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

In re:	)	
Keene Wastewater Treatment Plant	)	NPDES Appeal No. 07-18
NPDES Permit No. NH0100790	)	

ORDER DENYING REVIEW

On August 24, 2007, Region 1 ("Region") of the United States Environmental Protection Agency ("EPA" or "Agency") issued National Pollutant Discharge Elimination System ("NPDES") Permit No. NH0100790 ("Permit") to the City of Keene, New Hampshire ("City"), pursuant to section 402 of the Clean Water Act ("CWA" or "Act"), 33 U.S.C. § 1342. The Permit authorizes discharges of wastewater from the Keene Wastewater Treatment Plant ("WWTP"), a six million gallon-per-day facility that collects domestic, commercial, and industrial wastewater from homes and businesses in the City of Keene and neighboring Towns of Marlborough and Swanzey, New Hampshire. The WWTP treats these various effluent streams, along with septage and holding tank waste brought to the facility from locations within the Keene service area, using activated sludge aeration and ultraviolet light disinfection technologies. After treatment is completed, the WWTP discharges wastewater to the Ashuelot River, a regulated "water of the United States" that runs approximately sixty-four miles through southwestern New Hampshire, empties into the Connecticut River near the Town of Hinsdale, New Hampshire, and then flows through western Massachusetts and central Connecticut, ultimately reaching Long Island Sound and the Atlantic Ocean at Old Saybrook, Connecticut.

On September 28, 2007, the City filed a petition for review of the Permit with the Environmental Appeals Board ("Board"), pursuant to EPA permitting regulations at 40 C.F.R. § 124.19(a). In its appeal, the City challenged new, more stringent effluent limitations set forth in the Permit for Keene WWTP discharges of total phosphorus, measured on an average monthly basis, and total recoverable copper, lead, and zinc, measured on maximum daily and average monthly bases. On November 20, 2007, the Region filed a notice with the Board withdrawing the disputed metals limits pursuant to 40 C.F.R. § 124.19(d). The Region reported that it intended to prepare new draft permit conditions for the three metals to replace the withdrawn provisions and would release the new conditions for public notice and comment at a future time. The Region also filed a motion to dismiss the City's petition for review as it pertains to the metals limits, contending that the City's appeal of those limits had been rendered moot by virtue of the metal limits' withdrawal. On December 5, 2007, the Board granted the Region's motion by dismissing the portions of the City's petition challenging the effluent limits for copper, lead, and zinc. *See* Order Noticing Partial Withdrawal of Permit and Dismissing Portion of Petition for Review as Moot at 2 (EAB Dec. 5, 2007).

Now, for the reasons set forth below, we deny review of the remaining issue raised in the City's petition for review, which consists of several challenges to the total phosphorus effluent limitations imposed on Keene WWTP discharges.

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 is authorized by one of the CWA's permitting programs. 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 at 40 C.F.R. part 122. NPDES permits typically contain provisions that address two central and interrelated CWA elements: (1) water quality standards, and (2) effluent limitations. *See* CWA §§ 301, 303, 304(b), 33 U.S.C. §§ 1311, 1313, 1314(b); 40 C.F.R. pts. 122, 125, 131.

The first of these two CWA elements, water quality standards, is comprised of three distinct components: (1) one or more "designated uses" for each specific water body or water body segment located within the boundaries of a state (for example, uses such as public water supply; agriculture; primary- or secondary-contact recreation (swimming, boating); and wildlife habitat); (2) "water quality criteria" expressed in numerical concentration levels or narrative statements specifying the quantities of various pollutants that may be present in the water without impairing the designated uses; and (3) an "antidegradation" provision, which prohibits discharges that would degrade water quality below that necessary to maintain the "existing uses"

(as opposed to "designated uses") of a water body. CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. §§ 131.10-.12.

The second of the CWA elements, effluent limitations, controls 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 may be either "technology-based" or "water quality-based." *See* CWA §§ 301(b)(1)(C), 302, 33 U.S.C. §§ 1311(b)(1)(C), 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.[1] 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). Water quality-based effluent limitations ("WQBELs"), on the other hand, are more stringent permit limits used where technology-based standards are not sufficient to ensure that water quality standards are met.

WQBELs, which are at issue in this appeal, 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

[1] In some cases, no industry-specific effluent limitations guidelines exist. 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.

implementing the NPDES program, permit issuers are required to determine 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 exceedances of numeric or narrative state water quality criteria, the permit writer must calculate WQBELs for the relevant pollutants. 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).

To assist permit issuers in their development of WQBELs, EPA published technical guidance documents that propose methods for classifying, sampling, analyzing, and calculating relevant parameters. *See, e.g.*, Office of Water, U.S. EPA, EPA 822-B-01-015, *Ambient Water Quality Criteria Recommendations: Rivers and Streams in Nutrient Ecoregion VIII* (Dec. 2001); Office of Water & Office of Science & Technology, U.S. EPA, EPA-822-B-00-002, *Nutrient Criteria Technical Guidance Manual: Rivers and Streams* (July 2000); Office of Water Regulations & Standards, U.S. EPA, EPA 440/5-86-001, *Quality Criteria for Water: 1986* (May 1, 1986) (the so-called "Gold Book"); Memorandum from Geoffrey Grubbs, Director, Office of Science & Technology, U.S. EPA, to Water Directors, EPA Regions I-X et al. (Nov. 14, 2001); Office of Water, U.S. EPA, EPA-833-B-96-003, *U.S. EPA NPDES Permit Writers' Manual* chs. 6, 10.2, at 87-114, 176-178 (Dec. 1996).

In the State of New Hampshire, EPA-approved state water quality standards classify all segments of the Ashuelot River as "Class B" water bodies and designate the uses thereof as: (1) fishing, swimming, and other recreational purposes; (2) public water supply (after adequate treatment); and (3) aquatic life habitat. *See* N.H. Rev. Stat. Ann. § 485-A:8 ¶ II (2007); N.H. Code Admin. R. Ann. Env-Ws 1702.11, 1703.01 (2007); N.H. Dep't of Envtl. Servs., Doc. No. R-WD-03-39, *Legislative Classifications of Surface Waters in New Hampshire* §§ 1.01, 2, at 1-1, 2-5 (Oct. 2003). Among many other things, the standards contain several narrative criteria that address discharges of nutrients (phosphorus, nitrogen) to the waters of the state. Those criteria provide that "Class B waters shall contain no phosphorus * * * in such concentrations that would impair any existing or designated uses, unless naturally occurring."

Env-Ws 1703.14(b). Further, the criteria specify that existing discharges containing phosphorus in concentrations that "*encourage cultural eutrophication*" must be treated to remove phosphorus to the extent necessary "to ensure attainment and maintenance of water quality standards." *Id*. 1703.14(c). The term "cultural eutrophication" is defined as "the human-induced addition of wastes containing nutrients to surface waters [that] results in excessive plant growth and/or a decrease in dissolved oxygen." *Id*. 1702.15.

The New Hampshire surface water quality standards require that WQBELs for discharges to rivers and streams be calculated on the basis of critical low flow conditions in the receiving waters. *See* Env-Ws 1705.02(a). These conditions consist in New Hampshire of so-called "7Q10" conditions, which exist at "the lowest average flow [that] occurs for 7 consecutive days on an annual basis with a recurrence interval of once in 10 years on average, expressed in terms of volume per time period." *Id*. 1702.44. In addition, the water quality standards provide that not less than 10% of the assimilative capacity of a receiving water must be held in reserve to provide for future needs, which translates to setting aside at least 10% of the available dilution for all surface waters. *Id*. 1705.01. Together, these provisions are intended to ensure that NPDES permits in New Hampshire contain terms and conditions that will protect water quality, even under critical low flow conditions where available dilution is minimal.

In enacting the CWA, Congress expected that NPDES permits would be revisited every five years by permit issuers, new pollutant analyses conducted, and the permits reissued with new, sometimes more stringent terms and conditions incorporated, so that the express statutory

goals of restoring and maintaining clean water would be achieved. *See* CWA § 402(a)(3), (b)(1)(B), 33 U.S.C. § 1342(a)(3), (b)(1)(B) (NPDES permits must be issued for fixed periods of time, not exceeding five years in length); *see* 40 C.F.R. § 122.46(a). Given the real-world constraints of CWA permit program budgeting and staffing, however, permit issuers find it difficult in many instances to adhere to the five-year reissuance schedule. In such cases, the permitting regulations provide that existing permits are "administratively extended" beyond their expiration dates until the effective date of new permits, so long as the permittee submits a timely and complete application for a new permit in accordance with the regulations. *See* 40 C.F.R. §§ 122.6(a), .21. Permits "administratively continued" or "extended" in this way remain fully effective and enforceable. *Id*. § 122.6(b).

B. *Factual and Procedural Background*

The permit at issue in this case is a reissued version of the Keene WWTP's prior NPDES permit, which the Region originally issued to the City on April 15, 1994, and which was scheduled to expire on April 15, 1999.[2] In the course of updating the permit's terms and

[2] The City timely filed an application for reissuance of the 1994 permit, pursuant to 40 C.F.R. § 122.21, and that permit was administratively extended until such time as a new NPDES permit could become fully effective and enforceable. *See* U.S. EPA Region 1, *Draft NPDES Permit No. NH0100790 Fact Sheet* 2 (undated). At this writing, all provisions of the reissued permit are currently in effect and enforceable and the Keene WWTP is responsible for operating in accordance with their requirements, except for the new metals limits mentioned above, which the Region withdrew, and the phosphorus limits, which the City of Keene is contesting in this appeal and thus which are presently stayed. *See* Letter from Robert W. Varney, Regional Administrator, U.S. EPA Region 1, to Eurika Durr, Clerk, EAB (Oct. 16, 2007) (Notice of Uncontested and Severable Conditions, NPDES Permit No. NH0100790).

conditions, the Region evaluated the "reasonable potential" of the Keene WWTP's discharges of various pollutants, including phosphorus, to cause or contribute to an excursion above any State of New Hampshire water quality standard. The Region analyzed phosphorus, chlorophyll *a*, and other data collected in 2001-2002 at 7Q10 flow conditions, along with dissolved oxygen saturation data collected in the 1990s, and determined, among other things, that the quantities of phosphorus entering the Ashuelot River exceeded the capacity of the river to assimilate them. *See* U.S. EPA Region 1, *Draft NPDES Permit No. NH0100790 Fact Sheet* 6-7, 15-20 (undated) [hereinafter Fact Sheet]. The Region also evaluated reported physical evidence of eutrophication, such as excessive levels of aquatic plant growth, unpleasant odors caused by plant decomposition, and high turbidity, in the waters surrounding the Keene WWTP discharge point. Based on this information, the Region determined that designated uses and various water quality criteria designed to protect such uses were not being attained in the Ashuelot River. *Id*. at 6-7, 19-20.

The Region concluded that phosphorus discharges from the Keene WWTP were "encouraging cultural eutrophication" within the meaning of the New Hampshire water quality standards and were, in fact, "clearly contribut[ing]" to the nonattainment of the water quality standards in the river. *Id*. at 19. Therefore, in accordance with CWA § 301(b)(1)(C), and using water quality criteria in EPA's "Gold Book" guidance document in conjunction with 7Q10 flow data, the Region calculated seasonal monthly average total phosphorus WQBELs of 0.2 milligrams per liter ("mg/*l*") for April 1 through October 31 discharges and 1.0 mg/*l* for November 1 through March 31 discharges, and proposed to include them in the Keene WWTP's

NPDES permit. *See id*. at 7, 19-20. The Region determined that these limits represent the minimum levels of control needed to ensure compliance with New Hampshire water quality standards. *Id*. at 7.

From June 22 through August 25, 2006, the Region accepted public comments on the draft version of the Keene WWTP permit, which included the new seasonal WQBELs for total phosphorus. The Region extended the comment period for an additional three-week time period, per a request for more time from the City of Keene. The City filed lengthy comments on the draft permit, as did the City's technical consulting firm, Camp, Dresser & McKee ("CDM"), on the City's behalf. The Region considered the public comments, made several changes to the permit, and prepared a response-to-comments document. On August 24, 2007, the Region issued the response document along with the final NPDES permit authorizing discharges from the WWTP to the Ashuelot River. *See* U.S. EPA Region 1, *Response to Public Comments on NPDES Permit No. NH0100790* (Aug. 24, 2007) [hereinafter RTC]; U.S. EPA Region 1, NPDES Permit No. NH0100790, Keene Wastewater Treatment Plant (Aug. 24, 2007).

As noted above, the City of Keene filed a petition for review of the final NPDES permit on September 28, 2007, *see* Petition for Review of Contested Permit Conditions ("Pet'n"), and the Region filed a response to the petition on November 20, 2007. *See* Respondent Region 1's Memorandum in Opposition to Petition for Review ("Resp. Br."). Subsequently, on January 11, 2008, the City filed a motion for leave to file a reply to the Region's response (with a proposed reply attached), on the ground that the Region had raised new arguments pertaining to the

phosphorus WQBELs for the first time in its response brief. The Region opposed the City's motion in a filing dated January 15, 2008, disputing that it had raised any new arguments in its response and claiming that the contentions the City presented in its proffered reply brief could have been raised in its petition and thus should be rejected as untimely. In the alternative, the Region requested leave to file a surreply to the City's reply.

The Board granted the parties' motions for supplemental briefing. In so doing, the Board explicitly notified the parties that it would entertain the substance of the City's reply only to the extent that it addressed arguments newly raised by the Region it its response brief. *See* Order Granting Motion for Leave to File a Reply at 2 (EAB Jan. 31, 2008). The Board similarly noted that it would consider the substance of any surreply only to the extent that such document responded to the new arguments identified by the City in its reply brief. *Id*. With these caveats, the Board accepted the City's reply, filed along with its motion on January 11, 2008, and the Region's surreply, filed subsequently on February 14, 2008. *See* Petitioner's Reply Memorandum to Region 1's Memorandum in Opposition to Petition for Review ("Reply Br."); Respondent's Surreply ("Surreply Br."). The case now 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). Importantly, the burden of demonstrating that review is warranted rests with the petitioner. 40 C.F.R. § 124.19(a); *see In re Town of Westborough*, 10 E.A.D. 297, 304 (EAB 2002). This burden rests particularly heavily in the context of scientific and technical matters, where the Board typically accords heightened deference to permit issuers' analyses. *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., UIC Appeal No. 02-03, at 25-26 n.21 (EAB Sept. 4, 2002) (Order Denying Review) (citations omitted); *accord In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 510-11 (EAB 2006); *In re Three Mountain Power, LLC*, 10 E.A.D. 39, 50 (EAB 2001); *In re NE Hub Partners, LP*, 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).

B. *City of Keene's Arguments on Appeal*

In its petition for review of the NPDES permit, the City of Keene raises two primary issues for resolution by this Board. First, the City challenges as clearly erroneous the factual findings the Region made in support of its decision to impose phosphorus WQBELs on the Keene WWTP. Second, the City challenges the methods the Region employed to calculate the phosphorus WQBELs, claiming that the calculations are contrary to the CWA and an abuse of discretion warranting Board review. We address each issue in turn below.

1. *Factual Basis for Phosphorus WQBELs*

To begin, the City of Keene raises a series of factual matters in the petition that, in its view, reveal clear reviewable error on the Region's part. First, the City contends that the State of New Hampshire does not share the Region's conclusions, based on its assessment of the facts in the record, that the Ashuelot River is culturally eutrophic and that phosphorus discharged by the Keene WWTP is contributing to that cultural eutrophication on an ongoing basis. *See* Pet'n at 4-5. Second, the City argues that the Region misconstrued chlorophyll *a* data when assessing the trophic state of the river, ignored more recent chlorophyll *a* data collected in 2002 through 2005 as part of a statewide volunteer river assessment program, and compounded these mistakes by failing to account for recent nutrient load reductions to the river from various point and nonpoint sources (e.g., elimination of storm drain connections, changes in wastewater treatment processes). *See id*. at 5-6; *see also* RTC cmt. & rsp. C6, at 50-53. Third, the City claims that the

Region improperly analyzed dissolved oxygen data, ignored more recent dissolved oxygen data provided from the 2002-2005 statewide volunteer program and a 2001-2002 Total Maximum Daily Load collection effort, and failed to adequately evaluate the beneficial effects on dissolved oxygen levels of recent and future removals of dams along the Ashuelot. *See* Pet'n at 7-8.

After carefully reviewing and comparing all of the City's arguments on these topics to the comments the City and CDM submitted on the draft permit, it becomes clear that, with respect to every matter noted above, the City has repeated in its petition varying portions of its and CDM's comments. *Compare* Pet'n at 4-5 *with* RTC cmts. B3, B9, B10, C5, at 20-21, 34-35, 36, 48 (cultural eutrophication); *compare* Pet'n at 5-6 *with* RTC cmts. A4, B2, B5, B9, B11(d), B11(f), C3, C4, C6, at 8-9, 19, 31-32, 34-35, 37-39, 42, 44-45, 50-52 (chlorophyll *a*); *compare* Pet'n at 6-8 *with* RTC cmts. A4, B2, B5, B11(e)-(f), C5, C6, at 8-9, 19-20, 31-32, 38-39, 46-48, 50-52 (dissolved oxygen). In each instance, the Region considered the points raised by the comments and provided detailed technical responses thereto in its response-to-comments document. *See, e.g.*, RTC rsps. A4, B2, B3, B5, B9, B10, B11(d)-(e), C3, C4, C5, C6, at 9-11, 19-20, 21-29, 32, 35-36, 38-39, 42-43, 45-46, 48-50, 52-53. On appeal, the City fails to address itself to these detailed responses to its comments, *see* Pet'n at 4-8, as it is required to do under the permitting regulations. Accordingly, we are unable to find any basis for granting review of the Region's permit decision.

As mentioned above, the Board ordinarily will not grant review of an NPDES permit decision unless the petitioner seeking such review comes forward with argument and evidence

that the permit issuer's decision 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. *See supra* Part II.A (citing threshold permit review rule set forth in 40 C.F.R. § 124.19(a)). The petitioner is responsible for carrying the burden of establishing grounds for review, *see* 40 C.F.R. § 124.19(a), and this must be done by directly engaging the substance of the permit issuer's responses to comments on the draft permit, if such responses exist. These responses help to articulate, by addressing comments and questions raised during the public comment period, the permit issuer's analyses and rationales for choosing specific effluent limitations and other conditions to include in the permit. *See id.* § 124.17.

A petitioner is not free in its petition to ignore the responses, and choose instead to simply repeat its points before the Board, if it wishes to obtain review of a permit under the permitting rules. *See, e.g.*, *In re Scituate Wastewater Treatment Plant*, 12 E.A.D. 708, 730-33 (EAB) ("mere repetition on appeal of comments already addressed by the permit issuer does not meet [the Board's] standard of review[; i]nstead, to obtain review of a permit decision, petitioners must include specific information in support of their allegations to demonstrate why the permit issuer's response to the petitioner's comments below (i.e., the permit issuer's basis for its permit decision) is clearly erroneous, an abuse of permitting discretion, or otherwise warrants review"), *appeal dismissed upon stipulation of parties*, No. 06-1817 (1st Cir. Aug. 4, 2006); *In re Phelps Dodge Corp.*, 10 E.A.D. 460, 507-09, 518-19 (EAB 2002) (denying review where petitioner merely repeated comments without attempting to rebut permit issuer's responses to those comments); *In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 5 (EAB 2000) ("[p]etitions 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"). Moreover, we expect, in a challenge to scientific or technical issues such as those advanced here, that a petitioner will present us with references to studies, reports, or other materials that provide relevant, detailed, and specific facts and data about permitting matters that were not adequately considered by a permit issuer. *See, e.g.*, *In re Envtl. Disposal Sys., Inc.*, 12 E.A.D. 254, 289-92 (EAB 2005); *In re Wash. Aqueduct Water Supply Sys.*, 11 E.A.D. 565, 578-90 (EAB 2004); *In re Gov't of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 334-43, 345-47, 357 (EAB 2002); *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 174-81 (EAB 2000).

The requirements established for obtaining review of permit decisions, including the requirement to address in the petition the permit issuer's response to the same issues when raised during the comment period, are not intended to function as arbitrary hurdles to defeat permit challenges. Instead, they flow naturally out of the Agency's permitting regulations, which establish an orderly process by which governmental authorities tasked with implementing complex environmental statutes must evaluate permit applications and substantiate their scientific and technical decisions regarding those applications. *See* 40 C.F.R. §§ 124.6-.18, .51-.66. They best implement the principle articulated earlier, that most permit conditions should be determined by the permit issuer. Where the views of a permit issuer and a petitioner indicate bona fide differences of expert opinion or judgment on a technical issue, deference to the permit issuer's decision is generally appropriate if the record demonstrates that the permit issuer duly considered the issues raised in the comments and selected an approach that is rational in light of

all of the information in the record. *See, e.g.*, *In re Shell Offshore, Inc.*, OCS Appeal Nos. 07-01 & -02, slip op. at 57-58 (EAB Sept. 14, 2007), 13 E.A.D. ___; *In re Cardinal FG Co.*, 12 E.A.D. 153, 167-68 (EAB 2005); *Gov't of D.C.*, 10 E.A.D. at 348-49. Thus, in the petition, petitioner must explain how the permit issuer's response did not, in fact, appropriately consider or respond to the issues raised in the comments. *See, e.g.*, *Wash. Aqueduct*, 11 E.A.D. at 578-90 (remanding permit issuer's data representativeness and "reasonable potential to exceed water quality standards" analyses); *Gov't of D.C.*, 10 E.A.D. at 334-43 (remanding permit for reevaluation of water quality standards compliance analysis); *Steel Dynamics*, 9 E.A.D. at 174-81 (remanding permit issuer's "potential to emit lead" analysis).

With respect to each of the three contentions raised here, the City's arguments fall short of the permit review standards. By choosing to simply repeat its comments on the draft permit without addressing the Region's responses to those comments, the City failed to present the sufficiently specific and persuasive evidence and argument needed to cast doubt on the thoroughness and rationality of the Region's technical evaluations and conclusions. *See, e.g.*, *In re Prairie State Generating Co.*, PSD Appeal No. 05-05, slip op. at 145-47 (EAB Aug. 24, 2006), 13 E.A.D. at ___ (denying review where petitioners repeated comments without addressing permit issuer's responses thereto and thus failed to sustain burden of showing that permit issuer clearly erred), *aff'd sub nom. Sierra Club v. U.S. EPA*, 499 F.3d 653 (7th Cir. 2007); *In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 593-94 (EAB 2006) (same); *In re Newmont Nev. Energy Inv., LLC*, 12 E.A.D. 429, 471-72 (EAB 2005) (same); *In re*

Peabody W. Coal Co., 12 E.A.D. 22, 46 n.58 (EAB 2005). Review is therefore denied as to these issues.

The City attempts to resuscitate its case through submittal of its reply brief, but the same result – denial of review – obtains with respect to that filing. Notably, the City's reply contains much more technical and argumentative detail than does its petition. *Compare* Pet'n at 4-8 *with* Reply Br. at 1-15. The City claimed in its motion seeking leave to file the reply that it was not "rehash[ing] arguments previously raised by the City, but rather [was] respond[ing] directly to arguments raised for the first time by the Agency in its [response brief]." Petitioner's Motion for Leave to File Reply Memorandum ¶ 5, at 2 (emphasis added). By our lights, however, this is not so with respect to any of these fact-based challenges. We have been unable to identify anything in the City's reply brief as constituting a reply to a "new" argument of the Region's, and the City itself did not establish for us the legitimacy of its claim by documenting the supposed instances in which the Region presented new arguments. *See* Reply Br. at 1-15. Thus, because the Board accepted the reply brief based on the City's representations and only to the extent that it addressed new arguments raised by the Region, we need not consider the reply brief.

In any event, the reply for the most part merely repeats a number of comments submitted on the draft permit, which were all evaluated and responded to by the Region in its response-to-comments document. *Compare* Reply Br. at 1-4, 12-15 *with* RTC cmts. & rsps. B1, B3, B9, B10, C5, at 17-19, 20-29, 34-36, 46-50 (cultural eutrophication data); *compare* Reply Br. at 5-9, 14 *with* RTC cmts. A4, B2, B5, B9, B11(d), C3, C4, C6, at 8-11, 19-20, 31-32, 34-36, 37-38, 42-

43, 44-46, 50-53 (chlorophyll *a*); *compare* Reply Br. at 9-12 *with* RTC cmts. A4, B5, B11(e), C5, C6, at 8-11, 31-32, 38, 46-53 (dissolved oxygen). The reply also repeats and elaborates upon some aspects of the arguments made in the petition. *Compare* Pet'n at 4-8 *with* Reply Br. at 1-15. These repetitive contentions, which again do not address the Region's responses to comments on the draft permit, do not provide adequate grounds to justify a grant of review of this permit, for the reasons noted above. *See, e.g.*, *Prairie State*, slip op. at 145-47, 13 E.A.D. at ___; *Dominion*, 12 E.A.D. at 593-94; *Newmont*, 12 E.A.D. at 471-72.

Furthermore, to the extent that some of these arguments raise substantive nuances that are not set forth in the petition (such as the dwarf wedge mussel contentions and the challenges to the use of 7Q10 data only to evaluate chlorophyll *a* levels in the river, *see* Reply Br. at 5-9, 13-14), they constitute, in essence, "late-filed appeals" because they could have been raised in the petition but were not so raised.[3] *See*, *e.g.*, *In re BP Cherry Point*, 12 E.A.D. 209, 216 n.18 (EAB

[3] In this regard, we make special mention of the Total Maximum Daily Load allocation plan for phosphorus and other nutrients in the Lower Charles River Basin. The City referenced this plan for the first time in its reply brief, claiming that the chlorophyll *a* values in the plan were not derived using 7Q10 data or any other "critical low flow" data. Reply Br. at 8.

The Commonwealth of Massachusetts's Department of Environmental Protection submitted the final version of this plan to Region 1 on July 6, 2007, and the Region approved it on October 17, 2007. *See* Reply Br. Ex. A (Letter from Stephen S. Perkins, Dir., Office of Ecosystem Protection, U.S. EPA Region 1, to Laurie Bert, Comm'r, Mass. Dep't of Envtl. Protection (Oct. 17, 2007)). Given this time line, the City could not reasonably have been expected to raise the Lower Charles River Basin plan in its comments on the draft permit in the instant case, as the public comment period closed in September 2006. However, the City could have raised the existence of the Lower Charles plan in its September 2007 petition for review because, even though the plan had not at that time yet received final EPA approval, it had been adopted in final form by Massachusetts after a public notice-and-comment period that stretched from March 7, 2007 through April 20, 2007. *See id*. encl. at 1.

(continued...)

2005); *Steel Dynamics*, 9 E.A.D. at 219-20 n.62; *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 126 n.9 (EAB 1999). As previously noted, contrary to its claim that its reply brief was addressing new arguments raised by the Region, the City instead belatedly attempts in the reply to address the Region's responses to comments on the draft permit. Except to the very limited extent discussed below, there is no reason these arguments could not have been made in the petition, as they were required to be. Thus, review of these late-raised arguments would have been denied even if consideration were given to the reply brief.

Before moving to the next set of arguments, one matter that must be specifically addressed is the City's passing mention, in a footnote in its petition, that it "is currently obtaining [dissolved oxygen] data during low flow conditions and will continue to do so through future low flow conditions"; these data indicate, according to the City, "no violations of the minimum [dissolved oxygen] saturation criteria." Pet'n at 7 n.1. The City attempts by means of this footnote to cast doubt on the legitimacy of the scientific conclusions drawn by the Region

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[3](...continued)

That being said, we note further that in its response-to-comments document, the Region justified at length its decision to use only 7Q10 data to analyze the river's trophic status and develop effluent limits for Keene WWTP discharges of total phosphorus and other pollutants. *See* RTC cmts & rsps. A1, B11(g), C5, C7, at 2-4, 39-40, 46-50, 53-56. The primary driver behind the Region's decision was the New Hampshire water quality standards, which explicitly provide that 7Q10 flow conditions must be used to calculate permit limits for discharges of noncarcinogens (such as phosphorus) into rivers and streams. *See* RTC rsp. C7, at 54 (citing Env-Ws 1705.02(a), (d)). In these circumstances, the City's offering of chlorophyll *a* values developed in a state other than New Hampshire lacks relevance and fails to establish clear error, particularly where, as here, the City does not squarely acknowledge the New Hampshire 7Q10 requirement and explain why the other state's calculations are persuasive in the face of that requirement. Thus, even if we were to consider the merits of the City's arguments pertaining to the Lower Charles River Basin plan, we would decline to grant review of the Keene WWTP permit on those bases.

and set forth in its responses to comments on the draft permit. On appeal, the Region asserts that it had neither seen these data nor relied on them in any way during the development of the permit, and, thus, because the data were not included within the administrative record for this permit, they should not be considered further. Resp. Br. at 50 (citing *In re Gen. Motors Corp.*, 5 E.A.D. 400, 405 (EAB 1995)). In its reply brief, however, the City takes the opportunity to present us with the actual data in question – all purportedly collected by City personnel beginning at 3:18 p.m. on August 30, 2007, and continuing until 1:18 p.m. on August 31, 2007, using an in-situ dissolved oxygen meter – as Exhibit C. *See* Reply Br. at 11-12 & Ex. C. The City urges inclusion of this information in the permitting record due to its "highly relevant nature" and the fact that the data were not "reasonably available" during the public comment period. *Id*. at 11 n.5; *see* Pet'n at 7 n.1. The City then contends, as it did in its petition, that these and the other data it mentioned in its petition indicate that the Keene WWTP discharge is not contributing to the dissolved oxygen problems in the Ashuelot River, contrary to the Region's conclusion otherwise. *See id*. at 9-12.

We note at the outset that under the Agency's permitting rules, the administrative record in an NPDES permit proceeding is considered complete on the date the final permit is issued. 40 C.F.R. § 124.18(c). The Board has interpreted this provision to mean that the record is closed at the time of permit issuance and that documents submitted subsequent to permit issuance cannot be considered part of the administrative record. *See, e.g.*, *Dominion*, 12 E.A.D. at 518-19; *BP Cherry Point*, 12 E.A.D. at 220 n.27 (allowing new substantive issues to be raised after permit issuance "would run contrary to the principle that the administrative record for a

permitting decision is complete at the time of permit issuance"); *Gen. Motors*, 5 E.A.D. at 404-05. Thus, the Region is not obliged to consider the new 2007 oxygen data in its permitting calculus, and we decline review of the permit on this ground.

Moreover, the standard for reopening public comment periods and, by analogy, permitting records in some cases, is that new data, information, or arguments "appear to raise substantial new questions" about a permitting analysis that the permit issuer should, in its discretion, choose to consider. *See Prairie State*, slip op. at 65-66 & nn.51-52, 13 E.A.D. at ___ (noting that, as general matter, the relevant standard set forth in 40 C.F.R. § 124.14(b) – i.e., whether information received during public comment period raises "substantial new questions concerning a permit" – can be applied by analogy to data received after close of public comment period); *Dominion*, 12 E.A.D. at 516-28 (observing that the part 124 regulations do not contain any provisions specifying if and when the administrative record may be supplemented on appeal, and analyzing various items proposed for inclusion in record); *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 585 (EAB 1998) (noting deferential nature of the 124.14(b) standard), *review denied sub nom. Penn Fuel Gas, Inc. v. U.S. EPA*, 185 F.3d 862 (3d Cir. 1999).

It is the exceptional case in which data developed *after* the issuance of a final permit will be deemed *substantial* enough to warrant a reopening of the permitting record. If it were otherwise, the permitting processes provided under existing statutory and regulatory authorities might never be brought to an end. *See, e.g., BP Cherry Point*, 12 E.A.D. at 219-20 (describing the importance of the procedural rules, including information submittal deadlines, in ensuring

efficiency, predictability, and finality of permitting processes). In this case, the City waited until the reply stage of these proceedings to ask the Region to reopen the record to admit those data; its petition merely noted that the City was "currently obtaining" more dissolved oxygen data and implied that the Region should exercise its discretion to consider those data.[4] *See* Pet'n at 7 n.1; Reply Br. at 11 n.5. For its part, the Region chose not to reach beyond the time parameters of the permitting process, *see* Resp. Br. at 50, which has extended far beyond the previous permit's stated expiration date. The Region is vested with substantial discretion in making this decision, and we cannot now fault the Region in its choice. Accordingly, we do not in this instance find clear error, an abuse of discretion, or other basis for granting review of the NPDES permit.

2. *Derivation of Phosphorus WQBELs*

Next, the City of Keene raises a series of issues in the petition that, in its view, show clear reviewable error on the Region's part and an abuse of its permitting discretion. First, the City contends that the Region's use of statistics and reference conditions (involving flow rates and other factors) to justify imposition of phosphorus WQBELs in this case is "directly at odds" with the State of New Hampshire's draft nutrient policy, which focuses on chlorophyll *a* levels in water bodies as the sole indicator of cultural eutrophication. *See* Pet'n at 8-10. The City argues that the Region's decision to impose WQBELs "in direct contravention" to the State's nutrient policy warrants "enhanced scrutiny" from this Board, "particularly where the financial

[4] We note that the data in question only cover a nominal amount of time (a bit less than twenty-four hours in duration, running from the afternoon of August 30, 2007, through the afternoon of August 31, 2007). *See* Reply Br. Ex. C.

consequences" of the Region's decision "are so severe." *Id*. at 10. Second, the City claims that the Region's use of generic phosphorus criteria recommended in EPA's "Gold Book" guidance document constitutes an impermissible attempt to establish a state water quality standard, in violation of CWA § 303(b), 33 U.S.C. § 1313(b). *See id*. at 10-11. Third, the City contends that the Region's decision to calculate and impose phosphorus WQBELs in the absence of a completed Total Maximum Daily Load allocation plan for nutrients in the Ashuelot River involves an exercise of discretion and an important policy consideration that necessitate a grant of review by this Board. *Id*. at 11.

After carefully reviewing and comparing all of the City's arguments on these topics to the comments the City and CDM submitted on the draft permit, it again becomes clear that, with respect to every matter noted above, the City has repeated in its petition varying portions of its and CDM's comments. *Compare* Pet'n at 8-10 *with* RTC cmts. B1, B7, B8, B9, B11(c), C3, at 17-18, 32-35, 37, 42 (draft state nutrient policy); *compare* Pet'n at 10-11 *with* RTC cmts. B1, B2, B9, B10, B11(a), C1, at 17-18, 19, 34-37, 40 (Gold Book); *compare* Pet'n at 10-11 *with* RTC cmts. B4, B5, B7, C1, C6, at 29, 31-33, 40, 50-52 (TMDL). In each instance, the Region considered the points raised by the comments and provided detailed responses thereto in its response-to-comments document. *See*, *e.g.*, RTC rsps. B1, B2, B4, B5, B7, B8, B9, B11(a), B11(c), C1, C3, C6, E5, at 18-20, 30-37, 41, 42-43, 52-53, 61-63. On appeal, the City fails, as above, to address itself to these detailed responses to its comments. *See* Pet'n at 8-11. Accordingly, we are unable to find any basis for granting review of the Region's permit decision. *See, e.g.*, *In re Prairie State Generating Co.*, PSD Appeal No. 05-05, slip op. at 145-

47 (EAB Aug. 24, 2006), 13 E.A.D. at ___, *aff'd sub nom. Sierra Club v. U.S. EPA*, 499 F.3d 653 (7th Cir. 2007); *In re Scituate Wastewater Treatment Plant*, 12 E.A.D. 708, 733 (EAB), *appeal dismissed upon stipulation of parties*, No. 06-1817 (1st Cir. Aug. 4, 2006); *In re Wash. Aqueduct Water Supply Sys.*, 11 E.A.D. 565, 578-90 (EAB 2004); 40 C.F.R. § 124.19(a).

The same result obtains with respect to the arguments presented in the City's reply brief. As was the case with the factual issues analyzed in the preceding section, we have been unable to identify anything in the City's reply brief that speaks to something "new" the Region raised in its response to the petition, and the City itself makes no effort to point us to such "new" arguments in the Region's response. *See* Reply Br. at 15-19. Instead, the reply merely repeats variations on comments submitted on the draft permit and belatedly adds some new contentions regarding the Region's purportedly erroneous use of the Gold Book criteria to derive the phosphorus WQBELs. *Compare* Reply Br. at 15-19 *with* RTC cmts. B2, B3, B4, B5, B6, B7, B8, B9, B11(a), B11(c), B11(g), C1, C3, C7, at 19, 20-21, 29, 31-35, 37, 39-40, 42-43, 53-54. All of these matters could have been included in the City's petition, and their presentation at this juncture is untimely. *See In re BP Cherry Point*, 12 E.A.D. 209, 216 n.18 (EAB 2005); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 126 n.9 (EAB 1999). Accordingly, the Board denies review on these grounds.

III. *CONCLUSION*

For the foregoing reasons, the Board denies the City of Keene's petition for review of NPDES Permit No. NH0100790.

So ordered.

ENVIRONMENTAL APPEALS BOARD[5]

Dated: 3/19/08

By: _____
Edward E. Reich
Environmental Appeals Judge

[5] The three-member panel deciding this matter is comprised of Environmental Appeals Judges Edward E. Reich, Kathie A. Stein, and Anna L. Wolgast. *See* 40 C.F.R. § 1.25(e)(1).

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **Order Denying Review** in the matter of *Keene Wastewater Treatment Plant*, NPDES Appeal No. 07-18, were sent to the following persons in the manner indicated:

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Date: MAR 20 2008

Annette Duncan
Secretary