

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

_____)	
In the Matter of:)	
)	
GSP Merrimack LLC)	NPDES Appeal No. 20-06
)	
NPDES Permit No. NH0001465)	
_____)	

**RESPONSE BY EPA REGION 1 TO THE PETITION
FOR REVIEW BY GSP MERRIMACK LLC**

Respectfully submitted,

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TABLE OF CONTENTS

TABLE OF AUTHORITIES ii

TABLE OF ATTACHMENTS iv

I. INTRODUCTION 1

II. LEGAL FRAMEWORK 2

 A. NPDES Program 2

 B. Cooling Water Intake Structures 3

III. STATEMENT OF FACTS 6

 A. Background 6

 B. Permitting History Related to the Facility’s Cooling Water Intake Structure 9

IV. PRINCIPLES GOVERNING BOARD REVIEW 19

V. ARGUMENT 22

 A. GSP has not demonstrated that the wedgewire screens and Unit 2 outage provisions are “clearly erroneous.” 24

 1. GSP incorrectly asserts that the Region failed to consider recent reductions in operations in establishing BTA and that the Region established the cooling water intake provisions as if Merrimack Station operated as a baseload facility. 25

 2. The Region reasonably included the outage provision and GSP does not substantiate its claim that the provision is improper and without basis. 30

 3. The Region reasonably concluded that GSP’s proposal regarding potential flow limits was contrary to EPA regulations, and the Petition does not explain how the Region’s response is “clearly erroneous.” 32

 4. GSP’s claim elevates form over substance. 38

 5. The Petition fails to substantiate the claim that flow limits without wedgewire screens could satisfy the BTA standard for impingement mortality. 38

 B. GSP has not demonstrated that the Region’s decision regarding the compliance schedule for installing new fish returns is “clearly erroneous.” 39

VI. CONCLUSION 45

TABLE OF AUTHORITIES

Federal Cases

City of Pittsfield, Mass. v. EPA, 614 F.3d 7 (1st Cir. 2010) 21
Cooling Water Intake Structure Coal. v. EPA, 905 F.3d 49 (2d Cir. 2016) 3

Statutes

33 U.S.C. § 1251(a) 3
33 U.S.C. § 1311(a) 3
33 U.S.C. § 1326(b) 3, 30, 31
33 U.S.C. § 1342(a) 3

EAB Cases

In re Arizona Public Serv. Co., 17 E.A.D. 323 (EAB 2016) 20
In re Beeland Group, LLC, 14 E.A.D. 189 (EAB 2008)..... 27
In re City of Attleboro, 14 E.A.D. 398 (EAB 2009) 21, 27, 39
In re City of Irving, 10 E.A.D. 111 (EAB 2001), *review denied sub nom. City of Abilene v. EPA*, 325 F.3d 657 (5th Cir. 2003)..... 21
In re City of Lowell, NPDES Appeal No. 19-03 (EAB June 29, 2020) (Order Denying Review), 18 E.A.D. — passim
In re City of Moscow, 10 E.A.D. 135 (EAB 2001) 19, 20, 21, 30
In re City of Pittsfield, NPDES Appeal No. 08-19 (EAB Mar. 4, 2009) (Order Denying Review) 24
In re City of Taunton, 17 E.A.D. 105 (EAB 2016)..... 19, 33
In re Dominion Energy Brayton Point, LLC, 12 E.A.D. 490 (EAB 2006) 4, 11, 21
In re Encogen Cogeneration Facility, 8 E.A.D. 244 (EAB 1999)..... 20, 35
In re Envotech, L.P., 6 E.A.D. 260 (EAB 1996)..... 22
In re Envtl. Disposal Sys., Inc., 12 E.A.D. 254 (EAB 2005) 21
In re Gov't of D.C. Mun. Separate Storm Sewer Sys., 10 E.A.D. 323 (EAB 2002)..... 20
In re Knauf Fiber Glass, GmbH, 8 E.A.D. 121 (EAB 1999)..... 20, 21
In re NE Hub Partners, L.P., 7 E.A.D. 561 (EAB 1998), *den'd sub nom. Penn. Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999)..... 21, 22
In re New England Plating Co., 9 E.A.D. 726 (EAB 2001) 19, 20, 21
In re Peabody W. Coal Co., 12 E.A.D. 22 (EAB 2005) 21
In re Prairie State Generating Co., 13 E.A.D. 1 (EAB 2006)..... 44
In re Three Mountain Power, LLC, 10 E.A.D. 39 (EAB 2001) 44
In re Town of Ashland, 9 E.A.D. 661 (EAB 2001) 21
In re Westborough, 10 E.A.D. 297 (EAB 2002)..... 32

Regulations

40 CFR § 122.21(r) 28
40 CFR § 122.43 3
40 CFR § 122.47 5
40 CFR § 122.6 9

40 CFR § 122.62	38
40 CFR § 124.11	34
40 CFR § 124.13	19
40 CFR § 124.14(b)	12
40 CFR § 124.16	40, 42
40 CFR § 124.17	20
40 CFR § 124.19	passim
40 CFR § 124.60	40, 42
40 CFR § 125.91	3
40 CFR § 125.92	4
40 CFR § 125.94(a)	3, 38
40 CFR § 125.94(b)	passim
40 CFR § 125.94(c)	passim
40 CFR § 125.94(d)	4, 25, 27, 36
40 CFR § 125.98(b)(2)	5, 17, 36, 38
40 CFR § 125.98(c)	5, 38, 41
40 CFR § 125.98(f)	passim
40 CFR § 125.98(g)	5
40 CFR part 423	10

Federal Register Notices

72 Fed. Reg. 37,107 (July 9, 2007)	10
79 Fed. Reg. 48,300 (Aug. 15, 2014)	3, 4, 5, 13, 31, 43

TABLE OF ATTACHMENTS

No.	AR No.	Document Title
1	AR-1886	Final NPDES Permit for Merrimack Station (“Final Permit”)
2	AR-1885	2020 Response to Comments (“RTC”)
3	AR-236	1992 Final NPDES Permit for Merrimack Station (“1992 Permit”)
4	AR-609	2011 Draft Permit
5	AR-608	2011 Fact Sheet
6	AR-618	Determinations for the Thermal Discharge and Cooling Water Intake Structures at Merrimack Station (Attachment D to the 2011 Fact Sheet)
7	AR-1534	2017 Statement of Substantial New Questions (“2017 Statement”)
8	AR-1642	GSP Letter: Permit Modification for Transfer of Ownership of Merrimack Station, Newington Station, and Schiller Station NPDES Wastewater Permits
9	AR-1701	EPA Letter: Transfer of NPDES Permits for Merrimack Station, Newington Station, and Schiller Station - NPDES Permit Modification
10	AR-1745	Independent System Operator of New England 2019 Regional System Plan
11	AR-846	Public Service Company of New Hampshire Comments on 2011 Draft Permit
12	AR-851	Conservation Law Foundation <i>et al.</i> Comments on 2011 Draft Permit
13	AR-1135	2014 Revised Draft Permit Fact Sheet
14	AR-1136	2014 Revised Draft Permit
15	AR-1137	2014 Revised Draft Permit Public Notice
16	AR-1631	Purchase and Sale Agreement Between PSNH as Seller and Granite Shore Power LLC as Buyer
17	AR-1533	Public Notice of 2017 Reopening of the Public Comment Period
18	AR-1691	2017 Notice of Extension of Public Comment Period
19	AR-1692	2017 Notice of Second Extension of Public Comment Period
20	AR-1548	PSNH Comments on 2017 Statement
21	AR-1565	Economic Evaluation of Two Entrainment Reduction Technologies at Merrimack Station
22	AR-1567	Biological Benefit Evaluation of Entrainment Reducing Technologies at Merrimack Station
23	AR-1649	GSP Letter: Granite Shore Power LLC Purchase of Public Service of New Hampshire Facilities
24	AR-1802	Meeting Notes February 20, 2018, Meeting Between Representatives of EPA Region 1 and Granite Shore Power, LLC

25	AR-1754	Memorandum Documenting September 20, 2018, Meeting Between EPA and GSP Concerning the Merrimack Station NPDES Permit
26	AR-1753	Memorandum Documenting November 13, 2018 Meeting Between EPA and GSP Concerning the Merrimack Station NPDES Permit
27	AR-1752	Memorandum Documenting December 18, 2018 Meeting Between EPA and GSP Concerning the Merrimack Station NPDES Permit
28	AR-1678	Memorandum Documenting May 21, 2019 Meeting Between EPA and GSP Concerning the Merrimack Station NPDES Permit
29	AR-1676	Memorandum Documenting August 27, 2019, Meetings Between EPA and GSP Concerning the Merrimack Station NPDES Permit
30	AR-1550	Normandeau Evaluation of the Entrainment Reduction Performance of a 3-mm Wedgewire Screen at Merrimack Station
31	AR-1684	GSP Email Attachment: Merrimack NPDES Permit – Open Items
32	AR-1871	EPA Memorandum: Notes on October 1, 2019, Telephone Conference Call Between EPA Region 1 and GSP
33	AR-4	PSNH Supplemental Alternative Technology Evaluation
34	AR-1566	Enercon Technical Memorandum to Document Technology Cost Inputs for Merrimack Station
35	AR-1690	GSP Letter withdrawing pending request for authorization in the new permit to directly discharge FGD wastewater to the Merrimack River
36	AR-1390	NH Public Utilities Comm’n Letter: DM 17-029, PSNH Auction of Electric Generation Facilities, Commencement of Auction Process
37	AR-6	PSNH Response to EPA CWA § 308 Letter
38	AR-1352	PSNH Request for New Draft Permit for Public Notice and Comment
39	N/A	Notice of Uncontested and Severable Conditions Letter

I. INTRODUCTION

On May 22, 2020, the Region 1 office (“Region 1” or the “Region”) of the United States Environmental Protection Agency (“EPA”), working in conjunction with the New Hampshire Department of Environmental Services (“NHDES”), issued a new final National Pollutant Discharge Elimination System (“NPDES”) permit (the “Final Permit”) to the Merrimack Station power plant in Bow, New Hampshire (“Merrimack Station” or the “Facility”). The Facility discharges pollutants to, and withdraws water for cooling from, the Merrimack River, an interstate waterway.

Completing the Final Permit has been a marathon run over an obstacle course. Numerous circumstances combined to extend the permit development process, including changes in applicable law and critical facts after the issuance of the Draft Permit, multiple lengthy public notice and comment periods, and even spin-off litigation related to the permit development. Of particular import to the issues surrounding cooling water withdrawals has been the receipt of information after issuance of the Draft Permit regarding the availability and efficacy of a technology known as wedgewire screens that can be used to minimize adverse environmental impact under section 316(b) of the Clean Water Act (“CWA” or the “Act”). The Facility has also shifted from a “baseload” operation (*i.e.*, operating nearly all the time) to a “peaking” operation that generates electricity on only a seasonal, intermittent basis. Further, New Hampshire deregulated its electricity markets and required the Facility’s long-time owner, Public Service Company of New Hampshire (“PSNH”), to divest of its generating assets, including Merrimack Station. As a result, GSP Merrimack LLC (“GSP” or the “Permittee”) acquired the Facility. In addition, in 2014, after Region 1 issued the Draft Permit, EPA promulgated new regulations applicable to cooling water intake structures and the Region’s determination of the “best

technology available” under CWA § 316(b). Region 1’s third comment period on the permit expressly discussed the above developments and invited public comment on their import for the permit.

GSP Merrimack LLC (“Petitioner” or “GSP”) has appealed three aspects of the 2020 Final Permit provisions: (1) the entrainment requirement for wedgewire screens, (2) the requirement for a re-scheduled Unit 2 outage, where practicable and approved by the Independent System Operator of New England, and (3) the six-month compliance schedule for installing new fish returns.¹ As the Region explains below, GSP fails to demonstrate any clear error of fact or law or explain why the Region’s discretionary choices should be reviewed by the Board. Instead, as demonstrated below, the challenged provisions are consistent with applicable law and represent rational determinations supported by the permitting record. Moreover, GSP largely ignores the Region’s explanations in the Response to Comments for its determinations for the challenged provisions and does not explain why the Region’s responses are clearly erroneous. Consequently, the Region respectfully submits that GSP has failed to carry its burden to demonstrate that review is warranted. Review of the permit should be denied.

II. LEGAL FRAMEWORK

A. NPDES Program

Congress adopted the Clean Water Act (CWA or “the Act”) to “restore and maintain the chemical, physical, and biological integrity of the Nation's waters.” CWA § 101(a), 33 U.S.C.

¹ GSP has not appealed the substantive requirement to install new fish returns. Pet. at 6 (“GSP does not contest the requirement to construct and operate the fish return sluices.”). In addition, the Sierra Club and the Conservation Law Foundation (“CLF”) have filed a separate Petition for Review contesting limits on the Facility’s discharges of waste heat and combustion residual leachate. The Sierra Club and CLF have not appealed any of the same provisions as GSP has. The Region responds to the Sierra Club and CLF Petition in a separate Response.

§ 1251(a). To achieve this goal, the CWA prohibits the discharge of pollutants into navigable waters unless authorized by another provision in the CWA. A principal means for complying with the Act is discharge authorization through an NPDES permit. *See* CWA §§ 301(a), 402(a), 33 U.S.C. §§ 1311(a), 1342(a). NPDES permits apply the CWA’s discharge control standards and monitoring and reporting requirements directly to specific facilities, such as Merrimack Station. CWA § 402(a), 33 U.S.C. § 1342(a).

B. Cooling Water Intake Structures

Section 316(b) of the Act creates the “best technology available” (BTA) standard for cooling water intake structures, specifying that: “Any standard established pursuant to section 1311 of this title or section 1316 of this title and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.” 33 U.S.C. § 1326(b). In 2014, EPA promulgated new regulations under CWA § 316(b) that apply to existing facilities with cooling water intake structures (“2014 Final Rule” or the “Rule”), such as Merrimack Station. *See* 79 Fed. Reg. 48,300 (Aug. 15, 2014) (codified at 40 CFR § 122.21(r) and part 125, subpart J). On appeal, the U.S. Court of Appeals for the Second Circuit sustained all elements of the 2014 Final Rule. *See Cooling Water Intake Structure Coal. v. EPA*, 905 F.3d 49 (2d Cir. 2016). The Rule governs the Final Permit for Merrimack Station. *See* 40 CFR §§ 122.43(b)(1), 125.91(a), 125.94(a)(1).

Cooling water intake structures (“CWISs”) may cause or contribute to a variety of adverse environmental impacts to surface water, including “entrainment” (the process by which fish larvae and eggs are killed or injured when water withdrawn from a water body is pulled into and through a facility’s cooling system) and “impingement” (the process by which fish and other

organisms are killed or injured when they are trapped against the intake structure's screens. *See id.* § 125.92(f) (defining CWIS), (h) (defining entrainment), (i) (defining entrainment mortality) (n) (defining impingement), (o) (defining impingement mortality); *see also In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 603 (EAB 2006). The 2014 Final Rule provides for a choice of BTA technologies for minimizing impingement mortality and for site-specific determinations of the BTA for minimizing entrainment at regulated facilities. *See* 40 CFR §§ 125.94(c) and (d), 125.98(f).

With regard to controlling impingement mortality, EPA concluded in the 2014 Final Rule that the best technology available for minimizing impingement mortality is modified traveling screens and fish-friendly returns. 79 Fed. Reg. at 48,329, 48,337; *see* 40 CFR § 125.92(s) (defining “modified traveling screens”). The Rule provides six additional compliance options that perform as well as, or better than, modified traveling screens. *See* 40 CFR § 125.94(c). Among the compliance alternatives equivalent to, or better in performance than, modified travelling screens are closed-cycle cooling and measures or technologies such as wedgewire screens that reduce the through-screen intake velocity to a maximum of 0.5 feet per second (fps). *See, e.g., id.* § 125.94(c)(1), (2), (3). For entrainment, the 2014 Final Rule does not establish a single specified technology standard but rather provides a framework under which a permitting authority establishes, on a site-specific basis, BTA requirements that reflect the permitting authority's “determination of the maximum reduction in entrainment warranted after consideration of the relevant factors as specified in §125.98.” 40 CFR § 125.94(d); *see also* 79 Fed. Reg. at 48,342. Among the factors a permitting authority must consider are the number of organisms entrained, the air emissions associated with entrainment technologies, land availability as it relates to the feasibility of an entrainment technology, remaining useful plant life, and the

social costs and benefits of available entrainment technologies. *Id.* § 125.98(f)(2)(i)-(v). The Rule further provides a permitting authority with the discretion to assign differing weight to each factor based upon the circumstances of each facility. *See id.* § 125.98(f)(2). A permitting authority may also consider additional factors, including entrainment impacts on the waterbody, thermal impacts, reliability, and water consumption. *See id.* § 125.98(f)(3). In the case of permit proceedings such as this one begun prior to the issuance of the 2014 Final Rule, the permitting authority is not required to consider all the factors in section 125.98(f), *see id.* § 125.98(g), although, in this case, the Region did, AR-1885 (“RTC”) at III-97 to 137.

Under 40 CFR § 122.47(a), EPA has the discretion to include compliance schedules in NPDES permits when appropriate. EPA may use compliance schedules for requirements issued pursuant to § 316(b). 40 CFR §§ 125.94(b), 125.98(c); 79 Fed. Reg. at 48,359; *see also* AR-1534 at 23-24 (explaining why a compliance schedule for § 316(b) requirements was not included in the Draft Permit but why EPA proposed compliance schedules for closed-cycle cooling and wedgewire screens in 2017). The 2014 Final Rule provides that permits such as this issued after July 14, 2018, must include “conditions to implement and ensure compliance with” the impingement and entrainment standards in the regulations and must include “conditions, management practices and operational measures necessary to ensure proper operation of any technology used to comply with” the standards. 40 CFR § 125.98(b)(2). Finally, the 2014 Final Rule requires compliance with the entrainment standard “as soon as practicable,” based on a schedule of requirements established by the permitting authority. 40 CFR §§ 125.94(b)(2), 125.98(c).

III. STATEMENT OF FACTS

A. Background

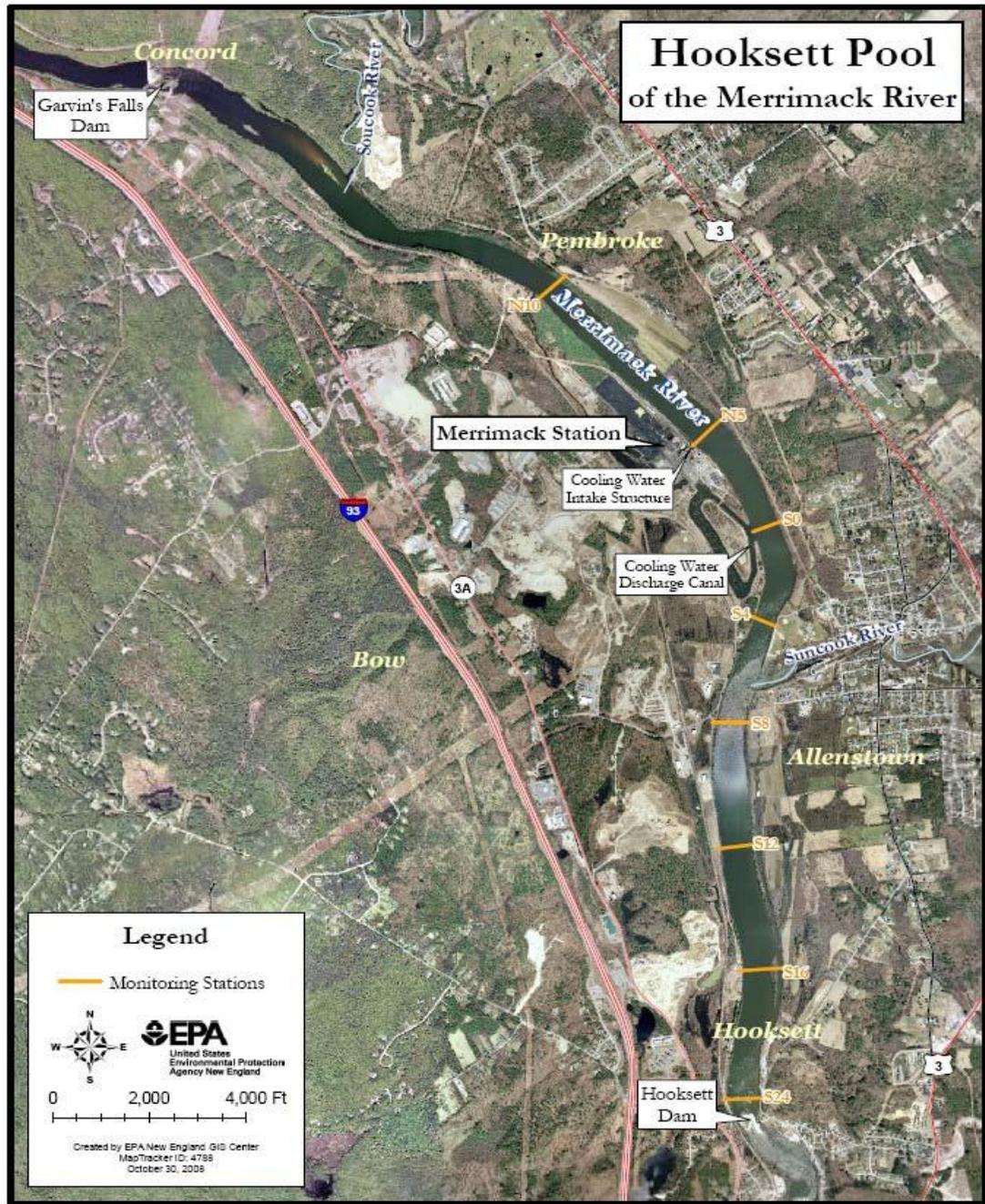
Merrimack Station is a steam electric power plant on the western bank of the Merrimack River in Bow, New Hampshire. AR-618 at 2. The Merrimack River runs approximately 116 miles south through New Hampshire and Massachusetts, meeting the Atlantic Ocean in Newburyport, Massachusetts. *Id.* On January 10, 2018, Granite Shore Power LLC bought the Facility from Public Service Company of New Hampshire (“PSNH”) and transferred it to its subsidiary GSP Merrimack LLC (collectively, “GSP”). RTC at I-1 to 2; AR-1642. Effective the same day, the NPDES permit was transferred to GSP. AR-1701.

Merrimack Station primarily burns coal, with most of its output coming from Unit 1, which began operation in 1960, and Unit 2, which began operation in 1968. AR-608 at 4. While the Facility operated for decades as a “baseload” power plant—meaning that it generated electricity nearly all the time—since issuance of the 2011 Draft Permit, the capacity utilization of Units 1 and 2 has substantially diminished. AR-1534 at 8, 34. Despite overall reduced operations, however, these units can still run at high levels during peak demand periods, typically on cold winter days and hot summer days. *Id.* at 8.

Merrimack Station uses a “once-through” cooling system designed to withdraw up to 287 million gallons per day (“MGD”) of water for cooling (85 MGD for Unit 1 and 201.6 MGD for Unit 2) from an impounded segment of the Merrimack River known as the “Hooksett Pool.” AR-618 at 243. The pool is approximately 5.8 miles long and bounded upstream by the Garvins Falls Dam and downstream by the Hooksett Dam. *Id.* at 3, 4 (Figure 2-1, reproduced below). Merrimack Station lies roughly midway between these dams. *Id.* Merrimack Station has two cooling water intake structures (“CWISs”) on the west bank of Hooksett Pool, with the Unit 1

CWIS located roughly 120 feet north of the Unit 2 CWIS. *Id.* at 4, 264. The bulkhead of each CWIS extends about 25 feet from the shoreline. *Id.* at 264.

Figure 2-1 Map of Hooksett Pool
(from AR-618 at 4)



The quantity of water withdrawn for cooling and the dimensions of the intake structure openings dictate the velocity of water being withdrawn via a CWIS. *Id.* at 265. The speed of the water passing through CWIS screens is referred to as the “through-screen velocity.” *Id.* Each CWIS at Merrimack Station employs two, single-speed pumps. *Id.* The through-screen velocities of the plant’s two units are 1.5 feet per second (ft/sec) (Unit 1) and 1.82 ft/sec (Unit 2), when both pumps are running in each CWIS. *Id.* When only one pump is running, the through-screen velocities are reduced by approximately half but still exceed 0.5 fps, RTC at III-30 n.10—the velocity EPA has identified as representing one BTA option for minimizing impingement mortality, *see* 40 CFR § 125.94(c)(3).

Merrimack Station does not employ any technology designed to minimize entrainment of fish eggs and larvae. RTC at III-32; AR-618 at 267-68. To prevent adult fish and most juvenile fish from being drawn further into the cooling system, however, each unit employs two traveling screens with a mesh size of 3/8-inch square and of the same design originally installed in 1960 (Unit 1) and 1968 (Unit 2). AR-618 at 267-68. To the extent that these screens block adult and juvenile fish from being entrained, the screens cause impingement of these fish. *Id.* at 268. Narrow shelves are attached to the screens and carry debris and impinged fish up as each screen rotates. *Id.* Because the shelves are designed primarily for debris, not fish, the fish can fall off the screen shelves as the screens emerge from the water and the fish can suffer injury or exhaustion from being dropped and re-impinged. *Id.* Fish that manage to avoid being dropped and re-impinged do not fare much better. As the rotating traveling screen panels emerge from the water, power spray wash systems clear debris and impinged fish into troughs. *Id.* at 269-70. From the Unit 1 traveling screens, fish are sent, along with the wash water and any debris, to a corrugated steel pipe that runs for about 175 feet to connect with a similar trough servicing the Unit 2

screens. *Id.* at 270. The combined fish, debris, and wash water then flow another 75 feet in another corrugated steel pipe and are discharged onto a grate that covers a cement trough. *Id.* Even those fish that have survived this trip do not make it back into the river under any but the highest flow conditions and, instead, likely die where they have been deposited. *Id.*; RTC at III-30 (noting PSNH’s acknowledgment that this system results in 100% impingement mortality). Merrimack Station’s traveling screens and debris sluices do not meet the requirements for “modified traveling screens” under the 2014 Final Rule, in part because of the problems identified above. RTC at III-33 n.13; *see also* 40 CFR § 125.92(s).

As a result of its cooling water use, the Facility discharges heat to the Merrimack River. AR-618 at 243. In addition to heat, the Facility also discharges many other types of wastewater, such as combustion residual leachate, bottom ash transport water, and nonchemical metal cleaning wastes. AR-608 at 4-7.

The Independent System Operator of New England (“ISO-NE”) oversees the day-to-day operation of the power grid, administers the electricity market, and manages the regional power system planning process in New England. AR-1745 at iii.

B. Permitting History Related to the Facility’s Cooling Water Intake Structure

Merrimack Station began operations prior to enactment of the CWA and was regulated by the State of New Hampshire. AR-618 at 8-14. EPA first issued the Facility an NPDES permit in 1975, and later reissued the permit in 1979, 1985 and 1992. *Id.* at 11-14. Although the 1992 Permit expired in 1997, it has been administratively continued since that time based on the permittee’s timely renewal application. *See* 40 CFR § 122.6(a). Indeed, insofar as some conditions of the Final Permit are stayed due to this appeal, the corresponding provisions of the 1992 Permit are still in effect. *See* Att. 39 (Notice of Uncontested and Severable Conditions).

Developing the 2020 Final Permit for Merrimack Station has required consideration of numerous complex issues and several rounds of public comment related to cooling water intake structures, the thermal discharge, and wastestreams governed by the Steam Electric Category Effluent Limitations Guidelines. *See* 40 CFR part 423. Region 1 issued a Draft NPDES Permit for Merrimack Station on September 30, 2011 (the “2011 Draft Permit”). AR-609; *see also* AR-608. The 2011 Draft Permit and the Region’s supporting analysis addressed the Facility’s withdrawal of Merrimack River water for cooling and its discharges of a variety of pollutants, including waste heat, flue gas desulfurization wastewater, bottom ash transport water, combustion residual leachate, and others. Granting public requests for additional time, the Region provided a five-month comment period (ending on February 28, 2012).

In support of the 2011 Draft Permit, Region 1 provided a detailed analysis of permitting issues associated with Merrimack Station’s cooling system operations. *See* AR-618 (Attachment D to the 2011 Fact Sheet; “Clean Water Act NPDES Permitting Determinations for the Thermal Discharge and Cooling Water Intake Structure at Merrimack Station in Bow, New Hampshire”). At the time, Merrimack Station operated as a baseload power plant. AR-618 at 132. Consistent with this fact, PSNH applied for a NPDES permit that would allow for continued baseload operations, and the Region evaluated permit conditions on that basis. *Id.* at 132, 145, 156 n.51, 158; *see also* AR-608 at 3.

At the time of the 2011 Draft Permit, there were no effective national categorical standards applicable to the CWISs at Merrimack Station. Therefore, EPA developed permit conditions under CWA § 316(b) by determining the BTA on a “best professional judgment” (BPJ), site-specific basis. *See* AR-618 at 221, 225; *see also* 72 Fed. Reg. 37,107 at 37,108 (July 9, 2007) (explaining that permitting authorities were directed during this time to establish section

316(b) requirements on a BPJ basis for existing facilities not subject to categorical section 316(b) regulations); *In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 602 (EAB 2006). The Region evaluated the potential availability of a variety of technologies for minimizing the adverse environmental impacts of impingement and entrainment and considered a variety of issues that would be associated with the application of these technologies at Merrimack Station. AR-618 at 242-347.

With regard to reducing entrainment, the Region considered a number of technologies, including those designed to physically exclude eggs and larvae from being entrained, like wedgewire screens. *Id.* at 271-307. Based on information available at the time, the Region proposed to reject wedgewire screens as an available (i.e., feasible) technology for a variety of site-specific reasons. *See id.* at 271-80; RTC at III-76 to 81. While the Region acknowledged that wedgewire screen technology could be capable of achieving substantial reductions in impingement and entrainment under certain environmental conditions, the Region concluded that the conditions necessary for an effective wedgewire screen installation would not exist in the Hooksett Pool on a consistent and reliable basis. AR-618 at 271-80. In addition, the Region noted significant uncertainty about the efficacy of wedgewire screens in reducing entrainment based on questions about sweeping flows, slot size, and whether the particular species and life stages of organisms present in the Merrimack River would be able to avoid or survive contact with the screens in light of these factors. *Id.* The Region also evaluated the availability and efficacy of closed-cycle cooling and ultimately proposed seasonal closed-cycle cooling (from April 1 to August 31 each year) as the BTA for minimizing entrainment at Merrimack Station. *Id.* at 300-47.

The Region also evaluated technologies for reducing impingement mortality and proposed new traveling screens and new fish returns as the BTA. *Id.* at 344-45. The Region did not include a compliance schedule for closed-cycle cooling or the new returns, based on the Region's understanding at that time that schedules for compliance with the BTA standard of CWA § 316(b) could not be included in NPDES permits. *See* AR-1534 at 23.

Region 1 received numerous comments on the 2011 Draft Permit from a broad and diverse array of interested parties. As relevant here, the Permittee disagreed that closed-cycle cooling was the BTA. *See* AR-846 at 60-101. PSNH further commented that, contrary to the Region's assessment, wedgewire screens are an available technology at Merrimack Station and would minimize entrainment sufficiently to satisfy CWA § 316(b). *Id.* at 101-13. PSNH asserted, however, that they were unnecessary, based on PSNH's assessment that impingement and entrainment at the Facility were already so low as to be insignificant, and too costly in comparison to the benefits that would accrue through their installation. *Id.* PSNH also criticized Region 1 for rejecting the rescheduling of maintenance outages for Units 1 and 2 as a means of satisfying section 316(b). AR-846 at 113. Other entities, including Sierra Club and CLF, commented in support of Region 1's BTA analysis. AR-851 at 23-31.

In 2017, the Region announced that it was reconsidering wedgewire screens as the possible BTA for Merrimack Station in light of, among other things, public comments, including those of PSNH, and other new information received since the 2011 Draft Permit. AR-1534 at 12-34. The Region then exercised its discretion under 40 CFR § 124.14(b) to issue a new public notice and reopen the comment period for the draft permit for Merrimack Station. Specifically, on August 2, 2017, EPA informed the public of the reopened comment period and the availability of EPA's 2017 "Statement of Substantial New Questions for Public Comment" (the

“2017 Statement”).² AR-1533; AR-1534. In the 2017 Statement, the Region stated, among other things, that new information, data, and arguments regarding the BTA analysis, particularly as they relate to the availability and efficacy of wedgewire screen technology at Merrimack Station, had come to light since the 2011 Draft Permit that raised substantial new questions as to whether EPA should determine that this technology is the BTA for entrainment at the facility instead of closed-cycle cooling. *See* AR-1534 at 12-36. The Region also noted that new CWA § 316(b) regulations had become effective and requested comment on their impact on the Final Permit. *Id.* at 14- 17; *see also* 79 Fed. Reg. 48,300 (Aug. 15, 2014) (codified at 40 CFR § 122.21(r) and part 125, subpart J). The Region further noted Merrimack Station’s reduced operations since 2011 and invited comment from the public on whether and how EPA should account for this in the development of permit conditions under CWA § 316(b). AR-1534 at 34-36. The Region also proposed a compliance schedule for installing wedgewire screens at the Facility, in the event EPA determined in the Final Permit that the technology constituted the BTA for entrainment. *Id.* at 29-32.

On October 11, 2017—two months before the comment period on the 2017 Statement closed—GSP executed a purchase-and-sale agreement with PSNH to acquire Merrimack Station, among other PSNH facilities. AR-1631. The agreement expressly recognized the then-open comment period for the 2017 Statement. *Id.* at Schedule 3.11(b).

² In 2014, between the issuance of the 2011 Draft Permit and the 2017 Statement, the Region also issued for public comment a new revised draft permit (the “2014 Revised Draft Permit”). AR-1135, AR-1136, AR-1137. The 2014 Revised Draft Permit solely addressed, and reopened the comment period for, the proposed permit limits for flue gas desulfurization wastewater and related issues. AR-1135 at 3-4. It did not address the requirements for cooling water intake structures under CWA § 316(b). *Id.* Consequently, it is not relevant to the issues raised in GSP’s Petition and the Region does not provide further discussion herein regarding the 2014 Revised Draft Permit, except to note that, once again, the Region received voluminous comments on opposing sides of the issues.

The public comment period on the 2017 Statement ran for roughly four-and-a-half months and closed on December 18, 2017. *See* AR-1533, AR-1691, AR-1692. Once again, Region 1 received voluminous comments presenting contradictory views on many issues. *See generally* RTC. PSNH submitted a lengthy comment letter stating upfront that “Granite Shore has informed PSNH that, in response to the capacity utilization questions in EPA’s Statement,^[footnote omitted] Granite Shore is not willing to have, or desirous of having, Merrimack Station’s operations restricted, including based on capacity utilization.” AR-1548 at 6-7 (citing AR-1534 at 35, 68). PSNH also repeated its earlier comments that wedgewire screens with a 3mm slot size would be feasible and effective at Merrimack Station, and submitted the results of a successful site-specific 2017 pilot study demonstrating significant entrainment reductions from wedgewire screens at Merrimack Station. RTC at III-68-69, 70-76. PSNH also submitted comments estimating the numbers of organisms entrained with wedgewire screens at various flows and analyzing their social costs and benefits. AR-1565; AR-1567. Neither GSP nor PSNH provided any comments on operational conditions that would satisfy 316(b). For the Final Permit, the Region carefully considered the comments from PSNH and others and applied the framework for entrainment determinations established in the 2014 Final Rule, closely assessing the mandatory factors at 40 CFR § 125.98(f)(2), including the numbers and types of organisms entrained and the social costs and benefits of available technologies, as well as the discretionary factors at 40 CFR § 125.98(f)(3). *See* RTC at III-97 to 137.

On January 10, 2018, GSP closed on its acquisition of Merrimack Station from PSNH, AR-1642, and the Facility’s NPDES permit was transferred to GSP effective that same day, AR-1701. Shortly before the sale closed, GSP requested a meeting with Region 1 management and “those staff members who are working on the formulation and administration of the various

EPA-issued permits pertaining to the Facilities” GSP was to acquire. AR-1649. After GSP acquired PSNH’s facilities, GSP and the Region had an initial meeting to discuss several former PSNH facilities regulated by EPA. AR-1802. Later, the parties held additional meetings focused on the development of the Final Permit for Merrimack Station and, specifically, to discuss ideas and options to develop protective permit conditions meeting environmental requirements while also being compatible with the Facility’s operation as a “peaking plant.” AR-1754 at 1-2; *see also* RTC at III-207. These later discussions—notes of which the Region placed in the Administrative Record—focused broadly on issues related to the thermal discharge under CWA § 316(a), limits under EPA’s Effluent Limitation Guidelines for the Steam Electric Power Generating category of point sources, and issues surrounding regulation of the cooling water intake structures under CWA § 316(b). AR-1754 at 2. Among the ground rules the parties set for these “brainstorming” discussions were that the “participants could offer ideas and comments and still be free to change their minds or positions later on.” AR-1753 at 1; *see also* AR-1754 at 2, AR-1752 at 1, AR-1678 at 1 (encouraging “a free exchange of ideas that might be more likely to reveal mutually acceptable ways of resolving the existing disputes over the permit that have been reflected in the comments on the permit”).

While GSP indicated during the post-acquisition discussions that it expected infrequent operation in the summer and, for the first time, that it might be willing to accept permit limits based on reduced operations, *see* AR-1802 at 3, it also indicated that it would want any such operational limits to accommodate the Facility being able to operate in the summer when called upon by ISO-NE, AR-1754 at 6. Understanding that fish eggs and larvae are present in the River largely during the spring and summer, AR-618 at 252-53, 329, the Region recognized that reduced operations during this time would generally reduce entrainment impacts at Merrimack

Station but noted that “the question remains as to how to design permit limits to ensure” reduced entrainment. AR-1754 at 6-7. GSP and the Region later discussed the potential for developing flow limits to reduce entrainment. *See, e.g.*, AR-1753 at 5. The Region also indicated that, based on public comments, PSNH’s 2017 site-specific study of wedgewire screens, and the Facility’s current intermittent peaking (as compared to baseload) operations, the Region was likely to select wedgewire screens as the best technology available at Merrimack Station. *See, e.g.*, AR-1676 at 2. If so, then a flow limits-based approach to permit limits would have to achieve reductions in entrainment comparable to those observed in PSNH’s wedgewire screen pilot study at Merrimack Station. *See, e.g.*, AR-1753 at 5. Each time the parties raised the topic of such flow limits, however, it was discussed generally; specific limits were never identified. *See, e.g.*, AR-1678 at 3. And while the Region invited GSP to submit for EPA review any potential permit language GSP wanted to provide, *id.*, GSP never provided any specific proposal.

Furthermore, there were “potential challenges” to a flow-limit-based approach. AR-1678. For instance, PSNH’s site-specific study of wedgewire screens at Merrimack Station indicated that the technology can reduce entrainment at the Facility by as much as 89%. AR-1550 at 19; RTC at III-68 to 69. Thus, to be comparably effective, flow during the entrainment season would have to be reduced by a similar amount, which could, generally-speaking, amount to a capacity factor around 11%. Recognizing that the facility already operated at a low capacity factor during the summer and expected to continue operating in that manner, GSP nonetheless indicated to the Region that it wanted to be able under the permit potentially to operate at a higher capacity, if it were called upon by ISO-NE to meet peak energy demands. AR-1754 at 6; *see also* AR-1684 (indicating a desire to retain ability to operate up to 45% capacity from May to September); AR-1871 at 2 (indicating that GSP “could perhaps live with” a 40% capacity utilization factor).

In the absence of a specific proposal to limit flow to reduce entrainment to a level comparable to that in the pilot study of wedgewire screens, the parties discussed the potential for GSP to develop such a specific proposal during the period provided in the wedgewire screens compliance schedule and submit it to EPA as a permit modification request. AR-1676 at 2-3. GSP also wanted the compliance schedule to allow it “to recommend a specific slot-size for the screens in its final design,” even though the 2017 pilot study had indicated that a 3mm slot size resulted in an 89% reduction in entrainment. *Id.* In later discussions with Region 1, GSP indicated that it was interested in a Permit that contained a “two-stage compliance schedule” that would provide GSP with additional time, beyond that required to design and install wedgewire screens based on the 2017 pilot study, to “study screen feasibility and effectiveness” and to develop a specific alternative compliance option to achieve effectiveness similar to that of wedgewire screens. AR-1684. Although the Region initially indicated to GSP that an approach providing additional time might be acceptable, the Region eventually concluded, as explained in the Response to Comments, that it would be contrary to EPA regulations at 40 CFR §§ 125.94(b)(2) and 125.98(b)(2). These provisions require a final 316(b) permit to include conditions to implement and ensure compliance with the impingement mortality standard and the entrainment standard and include conditions, management practices and operational measures necessary to ensure proper operation of the technology used to comply with the standards. EPA also noted that the regulations require the permittee to comply with the impingement and entrainment BTA determinations in the Final Permit “as soon as practicable.” *Id.* § 125.94(b)(1), (2); *see* RTC at III-207, 210.

Ultimately, based on the relevant information in the record including the above-mentioned discussions with GSP and applying the required framework for site-specific BTA

entrainment determinations in the 2014 Final Rule, the Region concluded that the record information supported a determination that wedgewire screens with a slot size up to 3mm are BTA for entrainment at Merrimack Station. RTC at III-64 to -82, III-97 to -137.³ The Region included in the Final Permit a compliance schedule for the installation of wedgewire screens but noted that GSP was free to “simultaneously develop[] new information on another compliance option and submit[] a permit modification request [to the Region] based thereon . . . which would be subject to appropriate public participation requirements.” RTC at III-226; AR-1886 at Part I.E.7. In addition, the Region considered PSNH’s comments about re-scheduled outages for Units 1 and 2 and concluded that a best management practice of scheduling the Unit 2 outage for May 15 to June 15, to the extent practicable and subject to approval by ISO-NE, could provide additional entrainment reductions without harming energy supply because it coincided with a time period when early life stages are often present and because the permittee had concluded that scheduling the annual outage for this period was feasible. RTC at III-64-66.

The Region also included a compliance schedule for installing new fish returns, based in part on EPA’s interpretation in the 2014 Final Rule that EPA could include such compliance schedules in NPDES permits. RTC at III-36; *see also* AR-1534 at 23. The Region based the length of the schedule on estimates from the facility’s consultant that construction of new returns would only take between two and six weeks and could occur even during winter months. RTC at III-36 n.17 (citing AR-4 at 90); *see also* AR-4 at 87. On May 22, 2020, Region 1 issued the Final Permit. AR-1886 at 1. Because the permit was to become effective on September 1, 2020, the permit provided more than nine months for GSP to install the returns. *See id.*

³ GSP does not dispute that wedgewire screen technology is available at Merrimack and, further, concedes that it “could be part of the BTA for Merrimack Station.” Pet. at 2.

IV. PRINCIPLES GOVERNING BOARD REVIEW

Under 40 CFR § 124.19(a)(4)(i), the EAB ordinarily denies review unless the petition establishes that the challenged permit conditions are based on clear errors of fact or law or involve an exercise of discretion or an important policy consideration which the EAB should, in its discretion, review. *See In re City of Moscow*, 10 E.A.D. 135, 140 (EAB 2001); *In re New England Plating Co.*, 9 E.A.D. 726, 729 (EAB 2001). While the EAB's review authority is broad, EPA intended this authority to be exercised "only sparingly." *In re City of Lowell*, NPDES Appeal No. 19-03, slip op. at 17-18 (EAB June 29, 2020) (Order Denying Review), 18 E.A.D. ___, quoting 45 Fed. Reg. 33,290, 33,412 (May 19, 1980). EPA policy "favors final adjudication of most permits at the Regional level." *City of Moscow*, 10 E.A.D. at 141; *New England Plating*, 9 E.A.D. at 730.

The burden of demonstrating that the Board should review a permit rests with the petitioner. 40 CFR § 124.19(a)(4); accord *In re City of Taunton*, 17 E.A.D. 105, 110 (EAB 2016). A petitioner must first demonstrate that any issues and arguments it raises on appeal have been preserved for Board review, unless they were not reasonably ascertainable before the close of the public comment period. 40 CFR §§ 124.13, 124.19(a)(4)(ii); see *City of Moscow*, 10 E.A.D. at 141, 149-50. In other words, a petitioner must demonstrate that the particular issue or argument was "raised during the public comment period" or it must explain why that issue or argument was not reasonably ascertainable during the comment period. *New England Plating*, 9 E.A.D. at 730-31 (citing 40 CFR §§ 124.19(a) and 124.13) (other citations omitted). Indeed, the "Board frequently has emphasized that the issue to be reviewed must have been *specifically raised* during the comment period." *New England Plating*, 9 E.A.D. at 732 (citations omitted). It is not enough "for the petitioner to have raised a more general or related argument during the

public comment period.” *In re Gov't of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 339 (EAB 2002). Moreover, issues must be raised in adequate detail in the comments to preserve them for appeal. *See, e.g., City of Moscow*, 10 E.A.D. at 150 n. 41; *New England Plating*, 9 E.A.D. at 732 (citations omitted). This ensures that the Region has an opportunity to respond to the issues before issuing the final permit and furthers EPA’s policy of ensuring that most permit issues are resolved at the Regional level in order to provide predictability and finality to the permit development process.⁴ *See, e.g., New England Plating*, 9 E.A.D. at 732.

Part 124 requires that the Region “briefly describe and respond to all significant comment on the draft permit.” 40 CFR § 124.17(a)(2). And the Board has held that “the depth of a permit issuer’s response need only be commensurate with the depth of the comments provided.” *In re Arizona Public Serv. Co.*, 17 E.A.D. 323, 344 (EAB 2016); *see also In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 251 n.12 (EAB 1999) (Where an “issue is raised only generically during the public comment period, the permit issuer is not required to provide more than a generic justification for its decision.”); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 147 (EAB 1999) (Permit issuers may provide general justifications when comments are presented in a general manner).

To garner review, a petitioner must do more than simply offer an unsubstantiated claim of error. 40 CFR § 124.19(a)(4)(i); *see, e.g., City of Moscow*, 10 E.A.D. at 172; *In re City of Irving*, 10 E.A.D. 111, 129-30 (EAB 2001), *review denied sub nom. City of Abilene v. EPA*, 325

⁴ The EAB has only “rarely applied” a limited exception to the requirement that to obtain EAB review the petitioner must have raised in its permit comments the specific issue proposed for appeal. This exception is when the issue raised is so closely related to other issues that were raised in comments on the permit that the Region’s responses to comments effectively addressed the issue being raised on appeal. *New England Plating*, 9 E.A.D. at 734.

F.3d 657 (5th Cir. 2003). “[M]ere allegations of error” and “vague or unsubstantiated claims” are insufficient to obtain review. *In re City of Attleboro*, 14 E.A.D. 398, 422, 443 (EAB 2009); *New England Plating*, 9 E.A.D. at 737. A petitioner must demonstrate specific reasons why EAB review is warranted and support its arguments with evidence. *City of Attleboro*, 14 E.A.D. at 422. If the Region addressed the issue in its Response to Comments, the petitioner must also substantively confront the Region’s response and explain why the permit is clearly erroneous or otherwise warrants review. 40 CFR § 124.19(a)(4)(ii); *see also City of Lowell*, slip op. at 17; *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 33 (EAB 2005). If a petitioner fails to provide any explanation, it has not carried its burden and its claim must be denied. *Knauf Fiber Glass*, 9 E.A.D. at 5; *see also City of Pittsfield, Mass. v. EPA*, 614 F.3d 7, 11-13 (1st Cir. 2010).

The EAB also has explained that it “traditionally assigns a heavy burden to petitioners seeking review of issues that are essentially technical in nature.” *City of Moscow*, 10 E.A.D. at 142 (*citing In re Town of Ashland*, 9 E.A.D. 661, 667 (EAB 2001); *see also In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 567 (EAB 1998), *den’d sub nom. Penn. Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d. Cir. 1999); *Dominion Energy Brayton Point*, 12 E.A.D. at 510, 561-62, 645-47, 670-74. Typically, in raising a technical objection, a petitioner must present the Board with references to studies, reports, or other materials that provide relevant, detailed, and specific facts and data about permitting matters that were not adequately considered by a permit issuer. *See, e.g., In re Env’tl. Disposal Sys., Inc.*, 12 E.A.D. 254, 289-92 (EAB 2005). A petitioner does not establish clear error or an exercise of discretion warranting review merely by presenting “a difference of opinion or alternative theory regarding a technical matter.” *Town of Ashland*, 9 E.A.D. at 667. “[W]here the views of the Region and the petitioner indicate bona fide differences of expert opinion or judgment on a technical issue, the Board will typically defer to the Region.”

NE Hub, 7 E.A.D. at 568 (citing *In re Envotech, L.P.*, 6 E.A.D. 260, 284, n. 6 (EAB 1996) (“absent compelling circumstances, the Board will defer to a Region’s determination of issues that depend heavily upon the Region’s technical experience and judgment”; and noting similarity of standard of review of technical issues to that applied by courts)) (other citations omitted).

As discussed below, Petitioner has not carried its burden to demonstrate that it has raised any issue warranting EAB review. Therefore, Petitioner’s request for review should be denied.

V. ARGUMENT

The Region correctly applied the required regulatory framework in making the entrainment BTA determination for Merrimack Station. Relying on public comments and other relevant information in the record, including more recent data and information reflecting the Facility’s reduced operations, the Region reasonably concluded that wedgewire screens are the BTA for the facility and explained the basis for its determination. The Region also explained its basis for including a best management practice in the permit concerning scheduling the Unit 2 annual outage. The Petition does not present any analysis under the regulatory framework to support its challenge to the Region’s determination. Further, the Petition points to no comments submitted during the public comment periods to support the position that flow reductions should be the basis for the BTA determination in lieu of wedgewire screens. To the extent the issue was raised after the public comment period, it was only ever raised in a general sense—GSP never discussed a specific flow reduction proposal. Rather, GSP indicated that it wanted the permit to include a compliance schedule that would provide time not just for the installation of wedgewire screens—which PSNH had already studied and determined to be feasible and effective at

Merrimack Station—but also time for an additional study of their feasibility and effectiveness. GSP’s schedule also would have provided it with additional time to develop flow limits or some other currently unidentified compliance alternative to yield entrainment reductions comparable to wedgewire screens. The Region has explained in full why including such a schedule in the permit was not authorized under EPA regulations. The reasons are as follows: 1) the Region had sufficient information in the record, including the results of PSNH’s pilot study, to support its BTA determination without additional study; 2) EPA regulations require the Region to include conditions in a Final Permit to implement its BTA determinations, not just additional time to study what those determinations should be; 3) the regulations further provide that any schedule in a permit must result in compliance with the BTA determination “as soon as practicable”; and 4) because GSP’s proposal relied on additional time periods to study and develop other unspecified compliance options, the schedule would not satisfy the “as soon as practicable” standard because it was not known what those other compliance options entailed or when, if ever, they would be identified and implemented. Moreover, the Region explained that GSP was still free to develop another compliance option simultaneously with the schedule in the permit and present it to the Region as a permit modification request, which the Region could then consider and which would also satisfy appropriate requirements for public participation. In other words, the Region explained why GSP’s proposal would conflict with regulatory requirements, and the Petition does not substantively confront the Region’s response. Nor does the Petition demonstrate that the Region’s BTA determination is clearly erroneous or otherwise warrants review. Review on this issue therefore should be denied.

GSP does not challenge the substantive requirement to install new fish returns, only the timeframe in which to do so. But it has been clear for many years that the facility’s existing

equipment results in virtually zero survival. The Region included a reasonable schedule to install fish returns as soon as practicable based on estimates in the record by the facility's consultant that construction of new returns would only take between two and six weeks and could occur even during winter months. Because GSP does not dispute that new fish returns are necessary and does not substantiate its claim that they are somehow "linked" to wedgewire screens, it should be preparing for their installation now. The Petition fails to demonstrate that the Region clearly erred in providing the compliance schedule in the Final Permit.

A. GSP has not demonstrated that the wedgewire screens and Unit 2 outage provisions are "clearly erroneous."

GSP asserts that the Region erred in including provisions in the Final Permit requiring GSP to operate wedgewire screen technology at Units 1 and 2 each year from April 1 to August 15 (Parts I.E.1, 2, 4, and 7.a-7.c) and including a best management practice requirement of scheduling the Unit 2 annual maintenance outage to occur between May 15th and June 15th to the extent practicable and subject to approval by ISO-NE (Part I.G.3). Pet. at 20-23.⁵ To prevail in a challenge of the Region's permitting decision, however, a petitioner may not ignore the Region's analysis and responses to comments; it must confront the Region's response on a particular issue

⁵ In this section of the Petition, GSP also highlights Part I.E.2 of the Final Permit, which requires the Permittee to "verify . . . that the ratio of through-screen velocity to ambient sweeping current velocity is maintained at 1:1 or greater under all river and plant operating conditions when the wedgewire screens are deployed." GSP notes that this provision is "clearly erroneous because the Region transposed the two related variables" (i.e., sweeping flow and through-screen velocity). Pet. at 20 n.69. The Region acknowledges the typographical error in Part I.E.2; the two variables were inadvertently switched. Remand of Part I.E.2 on this basis, however, is unnecessary, since the Region may, and intends to, correct the typographical error by issuing a minor modification pursuant to 40 CFR § 122.63(a) in the event the Board does not remand Part I.E.2 for any other reason raised in the Petition. *See In re City of Pittsfield*, NPDES Appeal No. 08-19, slip op. at 1 n.1 (EAB Mar. 4, 2009) (Order Denying Review). Furthermore, the Region does not agree that the language regarding the ratio of sweeping flow to through-screen velocity "must be . . . omitted as unnecessary," Pet. at 20 n.69, because the ratio is a critical factor in ensuring effective performance of wedgewire screens. RTC III-78 to -79.

and explain why it is clearly erroneous. 40 CFR § 124.19(a)(4)(ii). Here, GSP repeatedly fails to do so and substantiate its claims of error. The Region correctly applied the required regulatory framework for determining BTA, *see* 40 CFR §§ 125.94(d), 125.98(f), and reasonably explained its determination, *see* RTC at Chapter III. Because GSP's Petition neither confronts the Region's explanations nor demonstrates that the BTA determination is in clear error or otherwise warrants review, its request for review on this issue should be denied.

1. GSP incorrectly asserts that the Region failed to consider recent reductions in operations in establishing BTA and that the Region established the cooling water intake provisions as if Merrimack Station operated as a baseload facility.

GSP asserts that the wedgewire screen and outage provisions are clearly erroneous because, in GSP's telling, the Region "failed to fully and appropriately take into consideration the drastic reductions in Merrimack Station operations in recent years." Pet. at 20. GSP asserts that "[i]nstead, the Permit provisions are based on outdated data (from 2006-2007)," Pet. at 21, and that the Region "set BTA as if the Station still operated in baseload mode during the entrainment period," Pet. at 22.

GSP is mistaken. As EPA explained in the Response to Comments, the Region based its BTA analysis for the 2011 Draft Permit on the design flow of the facility because PSNH ran it as a baseload plant at the time and wanted to preserve that ability. RTC at III-110; AR-1534 at 34-35, 68-69. But in the Final Permit, the Region recognized that generation at Merrimack Station specifically, and coal-fired generation in New England generally, has significantly decreased since 2011 and is not likely to return to baseload generation in the near future, while at the same time, recognizing the existence of uncertainty regarding how much the facility will operate in any given summer in the future and that it may intermittently run at full capacity. RTC at III-110

& n.62; *see also id.* at III-80 (considering the facility’s reduced operations); AR-1534 at 69. The Region acknowledged that the change in the energy market “has caused Merrimack Station to transition to a peaking generator, meaning that it runs at very low capacity for much of the year except when demand for electricity is particularly high,” which typically occurs in winter and summer. *Id.* at III-110. The Region, recognizing the overall reduced operation of the plant, noted that Merrimack Station still “does tend to operate some during the summer months when densities of eggs and larvae are highest,” that it currently has no technology in place for minimizing entrainment of eggs and larvae, and that, consequently, entrainment losses of these organisms would be maximized during such operation. *Id.* at III-111. Further, the Region recognized that, while actual intake flows had decreased in recent years, there was no guarantee they would remain at this level. RTC at III-110; AR-1534 at 69 (noting that “market conditions could change in the future, as they have in the past, and more frequent operations could be called for”). Consequently, the Region’s analysis included an evaluation of the potential entrainment losses at actual intake flows for the years 2007 to 2016, which corresponds to the period PSNH used as a basis for comments estimating biological benefits and an economic assessment. RTC at III-110. Over this timeframe, capacity utilization of the Station represents about 40% of design intake flow (“DIF”).⁶ *See id.* at III-111 (explaining that the 10-year AIF for this period represents “a 60% reduction as compared to DIF”). The Region also considered entrainment data collected by PSNH during the entrainment pilot study in 2017, in addition to entrainment data from 2006-2007. *Id.* at III-79-80, III-110-111. Thus, any claim that the Region’s entrainment analysis failed

⁶ While spring and summer flows in more recent years have been lower than 40% DIF, the Final Permit would allow the Facility to operate up to 40% capacity utilization on a 45-day rolling average basis between May 1st and September 30th each year. AR-1886 at 17-18, 19 n.6.

to consider recent reductions, only considered 2006-2007 data, or analyzed the issue “as if the Station still operated in baseload mode” is simply inaccurate.⁷

Furthermore, as indicated above, the Region’s entrainment BTA analysis appropriately occurred within the context of, and partially in response to, lengthy comments on the issue from PSNH and within the framework of the applicable regulatory standard—namely, the permitting authority’s “determination of the maximum reduction in entrainment warranted” after consideration of the relevant factors at 40 CFR § 125.98(f). *See also id.* § 125.94(d). Consequently, the Region focused extensively on the number of organisms entrained and on social costs and benefits, among other relevant factors explicitly included in EPA regulations for making an entrainment BTA determination. *See* 40 CFR § 125.98(f)(2)-(3); RTC at III-97 to -137. By contrast, GSP’s arguments ignore the prescribed regulatory analysis required for BTA for entrainment. For instance, GSP claims in the Petition that the “entrainment reduction achieved by decreased operations is more than sufficient to meet the § 316(b) standard, without the need for CWWS equipment,” Pet. at 23, but GSP does not support this sweeping assertion with any analysis required under the rule. As a result, GSP has failed to demonstrate clear error. *City of Lowell*, slip op. at 23; *City of Attleboro*, 14 E.A.D. at 422, 443 (explaining that “unsubstantiated claims” are insufficient to obtain review); *In re Beeland Group, LLC*, 14 E.A.D. 189, 200 (EAB 2008) (“General statements, rather than specific arguments as to why the [permit issuer’s] responses are erroneous or an abuse of discretion, do not meet the prerequisites for

⁷ Furthermore, the Petition’s citation for the assertion that the entrainment provisions of the permit are based on data from 2006-2007, *see* Pet. at 21 n.74 (citing RTC at III-30 n.10 and AR-6), misses the mark because it refers to a response in which the Region plainly stated it was addressing BTA as it applies to impingement, not entrainment, RTC at III-29-30. Additionally, the cited response addresses a comment that operational measures applicable during baseload operations were sufficient to satisfy BTA. *Id.* at III-30 n.10. Therefore, EPA logically referred in the response to data from a time of baseload operations.

review.”). Moreover, this claim is at odds with GSP’s own statements in the record that it wanted to retain the ability to run at levels higher than “Merrimack Station’s most recent operations.” Pet. at 22-23; *see* AR-1871 at 1-2 (describing GSP’s interest in retaining the ability to run the plant as it operated in 2012/2013).

As part of the analysis under the framework of the 2014 Final Rule, the Region appropriately considered economic and biological information submitted by PSNH during the comment period for the 2017 Statement. RTC at III-100 to -111 (citing AR-1565, AR-1566, AR-1567 and explaining the Region’s bases for considering this information). PSNH’s comments evaluated entrainment at 10-year average AIF for the period 2007-2016. AR-1566; AR-1567 at 2, 17, 42. Thus, EPA’s consideration of data for this time period was in direct response to a comment.⁸ Moreover, as the Region explained in the Response to Comments,

In essence, [GSP] has stepped into the shoes of PSNH with regard to both ongoing NPDES permit compliance and participation in the current NPDES permit development proceeding for Merrimack Station. As such, PSNH’s comments on the Draft Permit for Merrimack Station have been adopted by, and are now attributable to, [GSP].

RTC at I-2; *see also* Pet. at 6-7 (citing these statements approvingly). GSP never distanced itself from, or withdrew, these comments addressing the biological and economic factors highlighted

⁸ The comments provide PSNH’s estimates of social costs and benefits of entrainment technologies and were intended to be comparable to studies required under the 2014 Final Rule for certain facilities. *See* AR-1565 at 2 (citing the studies under 40 CFR § 122.21(r)(10)(iii) and (11)); AR-1566 (submitted to support AR-1565); AR-1567 (describing the submittals as “[c]onsistent with the Comprehensive Technical Feasibility and Cost Evaluation Study and Benefits Valuation Study required by” 40 CFR § 122.21(r)(10) and (11)); *see also* RTC at III-20 to -22 (commenting that EPA must consider these submittals). Notably, GSP concedes that a permitting authority’s BTA analysis should be based on such submittals. Pet. at 10.

in the regulations, *see* 40 CFR § 125.98(f)(2)(i) and (v), or submitted any updated information for the Region to consider in lieu of them.⁹

Similarly, EPA’s evaluation of a Unit 2 annual maintenance outage for May 15th to June 15th each year occurred within the context of the regulatory framework and in direct response to a PSNH comment criticizing EPA for previously rejecting the rescheduling of maintenance outages for both Units. *See* RTC at III-24 to -28 (reiterating PSNH’s 2012 comments regarding rescheduling maintenance outages); AR-846 at 113; AR-1548 (“PSNH adopts and incorporates its [2012] comments by reference.”); AR-618 at 296-97 (describing PSNH’s proposal to schedule the Unit 2 annual maintenance outage from mid-May to mid-June). Likewise, the record does not indicate that GSP ever withdrew those comments or asked EPA not to consider what GSP now calls an “outdated proposal.” Pet. at 21; *compare* AR-1690 (letter from GSP withdrawing PSNH’s request to discharge FGD wastewater). Nor does GSP provide any explanation for its new, unsupported assertion that PSNH’s outage proposal is only appropriate for a baseload facility. *See* 40 CFR § 124.19(a)(4)(i) (requiring a petitioner to include factual support for its contentions).

In short, the Region appropriately considered the Station’s change in status from a baseload facility to one employed for intermittent, seasonal operation. At the same time, the Region also considered more recent data and comments submitted by the owner, analyzed the entrainment impact of its operation under the required BTA framework at 40 CFR § 125.98(f), and reasonably determined that wedgewire screen technology is the BTA for Merrimack

⁹ To the contrary, GSP expressed to the Region a desire to retain the ability to make the plant available for operation at levels similar to the AIF for the period 2007-2016. *See* AR-1871 at 1-2 (describing GSP’s interest in retaining the ability to have the plant available to be “operated at a level as high as 45%” capacity utilization, as the plant operated “in 2012/2013”); RTC at III-111 (noting that the 10-year average AIF from 2007-2016 is roughly 40% of DIF).

Station's cooling water intake structures. The Petition mischaracterizes the Region's analysis, fails to confront the Region's responses to comments relevant to the issues raised in the Petition, and does not demonstrate that the permit terms are inconsistent with the requirements of CWA § 316(b) and the applicable regulations. For these reasons, the Petition fails to demonstrate that the Region's permitting decision is clearly erroneous or otherwise warrants review.

2. The Region reasonably included the outage provision and GSP does not substantiate its claim that the provision is improper and without basis.

GSP also objects to the Unit 2 outage provision on the grounds that it purportedly “amounts to ‘double-dipping’ and is improper,” Pet. at 5, 22, further claiming that there is “no basis in the record for requiring” wedgewire screens in addition to the “flow reductions that would result from scheduling the annual outage during the peak entrainment period,” *id.* at 5. These claims should be rejected.

First, GSP summarily declares that “double-dipping” is improper but does not provide any legal argument to substantiate the claim that EPA may only select one technology or measure as the BTA. Thus, GSP's conclusory argument “does not qualify as a ‘clearly set forth . . . legal . . . contention’” and should be denied. *City of Lowell*, slip op. at 23 (quoting 40 CFR § 124.19(a)(4)(i)); *see also In re City of Moscow*, 10 E.A.D. 135, 172 (EAB 2001) (explaining that unsubstantiated allegations of error are insufficient to warrant review). Furthermore, after making this broad claim, GSP immediately concedes to the contrary that “some combination of operational and technological measures (e.g., intake flow reductions and a modified CWWS screen arrangement) could be BTA for entrainment.” Pet at 5 n.14 (emphases added). Moreover, section 316(b) of the CWA requires that a facility's cooling water intake structure reflect the best technology available for minimizing adverse environmental impacts. As the Region explained in

the Response to Comments, “minimize” in this context means “to reduce to the smallest amount, extent, or degree reasonably possible.” *See, e.g.*, RTC at III-65 (quoting 40 CFR § 125.92(r)). Neither the statute nor the 2014 Final Rule provide that adverse environmental impacts should only be reduced to the smallest amount, extent, or degree reasonably possible through the use of a single technology or measure. In fact, the Final Rule recognizes that “some combination of technologies” may indeed constitute the BTA for entrainment at a facility. 79 Fed. Reg. at 48,303; *see also* 40 CFR § 125.94(c)(6) (authorizing the use of a combination of technologies, management practices, and operational measures to satisfy the impingement mortality standard).

Second, in claiming that there is no basis in the record for both the wedgewire screen and Unit 2 outage provisions, GSP simply ignores the record, including EPA’s explanation for including the outage provision. This is insufficient to obtain review. 40 CFR § 124.19(a)(4)(ii). As noted earlier, the Region evaluated the Unit 2 outage in direct response to a PSNH comment that rescheduled annual maintenance outages are the BTA. RTC at III-25 to -28, III-64 to -66. As a result, the Region closely considered the comment in light of the information in the record and explained that a rescheduled Unit 2 outage alone would not reduce entrainment to the same degree as wedgewire screens, but that, when combined with wedgewire screens, would reduce entrainment more than wedgewire screens alone. RTC at III-64 to -66. The Region further acknowledged that the effectiveness of the rescheduled outage may also be decreased either because the peak entrainment season may shift in a particular year or because scheduling it for this time period may not be practicable or approved by ISO-NE in a given year. *Id.*; AR-1886 at Part I.G.3 (conditioning the scheduling of the Unit 2 outage during this time period “[t]o the extent practicable, and subject to approval by [ISO-NE]”). The Region also considered PSNH’s cost estimate for rescheduling the outage (although the Region questioned its derivation and

accuracy). RTC at III-66. Based on this information, the Region determined that the additional entrainment reduction from a Unit 2 rescheduled outage was not enough to warrant making the outage a BTA requirement, but that the Region should include it as a best management practice, where practicable and approved by ISO-NE, because it provided some additional reduction, because Unit 2 must undergo an annual maintenance outage anyway, and because PSNH had determined it was feasible. *Id.*; RTC at III-113 to -116. Thus, even though Unit 2 generally does not operate very much in May and early June, the permit would allow it to do so if required by ISO-NE or if the outage were otherwise impracticable, while still providing for significant entrainment reductions by the wedgewire screens in such an event. Again, GSP does not grapple with EPA’s explanation in any way, which “leaves [the Board] with a record that supports the Region’s approach.” *In re Westborough*, 10 E.A.D. 297, 311-12 (EAB 2002); *see also* 40 CFR § 124.19(a)(4)(ii).

3. The Region reasonably concluded that GSP’s proposal regarding potential flow limits was contrary to EPA regulations, and the Petition does not explain how the Region’s response is “clearly erroneous.”

GSP also asserts that the Permit provisions at issue “ignore GSP’s proposal to include reduced operations in May-June¹ to address entrainment.” Pet. at 21 (citing AR-1678 at 3); *see also id.* at 3, 4-5, 23. To be clear, there is no indication in AR-1678 or elsewhere in the record that GSP ever made a specific proposal regarding permit limits to ensure “reduced operations in May-June” (or any other time) “to address entrainment.” Even now, in the Petition, GSP does not unveil a specific proposal, but essentially concedes that what it is truly seeking is more time to develop one. *See* Pet. at 2 (faulting the Region for not allowing GSP “the opportunity under the Permit to analyze and incorporate other measures”) (emphasis added). As described in more detail below, the Region explained in the Response to Comments why GSP’s proposal was not

permissible under EPA regulations that require implementation of an entrainment technology, not just further study, and GSP has failed to confront that explanation. As a result, the claim should be dismissed. 40 CFR § 124.19(a)(4)(ii); *City of Taunton*, 17 E.A.D. at 180, 183.

Moreover, GSP is not without recourse. The Region explained that GSP could:

“contemporaneously develop[] new information on another compliance option and submit[] a permit modification request based thereon. For instance, GSP could choose to study how specific flow reduction strategies compare to the entrainment reductions achieved by wedgewire screens with a 3.0 mm slot size.” RTC at III-208. This highlights that, despite any general preference GSP expressed for flow reduction strategies after the comment period had closed, it never presented the Region with a specific proposal and still does not.¹⁰ Nor does GSP explain why the Region’s suggested approach is insufficient and clearly erroneous and why GSP must, under the circumstances and applicable legal standards of this case, have the option to implement nothing while developing a specific alternative proposal “under the Permit.” Moreover, the Region notes that, since the wedgewire screen provisions of the permit are stayed by dint of this appeal, GSP now has more time available to it to develop a specific proposal. In short, GSP does not demonstrate clear error by the Region and review on this issue should be denied. 40 CFR § 124.19(a)(4)(ii).

Notably, neither GSP nor PSNH ever suggested during any of the various comment periods that the Region should establish BTA based on restricting the operation of Merrimack Station. In fact, both opposed it. At the time of the 2011 Draft Permit, Merrimack Station operated as a baseload power plant. AR-618 at 132. Consistent with this fact, PSNH applied for a

¹⁰ GSP’s most recent descriptions further illustrate this lack of specificity. *See. e.g.*, Pet. at 5 (describing GSP’s alternative as permit provisions that would “allow the Permittee to analyze and utilize either (or both) CWWS and flow reductions (achieved through outage scheduling or some other mechanism)”).

NPDES permit that would allow for continued baseload operations, and the Region evaluated permit conditions on this basis. *Id.* at 132, 145, 156 n.51, 158; RTC at II-11. By the time of the 2017 Statement, however, the Region recognized that electrical generation at the Station had reduced substantially since 2011 and expressly invited public comment on the question of whether and how EPA should factor the Station’s reduced level of operations in recent years into § 316(b) permit conditions. AR-1534 at 34-36, 68-69. PSNH submitted a comment letter stating, among other things, that GSP had told PSNH, in response to the Region’s capacity utilization questions in the 2017 Statement, that GSP was “not willing to have, or desirous of having, Merrimack Station’s operations restricted, including based on capacity utilization.” AR-1548 at 6-7. Thus, the issue of flow limits as a means of satisfying § 316(b) requirements in lieu of wedgewire screens was never raised by PSNH or GSP during any comment period.¹¹

Only after the comment period had closed did GSP first indicate to EPA that it might be willing to consider permit limits that would prevent the Facility from returning to baseload operations. RTC at I-9; *see also* AR-1802 at 3. After GSP acquired Merrimack Station, GSP and the Region met several times to discuss ideas and options for developing a protective permit that would satisfy § 316(b), among other requirements, while also being compatible with the Facility’s operation as a “peaking plant.” AR-1754 at 1-2; *see also* RTC at III-207. GSP initially

¹¹ GSP states it could not submit comments during the comment period on the 2017 Statement, because it acquired the Station roughly three weeks after the comment period closed. Pet. at 6. First, this claim is belied by the fact that GSP actually did comment on the 2017 Statement via PSNH. *See, e.g.*, AR-1548 at 6-7 (citing AR-1534 at 35, 68). Second, GSP entered into a purchase and sale agreement (“PSA”) for the Station more than two months before the comment period closed, Pet. at 15, which agreement expressly notes the then-open comment period for the 2017 Statement, AR-1631 at Schedule 3.11(b). Thus, GSP was fully aware of the open comment period. Third, GSP cites no regulatory bar on prospective permit transferees submitting comments. Indeed, NPDES regulations allow “any interested person” to submit comments. 40 CFR § 124.11 (emphasis added). Moreover, GSP’s interest in acquiring the facility developed well before it executed the PSA. *See* AR-1390 (specifying timeline for submitting bids to acquire PSNH’s generating assets). In any event, the Region addressed GSP’s actual proposal, and GSP has not confronted the Region’s response. *See* 40 CFR § 124.19(a)(4)(ii).

expressed opposition to installing wedgewire screens, AR-1754 at 7, but as the meetings continued, the Region indicated that it was still carefully considering the technology, *see* AR-1753 at 5, and likely to determine that it was the BTA for Merrimack Station, *see* AR-1678 at 3; AR-1676 at 2. The parties also began to discuss the potential for flow limits to achieve reductions in entrainment comparable to those observed in PSNH's pilot study of wedgewire screens at Merrimack Station. AR-1753 at 5. Each time the topic was raised, however, it was discussed generically, in a way that indicated it was hypothetically possible, but no specific proposal or permit language was developed. *See, e.g., id.*; AR-1676 at 2; AR-1752 at 3; *see also Encogen*, 8 E.A.D. at 251 n.12. The Region invited GSP to submit for its review any potential permit language GSP wanted to provide, AR-1678 at 3, but GSP never provided any specific proposal and the concept never developed beyond the theoretical.

GSP later indicated that it was “likely amenable to a permit with [wedgewire screen] requirements but still wanted the opportunity to consider whether another compliance option might be preferable.” AR-1676. Again, GSP never developed a specific alternative compliance option. Rather, GSP suggested that it agreed that wedgewire screens are the BTA for Merrimack Station but that it was interested in a Permit that would contain an open-ended, “two-stage compliance schedule” to provide GSP with additional time, beyond that required to design and install wedgewire screens, to “study screen feasibility and effectiveness” and more time to develop and implement a specific compliance option to achieve similar effectiveness. AR-1684; AR-1871 at 3. Notably, GSP never presented any specific criticisms of PSNH's 2017 pilot study, which had already concluded that “wedgewire screens are technologically feasible at Merrimack Station” and would significantly reduce entrainment. RTC at III-63, III-69, III-70 to -75. Nor does GSP in the Petition identify any inadequacy of the 2017 pilot study. Although the Region

initially indicated to GSP in the brainstorming meetings that the compliance schedule approach GSP had outlined might be acceptable, the Region eventually concluded, as explained in the Response to Comments, that including it in the Final Permit would be contrary to EPA regulations at 40 CFR §§ 125.94(b)(2) and 125.98(b)(2). *See* RTC at III-207, III-210.

More specifically, the Region explained that it had enough information in the record (including the results of the successful pilot study) to make an entrainment BTA determination for Merrimack Station. RTC at III-19 to -20, III-79 to -80, III-153, III-207. The Region further explained that GSP's "two-stage compliance schedule" requesting additional time would therefore not be appropriate, because 40 CFR §§ 125.94(d) and 125.94(b)(2) require the permitting authority to establish requirements for entrainment and the permittee to comply with the entrainment standard "as soon as practicable" once entrainment requirements have been determined and established in a Final Permit. RTC at III-106, III-207, III-210, III-226. Here, the Region determined wedgewire screens are the BTA for entrainment at Merrimack Station and had proposed a schedule in the 2017 Statement for installing and operating them that would achieve the necessary compliance with the BTA determination "as soon as practicable." RTC at III-31, III-208; AR-1534 at 29. The Region also explained, in agreeing with a comment that a permit may not defer conditions reflecting EPA's entrainment BTA determination where it has enough information to make a BTA determination, that the Final Permit must, pursuant to 40 CFR § 125.98(b)(2), "include conditions to implement and ensure compliance with the impingement mortality standard at §125.94(c) and the entrainment standard at §125.94(d)" and "conditions, management practices and operational measures necessary to ensure proper operation of any technology used to comply with' the impingement and entrainment standards." RTC at III-210 to -211 (quoting 40 CFR § 125.98(b)(2)). The Region further explained that GSP

could still choose to pursue the option of developing specific proposed flow limits during the period provided in the Final Permit for wedgewire screen design and installation. RTC at III-208 (noting that GSP “could choose to study how specific flow reduction strategies compare to the entrainment reductions achieved by wedgewire screens with a 3.0 mm slot size”). In addition, the Region observed that such an approach had the further benefit of complying with appropriate public participation requirements, should GSP develop specific flow limits for EPA’s consideration as a permit modification. RTC at III-208, III-226.

Thus, the Region explained in the Response to Comments that it had enough information to make a BTA entrainment determination without additional study, and had done so, and that the regulations require the Region to include conditions in the Final Permit to implement, and ensure compliance with, the entrainment standard. The Region determined that providing additional time to “study screen feasibility and effectiveness” and develop flow limits or another unspecified compliance option that would ensure comparable entrainment reduction effectiveness as wedgewire screens would conflict with the “as soon as practicable” requirement in EPA regulations. The Region also explained that any specific flow limits or other options to achieve a comparable entrainment reduction and implement the BTA determination must be in the permit and that, since none had as of yet been developed, they would have to be added via a permit modification subject to public comment. In short, the Region explained its decision regarding GSP’s “alternative use of operational measures (e.g., flow reductions) in lieu of the [wedgewire screens],” Pet. at 3, 4-5, 23, and GSP has not explained why the Region’s response or rationale for the BTA determination is clearly erroneous. Its challenge of the Permit on this issue should therefore be denied. *See* 40 CFR § 124.19(a)(4)(ii); *see also City of Lowell*, slip op. at 24.

4. GSP’s claim elevates form over substance.

GSP, in asserting that EPA “should have permitted the consideration of flow reductions as part of the Permit’s § 316(b) compliance provisions,” Pet. at 5; *see also id.* at 21, is essentially elevating form above substance inasmuch as the Region explicitly recognized that GSP may consider flow reductions (or other options) to achieve compliance with § 316(b), *see* RTC at III-208, III-226. GSP has not explained how its preferred form would differ substantively from what the Region explicitly recognized as an option available to GSP.¹² Indeed, GSP acknowledges that the Region recognized GSP was free to develop an alternative compliance option. Pet. at 4. Moreover, GSP could be developing such an option even now, and, because of its appeal of the wedgewire screen provisions of the Final Permit, GSP has effectively extended the schedule in the Final Permit to provide it with even more time to develop a specific flow limit proposal. GSP fails to explain why the Region’s suggested approach, which would allow GSP to analyze and develop a specific proposal, while still adhering to EPA regulations for public participation and compliance schedules at 40 CFR §§ 122.62, 125.94(b)(2), 125.98(b)(2), and 125.98(c), is insufficient and clearly erroneous. As such, GSP has failed to carry its burden.

5. The Petition fails to substantiate the claim that flow limits without wedgewire screens could satisfy the BTA standard for impingement mortality.

Finally, to the extent GSP asserts that flow limits in lieu of wedgewire screens would satisfy CWA § 316(b), *see* Pet. at 23, GSP focusses exclusively on entrainment and entirely overlooks that the facility must also satisfy the BTA standard for impingement mortality. *See* 40 CFR § 125.94(a)(1), (c). In the Response to Comments, EPA observed more than once that

¹² To the extent GSP suggests that its preferred schedule differs in that it would provide more time, GSP has not explained how that would comply with the regulatory requirement to establish an entrainment requirement in the permit and implement the entrainment BTA “as soon as practicable.” *See supra*.

Merrimack Station does not have the technology in place to meet the BTA standard for impingement mortality (which the Petition does not dispute) even assuming it installs new fish returns. *See, e.g.*, RTC at III-31 to -36; *see also* 40 CFR § 125.94(c)(1)-(7). The Region further noted that wedgewire screens would not only minimize entrainment but would also satisfy the impingement BTA standard of 0.5 fps through-screen velocity for the period during which they operate. RTC at III-36; *see* 40 CFR § 125.94(c)(2). The Petition presents no evidence or explanation how “GSP’s proposal to include reduced operations in May-June” or any other time during the entrainment season would meet the impingement BTA standard without wedgewire screens, especially since impingement at Merrimack Station can occur during any month of the year, including outside of the entrainment season.¹³ RTC at III-181; *see also* AR-618 at 297. For this additional reason, GSP’s unsubstantiated claim that flow limits would “meet the § 316(b) standard, without the need for [wedgewire screen] equipment,” Pet. at 23, should be denied, *see City of Attleboro*, 14 E.A.D. at 422 (requiring a petitioner to “support its allegations with solid evidence,” including “references to studies, reports or other materials that provide relevant, detailed, and specific facts and data about permitting matters that were not adequately considered by a permit issuer”).

B. GSP has not demonstrated that the Region’s decision regarding the compliance schedule for installing new fish returns is “clearly erroneous.”

Next, GSP asserts that the compliance schedule in the Final Permit for installing the new fish returns for Units 1 and 2 (Part I.E.7.d) is too short and not supported by the record. Pet. at 23-25. GSP states that the schedule does not provide enough time for it to “design the sluices,

¹³ Note also that GSP has not contested the Region’s determination that GSP must comply with one of the seven impingement mortality compliance alternatives at § 125.94(c) and that the *de minimis* provision at § 125.94(c)(11) is not applicable to Merrimack Station. Moreover, new fish returns alone will not bring the Facility into compliance with any of the seven alternatives. *See* RTC at III-32 to 33.

procure the necessary materials, apply for and obtain required regulatory permits (e.g., CWA § 404 dredge and fill permit), and construct the sluices.” Pet. at 23. Notably, GSP does not say how much time would be enough. GSP also criticizes EPA’s reliance on sample schedules in the administrative record that GSP asserts “address only the construction phase (and do not account for delays as a result of weather conditions) and do not include any specific mention of fish sluice equipment in the ‘Design Engineering Phase’ of the draft schedule or account in any way for time to complete required regulatory permitting.” Pet. at 24. GSP further claims that the original March 1, 2021, deadline¹⁴ is unreasonable because frozen ground and icy river conditions “will complicate the design-phase of the installation, and they will likely prevent the construction phase of the project.” Pet. at 24-25.

GSP does not challenge the substantive requirement to install new fish returns, Pet. at 6, which is understandable because the current “fish returns” at Merrimack Station are wholly inadequate, as they were designed as debris sluices, not fish returns, and do not return impinged fish to the River. RTC at III-30; *id.* at III-45 (“The lack of a fish return trough means that *all* of the thousands of fish impinged annually at Merrimack Station’s CWISs are killed.”). Moreover, it has been clear since at least 2007 (and probably much longer) that the facility’s method for handling impinged fish results in virtually zero survival and that actual fish returns are necessary. *Id.*; AR-6 at 30 (acknowledging that the existing fish returns result in 100% mortality); AR-618 at 270, 291 (“Merrimack Station’s present fish returns are unacceptable.”); AR-1754 at 7; AR-1753 at 6; AR-1802 at 2 (noting that GSP is represented by the same counsel that represented PSNH in the NPDES permit proceedings prior to the sale of the Station). Furthermore, the 2014

¹⁴ Because GSP has petitioned the Board for review of Part I.E.7.d of the permit, the original deadline is stayed. *See* 40 CFR §§ 124.16(a)(1), 124.60(b)(1). As a result, the new deadline is unknown, but it is certain that GSP will now have significantly more time to install the new returns.

Final Rule at 40 CFR part 125 makes this even clearer and includes the obvious requirement that a “fish handling and return system” must actually “return the fish directly to the source water.” 40 CFR § 125.92(s). It’s not called a fish return for nothing. The capacity to transport impinged fish directly to the river “is one of the most basic features of [fish return] technology industry-wide,” RTC at III-45, and yet for decades Merrimack Station has operated without this fundamental technology. Consequently, GSP contests only the schedule for installing new fish returns. *See* Pet. at 23-25.

In the Response to Comments, the Region explained that schedules in NPDES Permits for complying with § 316(b) requirements “must provide for compliance with requirements for both entrainment and impingement mortality as soon as practicable.” RTC at III-31 (citing 40 CFR § 125.98(c)) (emphasis added); *see also* 40 CFR § 125.94(b)(1) (“After issuance of a final permit that establishes the entrainment requirements under §125.94(d), the owner or operator of an existing facility must comply with the impingement mortality standard in §125.94(c) as soon as practicable.”) (emphasis added). To develop a compliance schedule for the Final Permit that would provide for installation of fish returns as soon as practicable, the Region looked to schedules that had been developed for Merrimack Station by PSNH’s engineering consultant, Enercon (also used by GSP), in which Enercon estimated that construction of new fish returns would only take between two and six weeks. RTC at III-36 n.17 (citing AR-4 at 90); *see also* AR-4 at 87-91. The Region further observed that “Merrimack Station’s current NPDES Permit is long expired and the facility has essentially operated with 100% impingement mortality due to the lack of a fish return—a basic impingement mortality control technology.” RTC at III-36. Consequently, the Region determined that the Final Permit should set Merrimack Station on a path to comply with the impingement mortality standard at 40 CFR § 125.94(c) “as soon as

practicable by immediately requiring a new fish return.” *Id.* For these reasons, GSP would have been required to install fish returns within six months of the effective date of the permit. Final Permit at Part I.E.7.d. Because the permit was issued on May 22, 2020, and was to become effective on September 1, 2020, the permit therefore provided more than nine months for GSP to install the returns. *See* AR-1886 at 1 (indicating issuance date and effective date). Such a timeframe is consistent with the need for GSP to replace the startlingly flawed existing sluices as soon as practicable and avoid waiting any longer than necessary, including waiting until after designing an unrelated technology—namely, wedgewire screens. RTC at III-36. A nine-month period also comfortably houses Enercon’s allotment of as little as two weeks (and maximum of six weeks) for the construction of the fish returns. *See* AR-4 at 87-91.¹⁵ Furthermore, Petitioner’s claim that frozen ground and icy river conditions “will likely prevent” construction by March 1, 2021, Pet. at 24-25, is controverted by Enercon’s sample schedules that in some cases explicitly set construction of fish returns for December, January, and February. AR-4, att. B at 5-6, 7.¹⁶

Because the shortcomings of Merrimack Station’s returns have been well-known and undisputed throughout the permit proceeding, and because fish return technology is a basic impingement mortality control technology in use at other facilities for decades, RTC at III-36, III-45, GSP could and should have been preparing to replace them prior to permit issuance. Furthermore, GSP does not now challenge the substantive requirement to install new returns, *see* Pet. at 6, and should therefore be designing and preparing for their installation even now,

¹⁵ Furthermore, GSP has now engineered a much longer period to design and install the returns through its appeal of Part I.E.7.d and the resultant stay of this permit provision. *See* 40 CFR §§ 124.16(a)(1), 124.60(b)(1).

¹⁶ The claim is also essentially mooted by the appeal itself. Nor has GSP explained or in any way substantiated its claim that frozen ground and icy river conditions will somehow complicate even the design phase. *See* Pet. at 24-25.

including seeking any additional authorizations it may require. Mindful of this, GSP unconvincingly asserts in a footnote that fish returns are “linked” to wedgewire screens in some unspecified way such that GSP “could not have completed the design” of the returns upon issuance of the Final Permit and may not “take steps to install” them before its appeal of the permit is “fully resolved.” Pet. at 23 n.83. But GSP does not support this claim in any meaningful way. As the Region noted in the Response to Comments, there are cases in which it would be appropriate for a facility to design, construct, and implement its technologies for impingement mortality and entrainment together—for instance, where “the same technology address[es] both impacts,” RTC at III-34 (quoting 79 Fed. Reg. at 48,359)—but this is not one of those cases. Fish returns are a technology to reduce impingement mortality and, unlike wedgewire screens, will not address entrainment at Merrimack Station at all. RTC at III-32 (citing AR-6 at 95). Moreover, the fish returns will be in use when the wedgewire screens are not. RTC at III-33 to -34 Thus, the two technologies are not “linked” in the sense that they would need to be designed to operate at the same time or interact with one other. The two technologies are also not “linked” in the sense that they must be co-located. The fish returns would begin onshore in the screenhouse above the elevation of the river, whereas the wedgewire screens would be in the river and below the surface. AR-1352, att. 1 at 9-10, 12-13. Further, information in the record indicates that the termini of the fish returns would likewise not be near the wedgewire screen installations. *Compare* AR-1352 at att. 2 of att. 1 (“conceptual drawings” indicating that wedgewire screens would be located at the existing CWISs) *with* AR-6 at 66 (indicating that the sluices would return fish to the river a significant distance downstream from the CWIS). GSP never explains how the design and construction of the returns is dependent upon the presence or absence of wedgewire screens or why it cannot design and build the returns in

such a way that allows for, but does not require, later installation of wedgewire screens. Thus, GSP has not explained how the returns and the wedgewire screens are “linked” or how and why “[t]he configuration, scope, and overall design of the fish sluices will differ depending upon the installation and utilization” of wedgewire screens at the facility.¹⁷ Pet. at 23 n.83. As such, the claim is speculative and unsubstantiated and, therefore, should be rejected. *In re Prairie State Generating Co.*, 13 E.A.D. 1, 61 (EAB 2006); *In re Three Mountain Power, LLC*, 10 E.A.D. 39, 58 (EAB 2001); 40 CFR § 124.19(a)(4)(i) (requiring a petition to include factual support for a petitioner’s contentions for why the permit decision should be reviewed).

In sum, GSP has not demonstrated that the Region clearly erred in providing the compliance schedule in the Final Permit. The Region included a reasonable schedule based on information in the record and the need to install fish returns as soon as practicable at a facility that has essentially operated with 100% impingement mortality for decades owing to glaring deficiencies in a fundamental control technology. Because GSP does not dispute that new fish returns are necessary and has not substantiated its claim that they are somehow “linked” to wedgewire screens, it should be preparing for their installation now. Moreover, GSP has now availed itself of an even longer schedule, such that remand on this issue would be unnecessary even if the Board agreed with GSP that the schedule originally provided by the permit was not long enough.

¹⁷ Nor has GSP explained why it could not later adjust the configuration of the returns if unspecified “other screens” were eventually used at Merrimack Station and, for similarly unspecified reasons, required changes to the returns. Pet. at 23 n.83. Fish returns are not overly complicated pieces of equipment. *See, e.g.*, AR-6 at 64. While the troughs at Merrimack Station would have to be built at a much lesser slope, and consequently, longer than the one depicted in AR-6 at 64, the Region provides this citation to provide a sense of the relative straightforwardness of the technology – it is essentially a pipe, albeit one that must meet certain criteria for slope, smoothness, water level, etc. *See* Final Permit at Part I.E.3.a.

VI. CONCLUSION

The Board should deny review of the Permit.

STATEMENT OF COMPLIANCE WITH WORD LIMITATIONS

I hereby certify that the Region's Response to the Petition for Review in the matter of GSP Merrimack LLC, NPDES Appeal No. 20-06, contains less than 18,000 words in accordance with the Board's June 16, 2020, Order Granting Consent Motion for Extension of Time and Increase Word Limits and Notifying the Parties of Electronic Service. This Response contains 14,592 words, excluding the table of contents, table of authorities, table of attachments, statement of compliance with word limitations, and certificate of service.

Dated: September 25, 2020

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Response to the Petition for Review, in the matter of GSP Merrimack LLC, NPDES Appeal No. 20-06, was served on the following persons in the manner indicated:

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