IN RE GSP MERRIMACK L.L.C.

NPDES Appeal Nos. 20-05 & 20-06

REMAND ORDER

Decided August 3, 2021

Syllabus

GSP Merrimack L.L.C. owns and operates Merrimack Station, a coal-fired, steam-electric power plant located in Bow, New Hampshire. In May 2020, the U.S. Environmental Protection Agency Region 1 ("Region") reissued a final National Pollutant Discharge Elimination System ("NPDES") permit to GSP Merrimack, pursuant to section 402 of the Clean Water Act, 33 U.S.C. § 1342, authorizing it to continue withdrawing cooling water from and discharging pollutants, including heated wastewater, to the Merrimack River. Sierra Club and Conservation Law Foundation ("Environmental Petitioners") and GSP Merrimack separately petition the Environmental Appeals Board to review the permit.

Environmental Petitioners challenge various aspects of the Region's permitting decision that relate to the Merrimack Station's discharges of heated cooling water (referred to as "thermal discharges") and combustion residual leachate into the Merrimack River. GSP Merrimack seeks review of several aspects of the Region's permitting decision that relate to the Station's intake of water from the Merrimack River for cooling purposes. Following completion of the briefing on this matter, the Region requested that the Board remand the permit provision establishing effluent limits for combustion residual leachate but resolve the remaining challenges in the two petitions.

Held: The Board grants the Region's remand request on the combustion residual leachate provision and further remands all aspects of the Region's permitting decision challenged by the two petitions for review filed with the Board.

The Region requested a remand of the combustion residual leachate provision because the Region had determined that the provision was based on an incorrect interpretation of the Clean Water Act and EPA regulations. The Region stated that it intended to develop revised combustion residual leachate effluent limits and provide a public comment opportunity on the revised limits before reissuing them. The Board has

generally exercised its discretion to grant a permit issuer's remand request where the permitting authority is considering modifying the permit and the circumstances here support that approach.

The Board also remands the remainder of the permit provisions challenged in the two petitions. A critical factor in this determination was the Board's holding that the Region had clearly erred by failing to provide adequate notice on an aspect of the thermal discharge effluent limits challenged by Environmental Petitioners that allowed GSP Merrimack to demonstrate compliance with these effluent limits by showing that it was operating Merrimack Station at a reduced capacity. The capacity limitation did not appear in the draft permit or in any notice issued by the Region. Because the capacity limitation is connected to many of the challenged thermal discharge provisions, the Board concludes that a remand of all the remaining issues was the most efficient and expeditious way for moving resolution of this dispute forward.

Before Environmental Appeals Judges Aaron P. Avila, Mary Kay Lynch, and Kathie A. Stein.

Opinion of the Board by Judge Avila:

I. *STATEMENT OF THE CASE*

In May 2020, the U.S. Environmental Protection Agency Region 1 ("Region") issued a National Pollutant Discharge Elimination System ("NPDES") permit to GSP Merrimack L.L.C., pursuant to the Clean Water Act, for the continued operation of Merrimack Station, a coal-fired, steam-electric power plant located in Bow, New Hampshire. The 2020 Permit replaces the 1992 NPDES permit under which Merrimack Station had been operating. Merrimack Station uses an open-cycle cooling system in which cooling water is withdrawn from the Hooksett Pool section of the Merrimack River, pumped through a series of pipes to absorb waste heat from the Station's power-generating operations, and then discharged back to the River at elevated temperatures.

Two petitions for review challenging the Region's permitting decision were filed with the Environmental Appeals Board ("Board")—one filed jointly by the Sierra Club and the Conservation Law Foundation ("Environmental Petitioners") and the other filed by the permittee, GSP Merrimack. Environmental Petitioners challenge various aspects of the Region's permitting decision that relate to the Merrimack Station's discharges of heated cooling water (referred to as "thermal discharges") and combustion residual leachate into the Merrimack River. GSP Merrimack seeks review of several aspects of the Region's permitting decision that relate to the Station's intake of water from the Merrimack River for cooling purposes.

On February 3, 2021, after completion of briefing on the two petitions and with oral argument scheduled for February 16, 2021, the Region sought a continuation of the oral argument date and an abeyance of sixty days on the two petitions so that EPA leadership under the new Administration, which took office on January 20, 2021, could "be briefed on the cases and the underlying action to determine the Agency's position going forward in this matter." EPA Region 1 Motion for Continuance of the Date for Oral Argument and Abeyance 1 (Feb 3, 2021). The Board granted the request for continuance and sixty-day abeyance and later extended it, at the Region's request, for another sixty days.

Before the abeyance expired, the Region filed a motion requesting that the Board remand the permit provision establishing the discharge limit for combustion residual leachate and lift the abeyance as to the other issues raised in the two petitions. The Region explained that "EPA now views the Permit's leachate limits as having been based on an incorrect interpretation of the Clean Water Act and EPA regulations" and that the Region intends to reconsider and repropose for public comment revised leachate limits. EPA Region 1 Motion for Partial Voluntary Remand and Partial Re-Calendaring of Oral Argument 7 (June 4, 2011) ("Region Mot. Partial Remand"). Although Environmental Petitioners supported the Region's request for a remand of the combustion residual leachate limits, GSP Merrimack opposed it. The petitioners did not object to lifting the abeyance on the remaining issues.

For the reasons explained below, we grant the Region's remand request on the leachate issue and further remand all aspects of the Region's permitting decision challenged by the two petitions for review filed with the Board. We do so to avoid inefficient piecemeal litigation and in light of a public notice issue that is intertwined with many of the remaining issues.

II. *SPECIFIC ISSUES RAISED IN THE PETITIONS*

Environmental Petitioners challenge the Region's permitting decision on thermal discharge and combustion residual leachate effluent limitations. They raise a host of challenges to the 2020 Permit's thermal discharge provisions. Environmental Petitioners assert both procedural (lack of adequate notice) and substantive defects as to the Region's decisions to: (1) base the permit's thermal discharge limits on a variance, granted under section 316(a) of the Clean Water Act, 33 U.S.C. § 1326(a), from both the Clean Water Act's technology-based effluent limits as well as state water-quality standards; (2) move the acute temperature compliance point for the permit's instream temperature limits from a location immediately adjacent to Merrimack Station to farther downstream; (3) include operational capacity limitations in the permit as an alternative method for

demonstrating compliance with the permit's section 316(a) variance-based instream temperature limits; (4) remove narrative effluent limits on the thermal discharges from the permit; and (5) reinterpret the permit's general provision prohibiting the violation of state water quality standards as not applying to thermal discharges. Petition for Review by Sierra Club and Conservation Law Foundation, NPDES Appeal No. 20-05, at 39-43, 58-59, 64-65 (July 27, 2020) ("Envtl. Pet'rs Pet.").

Environmental Petitioners also challenge the 2020 Permit's thermal discharge provisions that: (1) allegedly assess compliance with acute instream temperature limits based on the measurement of daily average temperature; and (2) terminate the requirement to meet acute instream temperature limits after July 31 in each year. *Id.* at 47. In a final challenge to the 2020 Permit's provisions on thermal discharge, Environmental Petitioners assert that the Region erred by not including in the permit a provision to protect fish from rapid temperature changes that may occur in the Merrimack River due to frequent stopping and starting of Merrimack Station in the winter.[1] *Id.* at 53-57.

As to their challenge to the Region's permitting decision on effluent limits for combustion residual leachate, Environmental Petitioners argue that the Region erred by failing to use its best professional judgment and establish more stringent limits for this pollutant under the Clean Water Act's best available technology standard in section 301(b)(2)(A). Envtl. Pet'rs Pet. at 68-69; *see* CWA § 301(b)(2)(A), 33 U.S.C. § 1311(b)(2)(A).

GSP Merrimack seeks review of the Region's permitting decision as to three provisions in the 2020 Permit that relate to Merrimack Station's intake of cooling water from the Merrimack River: (1) the requirement to install and operate cylindrical wedgewire screens as part of the Station's cooling water intake structures, from April 1 through August 15 annually; (2) the requirement to schedule maintenance outages of power generating Unit 2 between May 15 and June 15 annually, to the extent practicable; and (3) the six-month deadline to install

[1] The Region filed a motion requesting that the Board strike several attachments to Environmental Petitioners' petition that primarily address the question whether the 2020 Permit protects fish from rapid temperature changes caused by Merrimack Station discharges. Because we are remanding the permit as to all issues raised by Environmental Petitioners regarding the 2020 Permit's thermal provisions, it is unnecessary to resolve whether those documents are properly before the Board in this proceeding.

fish return sluices. Petition for Review by Permittee GSP Merrimack L.L.C., NPDES Appeal No. 20-06, at 20-25 (July 27, 2020) ("GSP Pet.").

III. *PRINCIPLES GOVERNING BOARD REVIEW*

Section 124.19 of title 40 of the Code of Federal Regulations governs Board review of NPDES permitting decisions. In any appeal from a permitting decision issued under part 124, petitioner bears the burden of demonstrating that review is warranted. *See* 40 C.F.R. § 124.19(a)(4). "[A] petition for review must identify the contested permit condition or other specific challenge to the permit decision and clearly set forth, with legal and factual support, petitioner's contentions for why the permit decision should be reviewed." *Id.* § 124.19(a)(4)(i).

In considering whether to grant or deny a petition for review, the Board is guided by the preamble to the regulations authorizing appeal under part 124, in which the Agency stated that the Board's power to grant review "should be only sparingly exercised" and that "most permit conditions should be finally determined at the [permit issuer's] level." Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,412 (May 19, 1980). The Board will ordinarily deny a petition for review, and thus not remand the permit, unless the underlying permit decision is based on a clearly erroneous finding of fact or conclusion of law or an exercise of discretion or important policy consideration that the Board, in its discretion, should review. 40 C.F.R. § 124.19(a)(4)(i).

When evaluating a challenged permit decision for clear error, the Board examines the administrative record that serves as the basis for the permit decision to determine whether the permit issuer exercised "considered judgment." *E.g.*, *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 191, 224-25 (EAB 2000); *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417-18 (EAB 1997). The permit issuer must articulate with reasonable clarity the reasons supporting its conclusion and the significance of the crucial facts it relied on when reaching its conclusion. *E.g.*, *Ash Grove*, 7 E.A.D. at 417. As a whole, the record must demonstrate that the permit issuer "duly considered the issues raised in the comments" and ultimately adopted an approach that "is rational in light of all information in the record." *In re Gov't of D.C. Mun. Sep. Storm Sewer Sys.*, 10 E.A.D. 323, 342 (EAB 2002); *accord In re City of Moscow*, 10 E.A.D. 135, 142 (EAB 2001); *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 568 (EAB 1998), *pet. for review denied sub. nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999).

IV. *LEGAL FRAMEWORK*

Congress enacted the Clean Water Act ("CWA" or "Act") in 1972 "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 help achieve this objective, the Act prohibits the discharge of pollutants into waters of the United States unless authorized by a permit or other specified provision of the Act. *See* CWA §§ 301(a), 402, 33 U.S.C. §§ 1311(a), 1342.

A. *National Pollutant Discharge Elimination System Permitting Program*

The NPDES permitting program is the Act's primary means of authorizing discharges into waters of the United States. *See* CWA § 402, 33 U.S.C. § 1342. A "discharge of a pollutant" is defined as "any addition of any pollutant to navigable waters from any point source." CWA § 502(12), 33 U.S.C. § 1362(12). "Pollutant" encompasses a variety of things, including, as relevant here, heat and industrial waste. CWA § 502(6), 33 U.S.C. § 1362(6). Federal regulations implementing the NPDES program are set forth at 40 C.F.R. parts 122, 125, and 131.

The CWA and its implementing regulations provide that permitting authorities may issue an NPDES permit for discharge of a pollutant "upon condition that such discharge will meet," among other things, all applicable CWA requirements, including those imposed under federal effluent limitations guidelines and the water quality standards of all states affected by the discharge.[2] CWA § 402(a)(1), 33 U.S.C. § 1342(a)(1); *see* CWA §§ 301(b)(1)(C), 401(a)(1)-(2), 33 U.S.C. §§ 1311(b)(1)(C), 1341(a)(1)-(2); 40 C.F.R. §§ 122.4(d), .44(d)(1). In order to achieve this requirement, all permits must include effluent limits that impose restrictions on pollutants that a permitted entity may lawfully discharge. *See generally* CWA §§ 301, 303, 304(b), 33 U.S.C. §§ 1311, 1313, 1314(b); 40 C.F.R. pts. 122, 125, 131.

---

[2] Water quality standards, which are promulgated by states or tribes and approved by EPA, include three components: (1) the "designated uses" of a water body, such as use as a public drinking supply, for recreation, or for wildlife habitat; (2) "water quality criteria," expressed in numeric or narrative form, specifying the amounts of various pollutants that may be present in the water body without impairing its designated uses; and (3) an "antidegradation" provision that protects existing uses and high quality waters. *See* CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. §§ 131.10-.12.

The Act provides for two different kinds of permit effluent limits: those based on the technology available to control or treat a pollutant and those necessary to attain and maintain water quality standards that apply to the receiving water body. Effluent limits based on water quality standards are more stringent permit limits used where technology-based standards are not sufficient to ensure that water quality standards for impacted water bodies will be met. *See* CWA §§ 301(b)(1)(C), (b)(2), 402(a), 33 U.S.C. §§ 1311(b)(1)(C), (b)(2), 1342(a).

EPA generally develops technology-based effluent limitations—denoted in the CWA as "effluent limitation guidelines"—on an industry-by-industry basis, establishing in each instance a minimum level of control or treatment that the Agency deems technologically available and economically achievable for facilities within that specific industry. *See* CWA §§ 301(b), 304(b), 33 U.S.C. §§ 1311(b), 1314(b); 40 C.F.R. pt. 125, subpt. A; *see also* 40 C.F.R. pts. 405-471 (effluent limitation guidelines for various point source categories). These guidelines set effluent limits for specific types of dischargers and pollutants at different levels of pollution control technology as specified in the CWA: for example, best practicable control technology currently available ("BPT"); best conventional pollutant control technology ("BCT"); and best available technology economically achievable ("BAT"). The time period for compliance with these levels of control varies. Existing point sources were required to achieve effluent limitations based on BPT by 1977. CWA § 301(b)(1)(A), 33 U.S.C. § 1311(b)(1)(A). The more stringent BAT standard was required to be met by point sources "as expeditiously as practical" but not later than 1989. *Id*. § 301(b)(2)(A), (C)-(D); 33 U.S.C. § 1311(b)(2)(A), (C)-(D). If EPA has not developed industry-wide limits, the NPDES permitting authority is authorized to develop technology-based limits on a case-by-case basis utilizing its best professional judgment. *See* CWA § 402(a)(1)(B), 33 U.S.C. § 1342(a)(1)(B); 40 C.F.R. § 125.3(c)(2).

B. *Clean Water Act § 316(a) Variances for Thermal Discharges*

Section 316(a) of the Act authorizes a permitting authority to grant a variance from standards that would otherwise apply to thermal discharges. CWA § 316(a), 33 U.S.C. § 1326(a). To obtain a variance, a permit applicant must demonstrate that a standard would be "more stringent than necessary to assure the pro[t]ection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made." *Id.* Where an applicant can make such a demonstration, a permitting authority may issue a permit that contains an alternative limit for thermal discharges so long as the alternative limit does provide that level of protection for shellfish, fish, and

wildlife. *See* 40 C.F.R. pt. 125, subpt. H (Criteria for Determining Alternative Effluent Limitations Under Section 316(a) of the Act).

C. *Clean Water Act § 316(b) and the Cooling Water Intake Structure Rule*

Section 316(b) of the Act establishes requirements for cooling water intake structures. CWA § 316(b), 33 U.S.C. § 1326(b). The "location, design, construction, and capacity" of cooling water intake structures must "reflect the best technology available for minimizing adverse environmental impact." *Id.* In a regulation implementing this statutory requirement, EPA established minimum technical and procedural requirements for cooling water intake structures to reduce adverse environmental impacts to fish and shellfish, at all life stages, due to impingement or entrainment.[3] National Pollutant Discharge Elimination System—Final Regulations to Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities, 79 Fed. Reg. 48,300 (Aug. 15, 2014) (codified at 40 C.F.R § 122.21(r) & 40 C.F.R. pt. 125, subpt. J).

D. *Effluent Limitation Guidelines for Steam-Electric Power Plants*

EPA first promulgated effluent limitation guidelines ("ELGs") for steam-electric power plants in 1974 and subsequently amended the ELGs in 1977, 1982, and 2015. *See* 40 C.F.R. pt. 423; *see also* 80 Fed. Reg. 67,838 (Nov. 3, 2015); 78 Fed. Reg. 34,432, 34,438-39 (June 7, 2013) (discussing history of steam-electric ELG rulemaking actions). The steam-electric ELGs establish effluent limits for, among other pollutants, combustion residual leachate, which is "the liquid that percolates through a landfill or impoundment" that contains residuals from the combustion process at steam-electric power plants. *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1023 (5th Cir. 2019); *see also* 40 C.F.R. § 423.11(r) (defining "combustion residual leachate" as "leachate from landfills or surface impoundments containing combustion residuals" including liquid along

[3] The term "*[a]ll life stages of fish and shellfish*" means "eggs, larvae, juveniles, and adults." 40 C.F.R. § 125.92(b). "*Impingement* means the entrapment of any life stages of fish and shellfish on the outer part of an intake structure or against a screening device during periods of intake water withdrawal." *Id.* § 125.92(n). "*Entrapment* means the condition where impingeable fish and shellfish lack the means to escape the cooling water intake." *Id.* § 125.92(j). "*Entrainment* means any life stages of fish and shellfish in the intake water flow entering and passing through a cooling water intake structure and into a cooling water system, including the condenser or heat exchanger." *Id.* § 125.92(h).

with "any suspended or dissolved constituents in the liquid, that has percolated through waste or other materials emplaced in a landfill, or that passes through the surface impoundment's containment structure"). The latest update to the steam-electric ELGs in 2015 addressed combustion residual leachate, but a portion of that rulemaking—including the updated combustion residual leachate limits—was vacated by the U.S. Court of Appeals for the Fifth Circuit and remanded to EPA in 2019. *Sw. Elec. Power*, 920 F.3d at 1033.

V. *FACTUAL AND PROCEDURAL SUMMARY*

A. *Merrimack Station*

Merrimack Station is a steam-electric power plant located in Bow, New Hampshire. Region 1, U.S. EPA, *Fact Sheet for Draft NPDES Permit No. NH0001465,* at 4 (Sept. 29, 2011) (A.R. 608) ("2011 Fact Sheet"). *Id.* The Station began operating in the 1960s and has four generating units, including two primary coal-fired units, with a combined generating capacity of approximately 520 megawatts. Initially, the Station operated as a "baseload power plant," meaning that it produced power "on a near-constant basis" except for regularly scheduled outages for maintenance. Region 1, U.S. EPA, *Statement of Substantial New Questions for Public Comment* 34 (Aug. 2, 2017) (A.R. 1534) ("2017 Reopening Notice"). More recently, the Station has been operating as a "peaking plant," supplying electricity only during periods of high demand, generally in the coldest months of winter and hottest months of summer. *Id.* at 35.

Merrimack Station relies on an open-cycle cooling system (sometimes referred to as a "once-through" system) that withdraws cooling water from the Hooksett Pool section of the Merrimack River, pumps the water through condenser units to absorb waste heat, and then discharges heated wastewater (referred to as "thermal discharge" or "thermal plumes") back into the River through a 3,900-foot discharge canal.[4] Region 1, U.S. EPA, *Clean Water Act NPDES Determinations*

[4] Steam-electric power plants such as the Merrimack Station operate by burning coal or another fuel to convert water to steam under high pressure and then using the steam to spin turbines that generate electricity. *See generally* Office of Water, U.S. EPA, *Technical Development Document for the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category* § 4.2.1, at 4-6 to -7 (Sept. 2015) (A.R. 1702) (providing overview of steam-electric generating process). A cooling method is needed to condense the steam for reuse as process water. Region 1, U.S. EPA, *Clean Water Act NPDES Determinations for the Thermal Discharge and Cooling Water Intake Structures at Merrimack Station in Bow, New Hampshire*, at ii (Sept. 29, 2011)

for the Thermal Discharge and Cooling Water Intake Structures at Merrimack Station in Bow, New Hampshire 133 (Sept. 29, 2011) (A.R. 618) (2011 Fact Sheet attach. D) ("2011 Determinations Doc."). The discharge canal is equipped with a series of power spray modules that were designed to facilitate cooling by spraying the heated wastewater into the air, like a fountain, prior to discharge to the River. *Id.* at 134.

In addition to discharging heated wastewater, the Station also discharges other pollutants into the River including, as relevant here, combustion residual leachate from its ash landfill. *See* 2011 Fact Sheet at 5.

B. *Merrimack River and the Hooksett Pool*

The Merrimack River is the second-largest river in New England, running approximately 116 miles from the confluence of the Pemigewasset and Winnipesaukee Rivers in Franklin, New Hampshire, down to the Atlantic Ocean in Newburyport, Massachusetts. 2011 Determinations Doc. at 2. The section of the River where Merrimack Station is located is known as the "Hooksett Pool," a stretch approximately six miles long bounded upstream by the Hooksett Dam and downstream by the Garvin Falls Dam. *Id.* at 132. The Hooksett Pool is "a relatively shallow, short, and slow-moving river impoundment," ranging in width from 500 to 700 feet, in depth from six to ten feet, and with a surface area of about 350 acres. *Id.* at 37, 132. At least twenty-one species of fish have been identified in Hooksett Pool, including resident species that are present throughout their entire lifecycle (such as yellow perch, smallmouth bass, and largemouth bass) and diadromous species that spend only part of their lifecycle in the pool (such as American shad and American eel). *See id*. at 32, 179, 198.

Hooksett Pool—and, more broadly, the Merrimack River—is adversely impacted by Merrimack Station's open-cycle cooling system in a number of ways. *See id.* at iii, xiv, 29, 218, 242. Smaller aquatic forms of life, including fish eggs and larvae, are harmed—usually fatally—when they are sucked into the Station's cooling water through a process known as "entrainment." *Id.* at 242. Larger fish

---

(A.R. 618) ("2011 Fact Sheet attach. D"). Various methods are used for cooling the steam, including "dry" cooling processes and "wet" processes that use non-contact cooling water, either in a closed-cycle system in which the cooling water is recirculated or an open-cycle system, such as the one used by Merrimack Station, in which the cooling water is withdrawn from a nearby water body, used once, and then discharged back to the water body. *Id.*

and other aquatic organisms can also be harmed or killed when they become trapped, or "impinged," on the cooling water intake screens. *Id*. Entrainment and impingement of large numbers of organisms can contribute to adverse impacts on the aquatic ecosystem as a whole, including the depletion of threatened or endangered species or the depletion of species important to recreational anglers or the commercial fishing industry. *Id.*

Thermal discharges can also result in adverse environmental impacts, depending on their magnitude, frequency, and duration. *Id.* at 29. As the Region explained:

> [T]hermal discharges can have a profound effect on a receiving water's quality and suitability as habitat and on many aspects of a species' ability to survive, both individually and as a population. These ecological effects can alter the composition of the aquatic community in the receiving water so that it no longer reflects the balanced community structure that existed prior to the addition of heat from the discharge. Shifts in the assemblage of species to a community more tolerant of thermal pollution are generally considered detrimental to the ecosystem, and would be inconsistent with the goals of the CWA § 316(a) and the Clean Water Act, generally.

Id. at 30.

C. *Ownership History of Merrimack Station*

For most of its existence, Merrimack Station was owned and operated by Public Service of New Hampshire ("Public Service NH"). In 2015, Public Service NH was required by state law to divest itself of Merrimack Station and its other holdings of electrical generating facilities. Region 1, U.S. EPA, *Responses to Comments, Public Review of Merrimack Station, NPDES Permit No. NH0001465*, at I-1 (May 22, 2020) (A.R. 1885) ("Resp. to Cmts."). After a lengthy process, Public Service NH sold Merrimack Station to Granite Shore Power L.L.C., the parent company of GSP Merrimack. *Id.* at I-1 to -2; *see also* Purchase and Sale Agreement Between Public Service NH and Granite Shore Power L.L.C. (Oct. 11, 2017) (A.R. 1631). On January 10, 2018, the sale closed and ownership of the Station, together with its permit obligations, transferred to GSP Merrimack, which "stepped into the shoes of [Public Service NH] with regard to both ongoing NPDES permit compliance and participation in the current NPDES permit development

proceeding for Merrimack Station."[5] Resp. to Cmts. at I-2; *see also* Letter from David M. Webster, Chief, Water Permits Branch, Region 1, U.S. EPA, to Sharon Newman, Esq., PretiFlaherty, & Linda T. Landis, Esq., Eversource Energy, re: Transfer of NPDES Permits for Merrimack Station et al. (Jan. 18, 2018) (A.R. 1701).

D. *NPDES Permitting History*

1. *1992 Permit*

Merrimack Station's existing NPDES permit was issued to Public Service NH in 1992. Region 1, U.S. EPA, *NPDES Permit No. NH0001465* (June 25, 1992) (A.R. 236) ("1992 Permit"). Although due to expire after five years, the 1992 Permit was administratively continued upon Public Service NH's submission of a complete and timely application for renewal. 2011 Fact Sheet at 5; *see* 40 C.F.R. § 122.6(a).

The 1992 Permit included several provisions pertaining to thermal discharges. *First*, it required operation of the Station's power spray module system whenever certain temperature criteria in the River were reached.[6] 1992 Permit § I.A.11.b. *Second*, it imposed a three-part narrative limit for thermal discharges: "[t]he combined thermal plumes for the station shall[:] (a) not block [the] zone of fish passage, (b) not change the balanced indigenous population of the receiving water, and (c) have minimal contact with the surrounding shorelines." *Id.* § I.A.1.g. *Third*, it included a general prohibition against violating water quality standards: "[t]he discharges shall not jeopardize any Class B use of the Merrimack River and shall not violate applicable water quality standards." *Id.* § I.A.1.b. The prohibition applied to all discharges, including thermal discharges. *See id.* The Region

[5] The 2020 Permit was issued to "Granite Shore Power Merrimack L.L.C." *See* Region 1, U.S. EPA, *Merrimack Station Power Plant, NPDES Permit No. NH0001465*, at 1 (May 22, 2020) (A.R. 1886). However, the permittee has informed the Board that its legal name is "GSP Merrimack L.L.C." *See* Petition for Review by Permittee GSP Merrimack L.L.C. 1 n.1 (July 27, 2020).

[6] Under the 1992 Permit, the power spray module system had to be operated "as necessary, to maintain either a mixing zone (station S-4) river temperature not in excess of 69ºF, or a station N-10 to S-4 change in temperature (Delta-T) of not more than 1ºF when the N-10 ambient river temperature exceeds 68ºF. All available [power spray modules] shall be operated when the S-4 river temperature exceeds both of the above criteria." 1992 Permit § I.A.11.b.

explained that the thermal discharge limits in the 1992 Permit were developed "based on a combination of a CWA § 316(a) variance and water-quality based requirements." Resp. to Cmts. at I-5; *see also* 2011 Determinations Doc. at 27; Region 1, U.S. EPA, *Fact Sheet for Draft NPDES Permit No. NH0001465*, at 10 (Dec. 5, 1991) (A.R. 112).

At the time the 1992 Permit was issued, Merrimack Station was already using its two cooling water intake structures to withdraw water from the Merrimack River for its cooling system, and the 1992 Permit did not require any modifications to those structures, though it did require the Station to return impinged aquatic organisms to their natural habitat. 1992 Permit § I.A.1.c.

2. *2011 Draft Permit*

In September 2011, the Region issued a draft permit ("2011 Draft Permit") for Merrimack Station to supersede the 1992 Permit, and the Region opened a five-month public comment period and held a public hearing.[7] Region 1, U.S. EPA, *Draft NPDES Permit No. NH0001465 for Merrimack Station* (Sept. 29, 2011) (A.R. 609) ("2011 Draft Permit"); Resp. to Cmts. at I-4. The Region also issued a Fact Sheet to accompany the 2011 Draft Permit, including the 358-page 2011 Determinations Document that explained the bases for the draft permit's thermal discharge limits. *See generally* 2011 Fact Sheet; 2011 Determinations Doc.

The 2011 Draft Permit required the Station "to substantially reduce its thermal load to the river, as well as to reduce the level of mortality to aquatic organisms from impingement and entrainment by the facility's CWIS [cooling water intake structures]." 2011 Fact Sheet at 6.

Although the then-permittee, Public Service NH, had requested that the Region grant a further variance for thermal discharges under Clean Water Act § 316(a) and retain the 1992 Permit's existing thermal discharge limits, the Region rejected that request on the grounds that the permittee had not satisfied the section 316(a) requirements and, therefore, a variance would not be appropriate.

[7] The public comment period for the 2011 Draft Permit opened on September 20, 2011, and closed on February 28, 2012. Resp. to Cmts. at I-1. The public hearing was held on November 3, 2011. *See* Transcript, Public Hearing in the Matter of NPDES Public Service NH, Merrimack Station, NPDES Permit No. NH0001465 (Nov. 3, 2011) (A.R. 1119).

Resp. to Cmts. at I-5. Instead, the 2011 Draft Permit based the thermal discharge limits on applicable technology and water quality standards. *Id.*

In declining to grant another variance, the Region concluded that Public Service NH "ha[d] not demonstrated that Merrimack Station's thermal discharge ha[d] not caused prior appreciable harm to the Hooksett Pool's balanced, indigenous population of fish" and that, "[t]o the contrary, the evidence as a whole indicate[d] that Merrimack Station's thermal discharge ha[d] caused, or contributed to, appreciable harm to Hooksett Pool's balanced, indigenous community of fish." 2011 Determinations Doc. at 121. The Region further concluded that Public Service NH had not met the standard for a section 316(a) variance because it had demonstrated neither that (1) otherwise applicable technology-based and water quality-based standards for thermal discharges would be more stringent than necessary, nor that (2) Public Service NH's proposed alternative limits would suffice to reasonably assure the protection and propagation of the River's balanced, indigenous population of fish and other aquatic organisms. *Id.*

As part of the permitting process, the Region determined that conversion of Merrimack Station's existing open-cycle cooling system to a closed-cycle system would meet the best available technology ("BAT") standard required by Clean Water Act § 301(b)(2)(a) and based the 2011 Draft Permit discharge limits on the use of that technology. 2011 Determinations Doc. at 120-22. Given that nationwide technology-based standards for thermal discharges did not then exist—nor do they exist now—the Region developed thermal discharge limits by applying its best professional judgment on a site-specific basis to determine BAT. *Id.*; *see* 40 C.F.R. § 125.3(c). The thermal discharge limits that were proposed consisted of monthly and annual heat-load limits, measured in millions of British thermal units per month, calculated based on the amount of heated wastewater the Station would discharge to the River each month if it were utilizing a closed-cycle cooling system. 2011 Draft Permit § I.A.5.b; *see* 2011 Determinations Doc. at xii.

The Region explained that it was basing the thermal discharge limits in the 2011 Draft Permit on best available technology, not water quality standards, because the BAT limits were more stringent. 2011 Determinations Doc. at 214. Nevertheless, the 2011 Draft Permit also included certain narrative requirements pertaining to thermal discharges in order to ensure that New Hampshire water quality standards would be satisfied. Resp. to Cmts. at I-5; 2011 Draft Permit §§ I.A.14, .23.

Although the Region did not base the thermal discharge limits in the 2011 Draft Permit on a Clean Water Act § 316(a) variance, the Region did provide

"express notice" in the 2011 Determinations Document that it planned to consider the issue further and invited the public to comment on an alternative permitting approach. 2011 Determinations Doc. at xiii-iv. That alternative approach consisted of establishing thermal discharge limits based on the instream temperature limits of the receiving water, not the temperature of the thermal plume. *Id.* The Region refers to this approach as the "2011 Variance Alternative." Response by EPA Region 1 to Petition for Review by Sierra Club and Conservation Law Foundation 13 (Sept. 25, 2020) ("Region Resp. Br."). Specifically, the Region requested comment on the following:

> (1) Has EPA correctly rejected PSNH's [Public Service NH's] variance request?
>
> (2) Has EPA properly applied New Hampshire's water quality standards, including the biologically-driven standards?
>
> (3) Will limits satisfying New Hampshire's water quality standards also satisfy CWA § 316(a)?

2011 Determinations Doc. at xiv.

The 2011 Draft Permit also included technology-based effluent limits for combustion residual leachate based on the 1982 Effluent Limitation Guidelines for steam-electric plants then in effect. *See* 2011 Draft Permit § I.A.4. Combustion residual leachate qualifies as a low volume waste under those Guidelines and thus the Region proposed effluent limits applicable to low volume wastes for this type of leachate. Resp. to Cmts. at V-24 to -25. At that time, the Effluent Limitations Guidelines for low volume wastes addressed discharges of total suspended solids and oil and grease. 40 C.F.R. § 423.12(b)(3) (2011).

With respect to the Station's cooling water intake operations, the 2011 Draft Permit included several conditions intended to satisfy the Clean Water Act § 316(b) "best technology available" requirement. Resp. to Cmts. at I-4; *see* 33 U.S.C. § 1326(b). The 2011 Draft Permit required the Station to limit its cooling water intake to "to a level consistent with" operating a closed-cycle cooling system from April 1 to August 31 annually, concluding that this was the best means of reducing adverse environmental impacts due to impingement and entrainment of aquatic organisms. 2011 Draft Permit § I.E.1; Resp. to Cmts. at I-5. The 2011 Draft Permit also required the Station to install a new fish return sluice, but did not impose a deadline for doing so, and to implement certain operational improvements to the

cooling system's intake screens.[8] 2011 Draft Permit § I.E.5; *see also* 2011 Fact Sheet at 52.

3. *2017 Statement of Substantial New Questions for Public Comment*

In 2017, the Region issued a public notice identifying substantial new issues and data related to the permitting decision and reopened the comment period on certain issues.[9] 2017 Reopening Notice; Region 1, U.S. EPA, & NH Dep't of Envtl. Servs., *Joint Pub. Notice of the Reopening of the Pub. Comment Period* (Aug. 7, 2017) (A.R. 1533); *see* 40 C.F.R. § 124.14(b) (providing Region with discretionary authority to reopen public comment period when "any data information or arguments submitted during the public comment period * * * appear to raise substantial new questions concerning a permit"). The notice invited comment on a number of issues, including the relevance of Merrimack Station's reduced operations and Public Service NH's then-anticipated sale of the Station.[10] *See* 2017 Reopening Notice at 4-5. Although the Region reopened the comment period, it did not issue a revised draft permit in connection with, or following, that comment period.

---

[8] In 2014, the Region reissued the 2011 Draft Permit with revisions based on information the Region received regarding equipment changes at Merrimack Station for the treatment of waste from the Station's flue gas desulfurization system. Region 1, U.S. EPA, *Revised Draft NPDES Permit No. NH0001465* (Apr. 18, 2014) (A.R. 1136). The 2014 draft permit removed Merrimack Station's authority to discharge from one outfall and revised the effluent limits at a second outfall to address these equipment changes. *See* Region 1, U.S. EPA, *Fact Sheet for Revised Draft Permit No. NH0001465,* at 3-5 (Apr. 18, 2014) (A.R. 1135). The Region opened a second comment period but limited it to comments only on the 2014 revisions and other "inextricable" permit terms, none of which are relevant to the petitions for review currently before the Board. *Id.* at 3-4. For this reason, we focus here on the 2011 Draft Permit.

[9] The reopened comment period ran from August 4 through December 8, 2017. Resp. to Cmts. at I-1.

[10] Other issues that the Region identified for comment included new information pertaining to requirements for cooling water intake structures, new information regarding the application of CWA § 316(a), New Hampshire Water Quality Standards as they apply to Merrimack Station's thermal discharge limits, and new information concerning technology-based standards for low volume wastes (including combustion residual leachate) and other wastes. 2017 Reopening Notice at 4-5.

4. *The Region's 2018-2019 Discussions with GSP Merrimack After the Close of the Reopened Comment Period*

After the close of the reopened comment period, between February 2018 and October 2019, Merrimack Station's new owner and permit holder (GSP Merrimack) and the Region participated in a series of in-person meetings and telephone calls in which, as documented in the administrative record, they discussed proposed permit terms and possible revisions. We examine the significance of these meetings and communications in the Analysis section, Part VI.B, below.

5. *2020 Final Permit*

In May 2020, the Region issued the permitting decision that is the subject of these petitions for review. Region 1, U.S. EPA, *Final NPDES Permit No. NH0001465* (May 22, 2020) (A.R. 1886) ("2020 Permit"). The 2020 Permit's thermal discharge limits are based on instream temperature limits for the River, measured at a compliance point approximately 2,000 feet downstream from the discharge canal (referred to as compliance point S4). *Id.* § I.A.11; *see* Resp. to Cmts. at II-131. In contrast to the limits in the 2011 Draft Permit, these instream temperature limits were established under a Clean Water Act section 316(a) variance from "technology-based and water quality-based limits" that the Region determined "*would* be more stringent than necessary to assure the protection and propagation" of the balanced, indigenous populations of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made. Resp. to Cmts. at II-107; *see id.* at I-9 to -10. The Region explained that "daily temperature data under current [peaking-like] operations [at Merrimack Station] suggest[] that variance-based temperature limits drawn from water quality-based protective instream temperatures will satisfy the criteria of CWA § 316(a)." *Id*. at II-13. The 2020 Permit's instream temperature limits require year-round compliance with weekly-average temperature limits for the River ("chronic temperature limits") as well as seasonal compliance (May through July) with daily maximum temperature limits ("acute temperature limits"). 2020 Permit § I.A.11.

Significantly, the 2020 Permit contains a new provision allowing for an alternate method of demonstrating compliance with the chronic instream temperature limit, which is based on Merrimack Station's operating capacity. That provision states that:

> During the period May 1 through September 30, the Permittee must either maintain a rolling 45-day average operating capacity factor no greater than 40 percent of the total rated capacity for both units

> [at Merrimack Station] or meet the effective weekly average temperature limits at Station S4.

Id. § I.A.11 n.6. We will refer to this capacity factor limitation as an "alternative instream temperature compliance method." This alternative method of complying with the instream temperature limits was granted as a section 316(a) variance. *See* Resp. to Cmts. at II-302 to -303.

The 2020 Permit also omitted the narrative limits for thermal discharges that were included in both the 1992 Permit and the 2011 Draft Permit. *See* 2020 Permit § I.A.11. While the 2020 Permit does retain the general prohibition on violating water quality standards, the Region took the position in its Response to Comments document accompanying the 2020 Permit that the prohibition does not apply to thermal discharges. Resp. to Cmts. at II-307, -309, -332.

The 2020 Permit retained the 2011 Draft Permit's effluent limits for combustion residual leachate. *See* 2020 Permit § I.A.4. As noted above, these effluent limits were based on the 1982 Effluent Limitation Guidelines for steam-electric plants.

Finally, the 2020 Permit includes several provisions that relate to Merrimack Station's intake of cooling water, including requirements concerning the seasonal use of cylindrical wedgewire screens, seasonal maintenance shutdowns of generating Unit 2, and installation of a new fish return sluice within six months of the effective date of the permit. 2020 Permit § I.E.1-.3, .7(d).

The petitions for review from Sierra Club and Conservation Law Foundation and from GSP Merrimack followed the issuance of the 2020 permit.[11]

---

[11] Both petitions were timely filed. In June 2020, Environmental Petitioners filed a motion, with the consent of the Region and GSP Merrimack, asking the Board to extend the deadlines and enlarge word counts for certain petitions for review and replies. Consent Motion Regarding Briefing Schedule and Word Limits for Petition(s) for Review, Response(s), and Repl(ies) 1 n.1 (June 12, 2020). The Board established a briefing schedule that set July 27, 2020, as the deadline for Environmental Petitioners (and any of their co-commenters) and GPS Merrimack to file any petition for review and enlarged the word counts. Order Granting Consent Motion for Extension of Time and Increase Word Limits and Notifying the Parties of Electronic Service (June 16, 2020).

VI. *ANALYSIS*

A. *The Region's Motion for Partial Voluntary Remand*

1. *Combustion Residual Leachate Limits*

The Region has requested a voluntary remand of the 2020 Permit's effluent limitation for the discharge of combustion residual leachate.[12] Region Mot. Partial Remand at 1. The Region seeks that voluntary remand because the Region "now views the Permit's leachate limits as having been based on an incorrect interpretation of the Clean Water Act and EPA regulations." *Id.* at 7. In justifying the 2020 Permit's combustion residual leachate discharge limits, the Region stated that the governing national regulation for such leachate discharge limits was established under the best available technology ("BAT") standard and an EPA regulation barred permit issuers from varying from such regulatorily established, BAT-based discharge limits in writing permits. Resp. to Cmts. at V-30. The Region now appears to be of the view that its previous interpretation of the Clean Water Act and EPA regulations was incorrect and that the Region can establish site-specific BAT-based limits for the discharge of combustion residual leachate, such as at Merrimack Station, using its best professional judgment ("BPJ"). Region Mot. Partial Remand at 7. In light of this position, the Region explains that it "intends to reconsider and re-propose * * * for public comment new leachate limits for the Permit based on a site-specific, Best Professional Judgment * * * application of the BAT standard to Merrimack Station." *Id.*

Under Board regulations, a permit issuer may unilaterally withdraw a permit that is the subject of a petition for review within a specified time during the review proceeding, 40 C.F.R. § 124.19(j), and may request by motion a voluntary remand of the permit (or a portion thereof) at any time after that. *See* 78 Fed. Reg. 5281, 5282 (Jan. 25, 2013) (specifying that "[n]othing in [section 124.19] prevents the Region from seeking to withdraw the permit by motion at any time"). The Board has "broad discretion" to grant a request for voluntary remand. *In re Desert Rock Energy Co.*, 14 E.A.D. 484, 493 (EAB 2009). The Board has generally exercised that discretion to grant a permit issuer's remand request where the permitting authority is considering modifying the permit, because "it would be highly inefficient for the Board to issue a final ruling on a permit" in those circumstances. *Id.* at 493, 497; *see In re City of Nezperce*, NPDES Appeal

[12] Additionally, the Region asked that the Board declare this challenge to be moot. Region Mot. Partial Remand at 8-9.

No. 19-02, at 2 (EAB Sept. 30, 2019) (Order Granting Unopposed Motion for Voluntary Remand and Dismissing Petition for Review) (granting motion for voluntary remand where Region expressed "intent to reconsider its final permit decision related to the ammonia limitation" in NPDES permit); *In re Veolia ES Tech. Sols., L.L.C.*, CAA Appeal No. 17-02, at 1-2 (EAB Apr. 3, 2018) (Order Granting Unopposed Motion For Voluntary Remand and Dismissing Petition for Review) (granting motion for voluntary remand where Region indicated that it intended to issue revised permit for public comment). Additionally, remanding in such circumstances furthers the "Agency policy * * * [of] allowing the Region to make permit condition decisions rather than the Board." *Desert Rock*, 14 E.A.D. at 495; *see* Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,412 (May 19, 1980) (prescribing that "most permit conditions should be finally determined at the Regional level").

The Region maintains that remanding the combustion residual leachate limits promotes administrative efficiency "by avoiding further effort by the Board and parties to review permit limits that the Region plans to reconsider and repropose" and by assuring that Board review, if necessary, will not occur until after interested persons have the "opportunity * * * to review and comment on the Region's proposed leachate limits and their underlying technical and legal basis."[13] Region Mot. Partial Remand at 7-8. GSP Merrimack objects, arguing that remanding will be a "waste of resources until the threshold legal issue of EPA's

[13] Environmental Petitioners support the Region's request to remand the 2020 Permit's combustion residual leachate limits; however, Environmental Petitioners oppose the Region's request that the challenge to these permit requirements be declared moot. Response of Petitioners Sierra Club and Conservation Law Foundation to EPA Region 1 Motion for Partial Voluntary Remand and Partial Recalendaring of Oral Argument 4-5 (June 11, 2021) ("Envtl. Pet'rs Resp. Partial Remand"). Because we are remanding the entire permit, it is unnecessary to address whether Environmental Petitioners' challenge to this permit requirement is moot. In their response, Environmental Petitioners also requested clarification as to whether any appeal of the permit after the Region's decision on remand should be made directly to federal court or to the Board. *Id.* at 6. In footnote 22 below, we require that anyone dissatisfied with the Region's decision on remand must file a petition seeking Board review in order to exhaust administrative remedies under 40 C.F.R. § 124.19(*l*). Finally, Environmental Petitioners request that the Board clarify several procedural points regarding appealed permits that are addressed in EPA's permitting regulations. Envtl. Pet'rs Resp. Partial Remand at 6-7. However, the questions raised by Environmental Petitioners in their response to the Region's request for a partial remand are not issues placed into dispute by a petition in this proceeding. It is unnecessary for us to address the questions for this reason.

authority" to devise BAT-based combustion residual leachate limits through use of BPJ is resolved. Permittee GSP Merrimack L.L.C.'s Response to EPA's Motion for Partial Voluntary Remand and Partial Re-Calendaring of Oral Argument 2 (June 11, 2021) ("GSP Merrimack Opp. Partial Remand"). It is GSP Merrimack's position that the Region has no such authority because the current national regulations establishing combustion residual leachate limits "occupy the field and foreclose the development of case-by-case limits" using BPJ. *Id.* And GSP Merrimack asserts that resolution of that issue is appropriate because it has been "briefed to the Board" and that the Region's revised interpretation is "directly contrary to the Board's prior decision" in *In re Arizona Public Service Company*, issued in September 2020. *Id.*

GSP Merrimack's objections are unpersuasive. First, the question of the Region's authority to issue BPJ-based combustion residual leachate limits may have been "briefed," and the existing briefs may address whether the current regulations "occupy the field"—as the Region and GSP Merrimack argue in responding to Environmental Petitioners' petition—and thus preclude BPJ-derived limits. But the now-changed circumstances augur against deciding this issue on the merits at this time. The Region has apparently changed its position from its response brief and has yet to articulate its revised interpretation of the Clean Water Act and applicable regulations, much less submitted a brief to the Board on the merits of its new interpretation. And the appropriate time in the permit process for the Region to articulate its revised interpretation and issue any revised permit term is following remand of the permit's combustion residual leachate limits. At that point in the process, the Region can "reconsider and repropose" permit limits for combustion residual leachate, interested persons will have the "opportunity * * * to review and comment on the Region's proposed leachate limits and their underlying technical and legal basis," and the Region can respond to any comments and compile an administrative record for any new final permit terms that explains the Region's rationale and basis for the new permit terms. *See* Region Mot. Partial Remand at 7-8. In these circumstances, GSP Merrimack's suggested course of action essentially invites the Board to issue an advisory opinion, something the Board does not do. *See Desert Rock*, 14 E.A.D. at 507 (refusing to issue advisory opinion regarding changes Region might make to permit that had been voluntarily remanded); *In re Cavenham Forest Indus., Inc*., 5 E.A.D. 722, 731 n.15 (EAB 1995) (stating, in permit appeal dismissed as moot, that Board would not provide advisory opinion "even if the request were properly before us"); *In re Simpson Paper Co*., 4 E.A.D. 766, 771 n.10 (EAB 1993) (stating, in permit appeal dismissed as moot, that issuing advisory opinion on "hypothetical permit * * * is inconsistent with EPA's permit review authority").

Second, our decision in *In re Arizona Public Service Company*, 18 E.A.D. 245 (EAB 2020), *appeal docketed sub nom. Dine' Citizens Against Ruining the Env't v. EPA*, No. 21-70139 (9th Cir. Jan. 22, 2021), does not resolve the authority question that GSP Merrimack deems critical. That case involved a different pollutant—bottom ash transport water—not combustion residual leachate, which is at issue here. Bottom ash transport water is subject to different requirements under current regulations and has a different regulatory history than combustion residual leachate. In fact, there are varying regulatory requirements for bottom ash transport water depending on when it is produced, with a zero-discharge requirement applying to bottom ash transport water after a future date and a less stringent requirement governing previously produced, or "legacy," bottom ash transport water.[14] *See* Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 80 Fed. Reg. 67,838, 67,841, 67,896 (Nov. 3, 2015); *Ariz. Pub. Serv.*, 18 E.A.D. at 292-93. In addition, the Board's decision in *Arizona Public Service* did not address GSP Merrimack's "occupy the field" argument. *See Ariz. Pub. Serv.*, 18 E.A.D. at 296 (holding that "the Region did not clearly err when it decided to rely on existing ELGs and await the development of national ELGs before imposing BAT-based effluent limits on legacy bottom ash transport water in this Permit"). Rather, we held that the Region did not "clearly err in determining [that] site-specific factors at the Four Corners

[14] Prior to 2015, EPA's steam-electric ELGs contained a provision expressly covering bottom ash transport water, but combustion residual leachate was covered only under the catchall provision for low volume wastes. *See* 40 C.F.R. § 423.12(b)(4) (2014) (bottom ash transport water); *id.* § 423.11(b) (low volume waste); 80 Fed. Reg. at 67,849-50. Different analyses were relied upon in promulgating effluent limits for these two categories of wastes. Steam Electric Power Generating Point Source Category; Effluent Limitations Guidelines, Pretreatment Standards and New Source Performance Standards, 47 Fed. Reg. 52,290, 52,296-97 (Nov. 19, 1982). In 2015, EPA updated the steam-electric ELGs, establishing, for the first time, an express effluent limitation for combustion residual leachate and amending the bottom ash transport water effluent limit to establish a no-discharge limit that applies at a future date and a separate limit for discharges before that date (referred to as "legacy" bottom ash transport water). *See* 80 Fed. Reg. at 67,852-54, 67,896. Again, separate analyses were conducted for bottom ash transport water and combustion residual leachate. *See id.* at 67,852-54. The differences between the regulation of bottom ash transport water and combustion residual leachate were further accentuated when the Fifth Circuit vacated the 2015 update to the steam-electric ELGs as to combustion residual leachate in whole and bottom ash transport water in part. *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1033 (5th Cir. 2019). The vacatur as to bottom ash transport water covered only the discharge level set in 2015 for legacy bottom ash transport water and not the zero-discharge standard that applies in the future. *Id.* at 1022.

Power Plant do not support establishing more stringent effluent limits to achieve BAT requirements for legacy bottom ash transport water." *Id.* at 294. Of particular relevance were the "significant cost and feasibility issues posed by layering a third new technology requirement on the Four Corners Power Plant"—i.e., as would be required by a more stringent BAT standard for legacy bottom ash transport water—"for a limited period given that [the plant operator] is currently installing technology designed to result in the zero discharge of bottom ash transport water by December 31, 2023." *Id.* at 296. The Board found this approach to be "consistent with the statutory requirement that BAT determinations 'must result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants.'" *Id.* (quoting CWA § 301(b)(2)(A), 33 U.S.C. § 1311(b)(2)(A)).

Accordingly, given the uncertainty regarding the legal and factual bases for the yet-to-be-proposed new limits for combustion residual leachate, the most efficient course is to remand the permit provision so that the Region can properly develop and propose any new permit terms, take public comment on those proposed permit terms, and compile an administrative record for any new final permit terms that explains the Region's rationale and basis for those new terms.

2. *Remainder of the Challenged Provisions*

The Region has also requested that the Board lift the abeyance on the remainder of the issues presented by the petitions in this matter—Environmental Petitioners' challenge to the 2020 Permit's thermal discharge provisions and GSP Merrimack's challenges to the 2020 Permit's cooling water intake requirements. In support, the Region argues that these permit requirements are distinct from the combustion residual leachate effluent limits and the challenges to thermal discharge and that cooling water intake requirements have been fully briefed by the parties. Region Mot. Partial Remand at 10-11. Additionally, the Region contends that "the quickest way to resolution of this permit appeal—and getting new, more protective permit limits into effect"—would be for the Board to decide the challenges to the thermal discharge and cooling water requirements now without waiting for the Region to reissue the combustion residual leachate limits. *Id.* at 10. The other parties concur. GSP Merrimack Opp. Partial Remand at 4; Response of Petitioners Sierra Club and Conservation Law Foundation to EPA Region 1 Motion for Partial Voluntary Remand and Partial Recalendaring of Oral Argument 8 (June 11, 2021).

We recognize that the Region's efforts to update the GSP Merrimack permit have lasted more than a decade and that the Region and the other parties desire to obtain closure on at least some of the 2020 Permit terms. Nonetheless, based on our review of the briefs and administrative record, we conclude that the most efficient and expeditious path to having a final permit in place is to remand the

challenged permit decision with regard to the entirety of the challenges raised in the two petitions before us.

That conclusion is based on our experience in similar situations and our determination, discussed below, that the Region clearly erred in issuing the 2020 Permit by failing to provide adequate notice of a new permit condition allowing GSP Merrimack an alternative compliance method for the permit's instream temperature limits, which is based solely on the operating capacity of Merrimack Station. *See* Part VI.B, below. That determination makes it appropriate to remand Environmental Petitioners' thermal discharge challenges to the permit decision as the challenged permit provisions are either connected to the alternative compliance method based on capacity limitations or may be based upon a reduced capacity at Merrimack Station. *See, e.g.*, Region Resp. Br. at 44 (arguing that Environmental Petitioners' challenge to removal of narrative thermal limit is flawed because limit could cause confusion regarding whether GSP Merrimack is in compliance with thermal discharge limits); *id.* at 31 (citing Response to Comments to justify moving acute temperature compliance point from Station S0 to S4, relying on, in part, recent operations at Merrimack Station); *id*. at 41-42 (contending that there will be "minimal impacts associated with cold shock" because Merrimack Station does not currently operate during "much of the Fall"). Proceeding to resolve a subset of issues could limit available options for the public and would be unlikely to expedite meaningfully the Region's task on remand. Hence, we are remanding the permit decision as to the entirety of Environmental Petitioners' thermal discharge claims.

Although GSP Merrimack's three challenges are different than those made by Environmental Petitioners, in that GSP Merrimack's challenges involve regulation of Merrimack Station's cooling water system under a different Clean Water Act provision, we see few, if any, reasons for resolving, on a piecemeal basis, GSP Merrimack's challenges out of the many issues involved in this proceeding. Nor is it clear that a resolution of GSP Merrimack's current challenges to the permit would lead to early implementation of certain permit terms. *See* Region Mot. Partial Remand at 10 (noting that Region would not issue final permit until challenge to combustion residual leachate limits is resolved); *see Desert Rock*, 14 E.A.D. at 518 (concluding that full, rather than partial, remand "should ultimately provide a speedier resolution of the Desert Rock permitting proceeding"). In these circumstances, we conclude that piecemeal adjudication is unlikely to be efficient or expeditious.

In sum, based on our resolution of the notice issue discussed next and the considerations set forth, we conclude that the most efficient and expeditious path

to having a final permit in place is to remand the challenged permit decision as to all challenges contained in the two petitions.[15]

B. *Adequacy of Notice on the Capacity-Based Alternate Compliance Method for the Instream Temperature Limits*

Environmental Petitioners argue that the Region failed to comply with notice-and-comment requirements for NPDES permits when the Region made several revisions to the 2011 Draft Permit's thermal discharge provisions in the final 2020 Permit. Envtl. Pet'rs Pet. at 39. More specifically, Environmental Petitioners assert that neither the 2011 Fact Sheet nor the 2017 request for additional comment (the "2017 Reopening Notice" cited in Part V.A above) provided adequate notice of the possibility that these permit terms might be revised and, further, that the revisions were not a "logical outgrowth" of the draft permit. Envtl. Pet'rs Pet. at 39, 58, 65; Reply Brief in Support of Petition for Review by Sierra Club and Conservation Law Foundation 5-10 (Nov. 9, 2020) ("Envtl. Pet'rs Reply"). For the reasons discussed above, we focus on the adequacy of notice for the 2020 Permit's capacity limits that serve as an alternative compliance method for the instream temperature limits.

1. *What is Required for Adequate Public Notice*

Public notice and an opportunity to comment are necessary prerequisites under the Administrative Procedure Act to the issuance of NPDES permits. 5 U.S.C. § 553(b)-(c); *In re D.C. Water & Sewer Auth.*, 13 E.A.D. 714, 758 (EAB 2008) ("*DC Water*") (citing *NRDC v. EPA*, 863 F.2d 1420, 1429 (9th Cir. 1988)), *pet. for review dismissed for lack of juris.*, No. 08-1251 (D.C. Cir. Dec. 12, 2008); *NRDC v. EPA*, 279 F.3d 1180, 1186 (9th Cir. 2002)); *see Lake Carriers' Ass'n v. EPA*, 652 F.3d 1, 6-7 (D.C. Cir. 2011) (holding EPA notice on NPDES permit did not violate section 553 of Administrative Procedure Act).

---

[15] In light of the current procedural posture of this matter and in the interest of an efficient and expeditious course for issuance of this permit, we have determined that oral argument is not needed to assist the Board with the single issue in the petitions that the Board decides in this order—namely, whether the Region provided adequate notice of the alternative instream temperature compliance method relying on a capacity limitation. The adequacy of the Region's notice on the capacity limitation has been thoroughly briefed. Moreover, only Environmental Petitioners requested oral argument, and we decide this notice issue in their favor.

Further, pursuant to the Clean Water Act, EPA regulations establish detailed public notice-and-comment requirements for NPDES permits. *See* 40 C.F.R. §§ 124.6(d), .7-.8, .10-.11; *id.* §§ 124.56-.57 (special requirements for fact sheets and notice for NPDES permits); *see also* CWA § 101(e), 33 U.S.C. § 1251(e) (requiring that "[p]ublic participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program * * * shall be provided for, encouraged, and assisted by the Administrator"); CWA § 402(a), 33 U.S.C. § 1342(a) (requiring EPA to offer opportunity for public hearing before issuing NPDES permit); CWA § 402(b)(3), 33 U.S.C. § 1342(b)(3) (requiring EPA, in approving state permit programs, to determine that state has adequate authority to ensure public receives notice and opportunity for public hearing on permit applications); *Waterkeeper All., Inc. v. EPA*, 399 F.3d 486, 503 (2d Cir. 2005) ("Congress clearly intended to guarantee the public a meaningful role in the implementation of the Clean Water Act.").

As to notice, the regulations require that when the permit issuer decides to grant a permit request, the permit issuer prepares and releases a draft permit containing, among other things, "effluent limitations, standards, [and] prohibitions." 40 C.F.R. § 124.6(d)(4)(v). Additionally, the draft permit must be accompanied by a "statement of basis" or "fact sheet" under sections 124.7 or 124.8, respectively. *Id*. § 124.6(e). A fact sheet, which the Region prepared for the draft permit here, must "briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit" and include, among other things, "[a] brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record * * * [and] [r]easons why any requested variances or alternatives to required standards do or do not appear justified." *Id*. § 124.8(a), (b)(4)-(5); *see id.* § 124.56(b)(1) (specifying that, in addition to section 124.8 requirements, fact sheets must contain "explanation of the reasons" for various limitations and waivers). Section 124.57(a) of the NPDES regulations imposes additional notice requirements where a request for a Clean Water Act section 316(a) variance request is made, including a requirement that public notice on the draft permit contain "a brief description, including a quantitative statement, of the thermal effluent limitations proposed under [CWA] section 301 or 306 * * * [and] alternative effluent limits," if the request proposes any such limitations. *Id.* § 124.57(a)(1)-(2).

The adequacy of public notice and opportunity to comment has been the subject of extensive discussion in decisions by the Administrator and the Board as well as the federal courts. The Administrator has explained that notice on draft permits "must be sufficiently detailed to afford the applicant a meaningful

opportunity to comment" and that when notice on a particular issue is limited to "conclusory" statements, a meaningful opportunity has not been provided. *In re Pennzoil Expl. & Prod. Co.*, 3 E.A.D. 389, 392 & n.1 (Adm'r 1990). Likewise, the Board, in determining whether a permit issuer has provided adequate notice, has focused on whether interested parties have been provided the "opportunity to provide meaningful comment" on the permit. *DC Water*, 13 E.A.D. at 762; *see In re J&L Specialty Prods. Corp.*, 5 E.A.D. 31, 78 (EAB 1994) (holding that NPDES permit's fact sheet provided adequate notice because it gave petitioner sufficient information "to prepare meaningful comments on the draft permit"); *In re W. Bay Expl. Co.*, UIC Appeal Nos. 13-01 & -02, at 3 n.3 (EAB Apr. 16, 2013) (Order Dismissing Petitions for Review as Moot) (calling attention to Administrator's ruling in *Pennzoil* that notice is inadequate when it is not "sufficiently detailed to afford the applicant a meaningful opportunity to comment"). In *In re District of Columbia Water and Sewer Authority*, the Board held that interested parties had been denied a meaningful opportunity to comment on an NPDES permit when the permit issuer removed a significant provision from the final permit and attempted to justify that removal by appearing, in a fact sheet accompanying the final permit, to change significantly its prior interpretation of the Clean Water Act and relevant EPA policy. *DC Water*, 13 E.A.D. at 756-57, 761-62; *accord In re City of Newburyport Wastewater Treatment Facility*, NPDES Appeal No. 04-06, at 14-15 (EAB Dec. 8, 2005) (Order Denying Review in Part and Remanding in Part) (holding that "where the insufficiency of the record relating to the significant change [in the final NPDES permit] has frustrated the public's opportunity to meaningfully comment and the permit issuer's opportunity to be informed by public comments, reopening of the public comment period is appropriate").

Although the Administrative Procedure Act's notice requirements are much less detailed than those included in the NPDES regulations, federal courts have taken a similar approach to assessing the adequacy of the notice provided under the requirements of that Act. For example, federal courts interpreting the Administrative Procedure Act's notice requirement in the context of rulemaking have, like the Board, concluded that such notice "must include sufficient detail on [the proposed rule's] content and basis in law and evidence to allow for meaningful and informed comment." *Am. Med. Ass'n v. Reno*, 57 F.3d 1129, 1132 (D.C. Cir. 1995); *accord Fla. Power & Light Co. v. United States*, 846 F.2d 765, 771 (D.C. Cir. 1988) (notice on proposed rule "must provide sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully"); *United States v. Nova Scotia Food Prod. Corp.*, 568 F.2d 240, 252 (2d Cir. 1977) ("To suppress meaningful comment by failure to disclose the basic data relied upon is akin to rejecting comment altogether."). To provide a meaningful opportunity to

comment, the federal courts explain, the proposing agency must "describe the range of alternatives being considered with reasonable specificity." *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983); *accord Home Box Office, Inc. v. FCC*, 567 F.2d 9, 36 (D.C. Cir. 1977) (holding that proposing agency "has an obligation to make its views known to the public in a concrete and focused form"); *Ethyl Corp. v. EPA*, 541 F.2d 1, 48 (D.C. Cir. 1976) (holding that "notice should be sufficiently descriptive of the 'subjects and issues involved' so that interested parties may offer informed criticism and comments"). That meaningful opportunity may not have been afforded when a proposal is couched in "general and open-ended" terms. *Prometheus Radio Project v. FCC*, 652 F.3d 431, 453 (3d Cir. 2011). Without specificity and concreteness, "interested parties will not know what to comment on," *Small Refiner Task Force*, 705 F.2d at 549, commenters will be limited in their ability "to make criticism or formulat[e] * * * alternatives," *Home Box Office*, 567 F.2d at 36, and, accordingly, "notice will not lead to better-informed agency decisionmaking," *Small Refiner Task Force*, 705 F.2d at 549. These federal precedents on what constitutes adequate notice under the Administrative Procedure Act have particular relevance in the context of notice for NPDES permits given the NPDES regulations' insistence on the need for notice of permit terms (e.g., "effluent limits, standards, [and] prohibitions"), the underlying rationale and basis for the draft permit (e.g., "the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit"), and the "[r]easons why any requested variances or alternatives to required standards do or do not appear justified."[16] 40 C.F.R. §§ 124.6(d)(4)(v), .8(a), (b)(5).

[16] The Board's approach to the requirement that permit issuers provide adequate notice of a permit's terms and basis has a parallel in the obligation the Board places on commenters to "raise issues [in their comments] with sufficient specificity and clarity that the permitting authority has an opportunity to address the concerns raised before it issues the permit." *In re Footprint Power Salem Harbor Dev., L.P.*, 16 E.A.D. 546, 571 (EAB 2014). Permit issuers are not required to "guess" at or "speculate on" the meaning of "imprecise," "conclusory," or "general" comments. *In re Westborough*, 10 E.A.D. 297, 304 (EAB 2002); *In re City of Lowell*, 18 E.A.D. 115, 159 n.24 (EAB 2020); *see In re Tucson Elec. Power*, 17 E.A.D. 675, 695-97 (EAB 2018) (citing cases). Just as permit issuers are, as a practical matter, not given "the opportunity to address concerns" when interested parties submit imprecise comments or general questions, so too interested parties cannot be expected to provide meaningful comments on draft permits or public notices with similar characteristics.

To be sure, the requirement that interested parties be afforded a meaningful opportunity to comment does not preclude agencies from modifying the terms of a draft permit in issuing a final permit. "A final permit need not be identical to the corresponding draft permit and, indeed '[t]hat would be antithetical to the whole concept of notice and comment.'" *DC Water*, 13 E.A.D. at 758-59 (quoting *NRDC*, 279 F.3d at 1186). Nonetheless, the requirement that the public be provided adequate notice constrains an agency's latitude in modifying a final permit to those modifications that are the "'logical outgrowth' of the public comment process." *In re City of Palmdale*, 15 E.A.D. 700, 714 (EAB 2012); *see DC Water*, 13 E.A.D. at 759, 762 (applying logical outgrowth test and concluding that final permit failed that test because it constituted "deni[al of] the opportunity to provide meaningful comments"); *Horsehead Res. Dev. Co. v. Browner*, 16 F.3d 1246, 1268 (D.C. Cir. 1994) (holding no logical outgrowth where EPA "failed to give interested parties sufficient notice of the form that the [final rule] might take, undermining the aims of meaningful participation and informed decisionmaking"); *see also Long Island Care at Home*, *Ltd. v. Coke*, 551 U.S. 158, 174 (2007) ("The object [of the logical outgrowth test], in short, is one of fair notice.").

The question of whether a change in a final permit is a logical outgrowth of the public comment process turns on "'whether interested parties reasonably could have anticipated the final rulemaking from the draft permit.'" *DC Water*, 13 E.A.D. at 759 (quoting *NRDC*, 279 F.3d at 1186); *see Covad Commc'ns Co. v. FCC*, 450 F.3d 528, 548 (D.C. Cir. 2006) (holding that "[w]hether the 'logical outgrowth' test is satisfied depends on whether the affected party 'should have anticipated' the agency's final course in light of the initial notice"). Put another way, the underlying question is "'whether a new round of notice and comment would provide the first opportunity for interested parties to offer comments that could persuade the agency to modify its rule.'" *DC Water*, 13 E.A.D. at 759 (quoting *NRDC*, 279 F.3d at 1186). And resolution of that question should take into consideration "how well the notice that the agency gave serves the policies underlying the notice requirement." *Small Refiner Task Force*, 705 F.2d at 547. Notice generally serves at least three distinct purposes: (1) "improv[ing] the quality of agency rulemaking by ensuring that agency regulations will be 'tested by exposure to diverse public comment'"; (2) providing "fairness to affected parties"; and (3) aiding review of an agency decision "by giving affected parties an opportunity to develop evidence in the record to support their objections." *Id*. (citations omitted).

Consistent with the logical outgrowth doctrine, an EPA permitting regulation provides that a permit issuer "may" reopen the public comment period when "data[,] information[,] or arguments submitted during the public comment period * * * raise substantial new questions concerning a permit." 40 C.F.R.

§ 124.14(b). While the Board's review of a permit issuer's decision on whether to reopen the public comment period is deferential, the Board will nonetheless consider changes to draft permits on a case-by-case basis and, depending on the significance of the change, may determine that a comment period should have been reopened and thus that the permit decision should be remanded. *See In re Amoco Oil Co.*, 4 E.A.D. 954, 980-81 (EAB 1993) (remanding permit and directing Region to reopen public comment period when Region modified final permit based on conclusory comment by state department of health); *Newburyport*, NPDES Appeal No. 04-06, at 14-15 (directing that, if on remand Region retained change in final permit based on new information in comment from permittee, then public comment period must be reopened because "the change is significant, * * * the record does not contain sufficient support for the change, and * * * the insufficiency of the record relating to the significant change has frustrated the public's opportunity to meaningfully comment"); *DC Water*, 13 E.A.D at 760. And to determine whether changes in a final permit fail to meet the "logical outgrowth" standard or raise "substantial new questions," which are fact-based inquiries, "we must consider the evolution of the permit condition at issue, and the Region's corresponding explanatory statements." *DC Water*, 13 E.A.D. at 760.

2. *What Notice Was Provided on the Capacity Limitation Provision*

As noted above, whether adequate notice has been provided is a "fact-based inquir[y]," and the facts in this case bearing on the 2020 Permit's limitation on the operating capacity of Merrimack Station stretch over the nine-year period from the release of the draft permit in 2011 to the issuance of the final permit. Below we describe the salient aspects of this lengthy process: (1) the 2011 Draft Permit and the extensive documentation accompanying it; (2) the Region's reopening of the comment period in 2017 to address several new issues; (3) the public comments submitted during the 2017 reopening period; (4) the discussions held between the Region and GSP Merrimack in 2018 and 2019; and (5) Environmental Petitioners' reaction to these discussions.

The thermal discharge limits and conditions proposed in the 2011 Draft Permit did not contain, and were not predicated on, any restrictions on the operating capacity of Merrimack Station as a way of demonstrating compliance with thermal discharge limits. Rather, in the 2011 Draft Permit, the Region proposed technology-based thermal discharge effluent limits assuming that Merrimack Station could be operated at full capacity (i.e., baseload) year-round. *See* 2011 Fact Sheet at 41; 2011 Determinations Doc. at 173-74; 2017 Reopening Notice at 69 (noting in 2017 that "consistent with the Company's permit application, EPA has approached the permit based on the assumption of full-scale operations"). The

proposed technology-based thermal discharge effluent limits were based on the Region's best professional judgment of what was needed to meet the Clean Water Act requirement that point sources apply the best available pollution technology economically achievable ("BAT") and New Hampshire water quality standards. 2011 Determinations Doc. at 173-74 (evaluating statutory, regulatory, and other factors in determining what technology constituted BAT for Merrimack Station); *id.* at 214 (finding that "compliance with [the chosen BAT] technology-based limits would also ensure satisfaction of the state's water quality standards"); *see* CWA § 301(b)(2)(A), 33 U.S.C. § 301(b)(2)(A). The Region determined that BAT for the Merrimack Station was use of wet or wet-dry cooling towers in a closed-cycle cooling configuration rather than the then-existing, once-through cooling system. 2011 Determinations Doc. at 173-74.

At the same time, the Region stated in its 2011 Determinations Document attached to the 2011 Fact Sheet that it was considering an alternative approach to addressing thermal discharges through use of instream temperature limits that would be based on a variance under Clean Water Action section 316(a) from the BAT technology standard. *Id.* at 216. The Region explained that these instream temperature limits were derived from New Hampshire water quality standards and that, therefore, compliance with these instream temperature limits would satisfy those water quality standards. *Id*. However, despite the disparate nature of the approaches to addressing thermal discharges described in the 2011 Draft Permit and 2011 Determinations Document—technology-based effluent limits and water quality-based instream temperature limits—both approaches shared the fact that neither were based on any form of capacity limitation on the operation of Merrimack Station.

The potential use of capacity limitations in the Permit was generally raised by the Region as one of a host of new issues included in the 2017 notice reopening the comment period on the 2011 Draft Permit. Relevant to the question of capacity limitations, the Region sought comment on "how, if at all, EPA should, when setting NPDES permit limits for Merrimack Station, take account of the substantial drop in the facility's overall capacity utilization, while recognizing that the units still run a great deal at certain times." 2017 Reopening Statement at 5. The Region explained that at the time of release of the 2011 Draft Permit, Merrimack Station was operated as a baseload power plant, generating electricity on a near-constant basis. *Id.* at 34. The Region noted, however, that in the interval since the Region issued the 2011 Draft Permit for public comment, Merrimack Station's electrical generation had diminished substantially, primarily due to market factors. *Id.* Thus, the Region stated that Merrimack Station "has been operating more as a 'peaking

plant' that generates electricity primarily during peak demand periods in the winter and the summer." *Id*. at 35.

Expanding on the request for comment on the appropriateness of a capacity limitation, the Region stated that the diminished operations at Merrimack Station might bear on the permit's provisions addressing the Station's cooling water intake structure compliance with Clean Water Action section 316(b) as well as the permit's thermal discharge limits. *Id*. at 35-36, 39-40. As to the latter, the Region noted that Public Service NH, the then-owner of Merrimack Station, had submitted data on temperatures in the Merrimack River in February 2016 that "reflect[] conditions when Merrimack Station was operating at a lower capacity factor." *Id*. at 39. What exactly these new temperature data might mean for effluent limits the Region did not specify. Instead, the Region simply noted that the "new data *would be less useful* for helping to determine limits that would accommodate baseload operations, as past permit limits have and as [Public Service NH] has requested." *Id.* (emphasis added). Notwithstanding that statement, the Region continued by stating, "[t]hat said, EPA is now considering *all* the material submitted by [Public Service NH], including the data and analytical reports, and this includes reassessing [Public Service NH's] request for a CWA § 316(a) variance and the application of New Hampshire water quality standards to the Merrimack Station permit in light of this new information." *Id.*

Returning to the topic of capacity limitations later in the document, the Region again downplayed the relevance of the capacity information, stating that currently there was no basis for altering permit limits relying on reduced operations because Public Service NH "has not indicated any desire or willingness to have the Facility's operations restricted based on its current capacity utilization." *Id*. at 68-69. But in the same passage (and somewhat contradictorily or at least confusingly), the Region reiterated that it was "considering whether [Merrimack Station's] changed operating profile should trigger changes to the permit limits" and requested public comment on "what effect, if any, Merrimack Station's reduced capacity utilization rate should have on the limits for the Facility?" *Id*.

Environmental Petitioners responded by questioning the wisdom of basing permit limits on the reduction in Merrimack Station operations. Letter from Edan Rotenberg & Mike DiGiulio, Super Law Group, L.L.C., to Sharon DeMeo, EPA Region 1, at 25-27 (Dec. 18, 2017) (A.R. 1573) (submitting comments for Sierra Club, EarthJustice, Environmental Integrity Project, and Conservation Law Foundation) ("2017 Envtl. Pet'rs Cmts."). They argued that permit limits could not be set based merely on the Station's historical performance but must be "coupled with operation[al] restrictions" included in the permit. *Id*. at 25. In its comments,

Public Service NH addressed the relevance of the new temperature data reflecting Merrimack Station's reduced operations, arguing that those data, rather than older data, should be relied upon in determining whether its permit should include a section 316(a) variance from technology-based thermal standards. Letter from Linda T. Landis, Senior Counsel, Eversource Energy, to Mark A. Stein & Sharon DeMeo, EPA Region 1, *Comments of Public Service Company of New Hampshire d/b/a Eversource Energy* 53 (Dec. 18, 2017) (A.R. 1548) ("2017 Public Service NH Cmts.").

That is where matters stood on December 18, 2017, which is the date the reopened comment period closed. Resp. to Cmts. at I-7. Subsequently, after GSP Merrimack completed its purchase of Merrimack Station, GSP Merrimack approached the Region to discuss the pending permit, noting that it hoped that "'such a discussion will help to achieve our shared goals of environmental protection and effective operation of the facilities.'" Memorandum from Mark Stein, Sr. Ass't Reg'l Counsel, EPA Region 1, to NPDES Permit Files for Schiller Station & Merrimack Station Permits 1 (Mar. 1, 2018) (A.R. 1802) ("Mar. 1, 2018 Memo") (quoting December 26, 2017 GSP letter to EPA). At a meeting held between the Region and GSP Merrimack on February 20, 2018, GSP Merrimack indicated that "it expected to continue operating [Merrimack Station] solely as a peaking plant for the foreseeable future." *Id*. at 3. The Region asked whether GSP Merrimack "might be willing to entertain a permit with limitations that reflected the reality of Merrimack Station's more limited operations." *Id.* GSP Merrimack stated that it "would potentially be willing to do so," but "asked what the conditions of such a permit would be." *Id.* The Region provided no specifics, instead "indicat[ing] that it was something that [the Region] would could [sic] contemplate as [it] worked on considering and responding to the comments before [it]." *Id.*

What followed over the next year and a half was a series of meetings and conference calls between the Region and GSP Merrimack in which the two parties "'brainstorm[ed]' * * * ideas for designing permit requirements that would be sufficiently protective to meet environmental requirements while also bring [sic] compatible with Merrimack Station's current mode of operations." Memorandum from Mark Stein & Sharon DeMeo, EPA Region 1, to Merrimack Station NPDES Permit File 1 (Oct. 26, 2018) (A.R. 1754). The Region and GSP Merrimack discussed a host of options and potential permit terms to address thermal discharges, including: (1) using instream temperature limits based on New Hampshire water quality standards that vary seasonally and/or a Clean Water Act section 316(a) variance from those water quality standards; (2) allowing only Unit 1 at Merrimack Station to be operated during summer months; (3) imposing temperature limits at different points in the river, including measuring points

stretching laterally across the river; (4) using averaging periods for temperature limits; (5) adopting effluent temperature limits including tiered limits based on ambient water temperatures; (6) imposing effluent limits based on British thermal units; (7) limiting plant operations; and (8) granting emergency exemptions to effluent limits. *Id*. at 5-6.

As discussions began to focus on operational capacity limits, a series of meetings was held to discuss how capacity limit requirements could be incorporated into any final permit, what those capacity limits should be, and how capacity limits would be coordinated with other current draft permit terms such as instream temperature limits. *See* Memorandum from Mark Stein & Danielle Gaito, EPA Region 1, to Merrimack Station NPDES Permit File, 2 (Dec. 19, 2018) (A.R. 1752) ("Dec. 19, 2018 Memo") (noting that parties "discussed what level of capacity is representative of current operations, how a capacity factor might be included in the permit (e.g., as a limit not to be exceeded or as a trigger for additional thermal limits), and how limiting capacity factor might affect GSP's obligations to the ISO New England," a non-profit entity overseeing New England's bulk electric power system); Memorandum from The Merrimack Team to Merrimack Station NPDES Permit File 3 (June 26, 2019) (A.R. 1678) (noting that "EPA and GSP also discussed at length the chronic and acute temperature limits raised by each party * * * [and] discussed a seasonal limitation on either flow or generating capacity and what an appropriate value should be"); Memorandum from Mark Stein, Danielle Gaito & Eric Nelson, EPA Region 1, to Merrimack Station NPDES Permit File 1-2 (Oct. 7, 2019) (A.R. 1871) ("Oct. 7, 2019 Memo") (discussing whether specific capacity factors were protective of fish and allowed GSP Merrimack to operate at level that met demand for electricity).

Those meetings included extensive discussions of what numerical limit should be imposed on capacity utilization, with options varying from capacity limits of thirty-five to sixty percent of operations. Oct. 7, 2019 Memo at 1-2. The discussions included an evaluation of whether data on operational capacity and resulting river temperatures justified the discussed permit limits on capacity. *Id*.; Dec. 19, 2018 Memo at 2. The result of these meetings was the specific permit terms the Region included in the 2020 Permit, namely: (1) the replacement of the proposed thermal discharge limits based on what temperature level discharges could be achieved using closed-cycle cooling towers with the instream temperature limit alternative discussed in the 2011 Decision Document; and (2) a revision of the instream temperature limit alternative that gave GSP Merrimack the option of either meeting instream temperature limits or, for the period of May through September, operating Merrimack Station at or below 40 percent of capacity based on a 45-day rolling average. *Compare* Oct. 7, 2019 Memo attach. A (Oct. 7, 2019),

and E-mail from Mark Stein, EPA Region 1, to Stephen Gidiere, Balch & Bingham L.L.P. attach. (Apr. 12, 2019) (A.R. 1785) ("Apr. 12, 2019 E-mail Attachment") (setting forth draft permit terms on instream temperature limits, for consideration and discussion), *with* 2020 Permit pt. I.A.11.

When Environmental Petitioners learned about the discussions between the Region and GSP Merrimack, they requested documentation of these meetings. Envtl. Pet'rs Pet. at 5; Resp. to Cmts. at II-298. After reviewing at least some of the draft permit terms discussed between the Region and GSP Merrimack,[17] Environmental Petitioners wrote to the Region in January 2020 asserting that if the Region intended to modify the 2011 Draft Permit along the lines laid out in the draft permit terms discussed with GSP Merrimack, the Region must "subject the new permit provisions to public notice and public comment." Letter from Reed Super & Edan Rotenberg, Super Law Group, L.L.C., to Sharon DeMeo, EPA Region 1, at 17 (Jan. 7, 2020) (A.R. 1688) ("2020 Envtl. Pet'rs Letter"). Environmental Petitioners stated that if they were given an opportunity to comment on these new terms, they "intend[ed] to engage technical experts to review the permit provisions and EPA's supporting rationale for proposing them, and to submit comments based on their evaluation." *Id*. at 20.

Environmental Petitioners also included in their letter a list of technical questions that they had about the draft permit terms, including six focusing on the use of a capacity factor in establishing permit limits. *Id*. at 20-21. These questions explored the details of any potential capacity factor and asked for clarification on such matters as "[w]hether a Capacity Factor limit would allow the Station to run at high capacity for significant periods of time and discharge a similar amount of waste heat during those times as a baseload facility." *Id*. at 20. Environmental Petitioners also had numerous questions on the specifics of any capacity factor, including "what the [capacity factor percentage] should be, over what time period should it be measured, when should it apply, and should compliance with that limit exempt the Station from any other limits?" *Id*.

The Region declined to reopen the public comment period and instead issued the Final Permit. As noted, the Final Permit deleted the technology-based thermal discharge limits in favor of water quality-based instream temperature limits and made compliance with the instream temperature limits during the warmer

[17] Permit terms were discussed in an October 1, 2019 conference call between the Region and GSP Merrimack. *See* Oct. 7, 2019 Memo at 1-2. Earlier draft permit language had been circulated. *See generally* Apr. 12, 2019 E-mail Attachment.

months only necessary when Merrimack Station operated above 40 percent of capacity based on a 45-day rolling average.

3. *Was This Notice Adequate?*

Under Board precedent, and as noted above, we assess the adequacy of notice as to changes made in a final permit by using a "fact-based inquir[y]" that focuses on "the evolution of the permit condition at issue, and the Region's corresponding explanatory statements." *DC Water*, 13 E.A.D. at 760. We examine below whether the evolving public notices and permit terms in the nine-year permit proceeding for Merrimack Station provided interested parties with notice that was adequate to allow them to comment meaningfully on the Final Permit provision giving GSP Merrimack the alternative of complying with the instream temperature limits by meeting an operating capacity limitation.

To briefly recap the salient points, a factual inquiry into the evolution of the Final Permit's capacity limitation begins with release of the 2011 Draft Permit and 2011 Fact Sheet. Those documents alerted interested parties that the Region was proposing to establish either technology-based discharge limitations or instream temperature limitations to address heat discharges from Merrimack Station. Neither approach contained a capacity limitation of the Station's operations as an alternative compliance method, and the 2011 Fact Sheet did not suggest that a such a capacity limitation was under consideration.

No permit term limiting operational capacity was proposed in the 2017 Reopening Notice either. That Notice did raise the issue of capacity limitations, but only in the broadest of terms. Noting Merrimack Station's diminished operations since 2011, the Notice asked for comment on "what effect, if any, [should] Merrimack Station's reduced capacity utilization rate * * * have on the limits for the Facility's new Final NPDES Permit." 2017 Reopening Notice at 69. The Notice repeatedly stated that the Region was "reevaluating," "reassessing," and "reconsider[ing]" the data on temperature effects from operational levels but never gave any specifics as to how this information might be incorporated in the permit. *See id*. at 39. No commenter recommended that a specific capacity limitation be included in the final permit.

The actual development of a permit term limiting capacity did not begin until after the 2017 reopened notice-and-comment period closed on December 18, 2017. In early 2018, GSP Merrimack—the company that had recently purchased Merrimack Station from Public Service NH—initiated discussions on the permit with the Region, and those discussions continued for the next year and a half. Ultimately, due to GSP Merrimack's willingness to commit to operating the Station

only as a peaking plant, those discussions produced, among other things, the structure and specifics of the capacity limitation appearing in the 2020 Permit—namely, a 40 percent capacity limitation measured on 45-day rolling average as an alternative to compliance with instream temperature limits during the months of May through September. No public notice-and-comment period was held on these terms.

What this history shows is that there was essentially no evolution of permit terms on an alternative instream temperature compliance method based on a capacity limitation during the public proceedings on the Final Permit. Rather, the capacity-based alternative instream temperature compliance method appeared for the first time fully formed in the 2020 Permit. The evolution of the notice provided by the Region on its consideration of a capacity limitation was only slightly less abrupt. The possibility of a capacity limitation was mentioned for the first time in the 2017 Reopening Notice, and that mention was limited to the identification of data showing Merrimack Station's diminished operations and the general solicitation of interested parties' views on whether a capacity limitation should be considered. No "explanatory statement" of the terms of, and the rationale for, the 2020 Permit's capacity limitation was released prior to issuance of the final permit language and the Response to Comments on May 22, 2020. For example, the 2017 Reopening Notice included no discussion of the mechanics of how the proposed technology-based effluent limits on thermal discharges or the alternative water quality-based limits might be restructured to add an operational capacity limit as a means of demonstrating compliance with the effluent limits or instream temperature limits. Neither did the 2017 Reopening Notice include proposed numerical operational limitation values or a rationale as to how such numeric values would meet technological, water quality, or section 316(a) variance standards.

Under these circumstances, the Region did not give interested parties an opportunity to provide meaningful comments on the Region's decision to add a capacity limitation as an alternative instream temperature compliance method to the 2020 Permit and, therefore, failed to provide adequate notice. *See In re GSX Servs. of S.C., Inc.*, 4 E.A.D. 451, 465-67 (EAB 1992) (holding that addition of significant new requirements to final permit required reopening of comment period); *In re City of Newburyport Wastewater Treatment Facility*, NPDES Appeal No. 04-06, at 14-15 (EAB Dec. 8, 2005) (Order Denying Review in Part and Remanding in Part) (holding that "where the insufficiency of the record relating to the significant change [in the final permit] has frustrated the public's opportunity to meaningfully comment and the permit issuer's opportunity to be informed by public comments, reopening of the public comment period is appropriate"); *see also Horsehead Res. Dev. Co. v. Browner*, 16 F.3d 1246, 1268 (D.C. Cir. 1994) (ruling

that "general notice that a new standard will be adopted affords the parties scant opportunity for comment"). We reach this conclusion for several reasons: (1) the significant divergence between the notice requirements in NPDES regulations and the notice provided here; (2) the sparse nature of the comments on capacity limitations submitted in the two public comments periods, particularly taking into account how those public comments compare to Environmental Petitioners' objections raised once they learned about the permit terms the Region was discussing with GSP Merrimack; (3) the fact that the actual permit term imposing a capacity limitation as an alternative instream temperature compliance method was not developed until after the close of the final public comment period and cannot fairly be said to have been substantively based on the public comments; and (4) the fact that the notice given here is inconsistent with all three of the policies underlying notice-and-comment procedures, namely, providing an agency with an adversarial critique of its proposed action, giving interested parties a fair hearing, and building a record for administrative and judicial review of the permit decision. We discuss each of these points below.

Significant Divergence Between Notice Requirements and Notice Provided. As noted, NPDES regulations require that a draft permit released for comment contain "effluent limitations, standards, [and] prohibitions," 40 C.F.R. § 124.6(d)(4)(v), and the accompanying Fact Sheet must "briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit" and include "[a] brief summary of the basis for the draft permit conditions." *Id*. § 124.8(a), (b)(4). Additionally, the regulations recognize the need to provide notice of the "[r]easons why any requested variances or alternatives to required standards do or do not appear justified." *Id*. § 124.8(b)(5); *see also id.* § 124.57(a) (imposing additional notice requirements as to requests for section 316(a) variances).

The alternative instream temperature compliance method based on Merrimack Station's capacity is both an effluent limit and was granted pursuant to a section 316(a) variance. This capacity-based compliance method is included in the portion of the 2020 Permit establishing "effluent limitations," which is consistent with the fact that this capacity limitation serves as an alternative to the effluent limits setting instream temperature limits. *See* 2020 Permit pt. I.A (including capacity limitation in permit section on Effluent Limitations and monitoring requirements); *id.* pt. I.A.11 n.6 (explaining that capacity limitation is alternate method of meeting "discharge limits" on instream temperatures). Further, as an alternative compliance method for the instream temperature limits approved under a section 316(a) variance, the capacity-based compliance method necessarily can only be justified to the extent it too satisfies the requirements for a variance

under section 316(a).[18] Resp. to Cmts. at II-300, -302-03 (noting that Region "set thermal limits that are based partly on critical temperatures and partly on operational restrictions to match the Facility's currently limited operations," and that these "thermal discharge limits for the Final Permit [are] based on a CWA § 316(a) variance with stringent limits that recognize and require Merrimack Station's operation like a peaking plant").

Yet, as described above, this capacity-based effluent limit was never revealed in a draft permit prior to the issuance of the 2020 Permit as specified in NPDES regulations. *See* 40 C.F.R. § 124.8(b)(4). All the 2011 and 2017 notices did was ask a general question about the wisdom of using a capacity limitation in the final permit. Additionally, no "basis" or "reasons" were provided in any notice document for the variance-based "permit condition" establishing a capacity limit as an alternative instream temperature compliance method. This not only is inconsistent with the general regulatory requirement that the Region provide notice of the "basis for draft permit conditions" but also contravenes the specific requirement that the notice for a draft permit provide "reasons" for its determinations on variances, such as the section 316(a) variance under which the capacity limitation was approved. *See id.* § 124.8(a), (b)(5). The Region is incorrect when it suggests that merely referencing the existence of data on Merrimack Station's diminished operations met these notice requirements. *See* Region Resp. Br. at 23. At a minimum, the Region should have included a brief summary explaining *why* the referenced data supported a specific capacity limitation, including the reasons why the limit complies with section 316(a). A permit issuer cannot supply notice of a permit term and the basis and reasons for that term by blindly referring to data submissions from a permittee.

Perhaps asking a general question could, in some circumstances, provide interested parties with a meaningful comment opportunity. But given the extreme contrast between the generality of the question on capacity limitations in the 2017 Reopening Notice and the unique structure and detailed numeric capacity limitation in the 2020 Permit as well as the regulatory notice requirements, we conclude that the general, open-ended question in the 2017 Reopening Notice was inadequate notice of what might be forthcoming. Federal courts have similarly been reluctant to allow federal agencies to take highly specific actions after posing only general,

[18] Section 316(a) of the Clean Water Act specifies that a variance from applicable thermal standards may be granted if it "will assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on that body of water." CWA § 316(a), 33 U.S.C. § 1326(a).

open-ended questions. *See, e.g.*, *Time Warner Cable Inc. v. FCC*, 729 F.3d 137, 148, 150, 170 (2d Cir. 2013) (holding that FCC's request for comment on whether it "'should adopt additional rules to protect [programming networks] from potential retaliation if they file a complaint'" was "too general to provide adequate notice" that agency was contemplating rule provision authorizing FCC to impose "'temporary standstill of the price, terms, and other conditions of an existing programming contract'" to protect programming network complainant); *Prometheus Radio Project v. FCC*, 652 F.3d 431, 446, 450-53 (3d Cir. 2011) (holding notice of FCC rule on media cross-ownership was inadequate where proposal included only two "general and open-ended" questions on whether cross-ownership limits should "vary depending upon the characteristics of local markets" and final rule adopted new case-by-case approach to evaluating appropriateness of media cross-ownership guided by presumptions tied to market size and four enumerated considerations).

Sparse Nature of Comments. The lack of a meaningful comment opportunity on the 2020 Permit terms is further evidenced by the sparse nature of the comments on the use of a capacity limitation submitted in the two public comments periods, particularly taking into account how those public comments compare to the objections Environmental Petitioners raised once they learned about the permit terms the Region had been discussing with GSP Merrimack.

Public comments are, in large part, a reflection of the notice provided. And an examination of the substance of comments can be particularly helpful in evaluating the adequacy of notice in circumstances where, like here, there are both comments submitted in response to the allegedly defective notice as well as comments received once more detailed information on the agency's proposed action becomes available. For example, in *In re J&L Specialty Products Corp.*, the Board held that a petitioner's claim of inadequate notice was undermined by the fact that the substance of the petitioner's objections to the challenged permit did not significantly change once the alleged inadequate notice was cured. 5 E.A.D. 31, 78-79 (EAB 1994) (concluding that where petitioner repeats same arguments made in its comments on draft permit and fact sheet even after reviewing Region's more detailed response, petitioner "was not denied the opportunity to provide meaningful comments"). The D.C. Circuit's decision in *Prometheus Radio* involved the reverse situation—a "sparse" FCC proposed rule drew only "limited" comments bearing on the terms announced in the final rule, but much more "substantive" responses were received following a more-detailed newspaper opinion piece on the FCC's proposed action released by the FCC Chairman shortly before issuance of the final rule. 652 F.3d at 451-53. The court concluded there that "a comparison of the comments submitted during the official comment period

* * * and the responses to the Chairman's Op–Ed/Press Release * * * indicates that interested parties were prejudiced by the inadequacy of the [federal notice of proposed rulemaking]." *Id*. at 452; *see NRDC*, 279 F.3d at 1188 (noting that numerous new issues raised in petition for review were "precisely the type of comments that should have been directed in the first instance to the EPA, but which understandably were not because of the inadequate notice").

The public comments submitted in response to the 2011 Draft Permit and Fact Sheet and the 2017 Reopening Notice show that interested parties had little or no conception as to what the ultimate permit terms might be with regard to capacity limitations. As to the 2011-2012 comment period, the Region has not identified any public comments submitted suggesting that capacity limitations should or should not be included as a permit term, much less comments discussing specific capacity limitations. The second comment period in 2017 did produce comments from Public Service NH and Environmental Petitioners related to Merrimack Station's diminished operations, but these comments contained little other than a general request by Public Service NH that operational data be considered as bearing on its request for a section 316(a) variance and a caution from the Environmental Petitioners that operational data should only be relied upon if the permit contained enforceable operational limitations. 2017 Public Service NH Cmts. at 53; 2017 Envtl. Pet'rs Cmts. at 25. Neither comment discussed how capacity limitations might be incorporated into the proposed technology-based limits or instream temperature limits or, for that matter, any specific capacity limitation at all. Thus, nothing in these two sets of public comments suggests that interested parties received sufficient notice to provide the "adversarial critique" a notice-and-comment period is designed to ensure. *See Home Box Office, Inc. v. FCC*, 567 F.2d 9, 55 (D.C. Cir. 1977) ("we have required agencies to set out their thinking in notices of proposed rulemaking * * * [to] allow[] adversarial critique of the agency").

This conclusion is reinforced by the contrast between the submissions received during the public comment periods and the objections submitted by Environmental Petitioners once they got an inkling of what might be in the 2020 Permit. Those objections lodged in 2020 identified several potentially relevant concerns[19] about use of a capacity limitation as an alternative instream temperature

[19] For example, in its 2020 letter, Environmental Petitioners questioned "[w]hether exempting the Station from 'chronic' temperature limits when Capacity Factor limits are met in the summer would allow river temperatures to exceed fish threshold tolerances." 2020 Envtl. Pet'rs Letter at 20. In its Petition, Environmental Petitioners expand their

compliance method and, moreover, requested a reopening of the comment period so that Environmental Petitioners could retain a technical expert to evaluate the action the Region was considering and provide technical comments. Similar to *Prometheus Radio* and unlike *J&L Specialty Products,* the later-received objections here—in Environmental Petitioners' 2020 letter—exhibit a strikingly higher level of detail on the Region's consideration of the use of capacity limits as an alternative instream temperature compliance method compared to the comments from the official comment periods. Thus, the 2020 letter strongly indicates that the notice provided in 2011 and 2017 was inadequate.

Capacity Limitation Developed After Close of the Comment Period. The inadequacy of the 2011 and 2017 notice-and-comment processes is also demonstrated by the record of the post-comment period discussions between the Region and GSP Merrimack in 2018 and 2019 leading to the development of the 2020 Permit terms. Although the discussions between the Region and GSP Merrimack did not begin until *after the close of the 2017 comment period*, the record of those discussions shows that at the time of their initiation neither GSP Merrimack nor the Region had a detailed view of how capacity limitations might be reflected in actual permit terms or conditions. *See* Mar. 1, 2018 Memo at 3 (at its initial meeting with the Region, GSP Merrimack asked "what the conditions of * * * a permit [based on restricted capacity] would be"). To the contrary, the form of the permit terms (adhering to seasonal capacity limits as an alternative to complying with instream temperature limits), the numeric permit limits (a 40 percent capacity limitation measured on a 45-day rolling average), and the

---

contentions on this point, arguing that the permit's capacity limitation (40% capacity measured using a 45-day rolling average) is significantly higher than current operations of Merrimack Station and the Region has not shown that the increased usage allowed under the capacity limitation would protect fish. Envtl. Pet'rs Pet. at 49-50. In its response brief, GSP Merrimack includes data that it claims show that the instream temperature limits are met "even where the Station's 45-day rolling average capacity factor has exceeded 40%." Permittee GSP Merrimack L.L.C.'s Response to Petition for Review 39 (Sept. 25, 2020); *see id*. tbl.2, at 40-41. If the Region had provided adequate notice of the capacity limitation, analysis of this question could have been developed in the administrative record before the Region, rather than being presented to the Board in the first instance. *See In re W. Bay Expl. Co.*, 17 E.A.D. 204, 225 (EAB 2016) (noting that "interactive approach to clarifying complex scientific comments should occur in the EPA regional office portion of the administrative proceeding and not await appeal to the Board"). Our remand here affords the Region the opportunity to undertake that sort of technical analysis if relevant to the proceedings on remand.

supporting rationale (data showing the relationship between capacity and instream temperatures) emerged through private brainstorming sessions stretching over a year and a half, during which the Region and GSP Merrimack considered many options and debated several variations of the ultimate terms decided upon. Thus, the record of the discussions between the Region and GSP Merrimack in 2018 and 2019 shows that reasonably specific information on the 2020 Permit's capacity limitation could not have been provided in the 2011 or 2017 notices because that information was not developed until after the conclusion of the final comment period. In these circumstances, there was insufficient notice for Environmental Petitioners to submit meaningful comments.

Inconsistency with Policies Underlying Notice-and-Comment Requirement. Finally, the process the Region followed in drafting the terms of the 2020 Permit—requesting comment on the possibility of considering Merrimack Station's diminished operations in devising the terms of the final permit and then developing specific permit terms in discussions with a single, interested party—did not further the policies underlying the notice-and-comment procedure: improving agency action by exposing it to "diverse public comment," ensuring "fairness to affected parties," and aiding administrative or judicial review "by giving affected parties an opportunity to develop evidence in the record to support their objections." *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 547 (D.C. Cir. 1983) (citations omitted); *accord Int'l Union, United Mine Workers of Am. v. Mine Safety & Health Admin.*, 626 F.3d 84, 95 (D.C. Cir. 2010). To the contrary, the process the Region followed eliminated any chance that the 2020 Permit's capacity limit terms would be tested by "diverse public comment," and deprived Environmental Petitioners—entities that had been active participants in the permitting process at least since 2011—of an appropriate hearing and consideration of their concerns by the permit issuer. The process also effectively hindered Board review of the permit by limiting Environmental Petitioners' ability to submit its technical objections for inclusion in the administrative record and therefore addressed by the permitting authority, as opposed to the Board, in the first instance. *See In re Peabody W. Coal Co*., 12 E.A.D. 22, 33 (EAB 2005) ("[T]he locus of responsibility for important technical decisionmaking rests primarily with the permitting authority, which has the relevant specialized expertise and experience.").

The Region contends that use of a capacity factor limit as an alternative instream temperature compliance method is a logical outgrowth of the 2011 and 2017 notices, asserting that both documents discussed the possibility of controlling thermal discharges by restricting Merrimack Station's operational levels. Region Resp. Br. at 28. But these notices discuss capacity limitations in only the most

general of terms. For example, perhaps the most prominent mention of capacity limitations in the 2011 Determinations Document is a brief discussion in the BAT evaluation for Merrimack Station, which notes that one method of reducing thermal discharges that "is *theoretically* available to every steam-electric generating plant is simply to curtail the generation of electricity." 2011 Determinations Doc. at 144 (emphasis added). No further details on such an approach are presented, however, because the Region summarily rejected capacity reduction as BAT because "there are other available methods of reducing Merrimack Station's thermal loading to the Merrimack River without major energy effects."[20] *Id*. at 145.

And, as described above, the 2017 Reopening Notice merely asks whether capacity limitations should be incorporated in the permit without providing any information or context about what sort of capacity limitations the Region was considering. Asking such a broad, open-ended question did not authorize the Region to insert in the 2020 Permit, as a logical outgrowth, any capacity limitation it concluded was needed. In short, neither notice proposes anything resembling a permit term imposing a capacity limitation as an alternative instream temperature compliance method. In these circumstances, the final permit terms inserting a capacity limit as an alternative instream temperature compliance method could not be a logical outgrowth of any prior notice because, as noted in a D.C. Circuit decision, "'[s]omething is not a logical outgrowth of nothing.'" *Envtl. Integrity Project v. EPA*, 425 F.3d 992, 996 (D.C. Cir. 2005) (quoting *Kooritzky v. Reich*, 17 F.3d 1509, 1513 (D.C. Cir. 1994)).

The Region also argues that the capacity limitation was a logical outgrowth because, in addition to asking a general question about whether capacity limitations would be appropriate, "the [capacity] limits are supported by data on plant operations, thermal discharges, and biological effects that were publicly noticed for review and comment." Region Resp. Br. at 24. But this argument is not consistent with Board case law specifying that, for a change in the final permit to be a logical outgrowth, interested parties must have been able to reasonably anticipate the change. *DC Water*, 13 E.A.D. at 759, 762. The data on plant operations, thermal discharges, and biological effects could have produced a wide range of effluent limitations, as shown by the myriad of options discussed by the Region and GSP Merrimack during the series of private meetings and calls over a period of over a

[20] Other citations the Region offers as showing it had raised the possibility of capacity limitations in 2011 discuss only that Merrimack Station operates primarily as a baseload power plant. *See* Region Resp. Br. at 28 (citing 2011 Determinations Doc. at 132, 158).

year and a half. Against this wide-ranging and extended development period for choosing the capacity limitation, the Region does not explain how Environmental Petitioners could have reasonably anticipated the terms of the capacity limitation eventually adopted in the 2020 Permit based solely on consideration of the referenced scientific data. In fact, the Region's blind reference to scientific data did not disclose the Region's intentions, and final agency action cannot be considered a logical outgrowth of the proposed action if "interested parties would have had to 'divine [the agency's] unspoken thoughts.'" *CSX Transp., Inc., v. Surface Transp. Bd.*, 584 F.3d 1076, 1080 (D.C. Cir. 2009) (quoting *Int'l Union, United Mine Workers of Am. v. Mine Safety & Health Admin.*, 407 F.3d 1250, 1259-60 (D.C. Cir. 2005); *see Shell Oil Co. v. EPA*, 950 F.2d 741, 751 (D.C. Cir. 1991) (holding no logical outgrowth where interested parties would have had to "divine" agency's unexpressed intention from "insubstantial" statements). For the adopted capacity limitation to have been a logical outgrowth there would have had to have been something more specific as an initial starting point than *a question* posed by the Region about the possibility of adjusting permit limits in an undisclosed manner based on Merrimack Station's reduced operations and *a reference* to a wide range of scientific data on various conditions related to these reduced operations.[21] *See Small Refiner Task Force*, 705 F.2d at 549 (holding no logical outgrowth where agency only "gave general notice that it might make unspecified changes in the definition of small refinery[,]" because "[a]gency notice must describe the range of alternatives being considered with reasonable specificity").

Although our recent decision in *In re Springfield Water & Sewer Commission* rejected an argument that a total nitrogen limit in the final permit was not a logical outgrowth from the draft permit, our reasoning in that case nonetheless reinforces our conclusion here. In *Springfield*, the draft permit contained a specific

---

[21] The Region argues that it has demonstrated logical outgrowth by showing that the issue in question was "on the table," citing *American Medical Association v. United States*, 887 F.2d 760 (7th Cir. 1989). Region Resp. Br. at 20, 22-23. But that decision specifically rejected the notion that general identification of an issue is sufficient to show a logical outgrowth, noting that "courts have held on numerous occasions that notice is inadequate where an issue was only addressed in the most general terms in the initial proposal." *Am. Med. Ass'n*, 887 F.2d at 768. Moreover, the court there accepted a logical outgrowth argument in very different circumstances, finding a final rule to be a logical outgrowth because "the final rule was 'contained' in the proposed version, and merely eliminated some of the alternative calculation methods specified in the [notice of proposed rulemaking]." *Id.* at 769.

numerical nitrogen effluent limit. 18 E.A.D. 430, 450 (EAB 2021). In response to comments submitted *during the public comment period*, the Region revised the numerical value of the limit, relying, in part, on the public comment *from the permittee* "that 'the fairest and most straightforward way' to allocate the allowable [total maximum daily load] wasteload among individual dischargers 'is based on design flows.'" *Id.* at 452 (quoting public comments). In those circumstances we rejected the permittee's assertion of no logical outgrowth, noting that the Region "recalculated the [nitrogen] limit using the Facility's design flow," which was "exactly" the approach advocated by the permittee in its public comment. *Id.* Here, the draft permit did not contain any capacity limitation and the only notice the Region provided that it was considering including such a limitation came in the form of a general request for comment on whether a capacity limitation would be appropriate. Further, the capacity limitation in the 2020 Permit was developed not in response to comments submitted during the public comment period but from private discussions with the permittee following the close of the comment period. Finally, the approach followed in devising the 2020 Permit's capacity limitations was not suggested by the party now claiming that it received inadequate notice. These differences are decisive.

Nor does the fact that Environmental Petitioners filed a general comment in response to the Region's general question concerning the use of capacity limitations convert the specific capacity limitations in the 2020 Permit into a logical outgrowth of the Region's general question. That comment merely noted that operational capacity limits should only be used if they were inserted as enforceable terms of the permit. 2017 Envtl. Pet'rs Cmts. at 25. The Region misstates the logical outgrowth issue in this case by contending that Environmental Petitioners, by insisting that any capacity limits be written into the permit, "cannot now reasonably complain that the Region took that approach." Region Resp. Br. at 28-29. In asserting that the 2020 Permit's capacity limit is not a logical outgrowth, Environmental Petitioners are not objecting that they were not given an opportunity to comment generally on the wisdom of making any new capacity limitations enforceable; rather, Environmental Petitioners are arguing that they did not receive notice of, and an opportunity to comment on, the specifics of how capacity limitations would be applied as particular terms or conditions of any final permit and the reasons underlying the Region's determination that the capacity limits met the requirements for a section 316(a) variance.

In sum, the Region never truly explains how the 2020 Permit's provision giving GSP Merrimack the option of operating below 40 percent of capacity as measured on a 45-day rolling average as an alternative to meeting instream temperature limits is a logical outgrowth from a general question about whether a

capacity limitation should be included in the permit and a reference to data related to Merrimack Station's reduced operations. Thus, the Region's logical outgrowth argument fails.

Our conclusion that the Region provided inadequate notice on the 2020 Permit's capacity limitation is not altered by actions taken by Environmental Petitioners to monitor and then object to the post-comment period discussions between the Region and GSP Merrimack. On their own initiative, after the public comment period had closed, Environmental Petitioners obtained some information about the changes the Region was contemplating to the terms of the 2011 Draft Permit following its consultations with GSP Merrimack. Envtl. Pet'rs Pet. at 29-30. Based on what it learned, the Environmental Petitioners wrote to the Region registering their disagreement with the potential permit changes and requesting that, if the Region were to choose to modify the 2011 Draft Permit, the Region should reopen the comment period so that Environmental Petitioners could file formal comments on the potential changes. These actions by Environmental Petitioners to monitor the permit development process (after the public comment period closed) cannot serve to fulfill the Region's legal obligation to provide adequate notice of proposed permit terms for public comment. Nor does the Region's decision to respond in the Response to Comments to Environmental Petitioners' letter somehow cure the Region's failure to reopen the public comment period on the previously unknown capacity limitations, particularly where the upshot of the Environmental Petitioners 2020 submission was a request to reopen the public comment period if the Region was going to modify the 2011 Draft Permit.

Accordingly, we conclude that the Region failed to provide the public with a meaningful opportunity to comment on the capacity limitations in Part I.A.11 of the 2020 Permit, and this clear error requires that those limitations in Part I.A.11 be remanded to the Region.

VII. *CONCLUSION AND ORDER*

For the reasons discussed above, the Board remands the permit decision as to all challenges contained in the two petitions.

The Region has requested a voluntary remand on the 2020 Permit's effluent limits on combustion residual leachate so that it may reconsider those limits and provide notice and an opportunity for comment on revised effluent limits for combustion residual leachate. The Board grants the Region's request so that it may take these steps.

The Board has also determined that the Region clearly erred by failing to provide adequate notice of a new permit condition allowing GSP Merrimack an alternative compliance method for the permit's instream temperature limits based solely on the operating capacity of Merrimack Station. On remand, the Region must provide notice and an opportunity for public comment on this provision or any similar provision before issuing a revised permit. In light of this remand, the Region may find it prudent to consider reopening the record for public comment as necessary, in accordance with 40 C.F.R. § 124.14, on the other challenged thermal provisions that are either connected to the alternative compliance method based on capacity limitations or based upon a reduced capacity at Merrimack Station.[22]

So ordered.

[22] Anyone dissatisfied with the Region's decision on remand must file a petition seeking Board review in order to exhaust administrative remedies under 40 C.F.R. § 124.19(*l*).