sedimentation Basins #1 and #2."

Over the course of weeks and months, the aluminum sulfate flocculant and settled solids build up in the bottom of the sedimentation basins and can interfere with the daily production of drinking water if they are not periodically removed. Accordingly, from two-to-five times per year per basin (depending on basin size and use), the Corps cleans out the basins by discharging the treated sediments and supernatant (i.e., the liquid sitting on top of the settled solids) into the Potomac River. The Dalecarlia basins discharge through Outfall 002, which is located just south of the Maryland/District of Columbia boundary and north of Chain Bridge, while the Georgetown basins discharge through Outfalls 003 and 004, which are situated south of Fletcher's Boat House and north of Georgetown University on the north/south borders of the basins, respectively. Historically, each discharge episode has occurred over the course of several days in batch releases lasting approximately four-to-twelve hours. *See, e.g.*, EPA Ex. 7, at 18.

2. *Recent Permitting History*

On March 28, 2002, Region III issued a new draft NPDES permit for the Washington Aqueduct, designated for purposes of these proceedings the "first draft NPDES permit." *See* EPA Region III Response to Petition for Review Exhibit ("EPA Ex.") 5 (EPA Region III, Draft NPDES Permit No. DC0000019 for the Washington Aqueduct (Mar. 27, 2002)) ("First Draft Permit"). The Region also issued a fact sheet explaining the first draft permit and a request for public comments on the permit. *See* EPA Ex. 7 (EPA Region III, Draft NPDES Permit No. DC0000019 Fact Sheet (Mar. 27, 2002)) ("First Draft Permit Fact Sheet"). A large number of entities, including NWI, submitted comments on the first draft permit. *See* Letter from Rob Gordon, Director, NWI, to Environmental Appeals Board, Exhibit ("NWI Ex.") 3 (Apr. 11, 2003) & EPA Ex. 8 (NWI Comments on First Draft Permit (June 28, 2002)) ("NWI's First Comments").

Region III made substantial revisions to the first draft permit in response to the comments received on that version of the permit. On December 18, 2002, the Region issued a revised draft permit, referred to in these proceedings as the "sec-

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main. Settling or sedimentation is simply a gravity process that removes flocculated particles from the water.

U.S. EPA Region III, *Fact Sheet, NPDES Permit Reissuance, Washington Aqueduct Water Treatment Plant* 13 (Mar. 27, 2002).

ond draft NPDES permit," along with a response to comments document, a revised fact sheet, and a request for comments on the new draft permit. *See* EPA Ex. 10 (EPA Region III, Draft NPDES Permit No. DC0000019 for the Washington Aqueduct (Dec. 17, 2002)) ("Second Draft Permit"); EPA Ex. 12 (EPA Region III, Response to Public Comment on Washington Aqueduct NPDES Draft Permit (undated; prob. Dec. 17, 2002)) ("RTC on First Draft Permit"); EPA Ex. 2 (EPA Region III, Draft NPDES Permit No. DC0000019 Fact Sheet (Dec. 17, 2002)) ("Second Draft Permit Fact Sheet"). The Region again received extensive comments on the draft permit from a variety of parties, including NWI. *See* NWI Ex. 4 & EPA Ex. 26 (NWI Comments on Second Draft Permit (Jan. 30, 2003)) ("NWI's Second Comments").

On March 14, 2003, Region III issued a final NPDES permit to the Corps for the Washington Aqueduct, along with a response to comments on the second draft permit. *See* EPA Ex. 1 (EPA Region III, NPDES Permit No. DC0000019, Washington Aqueduct (Mar. 14, 2003)); EPA Ex. 3 (EPA Region III, Response to Public Comment on Washington Aqueduct NPDES Revised Draft Permit (Mar. 14, 2003)) ("RTC on Second Draft Permit"). The final permit incorporated a number of modifications to address comments on various matters pertaining to sediment discharges and the spring spawning season, emergency discharges, genetic and habitat studies, the permit reopener clause, and related topics. *See*, *e.g.*, RTC on Second Draft Permit at 7-15, 21.

As mentioned in the introduction, NWI filed a petition for review of the March 14, 2003 permit with the Board on April 11, 2003. *See* Letter from Rob Gordon, Director, NWI, to Environmental Appeals Board (Apr. 11, 2003) ("NWI Pet'n"). Region III filed a response to the petition for review on July 7, 2003. *See* EPA Region III's Response to Petition for Review ("EPA Resp."). On December 16, 2003, in response to a number of motions and other procedural developments in this case, the Board placed a stay on further proceedings in NWI's appeal while Region III reconsidered various portions of the March 14th NPDES permit. *See* Order Denying Motion for Partial Remand and Staying Further Proceedings During Reconsideration of Permit Conditions (Dec. 16, 2003).

Region III subsequently filed a motion with the Board on March 30, 2004, reporting that it had modified several conditions of the March 14th permit and reissued the permit in final form on February 27, 2004. *See* EPA's Motion for Lifting Stay of Further Proceedings; *id*. Ex. 5 (EPA Region III, NPDES Permit No. DC0000019, Washington Aqueduct (Feb. 27, 2004)). The Region therefore requested that the Board lift the stay of NWI's appeal. On April 23, 2004, the Board granted the Region's motion and reinitiated proceedings in this case. *See* Order Lifting Stay of Proceedings (Apr. 23, 2004). Notably, because NWI's appeal raises issues the Region did not address during its reconsideration and reissuance of the February 27, 2004 permit, and because the February 27, 2004 permit has superseded the March 14, 2003 permit, the final NPDES permit before us now

is the February 27, 2004 permit. We will therefore apply NWI's arguments to that permit. The case stands ready for decision by the Board.

II. *DISCUSSION*

A. *Standard of Review*

Under the rules governing this proceeding, an NPDES permit ordinarily will not be reviewed unless it is based on a clearly erroneous finding of fact or conclusion of law, or involves an important matter of policy or exercise of discretion that warrants Board review. 40 C.F.R. § 124.19(a); 45 Fed. Reg. 33,290, 33,412 (May 19, 1980); *see In re Gov't of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 341-43, 345-47, 357 (EAB 2002) (remanding portions of NPDES permit pursuant to section 124.19(a)). The Board's analysis of NPDES permits is guided by the preamble to the part 124 permitting regulations, which states that the Board's power of review "should be only sparingly exercised" and that "most permit conditions should be finally determined at the [permit issuer's] level." 45 Fed. Reg. at 33,412; *accord In re City of Moscow*, 10 E.A.D. 135, 141 (EAB 2001). The burden of demonstrating that review is warranted rests with the petitioner. 40 C.F.R. § 124.19(a); *In re Town of Westborough*, 10 E.A.D. 297, 304 (EAB 2002).

In permit appeals, the Board traditionally assigns a heavy burden to petitioners seeking review of issues that are technical in nature. *See, e.g.*, *In re Phelps Dodge Corp.*, 10 E.A.D. 460, 517-19 (EAB 2002); *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 201 (EAB 2000); *In re Town of Ashland Wastewater Treatment Facility*, 9 E.A.D. 661, 667 (EAB 2001). As we have explained:

> [W]hen presented with technical issues, we look to determine whether the record demonstrates that the [permit issuer] duly considered the issues raised in the comments and whether the approach ultimately adopted by the [permit issuer] is rational in light of all the information in the record. If we are satisfied that the [permit issuer] gave due consideration to comments received and adopted an approach in the final permit decision that is rational and supportable, we typically will defer to the [permit issuer's] position. Clear error or reviewable exercise of discretion are not established simply because the petitioner presents a different opinion or alternative theory regarding a technical matter, particularly when the alternative theory is unsubstantiated.

In re MCN Oil & Gas Co., Order Denying Review, UIC Appeal No. 02-03, slip op. at 25-26 n.21 (EAB Sept. 4, 2002) (citations omitted); *accord In re Three Mountain Power, L.L.C.*, 10 E.A.D. 39, 50 (EAB 2001); *Steel Dynamics*, 9 E.A.D. at 180 n.16, 201; *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 567-68 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. U.S. EPA*, 185 F.3d 862 (3d Cir. 1999).

Moreover, with respect to questions pertaining to the "representativeness" of data used as the basis for establishing permit conditions (which is central to this appeal), the Board has repeatedly held, in the context of the Clean Air Act's prevention of significant deterioration program, that the choice of appropriate data sets is generally left to the discretion of the permitting authority. *E.g.*, *In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 256-57 (EAB 1999) (choice of data sets for air quality analysis largely left to discretion of permit authority); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 147 (EAB 1999) (same, but with the proviso that permit authority's decision is adequately justified in the record). The Board's deference in these circumstances stems partly from the fact that selecting an appropriate data set is a technical matter, but it also stems from the fact that EPA has issued guidelines for determining whether data is sufficiently "representative" to be legitimately used in an air quality analysis, and permit issuers have discretion to act within the spirit of those guidelines. *See, e.g.*, *Encogen*, 8 E.A.D. at 256 (quoting EPA guidance that recommends consideration of air quality monitor location and data quality and currentness when determining "representativeness" of data); *In re Haw. Elec. Light Co.*, 8 E.A.D. 66, 97 (EAB 1998) (same); *In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 128 (EAB 1997) (ambient air monitoring guidelines give permit issuers discretion to allow representative data submissions on case-by-case basis). Guidance of a similar nature exists to ensure effluent is meaningfully characterized for reasonable potential purposes under the NPDES program, although the Board has not had prior cause to address that guidance in depth. *See* Office of Water, U.S. EPA, EPA/505/2-90-001, *Technical Support Document for Water Quality-Based Toxics Control* § 3, at 47-66 (Mar. 1991); *cf. In re Gov't of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 336-37, 340 & n.18 (EAB 2002) (noting Region's decision that derivation of WQBELs using methods in Technical Support Document was not feasible due to insufficient information regarding magnitude, variation, and frequency of river and storm water discharge flow rates).

B. *Water Quality Analyses*

In its appeal of the Washington Aqueduct's NPDES permit to this Board, NWI is primarily interested in the effects the Aqueduct's activities will have on the water quality of the Potomac River. To analyze these effects, Region III initially relied on two studies prepared by environmental consulting companies on behalf of the Corps' Baltimore District, as well as on supplemental studies conducted by one of the companies. Second Draft Permit Fact Sheet at 4, 18-19; *see*

EPA Ex. 16 & NWI Ex. 6 (EA Engineering, Science & Technology, Inc., *Water Quality Studies in the Vicinity of the Washington Aqueduct* (Oct. 2001)) ("*2001 Water Quality Studies*"); EPA Ex. 17 (Memorandum Reevaluating 1 December 1999 Acute Toxicity Test Value (Mar. 19, 2002)) ("*Supplemental Studies*"); Dynamac Corp., *Impacts of Sedimentation Basin Discharge from the Dalecarlia and Georgetown Reservoirs on the Potomac River* (Sept. 1, 1992). These studies included effluent toxicity testing and effluent fate and transport modeling of the Aqueduct's discharges conducted from 1997 through 2001, as well as modeling of discharge plumes for each outfall into the Potomac River at various river flow conditions. *2001 Water Quality Studies* pts. 2-4; *Supplemental Studies* at 2-12; *see* Second Draft Permit Fact Sheet at 18. The Region imposed water quality-based restrictions in the first draft permit, including a prohibition on sediment discharges during the spring spawning season, on the basis of these studies. First Draft Permit Fact Sheet at 3, 5, 7, 9-12, 17-19.

Region III subsequently decided, after it had received substantial public comment on the first draft permit, that it needed "additional reliable up-to-date values for various pollutants, particularly metals, in the Washington Aqueduct's discharge."[5] EPA Resp. at 7. Apparently, prior to this time, the Region had not prepared a formal, on-the-record analysis of the Washington Aqueduct's reasonable potential to cause an exceedance of D.C. water quality standards for metals and other pollutants likely to be in the Aqueduct's effluent.[6] The Region therefore

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[5] NWI's comments on this issue stated, among other things:

> Grab samples of sludge discharges from the Washington Aqueduct have indicated concentrations of arsenic, chromium, lead, nickel, selenium, and zinc that may exceed acute, chronic, or human health water quality standards. The draft NPDES permit requires no testing nor imposes any limit on these metals, several of which are carcinogens, and EPA offers no consideration of these pollutants or justification for not requiring testing or the inclusion of limits. Clearly, limits consistent with DC Water Quality Standards are necessitated by the reasonable potential that discharges will exceed DC standards.

NWI's First Comments at 22.

[6] We have been unable to locate such an analysis in the materials submitted to us by the Region and NWI, including the first draft permit, the first draft permit fact sheet, NWI's comments on the first draft permit, and the Region's response to comments on the first draft permit; nor have we found it listed in the certified index to the administrative record. (The response to comments on the first draft permit mentions a reasonable potential analysis, but it is the one conducted using the October 21, 2002 grab samples and as such postdates the first draft permit.) Indeed, the closest thing we have found to a reasonable potential analysis for the first draft permit is an explanation in the fact sheet for that draft permit regarding proposed effluent limits for iron and aluminum. The Region notes in the fact sheet that it had consulted the D.C. water quality standards and found no numeric criteria for aluminum and only a chronic (not an acute) criterion for iron and thus did not pursue WQBELs for either of these pollutants. *See* First Draft Permit Fact Sheet at 17-19. (For definitions of the terms "acute" and "chronic" in the water quality context, see *infra* note 7.)

collected grab samples of effluent (i.e., supernatant and settled solids) being discharged from Dalecarlia Sedimentation Basin #2 on October 21, 2002, and analyzed those samples to determine the concentration of total suspended solids ("TSS"), dissolved and total metals, and other contaminants in the effluent. EPA Ex. 18 (Marilyn Gower, Environmental Scientist, U.S. EPA, *Washington Aqueduct Special Sampling Inspection Report* (Nov. 26, 2002)); EPA Ex. 19 (Office of Analytical Services & Quality Assurance, U.S. EPA Region III, *OASQA Laboratory Report: Washington Aqueduct* (Nov. 18, 2002)). Laboratory analysis indicated that the effluent samples contained, among other things, aluminum at 983 milligrams per liter ("mg/L"), iron at 39.8 mg/L, a variety of other metals (e.g., arsenic, copper, magnesium, mercury, zinc) in small quantities, and TSS at 4,300 mg/L. EPA Exs. 18-19.

The Region proceeded to use the pollutant concentrations detected in the October 21, 2002 grab samples to analyze the reasonable potential of the Washington Aqueduct's pollutant discharges to exceed D.C. water quality standards, pursuant to 40 C.F.R. § 122.44(d)(1)(ii). Second Draft Permit Fact Sheet at 19 ("EPA performed a reasonable potential analysis using the results of the October 21 sampling"); *see* EPA Ex. 20 (reasonable potential analysis); *see* D.C. Mun. Regs. tit. 21, ch. 11 (as amended May 24, 2002) (EPA Ex. 23) (D.C. water quality standards). At the outset of its analysis, Region III decided that of three types of numeric water quality criteria in the D.C. standards — acute, chronic, and human health[7] — only the acute criteria, representing one-hour average concentrations of the pollutants, had relevance to the Aqueduct's relatively short-duration discharges. EPA Resp. at 14; EPA Ex. 20.

On this basis, the Region eliminated iron, antimony, and thallium from consideration in the reasonable potential analysis because, though present in the October 21, 2002 grab samples, these metals lack designated acute criteria in the D.C. water quality standards.[8] EPA Resp. at 15; *see* D.C. Mun. Regs. tit. 21, § 1104.7 tbl. 2. The Region also ruled out a reasonable potential analysis for arsenic, cadmium, chromium, copper, lead, nickel, selenium, silver, and zinc because,

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[7] "Acute" water quality criteria represent "the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time (one-hour (1-hour) average) without deleterious effects at a frequency that does not exceed more than once every three (3) years." D.C. Mun. Regs. tit. 21, § 1199.1 (definition of "CMC" or "Criteria Maximum Concentration"). "Chronic" water quality criteria are similarly defined, except that the time period is longer, representing a four-day average. *Id.* (definition of "CCC" or "Criteria Continuous Concentration"). Finally, "human health" water quality criteria are represented by a thirty-day average. *Id.* § 1104.7 tbl. 2.

[8] Region III also contends that the D.C. water quality standards do not have an acute water quality criterion for silver. EPA Resp. at 15. On the contrary, in the standards submitted by the Region as EPA Exhibit 23 (May 24, 2002 version), silver is assigned an acute value of $e^{(1.72[\ln(\text{hardness})]-6.52)}$ microgram per liter ("µg/L"), as adjusted. D.C. Mun. Regs. tit. 21, §§ 1104.7 tbl. 2, 1105.10; *see* 60 Fed. Reg. 22,229, 22,231 tbl. 2 (May 4, 1995) (conversion factors for total recoverable/dissolved metals).

though also determined to be present in the Aqueduct's effluent on October 21, 2002, these metals were not detected in quantifiable amounts and/or in amounts that exceeded their respective acute water quality criteria, and thus the Region assumed concentrations of zero for these pollutants. *See* EPA Resp. at 17; RTC on Second Draft Permit at 31-32; RTC on First Draft Permit at B.25; EPA Ex. 20. Finally, the Region excluded mercury, though detected in the effluent in quantifiable amounts, because the concentration nonetheless fell below the acute criterion for that metal.[9] EPA Resp. at 18.

The Region concluded that only aluminum, of all the metals, had a reasonable potential to cause an exceedance of the D.C. water quality criteria. Notably, the D.C. standards contain no numeric criteria — acute, chronic, or human health — for aluminum. *See* D.C. Mun. Regs. tit. 21, § 1104.7 tbl. 2. The standards do contain, however, a relevant narrative water quality criterion, which specifies, "The surface waters of the District shall be free from substances in amounts or combinations that * * * [c]ause injury to, are toxic to, or produce adverse physiological or behavioral changes in humans, plants, or animals." *Id*. § 1104.1(d). Region III relied on this criterion and other considerations in deciding to adopt, for purposes of this permit, the acute criterion for aluminum included in the Great Lakes Water Quality Criteria (i.e., 750 g/L). RTC on Second Draft Permit at 19. The Region computed a "wasteload allocation" for aluminum in Washington Aqueduct effluent using this criterion,[10] and, because the effluent concentration found in the October 21, 2002 grab samples exceeded the wasteload allocation, the Region proceeded to calculate WQBELs for aluminum. *See* EPA Ex. 20 (computing average monthly limit for aluminum of 5,529 g/L (5.5 mg/L) and maximum daily limit of 8,074 g/L (8 mg/L)). After comparing these WQBELs to the technology-based effluent limits it had also derived for aluminum (i.e., 4 mg/L monthly average and 8 mg/L daily maximum), Region III found the technology-based limits to be slightly more stringent and therefore incorporated those limits, rather than the WQBELs, into the permit. RTC on Second Draft Permit at

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[9] An alternative version of the Region's mercury analysis is included in the second response to comments document, in which Region III asserts that the October 21, 2002 samples of supernatant were "below the detection limit for dissolved mercury," and thus the Region assumed the concentration of mercury was zero. RTC on Second Draft Permit at 32. The discrepancy may be due to different mercury measurements in supernatant versus sediments. *See* EPA Ex. 18 (mercury results reported in October 21, 2002 samples, of which all measured below quantitation limit for mercury (0.2 g/L) except one result from south end of Dalecarlia Sedimentation Basin #2 (where most solids settle out of river water), which measured 0.4 g/L); *see also* D.C. Mun. Regs. tit. 21, § 1104.7 tbl. 2 (acute water quality criterion for mercury (expressed as total recoverable) is 2.4 g/L).

[10] Region III used the following equation to compute the "wasteload allocation" for aluminum: WLA = (WQC*(Qe+MZ*Qs)-(BC*MZ*Qs))/Qe, where "WLA" = wasteload allocation; "WQC" = acute water quality criterion (750 g/L); "Qe" = effluent flow (0.132 cubic meters per second ("cms")); "Qs" = stream flow (153 cms); "MZ" = acute mixing factor (0.145); and "BC" = background concentration (390 g/L). EPA Ex. 20, at 1. The equation yielded a wasteload allocation value for aluminum of 8,086 g/L. *Id*.

18-19; *see* EPA's Motion for Lifting Stay of Further Proceedings Ex. 5 (EPA Region III, NPDES Permit No. DC0000019, Washington Aqueduct pts. I.A-.F (Feb. 27, 2004)).

C. *NWI's Arguments on Appeal*

In two rounds of comments on draft permits for the Aqueduct, NWI attempted, in a variety of ways, to persuade EPA Region III that it had failed to adequately evaluate the concentrations of various metals (e.g., aluminum, arsenic, chromium, copper, iron, lead, mercury, selenium, zinc) and TSS in the Aqueduct's discharges and, as a consequence, failed to incorporate into the permit appropriate effluent limitations — specifically WQBELs — for these contaminants. *See* NWI's Second Comments at 1-8; NWI's First Comments at 18-23, 45-50 & tbls. I-VII. Because EPA remained unconvinced that deficiencies existed in its water-quality analyses, the Region did not modify the permit in response to these concerns. NWI therefore asks this Board to remand the permit to Region III for further analyses of water quality issues and establishment of WQBELs.

NWI argues on two separate (though related) grounds that Region III responded inadequately to comments it submitted on the draft permits regarding the Region's "reasonable potential to cause an exceedance of water quality standards" analysis. First, NWI contends that the October 21, 2002 data Region III relied on to conduct the reasonable potential analysis for the second draft permit were not representative, in terms of levels of pollutant concentrations, of the pollutant load typically carried by discharges from the Washington Aqueduct sedimentation basins. Second, NWI claims that Region III chose to defend its October 21, 2002 sampling results rather than consider alternative metals data sets NWI had submitted or identified in its comments. NWI also raises a number of minor subsidiary points having to do with federal facilities compliance agreements,[11] the Data Quality Act, and incorporation of comments by reference. We address these issues in turn below.

1. *Reasonable Potential Analysis*

a. *Representativeness of October 21, 2002 Sampling Data*

To begin, NWI points out that in its comments on the second draft permit, it had argued that the samples collected by Region III on October 21, 2002, were not representative of the range of pollutant concentrations actually discharged from Outfalls 002, 003, and 004. NWI Pet'n at 1-3; *see* NWI's Second Comments at 1-4. To support this argument with respect to Outfall 002, NWI reviewed ten years of Discharge Monitoring Reports ("DMRs"), from January 1992 through

[11] *See infra* note 28.

May 2002, for the four Dalecarlia sedimentation basins. The DMRs reported actual discharge concentrations of aluminum, iron, and TSS that were higher, NWI asserts, in virtually every instance than the concentrations recorded in the Region's October 21, 2002 samples.[12] According to NWI: (1) forty-eight of fifty-six values for monthly average aluminum concentrations reported on the DMRs exceeded 983 mg/L (the October 21, 2002 sample value), with the average of the monthly average values being 2,359 mg/L; (2) fifty-four of fifty-four values for monthly average iron concentrations reported on the DMRs exceeded 39.8 mg/L (the October 21, 2002 sample value), with the average of monthly average values being 688 mg/L; and (3) fifty-three of fifty-five values for monthly average TSS concentrations reported on the DMRs exceeded 4,300 mg/L (the October 21, 2002 sample value), with the average of monthly average values being 20,374 mg/L. NWI's Second Comments at 1-2; *cf*. NWI's First Comments at 45-50 & tbls. I-VII.

To support the argument with respect to Outfalls 003 and 004, NWI pointed out that EPA had "apparently made the assumption," in its reasonable potential analysis, that a discharge from Dalecarlia Sedimentation Basin #2 through Outfall 002 could adequately represent discharges from the two Georgetown Sedimentation Basins through Outfalls 003 and 004. NWI's Second Comments at 2. NWI discussed differences in management of the two sets of sedimentation basins, noting that the basin sizes, chemicals added, sediment retention times, means of cleaning the basins, and discharge frequencies differed between the Dalecarlia and Georgetown facilities. *Id*. at 2-3. NWI also alleged that DMRs for the Georgetown basins indicate that "substantially higher pollutants on average" are discharged from the Georgetown basins through Outfalls 003 and 004 than from the Dalecarlia basins through Outfall 002. *Id*. at 3.

On appeal, NWI contends that Region III responded to its comments regarding Outfall 002 by stating only that the October 21, 2002 samples were "'representative of the Dalecarlia basin discharge at the time they were taken.'" NWI Pet'n at 2 (quoting RTC on Second Draft Permit at 30). NWI argues that this response is inadequate, stating:

> NWI did not contend that the samples taken by EPA were not representative of the effluent and supernatant that was

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[12] In the period covered by the 1992-2002 DMRs, the Corps had an obligation, set forth in its NPDES permit for the Washington Aqueduct, to monitor and report — in DMRs — its discharges of aluminum, iron, and TSS to the waters of the United States. *See* EPA Ex. 4 (EPA Region III, NPDES Permit No. DC0000019, Washington Aqueduct §§ A, C, at 2-3, 12-15 (Apr. 3, 1989)). The Corps had no equivalent obligation in that time frame to monitor or report Aqueduct discharges of any of the other metals of interest to NWI. Accordingly, the DMRs relied upon by NWI in this appeal contain no discharge concentrations or other specific information regarding pollutants of concern to NWI other than aluminum, iron, and TSS.

> being discharged at the event sampled by EPA but that all of the available historical data from DMR's indicates that the concentrations detected in that event showed that the event itself is not representative of the discharges that actually occur. Therefor[e], the EPA's samples were an inappropriate basis for conducting [the] reasonable potential analysis.

Id.

With respect to its comments on Outfalls 003 and 004, NWI notes that Region III expressed its awareness that discharges from Outfall 002 are "somewhat different" from those of Outfalls 003 and 004 but stated that those differences "do not affect the requirements of the permit because the technology-based limitations for TSS will remove aluminum and other metals to levels well below the limits needed to protect water quality." RTC on Second Draft Permit at 32 (quoted in NWI Pet'n at 3). NWI argues that this response is also inadequate because the Region remained focused on its October 21, 2002 samples of an Outfall 002 discharge rather than evaluating discharges from Outfalls 003 and 004. NWI Pet'n at 3.

Upon examination of the record, it becomes clear that Region III provided a little more information in response to NWI's and another commenter's concern about data representativeness than NWI admits. The Region explained that experienced EPA professionals had obtained and analyzed the October 21, 2002 samples in accordance with EPA sampling methods, chain-of-custody protocols, and quantification techniques, and that Region III believed the methods used were reliable and appropriate for establishing effluent limits. RTC on Second Draft Permit at 27, 30-31. More significantly, the Region asserted that "[w]hile the analytical results were not the highest concentrations ever recorded for the basins, they were within the range found by other samplers (see *2001 Water Quality Studies*)."[13] *Id.* at 27. The Region amplifies this point in its response to NWI's appeal, pointing specifically to three tables in the *2001 Water Quality Studies* that sum-

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[13] In addition, Region III explicitly acknowledged NWI's survey of historical DMR data for the Washington Aqueduct in its response to comments on the first draft permit. In that instance, NWI had argued that the ten years of DMR data revealed that the toxicity of the Aqueduct's discharges was much greater than reported in the *2001 Water Quality Studies* for Outfalls 002, 003, and 004. NWI's First Comments at 45-50 & tbls. I-VII. The Region rejected NWI's argument on the ground that relative toxicity could not validly be assessed by comparing historical average discharge concentrations reported on DMRs to toxicological evaluations of discharges conducted using numeric water quality criteria for individual pollutants. RTC on First Draft Permit at B40-42. The Region did not explain why such a comparison is invalid. Instead, the Region simply stated that the Corps' contractor who prepared the *2001 Water Quality Studies* performed the toxicological studies in accordance with EPA methods. *See id.*

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marize chemistry monitoring data collected for the Dalecarlia sedimentation basins from 1997 through 2001. EPA Resp. at 13 & n.7 (citing *2001 Water Quality Studies* ch. 4 & tbls. 4-1a, 4-2a, 4-3). Region III contends that the data reported in these tables demonstrate that the results for aluminum, iron, and TSS from the October 21, 2002 samples "were within the range found for other samples taken at other times from that basin" ("that basin" presumably meaning Dalecarlia Sedimentation Basin #2). *Id*. at 13.

In light of Region III's assessment, on the basis of the *2001 Water Quality Studies*, that the October 2002 samples could serve as an adequate data set upon which to conduct the reasonable potential analysis, we turn our attention to the *Studies* report itself. Chapter 4 of the *Studies*, entitled "Effluent Chemical Characterization," summarizes existing grab sample data collected by Aqueduct staff from 1997 through 2001 in tables 4-1 and 4-2,[14] as well as six samples collected for effluent toxicity testing purposes in table 4-3.[15] The data reveal three matters of relevance to the issue before us.

First, we are struck by the variability in the concentrations of aluminum, iron, and TSS the *2001 Water Quality Studies* reports as being discharged from the Aqueduct's sedimentation basins. The grab sample data collected by

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(continued)

In its second round of comments, NWI altered its DMR-based argument to challenge the representativeness of the new data set (i.e., "new" since issuance of the first draft permit) Region III used to conduct the reasonable potential analysis. Because this argument is different than the argument made in its first set of comments, in that it targets a different data set (the October 21, 2002 grab sample data rather than the *2001 Water Quality Studies* toxicity data) from a different angle (i.e., degree of toxicity versus representativeness of data in a reasonable potential context), we cannot find that the Region's response to NWI's first DMR-based comments constitutes a response to NWI's second DMR-based comments.

[14] It is possible that some or all of these data might also have been reported on Washington Aqueduct DMRs for the relevant years, as Aqueduct staff routinely collected grab samples of effluent, chemically analyzed the samples for their aluminum, iron, and TSS concentrations, and reported the results on DMRs. *See 2001 Water Quality Studies* § 4.1, at 4-1 to -3 (discussing use in *Studies* of "existing Aqueduct effluent chemistry data"); *see also* EPA Ex. 4 (EPA Region III, NPDES Permit No. DC0000019, Washington Aqueduct §§ A, C, at 2-3, 12-15 (Apr. 3, 1989)) (setting forth monitoring and DMR reporting requirements for TSS, aluminum, and iron).

[15] According to the *Studies* report, which covers the period 1997-2001:

> Discharge samples from the Dalecarlia and Georgetown basins * * * were collected to be representative of the "worst-case" solids discharge concentrations that would exist during a discharge event (i.e., samples were collected at Dalecarlia when hose cleaning operations were pushing out the largest masses of solids, and at Georgetown when the front end loaders were actively pushing solids into the conduit from the deeper areas of the reservoir.

2001 Water Quality Studies § 3.2.1, at 3-2.

Aqueduct staff and included in table 4-2 reveal that from 1997-2001, the average yearly concentrations of aluminum, iron, and TSS discharged from the four Dalecarlia sedimentation basins varied from 651 to 4,180 mg/L for aluminum, 47.3 to 1,400 mg/L for iron, and 5,020 to 48,900 mg/L for TSS.[16] *2001 Water Quality Studies* tbl. 4-2a. The variation is even more dramatic when discharges from the Georgetown sedimentation basins are included (i.e., 26 to 8,250 mg/L for aluminum; 4 to 1,400 mg/L for iron; and 377 to 69,452 mg/L for TSS). *Id*. tbls. 4-2a, -2b. In addition, four other data points collected in 1999-2001 for toxicity testing purposes indicate discharges from Dalecarlia Sedimentation Basins #2 and #3 of 270 to 1,830 mg/L of aluminum, 69 to 118 mg/L of iron, and 2,500 to 8,030 mg/L of TSS. *Id*. tbl. 4-3. Given this wide variability in discharge concentrations of these three pollutants, which NWI also identified, and assuming that it is scientifically valid to compare the October 2002 sampling data to these data (as the Region suggests we do, *see* EPA Resp. at 13 & n.7),[17] we conclude that the Region is generally correct in asserting that the October 2002 sampling data, which reported an aluminum concentration of 983 mg/L, an iron concentration of 39.8 mg/L, and a TSS concentration of 4,300 mg/L, fall within the range of samples reported in the *2001 Water Quality Studies*.[18]

Second, although the evidence seems to support Region III's observation that the October 21, 2002 data fall within the range of other samples, at least for aluminum, iron, and TSS, the evidence also seems to indicate, as NWI argued in its comments, that the aluminum, iron, and TSS levels in the October 2002 samples are situated on the low end of the concentration ranges for those three pollutants. According to the *Studies*, the overall discharge concentrations for the four Dalecarlia basins during 1997-2001 averaged 2,275 mg/L for aluminum, 431 mg/L for iron, and 20,825 mg/L for TSS. *2001 Water Quality Studies* § 4.1, at 4-1 & tbl. 4-1a. For Dalecarlia Sedimentation Basin #2 alone, the discharge concentrations for 1997-2001 averaged 1,270 mg/L for aluminum, 217 mg/L for iron,

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[16] This same data set indicates that the average yearly concentrations discharged from Dalecarlia Sedimentation Basin #2 alone varied from 800 mg/L to 1,490 mg/L for aluminum, 61.4 mg/L to 372 mg/L for iron, and 5,520 mg/L to 14,400 mg/L for TSS. *2001 Water Quality Studies* tbl. 4-2a.

[17] In this regard, it appears that tables 4-1a, 4-1b, 4-2a, and 4-2b in the *2001 Water Quality Studies* contain grab sample data, as do the Washington Aqueduct DMRs for 1992-2002 that NWI summarized. *See 2001 Water Quality Studies* § 4.1, at 4-1; EPA Ex. 4 (EPA Region III, NPDES Permit No. DC0000019, Washington Aqueduct §§ A, C, at 2-3, 12-15 (Apr. 3, 1989)). EPA also collected the October 21, 2002 effluent using the grab sample technique. EPA Ex. 18. It would therefore appear to us that comparisons between these data sets can legitimately be made. However, lacking full development of this issue in the briefs before us, we decline to rule on the matter and determine only that it "appears" the numbers are variable and, as set forth below, the October 21, 2002 samples contain low-end pollutant concentrations.

[18] Notably, the 39.8 mg/L iron value falls below the average iron concentration ranges for the Dalecarlia basins, but it falls within the wider range reported for the Georgetown basins.

and 12,300 for TSS.[19] *Id*. tbl. 4-1a. When compared to the October 21, 2002 results of 983 mg/L aluminum, 39.8 mg/L iron, and 4,300 TSS — and again making the assumption that these data set comparisons are scientifically appropriate — these figures establish that the October 2002 concentrations of aluminum, iron, and TSS are substantially lower than average discharges of these three pollutants through Outfall 002 analyzed in the *2001 Water Quality Studies*. Notably, moreover, the mean concentration values from the *2001 Water Quality Studies* report are closer in magnitude to the average values computed by NWI from the Aqueduct's 1992-2002 DMRs (i.e., 2,359 mg/L for aluminum, 688 mg/L for iron, and 20,374 mg/L for TSS) than they are to the October 2002 concentrations used in Region III's reasonable potential analysis.

Third, the Corps' contractor that prepared the *2001 Water Quality Studies* noted, "It should be understood that because of the way the basins and reservoirs are cleaned (fire hoses at Dalecarlia and front end loaders at Georgetown), grab sample data can be quite variable from minute to minute. Thus, mean effluent concentration data are probably the most reliable when evaluating the discharges." *2001 Water Quality Studies* § 4.1, at 4-1. The Region acknowledged this statement in its response to comments on the first draft permit and thus was aware that, given the special circumstances at the Washington Aqueduct, single grab sample concentrations could be less reliable when characterizing effluent than averages of multiple grab sample concentrations. *See* RTC on First Draft Permit at B-42 (because of variability of grab sample data, "mean effluent concentration data were considered more reliable").

In summary, although Region III indicated that the *2001 Water Quality Studies* supported its choice of data for the reasonable potential analysis, the evidence presented in that document instead raises questions about that choice. We therefore are hesitant to grant deference to the Region's data choice in this regard, as we otherwise might have been inclined to do. *See In re Haw. Elec. Light Co.*, 8 E.A.D. 66, 97-105 (EAB 1998) (remanding air permit where permit issuer failed to respond adequately to comments questioning representativeness of air quality data used to establish permit conditions); *cf. In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 256-57 (EAB 1999) (choice of data sets left to discretion of permit authority); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 147 (EAB 1999) (same, but noting that permit authority's decision must be adequately justified in the record).

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[19] It is perhaps significant that these Dalecarlia Sedimentation Basin #2 averages are themselves lower than the concomitant average concentration levels for Dalecarlia Sedimentation Basins #1, #3, and #4 and Georgetown Sedimentation Basin #1. *See 2001 Water Quality Studies* tbls. 4-1a, 4-1b (summarizing chemistry monitoring data for 1997-2001).

As mentioned in Part I.A above, the regulations require a permitting authority to use procedures to account for pollutant variability in effluent in analyzing a discharger's reasonable potential to exceed water quality standards. 40 C.F.R. § 122.44(d)(1)(ii). EPA has published detailed technical guidance to assist permit writers in conducting reasonable potential analyses and ensuring variability is considered therein. *See* EPA Exs. 24-25 (1985 and 1991 editions of EPA's "Technical Support Document for Water Quality-Based Toxics Control"). In cases where, as here, effluent monitoring data are available, the guidance recommends that agencies use all such data to characterize pollutant concentrations in the effluent.[20] Office of Water, U.S. EPA, EPA/505/2-90-001, *Technical Support Document for Water Quality-Based Toxics Control* § 3.3.1, at 51 (Mar. 1991). In cases where monitoring data are limited in quantity (as here with respect to all metals other than aluminum and iron), the guidance asserts that it is "impossible to determine from one piece of monitoring data" where in the range of effluent variability that particular data point would fall. *Id.* § 3.3.2, at 52. Accordingly, EPA developed a statistical approach "to better characterize the effects of effluent variability and reduce uncertainty in the process of deciding whether to require a [WQBEL]." *Id*. The guidance explains:

> This [statistical] approach combines knowledge of effluent variability as estimated by a coefficient of variation with the uncertainty due to a limited number of data to project an estimated maximum concentration for the effluent. The estimated maximum concentration is calculated as the upper bound of the expected lognormal distribution of effluent concentrations at a high confidence level.

Id.; *see id*. box 3-2, at 53 (statistical approach includes: (1) determining number of effluent samples for particular pollutant and selecting highest value from that data set; (2) multiplying highest value by coefficient of variation for data set (0.6 for sets containing less than six data points); (3) factoring in appropriate dilution; and (4) comparing maximum receiving water concentration result to water quality criterion to determine reasonable potential to exceed ambient standards). EPA therefore intends the reasonable potential analysis to reflect "worst-case" effluent conditions. *Id.* § 3.3.2, at 52; *accord Am. Iron & Steel Inst. v. EPA*, 115 F.3d 979, 1001 (D.C. Cir. 1997) (1991 Technical Support Document reflects EPA's long-established view that reasonable potential analyses incorporate worst-case estimates of effluent quality).

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[20] EPA guidance also suggests means by which permit agencies can determine whether WQBELs are needed in cases where no effluent monitoring data are available. *See* Office of Water, U.S. EPA, EPA/505/2-90-001, *Technical Support Document for Water Quality-Based Toxics Control* § 3.2, at 50-51 & box 3-1, at 49 (Mar. 1991).

As far as we have been able to determine in this case, the Region's reasonable potential analysis and related documents in the record contain no discussion of the Agency's policy and practice of considering effluent variability in analyzing reasonable potential or whether or how this practice and policy was carried out in this case. *See, e.g.*, EPA Ex. 20 (reasonable potential analysis); Second Draft Permit Fact Sheet at 17-19; RTC on Second Draft Permit at 18-20, 30-38. It appears that the Region simply relied on the raw numbers reported from the laboratory on the October 21, 2002 grab samples alone, without any statistical analysis to reduce the uncertainty caused by using single samples or to ensure that worst-case conditions were evaluated, and without considering actual monitoring data that were available on some of the pollutants. *See* EPA Ex. 20. Certainly, NWI's and another's comments questioning this analysis brought the issues of representativeness, data variability in general,[21] and the reasonable potential analysis to the Region's attention (albeit without citing the relevant regulatory provision). As mentioned above, Region III offered a nominal response to these comments, and, consequently, we cannot completely rule out the possibility that the Region evaluated data variability in some manner (although if it did so it did not document the evaluation in the record).[22] We can and do conclude, however, on the basis of that nominal response, that the Region failed to respond to NWI's significant comments in an adequate fashion.

Under the regulations that govern this permitting proceeding, a permit issuer must "briefly describe and respond to all significant comments on the draft permit." 40 C.F.R. § 124.17(a)(2). The Board has interpreted this provision as meaning that a response to comments need not be of the same length or level of detail as the comments and that related comments may be grouped together and responded to as a unit. *E.g.*, *In re Hillman Power Co.*, 10 E.A.D. 673, 695-97 & n.20 (EAB 2002); *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 582-84 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. U.S. EPA*, 185 F.3d 862 (3d Cir. 1999). The Board has also held, however, that a response to comments must address the issues raised in a meaningful fashion and that the response, though perhaps brief, must nonetheless be clear and thorough enough to adequately encompass the issues raised by the commenter. *See, e.g.*, *Hillman*, 10 E.A.D. at 696 n.20; *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 174-81 (EAB 2000); *In re RockGen Energy Ctr.*, 8 E.A.D. 536, 555-58 (EAB 1999); *In re Tallmadge Generating Station*, Order Denying Review in Part and Remanding in Part, PSD Appeal No. 02-12, slip op. at 8-12, 22-28 (EAB May 21, 2003). More-

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[21] *Cf. Am. Iron & Steel Inst. v. EPA*, 115 F.3d 979, 1000 (D.C. Cir. 1997) (in order for a single data set to be "valid and representative" for a point source affected by the EPA Water Quality Guidance for the Great Lakes System, that data set must account for "variability" of the pollutant in the effluent).

[22] The lack of such an evaluation, if established, would be clear error and grounds for a remand in and of itself. *See* 40 C.F.R. § 122.44(d)(1)(ii).

over, the administrative record must reflect the permit issuer's "considered judgment," meaning that the permit issuer must articulate with reasonable clarity the reasons for its conclusions and the significance of the crucial facts it relied upon in reaching those conclusions. *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417-18 (EAB 1997); *In re Austin Powder Co.*, 6 E.A.D. 713, 720 (EAB 1997).

In the case before us, the NPDES regulations mandate use of procedures to evaluate pollutant variability in effluent, yet Region III chose to conduct the reasonable potential analysis using pollutant concentration levels that appear to be, as NWI pointed out in its comments, substantially lower than worst-case or even average pollutant levels discharged from the Aqueduct. The Region's response to the comments questioning the validity of this approach — in which it stated that the pollutant concentrations detected in samples collected on one day in October 2002, from one of the six sedimentation basins at the Aqueduct, "fall within the range of other samples" and thus apparently could legitimately be used in a reasonable potential analysis — is, at least without further elaboration or explanation, an insufficient justification for the Region's decision, considering the weight of the evidence in the record that seems to indicate much higher average (and even higher worst-case) discharge levels for three of the targeted pollutants and potentially others.[23] We therefore hold that the Region failed to comply with 40 C.F.R. § 124.17(a)(2) (i.e., the duty to respond to significant comments) in responding to NWI's comments on data representativeness and in so doing clearly erred. *See Steel Dynamics*, 9 E.A.D. at 174-81 (permit issuers must adequately document their decisionmaking processes); *RockGen*, 8 E.A.D. at 555-58 (permit issuers must give "thoughtful and full consideration" to public comments before making final permit determinations); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 134-42 (EAB 1999) (remand appropriate where comments raised legitimate questions but were rejected by permit issuer without adequate explanation).

b. *Metals Data Sets*

Next, NWI notes that in comments on the second draft permit, it had argued that WQBELs should be included in the permit for a number of metals because actual measured concentrations of these metals in Washington Aqueduct discharges indicated they had a reasonable potential to exceed D.C. water quality standards. NWI Pet'n at 3. To support this argument, NWI submitted three sets of data showing higher quantities of various metals being discharged by the

[23] With respect to metals other than aluminum and iron, we can do no more at this juncture than recognize that the Region indicated there is a connection of some kind between the level of TSS measured in effluent and the level of metals in their solid form suspended in that effluent. *See* RTC on Second Draft Permit at 24 ("the reduction or removal of TSS will remove or reduce aluminum and the other metals in the discharge"); RTC on First Draft Permit at C.3 ("[t]he removal of TSS required by the effluent limits for this parameter * * * will remove much of the aluminum in the discharges").

Aqueduct into waters of the United States than EPA had detected in its October 21, 2002 grab samples. *See* NWI's Second Comments at 4-7.

The first data set consisted of samples of Aqueduct discharges taken by NWI and unspecified "others" on March 29, 2002, October 19, 2002, and November 2, 2002, and contained measurements of arsenic, copper, lead, nickel, selenium, and zinc concentrations in the effluent. NWI's Second Comments at 5. The second data set consisted of measurements of chromium, lead, nickel, and zinc submitted in 1988 by the Corps of Engineers as part of an NPDES permit renewal application. *Id*. at 6; NWI's First Comments at 19; *see* NWI Ex. 13 (Corps NPDES permit application). The third data set consisted of cadmium, copper, lead, nickel, and zinc measurements taken by a Corps consultant in February 1979.[24] NWI's Second Comments at 6; *see* NWI Ex. 14 (Camp Dresser & McKee, Inc., *Report on Site Disposal Study for Water Treatment Plant Residues, Dalecarlia Water Treatment Plant and Georgetown Reservoir* (1979)).

On appeal, NWI quotes Region III's response to its metals data, in which the Region acknowledged receipt of the data and then simply stated, "'EPA stands by the results of its [October 21, 2002] sampling.'" NWI Pet'n at 3 (quoting RTC on Second Draft Permit at 34). The Region also reiterated, in its response to NWI's comments, that its October 21, 2002 samples had been collected and tested in accordance with EPA-approved methods and protocols. RTC on Second Draft Permit at 27, 31. NWI now argues that Region III's response to its comments indicate that the Region chose to take the position "of defending the results of a particular sampling event it engaged in, almost as [if] EPA itself is the permittee, rather than appropriately considering the information that had been provided" in the course of the public comment process. NWI Pet'n at 3.

In its response to the petition for review, Region III enlarges upon its response to NWI's comments in this regard. According to the Region, the metals data in the 1979 technical report and the Corps' 1988 permit application "were not useful because more recent data were available" and also because the Region had in its possession a more-recent permit application from the Corps.[25] EPA Resp. at 19. As for the NWI sampling data, the Region asserts that NWI failed to submit documentation indicating that it had "complied with the protocols for taking the

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[24] In its first set of comments, NWI also submitted metals data for arsenic, chromium, lead, nickel, silver, and zinc from a March 1995 study entitled "Residuals Thickening and Dewatering Pilot Study, Technical Memorandum No. 7," prepared by Whitman, Requardt & Associates on behalf of the Corps' Baltimore District. NWI's First Comments at 22-23; *see* NWI Ex. 22 (pilot study). To our knowledge, Region III did not respond to these data, *see* RTC on First Draft Permit, and NWI did not raise the matter on appeal to this Board.

[25] We note in this regard that the newer application, unlike the older one, does not contain any actual metals measurements but only indicates that certain metals "may be present" in the effluent. *See* EPA Ex. 21 (Corps' 2001 permit application).

samples or that the results were validated using quality assurance/quality control procedures."[26] *Id*. The Region concludes by stating that it did follow these protocols itself and reiterates that it "stands by the sampling results it obtained." *Id*.

Under EPA permitting rules, NWI's submission during the comment period of three sets of metals data (two of which consisted of data collected by the Corps or a Corps' contractor) appears to qualify as a "significant" comment to which the Region owes consideration and at least a brief response in its response to comments document. *See* 40 C.F.R. § 124.17(a)(2); *see, e.g.*, *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 180 (EAB 2000) ("[a]n allegation that an agency underestimated lead emissions, accompanied by a detailed alternative analysis of such emissions * * * is significant enough to warrant consideration and at least some form of acknowledgment and response"); *In re Pennzoil Exploration & Prod. Co.*, 2 E.A.D. 730, 732-33 (Adm'r 1989) (petitioner's 1911 map identifying underground injection wells within boundaries of proposed project and identification of abandoned well in same area are significant comments that must be considered and responded to by permit issuer). While the Region responded to the 1988 data in its response to comments on the first draft permit,[27] the Region did not mention

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[26] NWI did submit several "Certificates of Analysis," prepared by Phase Separation Science, Inc. of Baltimore, Maryland, and signed by Matt Cohen, a "Quality Assurance Chemist." NWI Ex. 4 attachs. The certificates specify that Phase Separation Science, Inc. analyzed all the metals in the samples using EPA Method 200.8. *Id*. The Region does not mention these certificates in its responses to comments or the petition for review, and thus we lack specific briefing on the question whether the certificates constitute sufficient documentation.

[27] In its response to comments document, the Region stated, among other things:

> Applicants are not accountable for contaminants in their raw process water, rather, only for those contaminants [that] are added as a result of the treatment process, and only at certain concentrations. The metals of interest [here] are found in the raw process water, which contains high levels of [TSS] and are not found to be added by the Corps in any quantity by its manufacturing process (if they are added at all it is as low level impurities in water treatment chemicals).

RTC on First Draft Permit at B.24. In its response to this appeal, the Region has neither relied on this passage nor pursued this line of argument. Accordingly, we do not consider it further.

In addition, the Region also noted that the Corps' 1988 data were based on analyses of raw water coming into the Aqueduct and thus were "not representative of the effluent." *Id*. at B.27. The Region concluded:

> EPA is not aware of any reliable analytical sediment or liquid effluent data [that] supports the conclusion that the discharge has the potential to exceed [D.C. water] quality standards for any metals. The results of the *2001 Water Quality Stud[ies]* show that there is no acute toxicity due to the discharge. The *2001 Water Quality Studies* results for chronic toxicity are not conclusive but appeared to support the results of the 1993 Dynamac Study[, which found little or no chronic toxicity].

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the 1979 and NWI's own metals data even summarily in the comment responses, thus leaving us to guess as to whether or not the Region dismissed these data for valid reasons or failed to consider them. *See* RTC on Second Draft Permit at 30-38. Instead, as NWI observed, the Region decided to focus on defending its October 2002 sampling data by asserting that it "stands by" that data, thereby seemingly exhibiting an unwillingness to engage other data that might complicate the reasonable potential analysis and/or lead to different conclusions about necessary WQBELs. Moreover, the Region cannot through its arguments on appeal augment the record upon which the permit decision was based. *E.g.*, *In re Chem. Waste Mgmt. of Ind., Inc.*, 6 E.A.D. 144, 151-52 (EAB 1995) (rejecting permit issuer's explanation for permit condition because explanation was raised for first time on appeal, rather than in response-to-comments document); *In re Amoco Oil Co.*, 4 E.A.D. 954, 964 (EAB 1993) (same).

Region III's apparent failure to consider and respond to NWI's significant comments in a meaningful fashion, coupled with its belated efforts to supplement the record on appeal, is in our view clearly erroneous and grounds for a remand of the permit. *See, e.g.*, *In re Weber #4-8*, 11 E.A.D. 241, 244-46 (EAB 2003) (vacating and remanding underground injection well permit on ground that "40 C.F.R. §§ 124.17 and 124.18 are designed to ensure that the decisionmaker gives serious consideration to public comments at the time of making his or her final permit decision," even if such consideration will not necessarily alter permit decision); *In re Atochem N. Am., Inc.*, 3 E.A.D. 498, 499 (Adm'r 1991) (vacating and remanding Resource Conservation and Recovery Act permit where EPA failed to respond to public comments before issuing permit).

Moreover, whatever the merits of the Region's arguments on appeal expounding on these issues (*see supra* notes 25-27), the fact remains that, as discussed in Part I.A above, effluent variability must be considered in analyzing reasonable potential to exceed water quality standards. NWI attempted to make this point with respect to metals other than aluminum and iron by marshaling a variety of publicly available data and by collecting some of its own samples of those metals. While the Region may have had valid reasons for finding these data unsuitable for incorporation into the reasonable potential analysis, the Region nonetheless has a legal obligation to take variability into account in some fashion and, as we held in Part II.C.1.a, *supra*, must do so on the record on remand.

c. *Conclusion*

Region III clearly erred in this instance by failing to respond, adequately or in some cases at all, to significant comments about data representativeness and the

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Id.; *see 2001 Water Quality Studies* at ES-3.

reasonable potential analysis, in violation of 40 C.F.R. § 124.17(a)(2). We therefore remand the permit so that the Region can revisit the reasonable potential analysis conducted for the Washington Aqueduct and ensure the analysis is clearly explained in the record and consistent with federal law.[28]

2. *Other Issues*

Finally, NWI raises several additional points in its petition for review. For the reasons set forth below, we find that the arguments made on these points lack merit, and review is denied on their basis.

a. *Data Quality Act*

First, NWI asserts in its petition that Region III failed to comply with the Data Quality Act[29] in conducting the reasonable potential analysis and calculating WQBELs. NWI Pet'n at 1, 3, 5. The Region observes that NWI did not raise this

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[28] Because we are remanding the reasonable potential analysis, we need not reach NWI's arguments pertaining to Region III's alleged failure to respond to NWI's comments regarding the Region's analysis of dissolved versus total recoverable metals. *See* NWI Pet'n at 4. The Region responded to these concerns as raised during the comment period by stating, among other things, that because "the permit limit for aluminum is technology-based, not water quality-based, [NWI's contention that Region III's methods did not comply with D.C. water quality standards] is irrelevant." RTC on Second Draft Permit at 33 (response to question G.8). The Region may or may not find it necessary to take NWI's dissolved/total recoverable metals-related comments into consideration in the course of revisiting the reasonable potential analysis and whether WQBELs are needed for this permit.

Similarly, we need not reach NWI's arguments pertaining to the Federal Facilities Compliance Agreement ("FFCA") that Region III entered into with the Corps in June 2003 regarding this NPDES permit. The FFCA specifies that the Corps must achieve compliance with the numeric discharge limits set forth in the NPDES permit no later than March 1, 2008, for at least one of the Aqueduct's sedimentation basins, and no later than December 30, 2009, for all the basins. EPA Ex. 22, at 6 (FFCA ¶ 22). On appeal, NWI notes that under the D.C. water quality standards, a permittee may obtain a variance from a water quality standard that is the basis of a WQBEL only if that permittee can justify, every three years through a public hearing process, that attaining the water quality standard is not feasible for particular reasons. D.C. Mun. Regs. tit. 21, § 1105.1(a)-(c). NWI points out that no such variance has been sought for the Aqueduct, even though the Corps will not be in compliance with its numeric discharge limits (which at the moment are all technology-based) for more than three years from the date of permit issuance. NWI Pet'n at 1-2, 3, 5. Again, because at this juncture it is unclear whether the Region will determine that WQBELs are necessary for the Washington Aqueduct, we need not rule on this issue. We recognize that this D.C. variance issue may become relevant in the course of the Region's revisiting the reasonable potential analysis and may accordingly be considered and discussed during the course of the remand.

[29] *See* Treasury and General Government Appropriations Act for Fiscal Year 2001, Pub. L. No. 106-554, tit. V, § 515, 114 Stat. 2763, 2763A-153 to -154 (2000) (referred to by various entities as the "Data Quality Act," the "Information Quality Act," or "Section 515"). EPA promulgated procedures to implement the legislation in October 2002. *See* Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection
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argument in its first or second set of comments on the draft permits. EPA Resp. at 21. Moreover, the Region notes that NWI did not demonstrate in its petition that any other party raised this issue during the public comment periods. Region III states that failure to raise an issue during the public comment period and failure to show that any other party raised the issue precludes a petitioner from raising the issue in a permit appeal. *Id*. (citing 40 C.F.R. §§ 124.13, .19(a); *In re City of Phoenix*, 9 E.A.D. 515, 524 (EAB 2000), *appeal dismissed per stipulation*, No. 01-70263 (9th Cir. Mar. 21, 2002)).

Upon review of petitioner's two sets of comments, we agree that NWI did not raise the Data Quality Act in those comments, even though the existence of the statute was a reasonably ascertainable issue prior to the close of the two comment periods on June 28, 2002, and January 30, 2003. *See* 40 C.F.R. § 124.13; NWI's Second Comments; NWI's First Comments. We also agree with Region III that the petition does not identify any other parties as raising the Data Quality Act in their comments on the draft permits. Accordingly, we deny review on this ground. *See* 40 C.F.R. §§ 124.13, .19(a); *see, e.g.*, *In re Kendall New Century Dev.*, 11 E.A.D. 40, 55-56 (EAB 2003) (issue regarding size and magnitude of proposed power plant not raised below, so not considered on appeal); *In re Phelps Dodge Corp.*, 10 E.A.D. 460, 519-20 (EAB 2002) (breach of trust and fiduciary duty arguments not raised below, so not considered on appeal).

b. *Comments Incorporated by Reference*

Second, NWI concludes its petition by stating that "[n]umerous other flaws within this permit are incorporated herein by reference to NWI's previously submitted comments." NWI Pet'n at 5. The Region retorts that attempts to raise issues before the Board in this manner — i.e., via incorporation by reference of comments on a draft permit, without any further elaboration or examination of the permit issuer's response to those comments — must fail because such attempts do not provide the Board with the requisite specificity and argumentation mandated by the part 124 regulations governing this proceeding. EPA Resp. at 30 (citing *In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 5 (EAB 2000); *In re Adcom Wire*, 4 E.A.D. 221, 228-29 (EAB 1992)).

We agree with the Region, as we have frequently held that 40 C.F.R. § 124.19(a) requires petitioners to clearly identify the permit conditions they wish to challenge and present us with arguments explaining how the permit issuer's ultimate decisions on the permit, after considering comments on the draft versions thereof, are clearly erroneous, an abuse of discretion, or otherwise warrant review

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Agency, 67 Fed. Reg. 63,657 (2002); EPA Information Quality Guidelines, *available at* http://www.epa.gov/quality/informationguidelines.

under that regulatory provision. *E.g.*, *In re Phelps Dodge Corp.*, 10 E.A.D. 460, 520 (EAB 2002) (unsupported assertion that permit issuer failed to analyze adverse effects of permitted project on minority populations is not sufficient for grant of review under § 124.19(a)); *In re New England Plating Co.*, 9 E.A.D. 726, 737-39 (EAB 2001) (unsubstantiated arguments provide insufficient basis for grant of review of permit decision); *In re LCP Chems.*, 4 E.A.D. 661, 664-65 (EAB 1993) (petitioner failed to identify specific permit conditions objected to, thus providing no basis for granting review); *Adcom Wire*, 4 E.A.D. at 228-29 (incorporation of letter by reference not sufficient for review under § 124.19(a)). Because NWI's incorporation of its comments on the draft permits fails to meet the requirements of 40 C.F.R. § 124.19(a), review on this basis is denied.

III. *CONCLUSION*

For the foregoing reasons, we remand this permit to Region III. The Region is directed to reopen the permit proceedings for the limited purposes of: (1) revisiting the reasonable potential analysis and ensuring that its use of procedures to account for effluent variability in conducting the analysis is clearly documented in the administrative record; and (2) responding to NWI's comments in a meaningful fashion that is sufficiently clear and thorough to adequately encompass the issues raised. If the Region cannot justify the permit conditions as written (for example if it finds WQBELs are necessary for some pollutants), it should revise them and provide a justification for the revised conditions. Any party who participates in the remand process and is not satisfied with the Region's decision on remand may file an appeal with the Board pursuant to 40 C.F.R. § 124.19. Any such appeal must be limited to issues within the scope of the remand.

On all other issues, the petition for review is denied.

So ordered.