

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

In re:)
)
Granite Shore Power Merrimack LLC) NPDES Appeal No. 20-05
)
NPDES Permit No. NH0001456)
)

**PERMITTEE GSP MERRIMACK LLC'S
RESPONSE TO PETITION FOR REVIEW**

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INTRODUCTION

GSP Merrimack LLC (“GSP” or “Permittee”),¹ the owner of Merrimack Station in Bow, New Hampshire, files this response to the petition for review filed by Sierra Club and Conservation Law Foundation (“CLF”) (collectively, “Petitioners”) of certain provisions of Clean Water Act (“CWA”) National Pollutant Discharge Elimination System (“NPDES”) Permit No. NH0001465 (the “Permit”). The Permit was issued by the U.S. Environmental Protection Agency, Region 1 (“EPA” or the “Region”) on May 22, 2020.²

The Petition should be denied in all respects because Petitioners have shown no clear error in EPA’s issuance of the Permit, either procedurally or substantively. Procedurally, Petitioners were afforded more than adequate opportunity to comment—and did comment—on all aspects of Merrimack Station’s renewed permit during the three formal comment periods held by EPA. Petitioners now feign surprise at the terms of the final Permit, but EPA’s rationale and basis for the final Permit were fully aired during those three comment periods. Petitioners, in fact, *opposed* a fourth comment period and threatened to sue EPA if it did not finalize the permit without any further public process, so Petitioners should not be heard to complain after EPA did what they asked.

Substantively, the Permit complies with all legal requirements and is fully supported by the record.³ From the outset, EPA was considering whether to include numeric in-stream temperature limitations in the Permit in order to protect the balanced, indigenous population (“BIP”) of fish in the Merrimack River as part of a §316(a) thermal variance. EPA developed an extensive record and

¹ Although the Permit identifies the Permittee as Granite Shore Power Merrimack LLC, the legal name of the Permittee is GSP Merrimack LLC.

² By Order dated June 16, 2020, the Board extended the deadline for EPA and GSP to file their responses to September 25, 2020.

³ The Merrimack Station Administrative Record is located at <https://www.epa.gov/npdes-permits/merrimack-station-administrative-record>. Documents cited are identified by their document number (*e.g.*, AR-#).

analysis to support such limitations and ultimately concluded that the numeric in-stream limitations—in lieu of general narrative standards from the prior permit—were appropriate and, in light of Merrimack Station’s significantly reduced operations, would meet the statutory standard under §316(a). There is no error in EPA’s determination, and, in fact, it was the only reasonable and defensible conclusion that EPA could have reached.

BACKGROUND AND PROCEDURAL HISTORY

I. Operation and Ownership of Merrimack Station

Merrimack Station is an electricity generating station located in Bow, New Hampshire, that includes two coal units with electrical output capability of approximately 438 megawatts (MW). As one of the last coal-fired electricity generating stations in the region, its continued operation is critical for fuel diversity, especially in times when delivery of natural gas is constrained.⁴ The Station discharges its cooling water to the Hooksett Pool of the Merrimack River.

GSP has owned Merrimack Station since January 10, 2018. Before that, Merrimack Station was owned by Public Service Company of New Hampshire (“PSNH”). On October 11, 2017, PSNH entered into an agreement for the sale of PSNH’s thermal generating plants, including Merrimack Station, as part of the New Hampshire Public Utilities Commission’s (“NHPUC”) mandated divestiture process.⁵ The transfer to GSP Merrimack LLC occurred on January 10, 2018, and the NPDES permit in effect at the time (the 1992 Permit) was transferred by EPA to GSP Merrimack LLC effective that day.

II. The Station’s Prior Permit

Merrimack Station’s prior NPDES permit was issued by EPA in 1992. That permit, “as well as prior permits [for the Station], were based on a [Clean Water Act] §316(a) variance.” AR-618 at 27.

⁴ AR-1885 at III-110 (citation omitted).

⁵ See N.H. Rev. Stat. Ann. §369-B:3a (2015).

Combustion residual leachate (“CRL”) was included as a permitted discharge from the facility as a low volume waste (“LVW”) under EPA’s 1982 national effluent limitation guidelines for the steam electric power generating point source category (“NELGs”). *See* AR-1885 at V-28. The 1992 Permit was administratively continued in 1997 based on PSNH’s timely renewal application. *Id.* at I-4. PSNH sought a permit to operate Merrimack Station as a baseload facility (which it was at the time) and requested a renewal of the §316(a) variance on that basis. Over the course of the 23 years that followed, EPA conducted an extensive administrative proceeding that included multiple opportunities for public comment and culminated in the issuance of the Permit at issue here to GSP on May 22, 2020.

III. The Region’s 2011 Draft Permit and Proposed In-Stream Temperature Limitations

The first public comment period on the new permit began in 2011. On September 29, 2011, the Region issued a draft permit (AR-609), a fact sheet (AR-608), and six supporting determination documents (AR-613-618). As relevant here, one of those determination documents (AR-618, designated at “Attachment D” to the fact sheet) contained the Region’s analysis of the Station’s thermal discharge and PSNH’s request for a thermal variance under §316(a). The Region scheduled a public hearing for November 3, 2011, and set a public comment deadline of November 30, 2011 (AR-1082), which the Region later extended to February 28, 2012. The Region sought comment on all of the draft permit materials, including on its determinations regarding the thermal discharge, and explained that “the determinations presented herein are subject to potential revision after EPA considers the comments and information submitted.” AR-618 at i.

In its determinations regarding the thermal discharge, the Region explained that “[d]ischarges of heat must satisfy both technology-based and water quality-based requirements *or* the requirements of a variance under CWA § 316(a)” and that “[t]he guiding principle of CWA § 316(a) is that thermal discharge limits may be based on a variance from the otherwise applicable technology-based *and*

water quality-based standards if the limits will nonetheless assure protection and propagation of the receiving water body’s [BIP] of shellfish, fish and wildlife[.]” *Id.* at iv-v (emphases added). PSNH, the Region explained, “requested such a variance”—*i.e.*, “from the otherwise applicable technology-based **and** water quality-based requirements.” *Id.* at xiii (emphasis added). Based on the available data at that time, the Region “determined that it must reject Merrimack Station’s request for a CWA § 316(a) thermal discharge variance,” and it instead “turned its attention to determining appropriate thermal discharge limits for the facility that will satisfy federal technology-based requirements and any more stringent requirements that may apply based on state [water quality standards].” *Id.* at ix.

As relevant here, the Region “determined thermal discharge limits necessary to satisfy the [New Hampshire Water Quality Standards].” *Id.* at x, 178. Specifically, the Region “determined temperatures that need to be maintained *in the river* to adequately protect aquatic life under the state [water quality standards].” *Id.* at xi (emphasis in original). To determine those in-stream limits, the Region “identified the species most sensitive to elevated temperatures” and “identified protective temperatures for each lifestage of selected species, and the time periods when these life stages are expected to be present in Hooksett Pool.” *Id.* at 178. Based on this analysis, the Region “prepared a table (Table 8.5) identifying specific temperatures not to be exceeded in the Hooksett Pool over the course of each year and the species (and life stage) that is driving that temperature.” *Id.* at xi. EPA’s Table 8.5 (*id.* at 209-15) is provided:

Table 8-5 Summary of applicable protective temperatures, and compliance schedule, location, and water depth for all resident and diadromous fish species throughout the calendar year

	Time Period	Relevant Species and Lifestage	Maximum Protective Temp. °C(°F)	Compliance Point/ Water Depth, Schedule
1	Jan.1–Apr. 20	Yellow Perch Adult – Reproduction	8.0 (46.4) ¹	S-4 / 3 ft Weekly Avg.
2	Apr.21–May 8	Yellow Perch Adult – Spawning	12.0 (53.6)	S-4 / 1 ft Weekly Avg.
3	May 9–May 27	Yellow Perch Egg	18.0 (64.4)	S-4 / 1 ft Weekly Avg.
4	May 28– June15	Yellow Perch Larva	21.3 (70.3) ²	S-4 / 1 ft Weekly Avg.
5	June 16– July 31	American Shad Larva	26.0 (78.8) ²	S-4 / 1 ft Weekly Avg.
6	May 1– June 15	Yellow Perch Larva (acute)	29.3 (84.7) ³	S-0 / 1 ft Hourly Max.
7	June 16–July 31	American Shad Larva (acute)	29.5 (85.1) ³	S-0 / 1 ft Hourly Max.
8	Aug. 1–Sept. 30	American Shad Juvenile (acute)	29.6 (85.3) ³	S-0 / 1 ft Hourly Max.
9	Aug. 1–Nov. 4	Yellow Perch Juvenile (acute)	30.9 (87.6) ³	S-0 / 1 ft Hourly Max.
10	June 16- Sept. 30	American Shad Juvenile	25.3 (77.5) ²	S-4 / 1 ft Weekly Avg.
11	June 16–Nov. 4	Yellow Perch Adult	25.1 (77.2) ¹	S-4 / 3 ft Weekly Avg.
12	Oct 1–Nov.4	Yellow Perch Juvenile	27.2 (81.0) ²	S-4 / 1 ft Weekly Avg.
13	Nov.5–Dec.31	Yellow Perch Adult – Reproduction	8.0 (46.4) ¹	S-4 / 3 ft Weekly Avg.

The Region requested public comment on whether it “properly applied New Hampshire’s water quality standards, including the biologically-driven standards in [Table 8.5].” *Id.* at 217. The Region further explained that it “believes that the discharge limits that it has determined [in Table 8.5] . . . may **also** satisfy the criteria of CWA § 316(a)”—*i.e.*, “assure the protection and propagation of a [BIP] of fish, shellfish, and wildlife in and on the receiving water.” *Id.* at 216 (emphasis added). “If so,” the Region explained, “EPA would be legally authorized to include the above-discussed water quality-based limits in the permit,” and “they would be limits that EPA independently determined would satisfy the variance criteria of CWA 316(a).” *Id.* at 216-17. The Region specifically raised “the issue of EPA independently determining thermal discharge limits under the CWA § 316(a) variance standard after rejecting the variance-based limits requested by the permit applicant.” *Id.* at 217.

The Region proposed to regulate CRL as it had in the 1992 Permit—as a LVW. *See, e.g.*, AR-1885 at V-28-29.

IV. Petitioners’ Comments on EPA’s Proposed 2011 Draft Permit, Including In-Stream Temperature Limitations and §316(a) Variance Decision

Petitioners participated in the November 3, 2011 public hearing. AR-1119 at 26:8–31:6 (CLF testimony), at 31:9–34:16 (Sierra Club testimony). Petitioners also submitted written comments in response to the 2011 notice. AR-851, AR-1061, AR-866. Neither raised any issues with EPA’s proposed regulation of CRL as a LVW under EPA’s 1982 NELGs; nor did they ask that the agency use “best professional judgment” authority to establish new or different effluent limitations for CRL.

Petitioner CLF addressed in detail the §316(a) variance request and Attachment D. AR-851. CLF “support[ed] EPA’s denial of PSNH’s request for a renewal of its CWA Section 316(a) variance.” *Id.* at 5. CLF also addressed the in-stream temperature limits included by EPA in Table 8.5 of Attachment D. *Id.* at 18-20. CLF stated that “[f]or the most part, EPA’s analysis and conclusions with respect to protective fish temperatures were reasonable and supportable.” *Id.* at 19. CLF took issue with certain of the specific temperature limits set by EPA, stating that “EPA’s analysis is too

limited to assure that its water quality-based temperature limits will assure the protection and propagation of the BIP in the Hooksett Pool” because EPA did not “adequately consider competitive interactions between species.” *Id.*

In support, CLF submitted a report by Dr. Peter Henderson, an “ecological and fisheries consultant” from Hampshire, England. AR-852. Dr. Henderson specifically addressed the in-stream temperature limitations developed by EPA in Tables 8-5, 9-2, and 9-3 of Attachment D. *Id.* at 10. He observed that EPA’s “sequence of 13 different maximum protective temperatures over the year (EPA Attachment D p 215, Table 9-3)” “are defined at two different locations (Stations S-0 and S-4), at different depths (1 and 3 feet below the surface) and are averaged over different time periods (hourly maximum or weekly average).” *Id.* He concluded: “**All of these variations in compliance point, water depth and monitoring schedules are based on sound science** relating to the ability of the fish to survive the thermal effluent.” *Id.* (emphasis added).

Dr. Henderson suggested revisions to EPA’s in-stream temperature limitations. *Id.* He commented that “for certain periods of the year the maximum mean protective temperatures given in Table 9-3 are higher than the maximum mean temperatures calculated for the present operation.” *Id.* He addressed the “maximum mean protective temperature” from “October 1st to November 4th” which was “defined using the requirements of yellow perch juveniles as 28.4°C (83.1°F) as a weekly mean at Station S-4[.]” *Id.* He took issue with “[t]he value of 28.4°C” because it was “not based on direct experimental or field observation, but on a calculation[.]” *Id.* He further observed that “[t]his calculated temperature of 28.4°C (83.1°F) is actually above the upper bound of the possible range of the physiological optimum temperature for yellow perch given by the EPA as 28°C (82.4°F) and well above the average physiological optimum temperature of 26.4°C (79.5°F).” *Id.*

CLF also commented on EPA’s proposed approach of “independently determin[ing] that the water quality-based limits satisfy the variance criteria of § 316(a)[.]” AR-851 at 21. CLF argued that

“EPA lacks authority to establish such a variance in these circumstances.” *Id.* CLF further commented that the “limits based solely on the applicable New Hampshire [water quality standards] would not be sufficient to assure the protection and propagation of the BIP.” *Id.* at 22. Citing to several of the specific temperature limits set out in Table 8.5, CLF took the position that “the water quality-based protective fish temperatures are not sufficiently protective” and “do not satisfy § 316(a).” *Id.* at 23. CLF’s position was clear: “[W]ater quality-based limits cannot serve as an alternative basis for granting a § 316(a) variance.” *Id.*⁶

V. EPA’s 2014 Proposed Revisions and Additional Public Comment

In 2014, EPA proposed revisions to the 2011 draft permit as to certain wastewater discharges, and it re-opened the public comment period on these issues. AR-1136. None of the proposed revisions related to the Station’s thermal discharge. EPA’s proposed regulation of CRL remained the same in the draft permit, as well. Petitioners submitted comments to the draft permit regarding the regulation of CRL based on their belief that flue gas desulfurization wastewater could be present in CRL discharges. *See* AR-1220 at 10-11.

VI. EPA’s 2017 Statement of Substantial New Questions and the Third Public Comment Period

Following the comment periods in 2011 and 2014, EPA issued a “Statement of Substantial New Questions for Public Comment,” pursuant to 40 C.F.R. §124.14(b) in 2017, seeking yet more public input. AR-1534. EPA’s notice explained that the regulatory landscape and facts associated with the renewal of the NPDES permit had changed substantially. EPA explained that it had “determined that various data, information and arguments submitted during prior comment periods, or that were submitted or became known to EPA after the comment periods, raise a number of substantial new questions concerning the [2011] Merrimack Station Draft Permit.” *Id.* at 3.

⁶ Petitioner Sierra Club “incorporate[d] by reference the detailed comments submitted by [CLF].” AR-866 at 1.

EPA noted that “a variety of significant new developments relevant to the Merrimack Station permit have unfolded since closure of the public comment periods for the 2011 Draft Permit[.]” *Id.* at 6. These included (*id.* at 4-5, 8, 44-45):

1. “[N]ew information concerning data reflecting Merrimack Station’s waste heat discharges and their effects on Merrimack River water temperatures[.]”
2. “[Q]uestions about whether any of this new information” including “thermal data” “should lead to changes either to EPA’s decision to deny PSNH’s request for renewal of its existing thermal discharge variance under CWA § 316(a), 33 U.S.C. § 1326(a), or EPA’s analysis of how to apply New Hampshire water quality standards to the regulation of Merrimack Station’s thermal discharges[.]”
3. “[Q]uestions about how, if at all, EPA should, when setting NPDES permit limits for Merrimack Station, take account of the substantial drop in the facility’s overall capacity utilization[.]” “Since issuance of the 2011 Draft Permit, the capacity utilization (i.e., the frequency or rate of electricity-generating operations) of Merrimack Station Units 1 and 2 . . . has substantially diminished.”
4. “[Q]uestions about how, if at all, EPA should, when setting NPDES permit limits for Merrimack Station, take account of the current state-administered auction process through which PSNH is expected to divest of its electrical generating assets, including Merrimack Station.”
5. The implications of the promulgation of EPA’s 2015 NELGs on the limitations for CRL.

In deciding which option under 40 C.F.R. §124.14(b) was appropriate—*i.e.*, issue a new draft permit or reopen the comment period for comment on these substantial new issues—EPA noted that PSNH “has requested on multiple occasions that EPA issue a revised draft permit and reopen the comment period for the permit.” *Id.* at 8. However, EPA noted that “in November 2016, the Sierra Club sued EPA alleging that the Agency has unreasonably delayed reissuance of the NPDES permits for both Merrimack Station and Schiller Station[.]” *Id.*⁷ In balancing these competing requests, EPA

⁷ Sierra Club had filed a petition for writ of mandamus with the U.S. Court of Appeals for the First Circuit seeking an order to compel EPA to issue a final permit for Merrimack Station. *See In re Sierra Club, Inc.*, No. 16-2415 (1st Cir.). The First Circuit denied the petition, explaining that, “[w]hile the delays in reissuing these NPDES permits continue to be concerning and extensive, the EPA has issued draft permits to both facilities *and is working on finalizing* these complex permits, while balancing

noted that it was “eager to issue new final permits for both facilities as soon as possible.” *Id.* at 9. Thus, in lieu of issuing a new draft permit, EPA reopened the public comment period on these issues to “provid[e] a fair, legally sound process for the development of the permit[], and to develop[] scientifically and legally sound permit conditions[.]” *Id.*

VII. Petitioners’ Comments on EPA’s 2017 Statement of Substantial New Questions

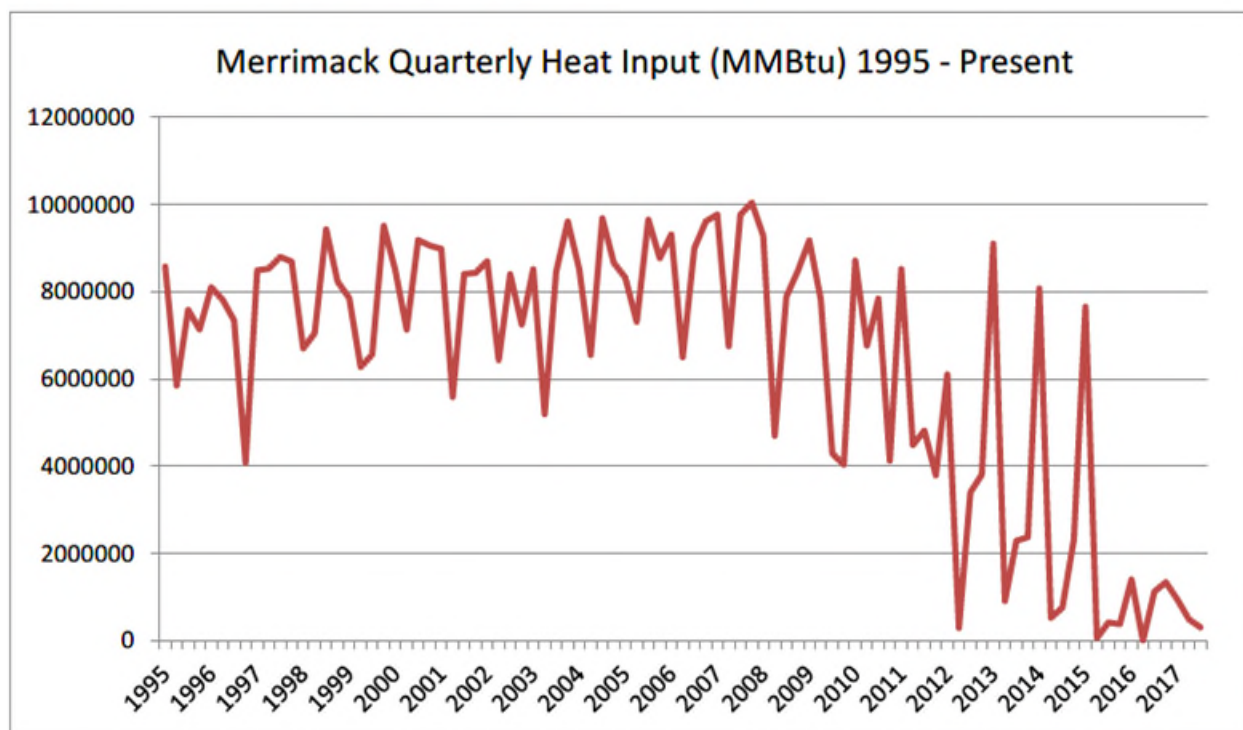
Petitioners submitted extensive comments in response to EPA’s 2017 notice. AR-1573. Petitioners did not contest EPA’s decision to reopen the public comment period without a new draft permit. To the contrary, they argued that EPA should not “further delay issuance of this NPDES permit[.] . . . This permit is already decades overdue, and additional delay only serves to extend and exacerbate the environmental harm that Merrimack causes.” *Id.* at 28 n.23. Petitioners also did not submit any comments regarding CRL or any comments addressing how CRL should be regulated in light of the 2015 NELGs.

Petitioners’ comments clearly stated their position on a §316(a) variance: “Nothing has changed since EPA first rejected [the applicant’s] request for a 316(a) variance in 2011, and thus there is no reason that EPA renew a 316(a) variance now.” *Id.* at 10. Petitioners commented that the new temperature data was “inconsequential” and “should not alter” EPA’s prior determinations. *Id.* at 7. And Petitioners were unequivocal in their position that neither the substantial drop in the facility’s overall capacity utilization nor the Station’s sale should change the NPDES limits in the renewed permit. *Id.* at 25, 27.

competing priorities with its limited resources.” Judgment, *In re Sierra Club, Inc.*, No. 16-2415 (1st Cir. Apr. 19, 2017) (emphasis added).

As to capacity factor, Petitioners included a graph of heat input data⁸ for Merrimack Station from EPA’s Air Markets Program Database:⁹

Figure 1: Merrimack Quarterly Heat Input, 1995-Present²¹



Based on these data, Petitioners recognized that “the facility currently operates at a relatively low capacity utilization[.]” *Id.* at 26. But they further explained that the only “way for EPA to take into consideration any ‘substantial drop’ in Merrimack’s operations would be to ensure that such reduced operations are written into the permit itself through operation restrictions.” *Id.* at 27. Based on what Petitioners described as “significant swings in operation, including quarterly heat inputs characteristic of operations when Merrimack operated more continuously,” they stated that “EPA should not give

⁸ Heat input is a measure of the amount and heat content of fuel burned in a fossil fueled-fired boiler and is generally expressed in increments of one million British Thermal Units or MMBtu.

⁹ AR-1573 at 26.

consideration to Merrimack’s current *overall capacity utilization* as it finalizes the plant’s long-overdue NPDES permit.” *Id.* (emphasis added).

As to the temperature limitations, Petitioners submitted a new technical report by Ken Hickey that addressed “the thermal plume in Hooksett Pool” and the request for a “316(a) thermal variance.” *Id.* at 5; AR-1575 (“Hickey Report”). The Hickey Report purported to re-examine the Station’s thermal plume and §316(a) variance request in light of EPA’s new public notice. AR-1575 at 2. The Hickey Report addressed whether “new data and information” should “lead to changes either to EPA’s decision to deny [the applicant’s] request for renewal of its existing thermal discharge variance under CWA §316(a), 33 U.S.C. §1326(a), or EPA’s analysis of how to apply New Hampshire water quality standards to the regulation of Merrimack Station’s thermal discharges.” *Id.* at 3. It concluded that the new information was “insufficient to support changes in previous EPA decisions.” *Id.*

The Hickey Report examined the “applicable fish temperature tolerance thresholds established by EPA for Hooksett Pool (US EPA, 2011, **Table 8-5**, p. 209)” and compared the in-stream temperature limits in EPA’s Table 8-5 to July and August water temperature measurements at Stations N10, S0, and S4 during five years—2002, 2005, 2007, 2010, and 2012. *Id.* at 13-14, Figures 4-13 (emphasis added). For example, Figure 13 in the Hickey Report compared Merrimack River in-stream temperatures in August 2012 to EPA’s proposed in-stream temperature permit limits from Table 8.5:

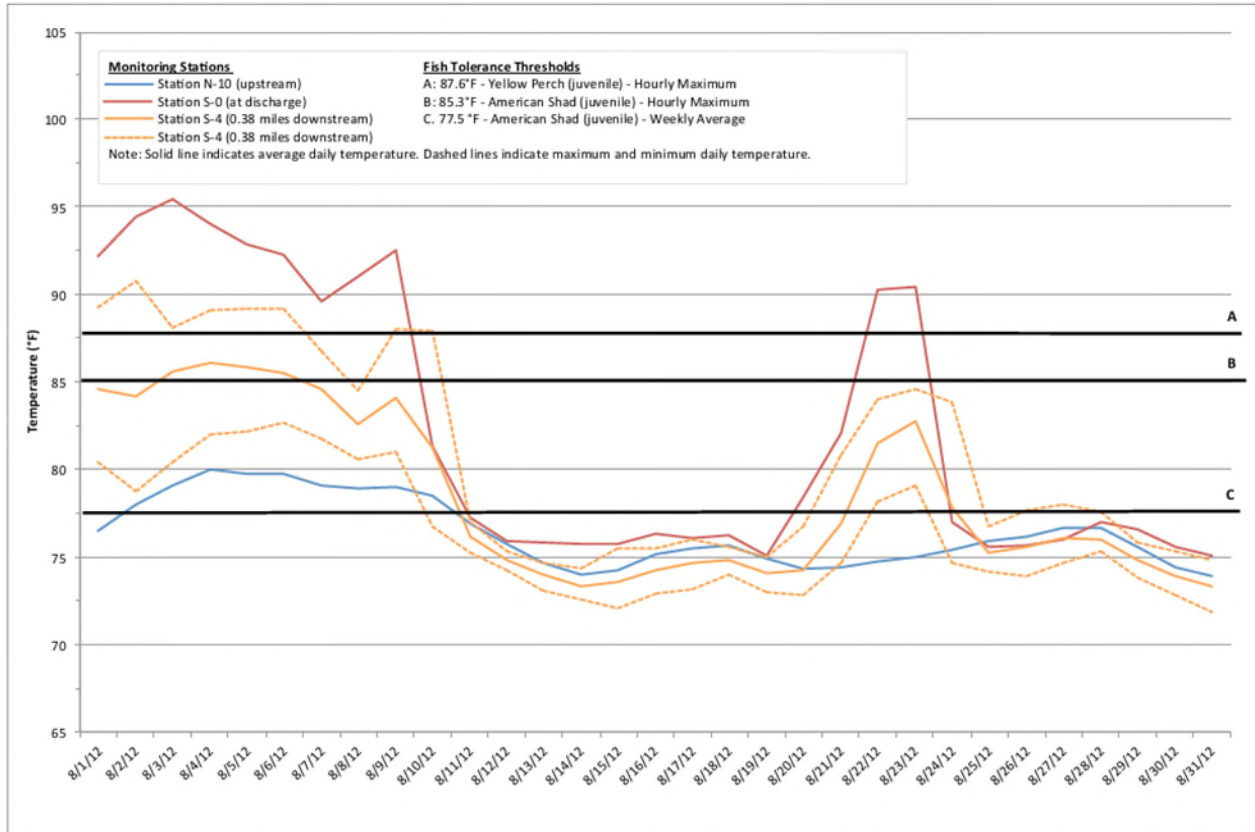


Figure 13. Daily Water Temperature Measurements at Three Monitoring Stations Compared to Selected Fish Tolerance Temperature Thresholds – August 2012

Based on its assessment of these data, the Hickey Report asserted that “a detailed thermal plume characterization under a variety of conditions, should be conducted prior to *approval of a water quality variance* or a NPDES permit renewal.” *Id.* at 14 (emphasis added).

VIII. Other Comments on EPA’s 2017 Statement of Substantial New Questions

The permit applicant, PSNH, also submitted comments on EPA’s 2017 Statement. Among other information, PSNH submitted the report of Dr. Lawrence W. Barnthouse with regard to the temperature limitations in Table 8.5. AR-1554. Dr. Barnthouse presented information showing that “the thermal tolerance limits EPA used to establish water-quality based thermal standards [in Table 8.5] were in many cases incorrect or inappropriately applied,” including the limits for the yellow perch. *Id.* at 2. As to EPA’s proposed acute (daily maximum) limits, Dr. Barnthouse explained that “the exposure durations in thermal mortality experiments are typically 4-7 days (EPRI 2011) and most likely

understate temperatures that could be tolerated for a period of only 24 hours.” *Id.* at 3. And he further explained that “[e]xcept in the case of eggs and larvae, fish can detect and avoid regions where temperatures are elevated to potentially harmful levels” and that the station’s thermal discharge “leave[s] ample habitat available for fish to escape regions with elevated temperatures. . . . [F]ish would simply avoid the affected water until the temperature declined to a more suitable level.” *Id.* at 4.

Dr. Barnthouse relied on his prior submission (AR-1300) that explained that “determining thermal preferences and optima for fish species, especially in the field, is a very inexact science, and [that] the wide ranges of reported critical temperatures reported for these species reflects the obvious fact that all of them are adapted for survival in environments with highly variable temperatures.” *Id.* at 19. He further pointed out that many of the temperatures proposed by EPA in Table 8.5 were lower than necessary, including the 12°C limit for spawning shad in the spring. *Id.* at 24-32; *see also id.* at 25-26 (“a thermal limit of 21°C appears to be much more supportable than the limit of 18°C proposed by EPA” for yellow perch egg development). He explained that the proposed acute limit for yellow perch is overly stringent because EPA proposed Station S0 as the compliance point, which ignores that the thermal plume would be diluted and drifting larvae would be exposed to a decreasing temperature profile as they transit between Stations S0 and S4. *Id.* at 27-28. Dr. Barnthouse also pointed out that “EPA’s analysis of acute mortality due to thermal plume exposure is also invalid, because it assumes that juvenile shad are acclimated to cool temperatures found upstream of the discharge (Station N-10), swim or drift downstream to Station S-0, and remain within the plume long enough to die. In reality, any juvenile shad approaching the plume would simply avoid the elevated temperatures.” *Id.* at 13.

IX. Sierra Club’s Threatened Lawsuit

After submitting its 2017 comments, Petitioner Sierra Club threatened to sue EPA “to compel issuance of [the NPDES] permit for the Merrimack Station[.]” AR-1619 at 1. Sierra Club complained

that “on August 4, 2017, for the third time since 2011, EPA decided to reopen comment rather than finalize a permit for Merrimack Station, and twice extended this latest comment period.” *Id.* at 1-2. And it stated that, “unless EPA states in writing that it will issue a *final permit* no later than September 1, 2018, Sierra Club will take legal action requesting mandamus relief to cure EPA’s failure to act.” *Id.* at 2 (emphasis added).

X. Petitioners’ 2020 Supplemental Comments on the Permit

In January 2020, Petitioners submitted supplemental comments to EPA regarding the permit’s thermal limits. AR-1688. In their comments, Petitioners made the same argument they now make in Sections VII.A.2 and VII.A.3 of their Petition—that EPA should not eliminate certain narrative “water quality-based” limitations from the new permit. *Id.* at 23-27. They argued that doing so would violate “anti-backsliding” requirements and be inconsistent with prior permits issued by the Region, as they do now in their Petition. *Id.*

Even though Petitioners’ supplemental comments were submitted after the close of the last formal comment period, EPA responded to them in detail in its Response to Comments issued with the Permit. *See* AR-1885 at II-296-301.

XI. EPA’s Final Permit and Response to Comments

EPA issued the final permit on May 22, 2020 (AR-1886), along with a 750-page Response to Comments (AR-1885). The final permit “set[s] thermal and operational limits based on a CWA § 316(a) variance (from technology-based and water quality-based requirements) that sets in-stream thermal limits for the Hooksett Pool that will assure the protection and propagation of the [BIP] of the shellfish, fish, and wildlife in the Merrimack River and that reflect Merrimack Station’s current mode of operation similar to a peaking facility.” AR-1885 at I-10. EPA found that the requirements for a §316(a) variance were met: “EPA’s analysis has concluded that thermal discharge limits reflecting [Merrimack Station’s current intermittent operations] will satisfy the conditions of CWA § 316(a).

Namely, limits based on CWA § 301, 33 U.S.C. § 1311, will be more stringent than needed to assure the protection and propagation of the BIP in Hooksett Pool, and the Final Permit's limits reflecting reduced operations and protective critical temperatures will assure the protection and propagation of the BIP." *Id.* at II-117. As EPA explained, "[t]he approach of setting instream water quality-based temperature limits was discussed in detail in the record for the 2011 Draft Permit, *see, e.g.*, AR-618 at 214-17, and the issue of the Facility's reduced operations was discussed in the 2017 Statement." *Id.* at I-10.

The Permit requires compliance with numeric in-stream temperature limitations, which EPA determined would assure the protection of the BIP and thus satisfy the §316(a) variance standard. The numeric in-stream limitations are contained in Part I.A.11 of the Permit, which is largely the same as Table 8.5 from EPA's 2011 Attachment D. Like Table 8.5, Part I.A.11 contains both weekly average and daily maximum temperature limitations that vary throughout the year based on the biological needs of the aquatic community.

Based on the public comments, EPA adjusted a few of the limitations in the Permit from the proposed Table 8.5. For example, in response to comments from Dr. Barnthouse, EPA adjusted the spring date for the transition from the 8°C weekly average to the 12°C weekly average from April 21 to April 1 "to better reflect updated ambient temperature data" and be "protective of yellow perch maturation." *Id.* at II-124. EPA also adjusted the weekly average limit to protect yellow perch larvae by using a weekly average limit of 22.7°C (instead of the proposed 21.3°C) and "adjust[ing] the compliance period to June 1 – June 21 to reflect EPA's review of the complete temperature data under current conditions, to align with the changes to the time periods for earlier life stages, and to be consistent with 2017 entrainment data submitted by [PSNH's consultant] indicating that yellow perch larvae are present in Hooksett Pool through the week beginning June 19." *Id.* at II-128. Overall, as modified, EPA concluded that the thermal limitations in the Permit utilize the "same critical

temperature approach identified in the 2011 Determinations Documentation with respect to possible water quality-based limits,” *id.* at II-15, and are “based on new data and the Facility’s much reduced operations since the 2011 Draft Permit[.]” *Id.* at I-9.

CRL is regulated in accordance with EPA’s 1982 NELGs, as EPA had proposed. The Region applied these guidelines because, in 2019, the U.S. Court of Appeals for the Fifth Circuit vacated the CRL effluent limitations promulgated by EPA in the 2015 NELGs. *See Sm. Elec. Power Co. v. EPA*, 920 F.3d 999 (5th Cir. 2019) (“*SWEPCo*”). The agency determined that, in the absence of the 2015 NELGs, effluent limitations in the final permit must be based on the 1982 NELGs, which specifically set effluent limitations for LVW (including CRL) that “occup[y] the field” and prohibit the use of best professional judgment to establish any different limitations. AR-1885 at V-30.

STANDARD OF REVIEW

A petition for review of an NPDES permit must demonstrate that EPA based the permit on a clearly erroneous finding of fact or conclusion of law. 40 C.F.R. §124.19(a)(4). “[I]t is not sufficient [for a petitioner] merely to repeat objections made during the comment period; rather, a petitioner must also demonstrate why the permit issuer’s response to those objections (*i.e.*, the permit issuer’s basis for its decision) is clearly erroneous.” *In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 509 (EAB 2006) (citing 40 C.F.R. §124.19(a)). And “when a petitioner seeks review of a permit based on issues that are fundamentally technical in nature, the Board assigns a particularly heavy burden to the petitioner.” *Id.* at 510.

ARGUMENT

I. EPA Fully Complied with Notice and Comment Requirements in Issuing the Final Permit

Petitioners argue that EPA failed to comply with notice and comment requirements in three respects. *See* Pet. at 38-43, 58-59, 65. They claim that they were denied the opportunity to comment

on: 1) the in-stream numeric temperature limitations in Part I.A.11 (*Id.* at 38-43); 2) the replacement of the 3-part narrative provision in Part I.A.1.g of the 1992 Permit with the numeric limitations in Part I.A.11 (*Id.* at 58-59); and 3) the application of Part I.A.12 of the Permit to only non-thermal water quality standards (*Id.* at 65). For multiple reasons, Petitioners' notice argument is without merit. All aspects of the final Permit, including these three aspects, were the logical outgrowth of the extensive public comment process conducted by EPA. A fourth public comment period would have served no purpose whatsoever—and was, in fact, opposed strenuously by Petitioners.

A. Petitioners Use the Wrong Legal Standard

The first problem with Petitioners' notice argument is that it uses the wrong legal standard. The standard is not whether the final permit is “a ‘logical outgrowth’ of the draft permit,” as Petitioners contend (*Id.* at 39), but rather whether the permit is a “‘logical outgrowth’ of the public comment process.” *In re City of Palmdale*, 15 E.A.D. 700, 714 (EAB 2012). Petitioners' standard ignores the agency's regulations, Board precedent, and case law from reviewing courts and, if accepted, would set an impossible standard for the agency to meet, resulting in an endless cycle of agency proposals and re-proposals.

The correct legal standard is whether, considering the administrative process *as a whole*, Petitioners had a reasonable opportunity to present their views, which they clearly did here. EPA “is not required to reopen a public comment period based on changes it makes to the permit, as long as the changes are the ‘logical outgrowth’ of the public comment process.” *Id.* (emphasis added) (citing cases). Thus, the proper frame of reference is not the draft permit in isolation, as Petitioners would have it, but rather the notice and comment process as a whole and whether that process gave petitioners a reasonable chance to present their views. *See also In re Old Dominion Elec. Coop.*, 3 E.A.D. 779, 797 (EAB 1992) (“The revised permit by all accounts is a *logical outgrowth of the notice and comment process*[.]” (emphasis added)); *S. Terminal Corp. v. EPA*, 504 F.2d 646, 658 (1st Cir. 1974) (holding that, despite

EPA’s “substantial” changes from the proposal, “interested persons were sufficiently alerted to likely alternatives to have known what was at stake” and thus reopening the comment period was not required).

Petitioners’ reliance on the Board’s decision in *D.C. Water & Sewer Authority* is misplaced. Pet. at 39. In that case, the only frame of reference by which to judge the adequacy of the notice was the prior draft permit, and the agency did not announce, until the final permit, that it was considering changing its approach. *In re D.C. Water & Sewer Auth.*, 13 E.A.D. 714, 756, 758 (EAB 2008). Thus, in that case, petitioners “could not have reasonably anticipated” the changes. *Id.* at 758. In the present case, in stark contrast, the draft permit was followed *with an additional (and third) public comment period* based on new information and a clear statement from the Region that it was considering permit changes based on that new information. AR-1534. Indeed, by seeking additional comment in 2017, the Region here did exactly what the agency was faulted for not doing in *D.C. Water & Sewer Authority*.¹⁰ 13 E.A.D. at 757-59 (citing 40 C.F.R. §124.14(b)). The entirety of the administrative process undertaken by EPA must be considered in deciding whether further comment was necessary, not simply the 2011 draft permit.

B. Petitioners Waived Their Challenge to EPA’s Decision Not to Issue a New Draft Permit or Re-open the Comment Period for a Fourth Time

The second problem with Petitioners’ notice argument is that they have waived it. In 2017, when EPA concluded that new information raised “substantial new questions” and that it was

¹⁰ The Board has not applied *D.C. Water & Sewer Authority* to stand for the proposition that the “logical outgrowth” analysis is limited to only the terms of the draft permit itself, as Petitioners suggest. *See, e.g., In re City of Palmdale*, 15 E.A.D. at 714 (“[*D.C. Water & Sewer Authority*] explain[ed] . . . that if th[e] changes [in the final permit] constitute a ‘logical outgrowth’ of the comments received then the law does not require the permitting authority to reopen the public comment period.” (emphasis added)); *In re Windfall Oil & Gas, Inc.*, 16 E.A.D. 769, 791-92 (EAB 2015) (same). Instead, the Board considers the full context of the permit proceeding as a whole to determine whether additional notice and comment is necessary. *In re Town of Concord Dep’t of Pub. Works*, 16 E.A.D. 514, 532 (EAB 2014) (citing factors).

considering changes to the permit, EPA decided pursuant to 40 C.F.R. §124.14(b) to “[r]eopen . . . the comment period” but *not* to “[p]repare a new draft permit[.]” AR-1534 at 3. In fact, EPA did so because “Sierra Club sued EPA alleging that the Agency has unreasonably delayed reissuance of the NPDES permit[] for [] Merrimack Station[.]” *Id.* at 8.

Petitioners did not object to EPA’s decision to proceed under §124.14(b)(3) to re-open public comment period instead of under §124.14(b)(1) to issue a revised draft permit. Indeed, Petitioners encouraged EPA to issue the final permit “as quickly as possible.” AR-1573 at 16. And they proceeded to directly address the substance of the issues raised by EPA in the notice. *Id.* at 25-28. Moreover, Petitioner Sierra Club threatened to sue EPA *again* “to compel issuance of [the NPDES] permit for the Merrimack Station” “unless EPA states in writing that it will issue a *final permit* no later than September 1, 2018.” AR-1619 at 1-2 (emphasis added). Sierra Club *complained* that EPA had opened the public comment period for even a third time. *Id.*

Thus, Petitioners’ argument that EPA was required to issue a new draft permit has been waived. As the Board has explained, “EPA regulations governing NPDES permits require a party to raise all ‘reasonably ascertainable issues and submit all reasonably available arguments’ as part of its public comments on a permit.” *In re Town of Concord*, 16 E.A.D. at 526 (quoting 40 C.F.R. §124.13). Here, EPA’s decision under §124.14(b) to seek comment on changes to the 2011 draft permit without issuance of another draft permit was “reasonabl[y] ascertainabl[e]” to Petitioners; indeed, EPA explained at length in the 2017 notice why it was proceeding in this manner. AR-1534 at 8-9. EPA made clear that it was considering changing the final permit’s limitations based on new information, including the Station’s reduced capacity factor. *Id.* at 5. Yet, Petitioners failed to raise the argument that any changes along these lines would necessitate a revised draft permit, and they pressed EPA to proceed to a final permit without any further process or delay, to the point of threatening suit. As a

result, Petitioners have waived their notice argument. *See* 40 C.F.R. §124.13; *see also In re Town of Concord*, 16 E.A.D. at 526-27 (finding waiver).¹¹

C. The Final Permit is the Logical Outgrowth of the Notice and Comment Process

Even if they had preserved the issue, Petitioners' notice argument should be rejected. They argue that interested parties could not have anticipated that EPA might grant a §316(a) variance from technology-based and water quality-based standards based on the in-stream numeric temperature limits in Part I.A.11 of the Permit (Pet. at 39-43) or that the agency would eliminate vague "water-quality-based" "narrative effluent limitations" as unnecessary in light of the specific numeric limits (*id.* at 58-60, 65). Petitioners are wrong. The Permit—including the §316(a) variance and the use of in-stream numeric limitations in Part I.A.11 instead of "narrative" limitations—is the logical outgrowth of the public comment process, and Petitioners were provided ample opportunity to comment and present their views on these issues *and did so*.

Petitioners have known for years that EPA was considering whether to grant a §316(a) variance "from the otherwise applicable technology-based **and** water quality-based requirements[.]" AR-618 at xiii (emphasis added). That was what the prior permittee requested in its 1997 permit application and what was on the table for all parties to comment on. And there was no mystery that EPA was deciding whether to grant a variance—the agency specifically stated in 2017 that it was "reassessing PSNH's request for a . . . variance" and, to aid it in this analysis, sought public comment on how: (1) its §316(a) analysis should change in light of thermal discharge data it previously misunderstood, and which altered EPA's determinations regarding longer-term thermal exposures;

¹¹ Even if the Board does not find waiver here, it should consider Petitioners' concession regarding the "significance of adding delay to the particular permit proceedings" in determining whether any further notice was appropriate. *In re City of Palmdale*, 15 E.A.D. at 715.

and (2) significantly reduced plant operations should be considered “if the new permit includes effluent limits reflecting this reduced operational profile.” AR-1534 at 39, 68-69.

At every turn, Petitioners opposed *any* §316(a) variance for the Station. AR-851 at 5; AR-852 at 16; AR-1573 at 8. They have had more than ample opportunity to present that view. Yet, in this appeal, Petitioners now claim that “the conditions in Part I.A.11 are . . . wholly new” and that “interested parties could not have reasonably anticipated Part I.A.11’s thermal discharge conditions.” Pet. at 39. That claim is belied by the record. The in-stream limits in Part I.A.11 were introduced in EPA’s 2011 proposal and included in Tables 8.5 and 9.2 of Attachment D. AR-618 at 209, 213. The Region explained at the time that it “believes that the discharge limits that it has determined [in Table 8.5] . . . satisfy the criteria of CWA § 316(a)—*i.e.*, “assure the protection and propagation of a [BIP] of fish, shellfish, and wildlife in and on the receiving water.” *Id.* at 216. “If so,” the Region explained, “EPA would be legally authorized to include the . . . limits in the permit,” and “they would be limits that EPA independently determined would satisfy the variance criteria of CWA 316(a).” *Id.* at 216-17. Petitioners opposed EPA’s alternative proposal of independently establishing effluent limitations that satisfy the variance criteria of §316(a). AR-851 at 21, 23 (arguing that the Table 8.5 “limits cannot serve as an alternative basis for granting a § 316(a) variance”). Thus, Petitioners’ argument (Pet. at 40) that EPA did not explain that it may use the in-stream limitations in Table 8.5 as part of a variance is clearly wrong. It was certainly not “unexpected[]” as Petitioners now claim. Pet. at 40. In fact, Petitioners *concede* that Part I.A.11 was derived from the Tables in the 2011 Attachment D and was subject to public comment—because they now challenge certain “changes” between the two. *Id.* at 47 nn.174, 176-77. EPA was explicit in 2011 that it may utilize these in-stream limitations in the final permit as part of a §316(a) variance.

Petitioners’ complaint that EPA characterized the final permit limits as a variance from New Hampshire water quality standards is equally unavailing and semantic. There is only *one* variance

standard—whether the permit limits “will assure the protection and propagation of a [BIP] of shellfish, fish, and wildlife in and on that body of water.” 33 U.S.C. §1326(a). In reality, then, there is only one issue to comment on—whether that statutory standard is met—and Petitioners commented on that issue extensively and made their position known. AR-851 at 5-6; AR-1573 at 10. Even if Petitioners were confused about this, they provide no specifics on how this label would have altered their positions or comments on this issue. In actual fact, nothing would have changed. Petitioners commented on the actual limitations in Table 8.5 and EPA’s conclusion that those limits would protect the BIP. And they have taken the consistent position throughout multiple comment periods that *no* thermal variance should be granted—from either technology-based limits or water quality-based limits. AR-851 at 21. Petitioners were thus afforded an opportunity to, and did, present their views on “the matter,” and thus the notice requirement was met. *Long Island Care at Home, Ltd. v. Coke*, 551 U.S. 158, 175 (2007).

Further, it was only logical and to-be-expected that, in using numeric in-stream temperature limits to grant a variance *from water quality standards*, EPA would not add a provision in direct conflict with this variance that requires compliance with those same water quality standards (Part I.A.12), nor would the agency incorporate what Petitioners describe as “water-quality-based” “narrative effluent limitations” that were relics of the prior permit.¹² Pet. at 58-61. The numeric in-stream temperature limits that would become Part I.A.11 were discussed extensively as a mechanism to address state water quality standards. *See, e.g.*, AR-618 at x-xi (explaining that the in-stream numeric temperature limits in Table 8.5 were developed “to adequately protect aquatic life under the state [water quality standards]”). Thus, it could not be unexpected that EPA, having decided to include in-stream numeric limits, would

¹² Petitioners characterize the narrative provisions in Part I.A.1.g of the 1992 permit as “water-quality-based,” Pet. at 60-61, but they do not point to any provision of New Hampshire’s water quality standards that includes these statements, which they say should have been included in the final Permit.

not include the narrative provisions that Petitioners claim address the same thing. Indeed, *the only logical outgrowth* of a finding that the in-stream numeric limits in Part I.A.11 will “assure the protection and propagation of a [BIP] of fish, shellfish, and wildlife in and on the receiving water”—as EPA said it was considering (*Id.* at 216)—is that EPA would *not* include a redundant and confusing narrative provision that says, for example, the “thermal plume [shall] . . . not change the [BIP] of organisms utilizing the receiving water[.]” Pet. at 25. It would be illogical, and clear error, for EPA to have done otherwise.¹³

The fact that EPA made limited changes to the in-stream numeric limits in Part I.A.11 further confirms that Part I.A.11 was the logical outgrowth of the comment process. Under the controlling precedent, the fact that a final permit varies from the proposed permit (the Petitioners’ primary complaint here) does not mean there was inadequate notice. To the contrary, the fact that the agency considered public comment and changed course is evidence of a robust notice-and-comment process. This includes adding or changing permit limits in response to comments and new information, as the Region did here. *See In re Town of Concord*, 16 E.A.D. at 532 (concluding that even though “[t]he Region developed a new permit condition in response to public comments,” it was not required to reopen the

¹³ Even if the Board were to conclude that EPA’s decision to continue to apply Part I.A.12 of the Permit to only non-thermal discharges and not include the narrative “water-quality-based” provisions was not the logical outgrowth of the public comment process, EPA’s decision not to reopen the comment period on that issue was harmless error. A “harmless error occurs ‘when a mistake of the administrative body is one that clearly had no bearing on the procedure used or the substance of the decision reached.’” *In re Windfall Oil & Gas*, 16 E.A.D. at 791 (quoting *Chem. Mfrs. Ass’n v. EPA*, 870 F.2d 177, 202 (5th Cir. 1989)). Here, Petitioners suffered no prejudice from the lack of a formal comment period on this particular issue because they presented the exact same arguments they now make in their Petition to the Region on January 7, 2020 (AR-1688 at 23-27), and EPA responded to those comments *in detail* in its Response to Comments (AR-1885 at II-296-301). Petitioners are thus in no different position than if EPA had formally reopened the public comment period on this issue. *In re Town of Concord*, 16 E.A.D. at 533 (finding no procedural error where the petitioner can “vigorously contest the new [permit provisions] before the Board, with its arguments serving a similar function as comments on the new information”).

public comment period); *see also In re City of Palmdale*, 15 E.A.D. at 714 (“Permitting regulations specifically contemplate that a permitting authority may expand and revise its analysis in response to public comment and that new information may be added to the record as appropriate in support of the permitting authority’s responses to comments.”). As the U.S. Court of Appeals for the First Circuit has explained: “Even substantial changes in the original [proposal] may be made so long as they are ‘in character with the original scheme’ and ‘a logical outgrowth’ of the notice and comment already given.” *BASF Wyandotte Corp. v. Costle*, 598 F.2d 637, 642 (1st Cir. 1979) (citing *S. Terminal Corp.*, 504 F.2d at 658-59). This includes decisions by the agency to take an approach to a matter that is *the opposite* of the approach that was proposed. *Long Island Care at Home*, 551 U.S. at 174-76 (holding that Department of Labor was not required to republish proposal where final rule exempted certain workers but proposal included them).

Petitioners, in fact, commented extensively on the numeric temperature limits and compliance points in Part I.A.11, including aspects of it that changed between the 2011 notice and the final permit. *See* AR-851 at 22-23; AR-852 at 7-11. They commented on EPA’s proposed “sequence of 13 different maximum protective temperatures over the year (EPA Attachment D p 215, Table 9-3)” and stated that “[a]ll of these variations in compliance point, water depth and monitoring schedules are based on sound science relating to the ability of the fish to survive the thermal effluent.” AR-852 at 10 (emphasis added). They criticized certain of the proposed temperature limitations as too high and “above the upper bound of the possible range of the physiological optimum temperature[.]” *Id.* at 10; *see also* AR-851 at 22-23 (“the water quality-based protective fish temperatures are not sufficiently protective”). They commented on the location of the compliance point for the limitations—advocating for Station S0 as the compliance point, as they do now. AR-852 at 8. And they commented on the approach from the 2017 notice of using capacity utilization in “setting NPDES permit limits for Merrimack Station[.]” AR-1534 at 5. They even submitted data on the Station’s capacity utilization

to support their comments. AR-1573 at 25-26. Tellingly, however, Petitioners *did not* take the position that EPA must issue a revised draft permit if it chose to consider the facility's capacity factor in setting the final Permit limits.

Other commenters addressed these issues too. Dr. Barnhouse commented that many of the temperatures proposed by EPA in Table 8.5 were lower than necessary, AR-1300 at 25-26, 29, and also that S4, rather than S0, was a more appropriate monitoring location for the acute limitations due to the rapid dissipation of the temperature from S0 and S4. *Id.* at 27-28. The changes in Part I.A.11 were thus "directly responsive to the public comments received" and did not require an additional public comment period. *In re City of Palmdale*, 15 E.A.D. at 717.

Petitioners' argument boils down to a complaint that EPA issued a final permit that was not exactly like the 2011 proposed permit, which they supported. But Petitioners "have no right to insist that a [permit] remain frozen in its vestigial form." *See S. Terminal Corp.*, 504 F.2d at 659. The fact that the final permit may have changed in ways that are contrary to interests of the Petitioners does not require additional opportunity for public comment. *See In re City of Palmdale*, 15 E.A.D. at 719-20 (explaining that petitioner's "dissatisfaction with the specific [limits] included in the permit" is not a basis for remand for additional public comment); *see also BASF*, 598 F.2d at 644 ("[Petitioners] had a fair opportunity to present their views on how the industry ought to be [regulated]. Their real complaint is that EPA rejected those views."). What is important is that commenters were alerted that the agency was "*considering* the matter," not that they knew for certain the final outcome or choices to be made by the agency. *Long Island Care at Home*, 551 U.S. at 175 (italics in original). That was certainly the case here. Petitioners' notice argument should be rejected.

II. The Thermal Discharge Limitations in the Permit Are Fully Supported by the Record, and EPA Correctly Found They Will Assure Protection and Propagation of the BIP

Petitioners raise a handful of challenges to certain limited aspects of the in-stream temperature limits in Part I.A.11 of the Permit.¹⁴ None of these challenges has merit, and certainly none meets Petitioners' heavy burden to demonstrate clear error. Part I.A.11, as EPA correctly found, will assure the protection and propagation of the BIP of the Hooksett Pool and thus meets the requirements for a §316(a) variance.

A. Petitioners' Challenges to the Daily Maximum Limitations in Part I.A.11 Are Without Merit

Petitioners challenge three aspects of the daily maximum limitations in Part I.A.11. Pet. at 44-47. First, they argue that monitoring compliance of the daily maximum limits at in-stream monitoring station S4 “eliminates protection against acute mortality for fish and other organisms that drift past or enter the discharge canal[.]” *Id.* at 45. Second, they argue that “extending the compliance schedules from *hourly* maximums to *daily* maximums” contradicts “scientific evidence in the record . . . demonstrating that acute mortality from elevated temperatures can occur within 60 minutes and, in some cases, 10 minutes or less.” *Id.* at 47 (emphasis in original). Third, they argue that “eliminating the acute limits after July 31 contradicts the Region’s own determination in 2011” regarding juvenile American shad and yellow perch. *Id.* None of these arguments has merit, as EPA explained in the Response to Comments.

¹⁴ Petitioners do not appeal the bulk of Part I.A.11. For example, they do not argue that the actual numeric temperature limits included in Part I.A.11 (*i.e.*, the 31.3°C daily maximum limit for June 22-July 31) are not protective thresholds.

1. The Use of Station S4 for the Daily Maximum In-Stream Limits Is Fully Supported by the Record, and EPA Provided a Full Explanation in the Response to Comments

EPA explained in detail why it used station S4 as the compliance point for the daily maximum limits. AR-1885 at II-116-18. As EPA explained, S4 is located just 2,000 feet downstream from the thermal discharge outfall and using S4 allows for initial mixing to adequately reflect the thermal discharge. *Id.* at II-117-18. EPA further explained (as it had earlier in 2011) that a mixing zone in the generic sense can be used in developing limitations under a §316(a) variance, separate and apart from any formal mixing zone under state regulations. *Id.*; *see also* AR-618 at 23 (“It should be mentioned here that ‘mixing zones’ in the generic sense *can* be used ‘as a mechanism for dealing with thermal discharges pursuant to section 316(a) of the Act.’”) (emphasis in original). Station S4 was used in the thermal provisions of the prior permit and also for the weekly average limitations in the 2011 draft permit (which Petitioners did not and do not contest). AR-1885 at II-118.

Petitioners do not argue that EPA does not have the legal authority to utilize a mixing zone concept as part of a §316(a) variance in order to obtain a representative in-stream reading (which, as EPA points out, the prior Merrimack Station permit also did, *id.* at II-118).¹⁵ Instead, they argue that doing so “eliminates protection against acute mortality for fish and other organisms that drift past or enter the discharge canal[.]” Pet. at 45. But they offer no evidence to support this claim, and they ignore the record evidence, and EPA’s extensive explanation, demonstrating that their speculation about acute mortality is wrong.

At the outset, the record is clear, and Petitioners do not dispute, that there have been no documented fish kills in the Hooksett Pool. AR-618 at 349; *see also* AR-112 at 10. And the record demonstrates that *no* acute limitations are needed “because conditions that could cause such fish kills

¹⁵ Petitioners also do not challenge the use of Station S4 to monitor compliance with the *weekly average* limitations.

are not present in the vicinity of the Merrimack Station discharge.” AR-1885 at II-134. For these reasons alone, Petitioners have failed to show that the use of S4 as a representative location for the limitations in Part I.A.11 is clearly erroneous.

In any event, EPA’s choice was reasonable and well-supported. EPA explained that, in setting the location at S4, it analyzed the travel time of drifting organisms (fish larvae) from S0 to S4, the avoidance behaviors of juvenile and adult fish, the substantial temperature decrease between S0 and S4, and the fact that the daily maximum values in Part I.A.11 included a 2°C buffer from actual lethality values. *Id.* at II-51, II-118, II-129-30. As EPA explained, in setting S4 as the compliance point, it “consider[ed] that mobile organisms can avoid the plume and that, with appropriate discharge limits, the exposure time of drifting organisms will tend to be less than the duration that would result in mortality.” *Id.* at II-118; *see also* AR-1554 at 4 (“[F]ish can detect and avoid regions where temperatures are elevated to potentially harmful levels” and the station’s thermal discharge “leave[s] ample habitat available for fish to escape regions with elevated temperatures.”).

EPA went so far as to address the issue of drifting organisms *with respect to each species of concern* in the Hooksett Pool in relation to the continued use of S4 as the compliance point. AR-1885 at II-51 (“A drifting larval **alewife** would only be exposed to potentially acutely lethal temperatures for a portion of the time it takes to travel from Station S0 to S4, and, given the overall decrease in temperature, such exposure would likely be for a sufficiently short duration and distance not to result in mortality.”); *id.* at II-130 (explaining that “a 2°C buffer” was added to the limit for drifting **American shad** larvae); *id.* at II-129 (“EPA agrees that there is a well-documented decrease in temperature between Station S0 . . . and S4 . . . [and] [a]fter carefully considering the intention of the acute limit for the protection of drifting larvae, EPA concluded that moving the compliance point for the acute limit from Station S0 to S4 is reasonable to account for mixing of the plume during the

relatively short exposure period while continuing to provide protection for **yellow perch** larvae.”); *id.* at II-58-60 (analysis of S4 for **white sucker**).

Petitioners ignore EPA’s explanation for the use of S4 as the compliance point for the daily maximum limit, and thus their argument should be rejected on that basis alone. *See* 40 C.F.R. §124.19(a)(4)(ii). In any case, they offer no record evidence of their own to contradict EPA’s explanation and thus fail to carry their heavy burden to show that EPA’s choice was clearly erroneous.

2. The Permit Does Not “Extend” a Compliance Schedule

Petitioners contend that Part I.A.11 “extend[s] the compliance schedules from *hourly* maximums to *daily* maximums” for the acute temperature limitations contrary to what they say is “abundant scientific evidence in the record.” Pet. at 47 (emphasis in original). This argument should be rejected for several reasons.

First, Petitioners mischaracterize the “daily maximum” limitations in Part I.A.11, as well as the “hourly maximum” limitations that were proposed in Tables 8.5 and 9.2.¹⁶ The final Permit does not “extend” the final acute limitations from the acute limitations that were proposed in 2011. Both are calculated over 60 minutes—*i.e.*, as an hourly average. The Permit clearly states: “The daily maximum temperature at Station S4 shall be calculated as an hourly average beginning at 12:00 AM and ending at 11:59 PM daily. The Permittee shall report the highest hourly average as the daily maximum temperature.” Permit at 19 n.4. Tables 8.5 and 9.2, which contained the in-stream limitations proposed in 2011, similarly stated that the “[m]aximum acute temperatures are based on the maximum hourly temperature . . . during the time period specified.” AR-618 at 210 n.3; *id.* at 214 n.3. Thus, contrary to Petitioners’ argument, *both* use an hourly average for the acute limitations. In fact, the final

¹⁶ Plaintiffs’ argument that the Permit “extend[s]” the averaging periods for the limits as compared to the proposed Table 8.5 only further illustrates that they were on notice of these proposed in-stream limits and provided ample opportunity to comment on them (and did). *See* Pet. at 47.

Part I.A.11 *shortens*, not extends, the time period over which the acute limitations is measured (what Petitioners call the “compliance period”). The 2011 proposal looked at the “maximum hourly temperature” “during the time period specified”—which extended *over a period of weeks or months*. See *id.* at 209-10. In contrast, Part I.A.11 in the Permit shortens that time period to the hourly maximum *over a single day*—*i.e.*, “beginning at 12:00 AM and ending at 11:59 PM daily.” Permit at 19 n.4. Thus, the entire premise for Petitioners’ argument is wrong.

Second, Plaintiffs failed to contest the *longer* “compliance period” in Tables 8.5 and 9.2 in their comments on the 2011 proposal, and thus they may not properly challenge as too lenient Part I.A.11’s shorter and more stringent time period before the Board. See 40 C.F.R. §124.13. In fact, Petitioners previously commented that the “monitoring schedules [in Table 8.5] are based on sound science relating to the ability of the fish to survive the thermal effluent.” AR-852 at 10. Their new and contrary argument, presented for the first time in their Petition, should be rejected for this reason too.

Third, Petitioners grossly misrepresent what they call the “abundant scientific evidence in the record.” All of the “evidence” cited by Petitioners are from laboratory studies, see Pet. at 47 n.175, and in nearly all of them the exposure temperature in the laboratory study was significantly **higher** than the applicable in-stream limitations in Part I.A.11 of the Permit. See AR-618 at 88 (alewife larvae exposed to 94.1°F); *id.* at 92 (larval shad exposed to 91.9°F and a temperature rise of 18-20°F); *id.* at 93 (juvenile American shad exposed to 90°F); *id.* at 103 (yellow perch exposed to 92.7°F); *id.* at 104 (yellow perch larvae exposed to 92.7°F and 88.3°F); *id.* at 187 (same). Thus, if Plaintiffs’ so-called “abundant scientific evidence” proves anything, it proves that the temperature limitations in Part I.A.11 *are protective* of these life stages of aquatic life. It certainly does not prove that the in-stream limitations in Part I.A.11 are not protective of the BIP or that EPA was clearly erroneous in setting them.

Finally, Petitioners ignore EPA’s analysis of these laboratory studies and their proper translation to actual in-stream permit limits for the Station’s current intermittent operations. As EPA explained in its Response to Comments: “Laboratory studies of temperature tolerance acclimate fish at a constant temperature, but under natural conditions fish are exposed to a range of temperatures and acclimation temperatures increase as the river naturally warms during May and June.” AR-1885 at II-129. In setting the limits in Part I.A.11, EPA recognized that the acclimation temperatures in the laboratory studies were significantly lower than the actual river temperatures in the Merrimack River, meaning the fish in the river can withstand higher temperatures. *See, e.g., id.* at II-129-30. EPA thus concluded that, in the river, as compared to the laboratory studies, the “thermal tolerance” of the larvae “would also be higher.” *Id.* at II-130. Moreover, EPA set the actual permit limits with “a 2°C buffer from temperatures that have demonstrated to cause lethality[.]” *Id.* Petitioners fail to even engage with EPA’s analysis and its justification for the limitations in Part I.A.11, much less demonstrate that EPA’s decision was “clearly erroneous,” and have thus failed to meet their burden. *See* 40 C.F.R. §124.19(a)(4)(ii).

3. The Record Fully Supports EPA’s Decision to Apply Acute Limits for Juvenile Fish Only Through July 31

Petitioners also ignore EPA’s explanation as to why Part I.A.11 includes daily maximum limitations addressing acute mortality during the May 1-July 31 period but not after July 31. Their argument that EPA should have included acute limits after July 31 is based on outdated information from the 2011 draft permit (Pet. at 47 n.177) and ignores EPA’s Response to Comments, thus failing to meet the requirements of §124.19(a)(4)(ii).

In any case, the record fully supports application of the acute daily maximum temperatures during the May 1-July 31 period, but not after. The acute limitations that EPA proposed in 2011 for August 1-November 4 were developed to protect American shad and yellow perch juvenile fish. *See* AR-618 at 209, 213. But, as EPA explained in its Response to Comments, more recent data, from the

Station's reduced operations, and comments EPA received on the 2011 proposal, demonstrate that those juvenile fish are not exposed to acute temperatures in the river and would avoid them were they to occur. AR-1885 at II-134. EPA explained that "[t]he observed daily Station S4 temperatures representative of recent operations at the plant indicate that temperatures at this location and downstream will not cause mortality of juvenile fish." *Id.* EPA further explained that "juveniles are mobile and can avoid the thermal plume either by remaining in cooler areas of the Hooksett Pool for the relatively short periods when the plume is present or by staying at depth beneath the relatively shallow, surface-oriented plume." *Id.*; *see also id.* at II-54 ("EPA concludes that the thermal plume under current operations is unlikely to impact juvenile American shad because juveniles are likely to avoid the plume for the limited period when it is present downstream of the discharge[.]"). Petitioners do not even cite EPA's rationale for why daily maximum temperature limits are not needed after July 31, much less present any evidence to show that EPA's decision was clearly erroneous.

B. The Permit Does Not "Exempt" the Station from All Temperature Limits in the Summer Months

Petitioners next challenge what they mischaracterize as "[t]he Region's decision to exempt the Station from temperature limits during the warmest five months, May-September[.]" Pet. at 42. But Petitioners concede that the Permit's weekly-average in-stream limits in Part I.A.11 (including the "rise-in-temperature" limitation) apply from May-September (indeed, they apply year-round¹⁷). *Id.* at 48. In reality, then, Petitioners' challenge is limited to the provision in Part I.A.11 that provides for an alternative form of compliance from May 1-September 30 where the Station "maintain[s] a rolling 45-day average operating capacity factor no greater than 40 percent of the total rated capacity for both units[.]" Permit at Part I.A.11 n.6. Thus, there is no "exemption" as Petitioners claim but instead a

¹⁷ Petitioners do not challenge the numeric values that EPA included for the weekly average temperature limitations in Part I.A.11 or the 2°C "rise in temperature" provision. Permit at 19-20 n.8.

different measure of compliance that EPA determined is protective of the BIP. Petitioners disagree with EPA's determination that this capacity factor provision is protective of the BIP, saying it is "belied by the record" (Pet. at 52) and "allow[s] the Station's thermal discharges to elevate river temperatures above the instream temperature limits that EPA purportedly designed to protect fish," (*Id.* at 48), but they are wrong on both counts.

Importantly, Petitioners *do not* argue that EPA may not properly use "capacity factor" as a mechanism to assure protection of the BIP under a §316(a) variance. Nor could they. Petitioners themselves commented during the 2017 public comment period that EPA may include "capacity factor" limitations in the Permit if they are "written into the permit itself through operation restrictions." AR-1573 at 27. In their comments, Petitioners only expressed concern with the use of long-term averages of capacity factor—quarterly or annually. They commented that "Merrimack's current relatively low *annual* capacity factor is coupled with significant swings in operation, including *quarterly* [*i.e.*, 90-day] heat inputs characteristic of operations when Merrimack operated more continuously." *Id.* (emphasis added).

The capacity factor provision that EPA included in the Permit is directly responsive to the concerns that Petitioners expressed in their 2017 comments. EPA did not simply "take into consideration" the Station's capacity factor in granting a §316(a) variance; instead, "such reduced operations are written into the permit itself," as Petitioners requested. *Id.* Moreover, the Permit does not use a long-term average of the Station's capacity factor, such as annually or quarterly, which Petitioners feared could allow higher thermal output "characteristic of operations when Merrimack operated more continuously." *Id.* Instead, EPA chose a short-term rolling average and determined that a "45-day rolling average strikes a balance between limiting the number of days a facility can

operate in a row and requiring sufficient ‘downtime’ when the Facility is not operating to allow the river to recover to ambient temperatures.” AR-1885 at II-15 n.4.¹⁸

The Region’s determination that including this capacity factor provision as part of the §316(a) variance will assure the protection and propagation of the BIP is fully supported by the record, not “belied” by it, as Petitioners claim. Pet. at 52. As the Region explained: “From May through September, the intermittent and infrequent operation of Merrimack Station limits exposure of fish to temperatures that would result in chronic, sub-lethal impacts and ensures that the conditions in the Merrimack River are protective of the BIP.” AR-1885 at II-14. To support this conclusion, “EPA evaluated daily temperature data representative of the Facility’s recent, reduced operations and concluded that river temperatures typically meet protective temperatures downstream from Station S0.” *Id.* at II-15 n.4. And it did so with respect to each life stage of each species of concern. *Id.* at II-50-61. Thus, EPA was acutely aware that “the pertinent question is not the amount of electricity generation, but what the river temperatures will be,” contrary to Petitioners’ accusation. Pet. at 49.¹⁹

Petitioners speculate that the capacity factor provision does not protect the BIP during “low-flow conditions” in “August and September” when “flows will be lowest.” *Id.* at 49-50. They say EPA failed to consider this scenario. *Id.* at 50. But EPA did examine in-stream temperature data during August and September, over a range of years, and with respect to each species of concern. AR-

¹⁸ EPA considered other averaging periods but determined that a “30-day rolling average period limits the number of consecutive days of operation more than a 45-day rolling average but allows less time for the river to recover in between operating periods, while a 60-day rolling period would allow the Facility to operate for more consecutive days.” AR-1885 at II-15 n.4. Petitioners do not challenge this determination.

¹⁹ Moreover, Petitioners argument that EPA must limit capacity factor over “a handful of consecutive days” (Pet. at 52) is too little, too late. If Petitioners believed that the capacity factor limitation should be stated over a period of days, they should have made this comment during the public comment period. Because they did not (but rather identified quarterly capacity factor as their concern), they cannot raise that issue now. *See* 40 C.F.R. §124.13.

1885 at II-52-53 (alewife); *id.* at II-53-55 (American shad); *id.* at II-55-58 (yellow perch); *id.* II-59-60 (white sucker). And with respect to each species, EPA concluded that, given the intermittent nature of current operations, juveniles and adults (the life stages of fish present in August and September in the Merrimack River) will avoid any thermal plume and will not be excluded from potentially suitable habitat. *Id.* Petitioners offer no evidence to refute this biological assessment by EPA, much less demonstrate any clear error in it.

Indeed, despite Petitioners' speculation about the potential for protective temperatures to be exceeded during "low flows" in August and September (Pet. 49-50), the only purported example they provide is from July (when the acute daily limits are also in place). *Id.* at 51-52. Petitioners claim, based on their own calculations, that in July 2016 "the Permit's weekly-average temperature limit of 25.1°C for July was clearly exceeded for several weeks in that month, despite the sub-40% 45-day capacity factor." *Id.* at 52. They attribute this to "operating the Station for even a handful of consecutive days at certain times of year[.]" *Id.*

But the 40% capacity factor provision was never intended as a strict surrogate for the weekly temperature limits—it is simply another approach that protects the BIP. AR-1885 at II-14. And even if such a direct comparison were proper, Petitioners are wrong about what it shows. Their math is bad, and their conclusion that temperatures in July 2016 "exceed[ed] protective levels" even though the Station operated below 40% capacity factor ignores critical provisions of the Permit that EPA included to assure protection of the BIP.

Table 1 below shows the in-stream temperature data from July 2016 that Petitioners used in their calculations (AR-1715). Table 1 shows the daily average temperature for each day in July 2016, measured at Station N10 (which is upstream of the Station and not affected by its thermal discharge) and Station S4 (downstream of the Station and representative of the Station's thermal discharge). Based on that data, Table 1 calculates the weekly average temperature in the manner prescribed by the

Permit²⁰ and the weekly average “rise in temperature” between N10 and S4, also as prescribed by the Permit.²¹

TABLE 1: July 2016 Weekly Average Temperatures (AR-1715)

Date	Daily Average Temperature at N-10 (°C)	Daily Average Temperature at S-4 (°C)	Temperature Difference (°C)
7/1/2016	24.83	24.9	0.07
7/2/2016	24.68	24.75	0.07
7/3/2016	24.09	24.24	0.15
7/4/2016	23.8	23.88	0.08
7/5/2016	24.52	24.65	0.13
7/6/2016	25.58	25.97	0.39
7/7/2016	25.79	26.7	0.91
Weekly Avg.	24.76	25.01	0.25
7/8/2016	25.3	25.98	0.68
7/9/2016	23.97	22.62	-1.35
7/10/2016	22.73	21.63	-1.1
7/11/2016	22.34	21.56	-0.78
7/12/2016	22.83	22.58	-0.25
7/13/2016	24.55	24.58	0.03
7/14/2016	25.31	25.76	0.45
Weekly Avg.	23.86	23.53	-0.33

²⁰ “The Permittee shall calculate the weekly average temperature as a 7-day average beginning on the first day of the calendar month. The last weekly average temperature of the reporting period shall include the dates between the 22nd and the last day of the month.” Permit at 18 n.3. Thus, there are four weekly periods in July. It is not clear how Petitioners calculated weekly averages, or if they even did.

²¹ See Permit at 19 n.8.

7/15/2016	25.85	26.34	0.49
7/16/2016	26.02	26.14	0.12
7/17/2016	26.56	26.35	-0.21
7/18/2016	26.59	26.54	-0.05
7/19/2016	26.08	26.07	-0.01
7/20/2016	25.02	24.98	-0.04
7/21/2016	24.76	24.97	0.21
Weekly Avg.	25.84	25.91	0.07
7/22/2016	25.08	25.52	0.44
7/23/2016	25.73	25.8	0.07
7/24/2016	25.85	25.73	-0.12
7/25/2016	26.05	26.65	0.6
7/26/2016	26.17	25.29	-0.88
7/27/2016	26.44	25.4	-1.04
7/28/2016	26.86	27.72	0.86
7/29/2016	26.82	27.24	0.42
7/30/2016	26.72	26.83	0.11
7/31/2016	25.91	26.03	0.12
Weekly Avg.	26.16	26.22	0.06

As Table 1 shows, the weekly average temperature at S4 was *below* 25.1°C in two of the four weekly reporting periods, and thus 25.1°C was not “clearly exceeded for several weeks,” as Petitioners allege. Pet. at 52. More importantly, even for the two weeks in which S4’s weekly average was above 25.1°C, Petitioners are wrong that the weekly average “exceed[ed] protective levels” and did so as a result of “operating the Station.” *Id.* As Table 1 shows, during those two weeks, the temperatures at the *upstream* monitoring location (N10) are *above* 25.1°C *absent any influence by the Station*, and the temperatures at the downstream monitoring station (S4) were less than a tenth of a degree above those natural river temperatures (N10). Thus, the temperatures during those two weekly periods were elevated due to ambient (*i.e.*, natural) river conditions, not the operation of the Station.

To compound their error, Petitioners ignore that the weekly average limitation in the Permit specifically incorporates a 2°C rise in temperature allowance when ambient river temperatures are elevated. The 2°C “rise in temperature” limit applies *in lieu of* the default weekly average limit when

the ambient temperature is within 2°C of, or above, the weekly average temperature limit for that period (as it was in the last two weeks of July 2016). Permit at 19 n.8. Petitioners ignore this provision.²² But, as EPA explained in its Response to Comments, when ambient conditions are within 2°C of the default weekly limit, “the rise in temperature limit replaces the 7-day average temperature limit.” AR-1885 at II-125. The alternative provision is appropriate, EPA explained, because the fish species of concern “inhabit Hooksett Pool even with summer temperatures exceeding 25.1°C and EPA has decided it is not reasonable to establish a temperature limit that cannot be met even under natural conditions.” *Id.* at II-132-33. And this approach is protective of the BIP, EPA explained, in light of evidence in the record that “the upper limiting temperature for adult yellow perch in the Merrimack River may be higher than 25.1°C.” *Id.* at II-133. EPA specifically found that “[t]he average weekly temperature limit of 25.1°C *and option of complying with the rise in temperature limit if ambient temperatures exceed 25.1°C* will protect yellow perch adults in the Hooksett Pool by maintaining ambient conditions.” *Id.* (emphasis added).

Thus, Petitioners have utterly failed to show that “operating the Station for even a handful of consecutive days at certain times of the year causes temperatures in Hooksett Pool to exceed protective levels for extended periods.” Pet. at 52. Using their own approach, the opposite is true—in all weeks in July 2016, including when the Station operated for consecutive days, in-stream temperature limits were within the bounds that EPA determined would assure protection of the BIP.

In fact, the evidence in the record shows that the weekly average temperature limitations are met even where the Station’s 45-day rolling average capacity factor has exceeded 40%. Using the same data set that Petitioners cite (AR-1715), in the most recent July where the Station’s 45-day rolling

²² Petitioners did not challenge the 2°C “rise in temperature” provision in their Petition.

average capacity factor was over 40% (July 2013), the weekly average temperature limits were fully met, as shown in Table 2.

TABLE 2:
July 2013 Weekly Average Temperatures and 45-Day Rolling Capacity Factor²³ (AR-1715)

Date	Rolling 45-Day Average Capacity Factor	Daily Average Temperature at N-10 (°C)	Daily Average Temperature at S-4 (°C)	Temperature Difference (°C)
7/1/2013	16.30%	19.74	20.02	
7/2/2013	16.30%	19.92	20.14	
7/3/2013	16.30%	19.6	19.86	
7/4/2013	16.30%	19.49	20.12	
7/5/2013	17.90%	20.76	21.94	
7/6/2013	19.90%	22.29	24.12	
7/7/2013	22.00%	23.07	24.56	
Weekly Avg.		20.7	21.53	0.84
7/8/2013	24.00%	23.24	24.61	
7/9/2013	25.80%	22.32	23.71	
7/10/2013	27.80%	21.44	22.81	
7/11/2013	29.60%	21.29	22.72	
7/12/2013	31.40%	21.28	22.73	
7/13/2013	33.00%	21.23	22.67	
7/14/2013	34.60%	21.78	23.19	
Weekly Avg.		21.8	23.21	1.41
7/15/2013	34.60%	22.76	24.16	
7/16/2013	34.70%	23.59	24.94	
7/17/2013	34.80%	24.5	25.76	
7/18/2013	35.20%	25.29	26.18	
7/19/2013	35.50%	25.32	26.73	
7/20/2013	35.90%	25.41	26.69	
7/21/2013	37.60%	25.12	26.32	
Weekly Avg.		24.57	25.83	1.26

²³ For purposes of this illustration, the 45-day rolling average capacity factors were calculated using the average of each daily capacity factor and the preceding 44 daily capacity factors, using the data in AR-1715.

7/22/2013	39.00%	24.07	25.27	
7/23/2013	40.20%	22.38	23.6	
7/24/2013	40.20%	21.19	21.98	
7/25/2013	40.20%	20.37	20.88	
7/26/2013	40.20%	19.89	20.43	
7/27/2013	40.20%	20.37	20.84	
7/28/2013	40.20%	21.07	21.64	
7/29/2013	40.20%	21.37	21.92	
7/30/2013	40.20%	22.02	22.55	
7/31/2013	40.20%	22.13	22.72	
Weekly Avg.		21.49	22.18	0.7

In each of these weeks of July 2013, the weekly average temperature at Station S4 was either below 25.1°C or within 2°C of ambient temperatures at Station N10. Thus, EPA’s conclusion that “the Final Permit’s limits reflecting reduced operations and protective critical temperatures will assure the protection and propagation of the BIP,” AR-1885 at II-117, is fully supported by the same data that Petitioners cite. It is simply not true, as Petitioners claim, that “the [capacity factor provision] will allow the Station’s thermal discharges to elevate river temperatures above the instream temperature limits that EPA purportedly designed to protect fish.” Pet. at 48. The very data that Petitioners cite refutes their own claim.

Finally, Petitioners are wrong that EPA’s rationale for the Permit “contradict[s]” its conclusions in 2011 regarding the prior owner’s baseload operation of the plant. *Id.* at 50. EPA explained in detail why it was adopting a different approach due to changed circumstances since 2011, including that “[t]he Facility’s change to operating like a peaking plant since issuance of the 2011 Draft Permit has reduced the occurrence of extreme temperature events.” AR-1885 at II-103-04.²⁴ As EPA

²⁴ Contrary to Petitioners’ contention (Pet. at 50), EPA *did consider* the impact from the Station’s operation for 18 consecutive days, and it determined that, in combination with the acute daily temperatures to protect early life stages in May-July and the extended periods between operational events that are required to meet a 45-day rolling average 40% capacity factor limitation, the Permit as a whole will assure the protection and propagation of the BIP. *See* AR-1885 at II-103-04.

found, there is a clear difference between the Station’s prior operations and its current and future operations, justifying a different approach. And while Petitioners speculate “that the Station *could*” “double, triple, or quadruple its typical capacity utilization” (Pet. at 51) (emphasis added), they offer no evidence to suggest this as a reasonable possibility. Nor could they, as such an assertion would contradict their own statements in the record. *See* AR-1681 at 4 (article explaining that Petitioner “CLF staff are steeped in local energy markets because they serve on ISO New England’s working committees” and quoting Petitioner CLF’s senior attorney Jerry Elmer: “There’s a glut of (electricity) supply on the market. . . .The big lesson there is there [is] no need for new fossil fuel plants and I don’t think you’ll see any in the near future[.]”).²⁵

At the end of the day, Petitioners have failed to show any clear error in EPA’s analysis or conclusions supporting the capacity factor provision in Part I.A.11 and how it interacts with the other provisions in Part I.A.11 to assure protection of the BIP. Indeed, had EPA failed to account for the Station’s reduced capacity factor and instead set the limitations in Part I.A.11 based on the Station’s prior baseload operation (as Petitioners advocate), such a determination would be contrary to the record and itself clear error. Based on the facts and the record, EPA reached the only reasonable conclusion it could have—the Station’s operations under the limitations in Part I.A.11 will assure protection of the BIP.

C. There Is No Evidence in the Record of “Cold Shock,” and Even If There Were, the Permit Is Protective of the BIP in the Winter

Petitioners’ final challenge to Part I.A.11 is that it “fail[s] to protect fish from ‘cold shock’ in winter.” Pet. at 53. This argument is based on a misunderstanding of what “cold shock” is and ignores

²⁵ In any case, Petitioners’ speculation about future capacity utilization is a red herring. The function of §316(a) is not to cap facility operations based on historical patterns, but to assure protection of the BIP.

EPA's explanation of why fish in the Merrimack River do not experience "cold shock" from the Station's operations.

The first problem with Petitioners' "cold shock" argument is that there is *zero* evidence in the record of any "cold shock" occurring in the Hooksett Pool or the discharge canal—ever. As the record reflects, "Merrimack Station has never reported a fish kill associated with unplanned winter shutdowns[.]" AR-618 at 349; *see also* AR-112 at 10. Thus, Petitioners' assertion that fish "can be affected by cold shock in Hooksett Pool or in the Station's discharge canal" is pure speculation that is based on no actual evidence.²⁶

Another problem with Petitioners' argument is that they misunderstand or mischaracterize what "cold shock" even is. As EPA explained in the Response to Comments, cold shock may occur where "fish species *which have become acclimated to artificially elevated water temperatures* and then subjected to a rapid decrease in temperature may suffer stress or shock related to that rapid change." AR-1885 at II-112 (emphasis added). Thus, "cold shock" does not occur on a "15-minute-interval" or from "frequent[] start and stop operations," as Petitioners argue (Pet. at 53-54), but rather could only occur when the fish have first been acclimated to artificially elevated temperatures over a period of time. As EPA explained, this may have been a concern when "the plant was operating continuously from summer to winter," causing fish to "maintain[] an artificially high body temperature" throughout the fall and into the winter. AR-1885 at II-113. But, as EPA explained, this no longer happens. Instead, "decreasing demands for Merrimack Station's electricity has resulted in minimal-to-no need for the

²⁶ Likewise, Petitioners' claim that "the Permit does not protect fish in the [discharge] canal from cold shock" ignores the fact that there is no evidence that "fish enter the discharge canal and stay there throughout the winter." AR-1885 at II-112. And even if there were fish in the canal in winter and even if they experienced cold shock, the Permit would not change. EPA has explained that "[t]he State of New Hampshire does not consider Merrimack Station's discharge canal to be 'waters' of the State. Therefore, permit limits designed to be protective of aquatic life are generally not applied within the discharge canal." AR-618 at 349.

Facility to operate during much of the Fall (October-early December).” *Id.* As a result, there could be no cold shock because “[t]his allows resident species to adjust naturally to colder ambient temperatures throughout Hooksett Pool[.]” *Id.* “Therefore,” EPA concluded, “going forward, even if the Facility shuts down abruptly during the winter months, EPA does not expect there to be more than minimal impacts associated with cold shock, and such impacts would not likely affect any species at the population level and would not harm the BIP.” *Id.*

Petitioners offer no *relevant* evidence to refute EPA’s analysis and conclusion. The “15-minute data” that they claim show “precipitous temperature declines” (Pet. at 56) in winter have no bearing on the issue because, as EPA explained, the fish have already become acclimated to cooler temperatures throughout the fall, so there is no cold shock. AR-1885 at II-113. And, contrary to Petitioners’ accusation, EPA did not “turn[] a blind eye” to “the rate of temperature decrease in the Hooksett Pool,” which they claim is only discernable from their 15-minute data. Pet. at 55. Instead, EPA *did* consider that the Station may “shut[] down abruptly during the winter months” but concluded that cold shock would not occur in such instances because the fish had already “adjust[ed] naturally to colder ambient temperatures[.]” AR-1885 at II-113. Petitioners’ untimely data submission would not have changed that conclusion and does not demonstrate any clear error in EPA’s conclusions.

III. EPA Correctly Determined that Duplicative and Confusing Narrative Provisions Were Not Necessary

Petitioners also fail to show any error in EPA’s decision to replace the 3-part narrative provision in Part I.A.1.g of the prior 1992 Permit with the specific in-stream numeric limitations in Part I.A.11 of the new Permit. In making this decision, EPA explained that it “determined that the Final Permit’s stringent numeric thermal discharge limits will assure the protection and propagation of the BIP and that the narrative thermal plume provisions are not needed and could create confusion over whether the Facility is in compliance with the permit.” *Id.* at II-301.

Petitioners challenge EPA’s decision on two grounds.²⁷ They argue that replacement of these provisions is not permitted under the “anti-backsliding rule” and that, without the prior narrative provisions, the Permit is not protective of the BIP. Both arguments fail.

A. Petitioners Have Not Demonstrated Any Clear Error in EPA’s Determination That There Is No “Backsliding”

Petitioners’ “backsliding” argument fails as a threshold matter because they have not demonstrated that there is, in fact, any “backsliding” from the prior permit. “Backsliding” does not mean that permit provisions can never be removed or replaced, as Petitioners argue. Pet. at 61. Petitioners cite no support for their theory that simply replacing a narrative permit condition with a numeric one is performe “backsliding.” *Id.* That is not what the statute says. Instead, “[b]acksliding ‘occurs when a renewed, reissued, or modified permit contains effluent limitations [that are] less stringent than those in the previous permit.’” *In re City of Ruidoso Downs*, 17 E.A.D. 697, 704 (EAB 2019) (quoting *In re City of Tulsa*, 3 E.A.D. 505, 506 (CJO 1991)). Thus, on its face, the backsliding provision does not apply to changes in a §316(a) variance, which is the situation here. 33 U.S.C. §1342(o)(1)

Moreover, Petitioners offer no evidence or argument to refute EPA’s determination that “the Final Permit’s thermal discharge limits *are not less stringent* than those in the 1992 Permit.” AR-1885 at II-319 (emphasis added). EPA clearly explained its basis for this conclusion: “In both cases, the limits are based on a CWA § 316(a) variance but while the 1992 Permit allowed for open-cycle cooling with baseload power plant operations and did not have directly enforceable temperature limits on the discharge, the new Final Permit includes specific temperature and operational limits reflecting the Facility’s current, much reduced operations.” *Id.* at II-301. Petitioners do not dispute this reasoning by EPA, nor could they. Petitioners themselves have asserted that “[t]he 1992 Permit contains no

²⁷ Petitioners’ notice argument regarding these provisions is addressed in Section I.

numeric maximum discharge temperature limits.” AR-1688 at 5. Petitioners do not explain how a permit with no numeric maximum discharge limits could be more stringent than one that includes such limits.

Instead, Petitioners compare Part I.A.11 of the Permit, which contains the new numeric in-stream limitations, to Part I.A.11.b of the 1992 Permit, which requires the operation of power spray modules at certain river temperatures, to argue that the new Permit is “less stringent” than the prior one. Pet. at 61. This is a meaningless comparison. Petitioners offer no evidence that operation of the power spray modules under the 1992 Permit (which they have criticized as inadequate) is more stringent than the actual enforceable in-stream temperature limitations in Part I.A.11 of the Permit. Even if they did, their argument would call for continuing the requirement to operate the power spray modules in lieu of meeting the numeric in-stream limitations in Part I.A.11—not for including the narrative provisions.

B. Even if There Were “Backsliding,” the Statute Allows It

Even if Petitioners could show there was “backsliding” from the 1992 Permit (which they have not), the statute would not prohibit it. The backsliding prohibition does not apply at all to effluent limitations established under a §316(a) variance or if the new limits are in compliance with §303(d)(4) of the CWA. *See* 33 U.S.C. §1342(o)(1).

Further, as an exception, 33 U.S.C. §1342(o)(2) provides that a new permit may “contain a less stringent effluent limitation applicable to a pollutant” where there is new information or a mistake of law (subsection (B)) or in the case of a §316(a) variance (subsection (D)). *Id.* at §1342(o)(2)(B), (D). EPA specifically relied on §1342(o)(2)(D) in responding to Petitioners’ backsliding arguments in its Response to Comments. As EPA explained, because the Permit changes the thermal discharge limits from the 1992 Permit pursuant to §316(a), the statute does not prohibit backsliding (if there is any). AR-1885 at II-301. Petitioners attempt to argue that this provision does not apply because the permit

is not being “modified” (Pet. at 61 n.225), but they offer no authority for this argument and no reason to call into question EPA’s plain reading of the term “modification” in §1342(o)(2)(D).

Even without the exemption in §1342(o)(2)(D), there could be no unauthorized backsliding here because §1342(o)(1) independently authorizes less stringent limits when the water body in question is in attainment with water quality standards. *See* 33 U.S.C. §1313(d)(4). The Hooksett Pool portion of the Merrimack River is not listed by New Hampshire as impaired.²⁸ Thus, backsliding is not prohibited so long as it is consistent with New Hampshire’s antidegradation policy. *See id.* §1313(d)(4)(B). Relevant here, New Hampshire’s antidegradation policy requires only that the requirements of CWA §316(a) be met. *See* N.H. Code R. Env-Wq §1708.01(d). Because EPA has determined that the Permit satisfies the requirements of CWA §316(a), there could be no violation of antibacksliding requirements here. *See* 33 U.S.C. §1342(o)(1).

Lastly, 33 U.S.C. §1342(o)(2)(B)²⁹ establishes additional exceptions to the backsliding prohibition that also justify EPA’s thermal limitations in the Permit (again, assuming Petitioners could demonstrate any backsliding from the 1992 Permit). Merrimack Station’s reduced operations in recent years constitutes information that was not available at the time the 1992 Permit was issued and justifies application of less stringent effluent limitations. *See id.* §1342(o)(2)(B)(i); AR-1885 at II-308

²⁸ States are required to periodically review available water quality data for their respective waterbodies and determine which, if any, are not satisfying one or more water quality standards. The list of those waterbodies impaired for one or more parameters is commonly referred to as a “303(d) list.” New Hampshire’s most recent 303(d) list of impaired waters (2018), which was approved by EPA, does not include the Hooksett Pool. *See* <https://www.des.nh.gov/organization/divisions/water/wmb/swqa/2018/index.htm> (link to 303(d) list and EPA approval) (last visited Sept. 25, 2020). The Hooksett Pool is identified by New Hampshire as “Hooksett Hydro Pond,” AUID No. NHIMP700060802-02. *See* <https://nhdes.maps.arcgis.com/apps/webappviewer/index.html?id=aa5a11f8b8c341058fc031701a2fb3c9>.

²⁹ EPA has stated that these same exceptions could justify relaxation of water quality-based effluent limitations under 33 U.S.C. §1342(o)(1), as well. EPA, *Interim Guidance on Implementation of Section 402(o) Anti-backsliding Rules for Water Quality-Based Permits* at 7 (1989), <https://www3.epa.gov/npdes/pubs/owm0231.pdf>.

(referencing Merrimack Station’s reduced operations as justification for the thermal limitations in the Final Permit). The “backstop” of these narrative provisions is no longer needed in light of EPA’s detailed analysis and record supporting the new numeric limitations.³⁰

C. Petitioners Have Not Demonstrated that the Permit as Modified Would Result in a Violation of New Hampshire Water Quality Standards

The bulk of Petitioners’ “anti-backsliding” argument relies on the so-called “safety clause” in 33 U.S.C. §1342(o)(3). That provision states: “In no event may such a permit to discharge into waters be renewed, reissued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard under section 1313 of this title applicable to such waters.” 33 U.S.C. §1342(o)(3). The Board has described this provision as “provid[ing] an absolute limitation (also referred to as a ‘backstop’) on backsliding if the revised effluent limit *would result in a violation of water quality standards.*” *In re City of Ruidoso*, 17 E.A.D. at 704 (emphasis added).

The threshold problem for Petitioners’ “safety clause” argument is that they do not identify any New Hampshire water quality standard that they believe would be violated by the replacement of the narrative provisions in Part I.A.1.g of the 1992 Permit with the specific in-stream limitations in Part I.A.11 of the new Permit. They do not point to any New Hampshire water quality standard that says a thermal plume shall not “block zone of fish passage” or “change the [BIP] of the receiving water” or have more than “minimal contact with the surrounding shoreline,” which is what Part

³⁰ AR-1885 at II-308 (explaining that narrative provisions were a “backstop” in 1992 Permit because the §316(a) variance “was being granted in the absence of detailed thermal data” but that the 1992 Permit “required a great deal of information gathering to support developing an understanding of the thermal discharge” (*i.e.*, new information) in order to develop more specific limits for the renewed permit).

I.A.1.g of the 1992 Permit provided.³¹ Nor do they link Part I.A.1g to *any* particular New Hampshire water quality standard.

Their attempt to do so in a footnote (Pet. at 60 n.222) misstates EPA’s 1992 Fact Sheet for the prior permit. That 1992 Fact Sheet does *not* refer to the 3-part narrative provision in Part I.A.1.g. Instead, that sentence from the Fact Sheet, which Petitioners truncate and alter (*Id.*), only generally states: “Further, the proposed draft permit effluent limitations and special conditions imposed relative to the thermal component and intake structures, assure satisfaction of the New Hampshire Water Quality Standards for the Merrimack River.” AR-112 at 10. Thus, the Fact Sheet discussion does not “refer[] to them” (*i.e.*, the specific narrative statements in Part I.A.1.g of the 1992 Permit), as Petitioners contend. Pet. at 60 n.222. Nor does it say that the 3-part narrative provision was “imposed [to] assure” that water quality standards are met, as Petitioners further contend. *Id.* (alteration by Petitioners). Instead, EPA simply explained that, taken as a whole, the limitations and conditions in the 1992 Permit *do assure* that water quality standards are met. It in no way states or implies that water quality standards could not also be satisfied with completely different limitations or without the 3-part narrative provision in Part I.A.1.g.³²

³¹ The concept of a “zone of passage” is referenced in New Hampshire’s requirements for a “mixing zone,” N.H. Env-Wq 1707.02, but Petitioners do not contend that a mixing zone was established for the 1992 Permit under this provision, nor do they contend that a mixing zone has been established pursuant to N.H. Env-Wq §1707.02 in the 2020 Permit. *See, e.g.*, AR-1885 at II-117-18; Pet. at 45. Accordingly, these mixing zone criteria cannot support Petitioners’ argument. Moreover, mixing zone criteria are not themselves water quality standards, but instead shape the application and implementation of water quality standards. *See, e.g.*, 40 C.F.R. §131.13; *Wis. Elec. Power Co. v. State Nat. Res. Bd.*, 90 Wis.2d 656, 670-71 (Wis. 1979) (providing that the mixing zone provision at issue is an effluent limitation and not a water quality standard). Thus, New Hampshire’s mixing zone criteria could not trigger application of the “safety clause” of 33 U.S.C. §1342(o)(3).

³² Petitioners’ citation to the Response to Comments fares no better. Pet. at 61 n.222 (citing AR-1885 at II-308). Describing a provision generally as “water quality-based” (AR-1885 at II-308) is not the same as stating that they are necessary to comply with a particular New Hampshire water quality standard.

Thus, Petitioners' argument that the Permit violates the "safety clause" in 33 U.S.C. §1342(o)(3) because it "now allows the Station's thermal plume to violate *those* water quality standards" is built on a house of cards. *Id.* at 62 (emphasis added). Nowhere does the Petition identify "those" water quality standards, much less show that "those" water quality standards would be violated. Petitioners' argument that the "anti-backsliding" rule prohibited EPA from removing the 3-part narrative statement in Part I.A.1.g of the prior permit is without any merit and should be rejected by the Board.³³

IV. Petitioners' Arguments Regarding Part I.A.12 of the Permit Ignore the Context of the Permit as a Whole and Amount to a Duplicative Challenge of EPA's §316(a) Variance

Petitioners' arguments that EPA's decision to apply Part I.A.12 of the Permit to only non-thermal aspects of the Station's discharges violates antibacksliding requirements and improperly alters the plain meaning of the Permit through extrinsic statements (*Id.* at 65-67) ignore the full context of the Permit and EPA's underlying decision to grant a §316(a) thermal variance. Given EPA's decision to grant a §316(a) variance, the only permissible reading of Part I.A.12 is that it does not (and could not) apply to the thermal component of the discharge, and thus there could be no error in EPA's explanation of that plain reading in the Response to Comments.³⁴

The overall structure and context of the Permit make clear that the plain meaning—indeed, the only reasonable meaning—of Part I.A.12 is that it does not apply to thermal discharges. Extrinsic statements are not necessary. Application of this provision of the Permit to thermal discharges would be in direct conflict with EPA's specific conclusions in the final Permit that a variance from water

³³ EPA was also justified in removing the narrative provisions because such general narrative statements in NPDES permits are disfavored, given their tendency to cause confusion regarding permit compliance. *NRDC v. EPA*, 808 F.3d 556, 578 (2d Cir. 2015) (finding a similar generic, narrative statement "insufficient to give a [permittee] guidance as to what is expected or to allow any permitting authority to determine whether a [permittee] is violating water quality standards").

³⁴ Petitioners' additional argument regarding an alleged lack of public notice is addressed in Section I, above.

quality standards is appropriate and will ensure protection of the BIP. *See* AR-1885 at II-307 (“[T]he narrative water quality-related provisions are not needed if EPA sets thermal discharge limits based on a CWA § 316(a) variance *from water quality standards*.” (emphasis in original)).

Petitioners’ argument would result in a permit that both required Merrimack Station’s thermal discharge to comply with water quality standards, while simultaneously authorizing a variance from these same standards. This is nonsensical and confirms that EPA’s clarification on the plain meaning of Part I.A.12 of the Permit is the only reasonable one. *CLF v. ExxonMobil Corp.*, 448 F. Supp. 3d 7, 13 (D. Mass. 2020) (“[I]f the language of the permit, considered in light of the structure of the permit as a whole, is plain and capable of legal construction, the language alone must determine the permit’s meaning.” (internal quotation omitted)). At its core, Petitioners’ argument regarding Part I.A.12 is nothing more than a duplicative challenge to the merits of EPA’s grant of a variance from New Hampshire’s water quality standards—an argument that fails on its merits, as discussed above.

Petitioners also fail to demonstrate any “backsliding” from the prior permit due to the scope of Part I.A.12 of the Permit. *See generally* Pet. at 65. Petitioners do not offer any evidence or argument to refute EPA’s determination that “the Final Permit’s thermal discharge limits are not less stringent than those in the 1992 Permit.” AR-1885 at II-319. The Board’s analysis could end there.

Petitioners also do not even address, much less refute, EPA’s position that any alleged backsliding is authorized in this instance by 33 U.S.C. §1342(o)(2)(D). *See, e.g., id.* at II-333.³⁵ Petitioners reference only the 33 U.S.C. §1342(o)(3) “safety clause” and assert that it prohibits EPA from narrowing Part I.A.12. Pet. at 65. But Petitioners once again fail to identify any New Hampshire water quality standard that they believe would be violated by limiting the scope of Part I.A.12 to non-thermal discharges.

³⁵ Any alleged backsliding would also be authorized pursuant to 33 U.S.C. §1342(o)(1) & (o)(2)(B), for reasons explained in Section III.B.

For all of these reasons, Petitioners' arguments must be rejected. EPA's explanation of the plain meaning of Part I.A.12 of the Permit is the only plausible one in light of the circumstances. Petitioners have not identified any clear error in the agency's reasoning, and the Board should therefore reject all arguments pertaining to Part I.A.12.

V. EPA Correctly Applied the NELGs to the Station's CRL and Had No Authority to Set More Stringent BAT Limits

Petitioners fail to show any clear error in the CRL limitations in Part I.A.4 of the Permit. EPA set the limitations for CRL in the only way it legally could have—using the currently-applicable National Effluent Limitation Guidelines (“NELGs”) at 40 C.F.R. §423.12(b)(3). AR-1885 at V-30. Where NELGs exist, as they do here, EPA must follow them. *See* 40 C.F.R. §125.3(c)(2).

Petitioners concede, as they must, that the 1982 NELGs are in place for CRL (Pet. at 74), which should be the end of the matter. But in an attempt to end-run them, Petitioners mischaracterize EPA's action in Part I.A.4 as “establish[ing] case-by-case BAT limits for [CRL] that are identical to the inadequate 1982 limits that the Fifth Circuit recently vacated.” *Id.* at 68-69. Their argument is wrong on two scores. EPA did not establish “case-by-case BAT” in the Permit; it simply applied the existing NELGs. AR-1885 at V-30. And the Fifth Circuit in *SWEPCo*, did not review, much less vacate, the 1982 NELGs, as Petitioners themselves concede elsewhere in their argument. 920 F.3d 999; Pet. at 74 (“[T]he Fifth Circuit did not vacate the 1982 [best practicable control technology currently available] limits themselves[.]”). Petitioners' convoluted argument is in reality a belated challenge to the 1982 NELGs themselves, which is a challenge that could only have been brought in 1982 under the CWA's judicial review provision, not in a 2020 permit appeal to the Board.

A. Case-by-Case Effluent Limitations Are Not Authorized When Applicable NELGs Exist as They Do Here

Petitioners' argument is based on the false premise that “the Region established case-by-case BAT limits for combustion residual leachate[.]” Pet. at 68. But EPA did no such thing. As EPA

clearly articulated in its Response to Comments, it could *not* do so because the existence of NELGs “occupy the field” and “foreclosed” the development of case-by-case BAT using “best professional judgment” (“BPJ”).³⁶ EPA applied the correct interpretation of the law.

The law is well settled that a permit writer may only set case-by-case effluent limitations utilizing BPJ when no national standard has been promulgated for a point-source category. *See NRDC v. EPA*, 822 F.2d 104, 111 (D.C. Cir. 1987); 40 C.F.R. §125.3(c)(2) (providing that case-by-case limits are only allowed “to the extent that EPA-promulgated effluent limitations are inapplicable”). EPA’s NPDES Permit Writers’ Manual adheres to this concept:

[C]ase-by-case [technology-based effluent limitations (“TBELs”)] are established in situations where EPA promulgated effluent guidelines are *inapplicable*. That includes . . . [w]hen effluent guidelines are available for the industry category, but no effluent guidelines requirements are available for the pollutant of concern The permit writer should make sure that the pollutant of concern is not already controlled by the effluent guidelines and *was not considered* by EPA when the Agency developed the effluent guidelines.

EPA, NPDES Permit Writers’ Manual, EPA-833-K-10-001, 5-45-46 (Sept. 2010) (“Manual”) (emphases added). EPA-promulgated NELGs exist for CRL, meaning EPA could not establish BPJ effluent limitations for this wastewater stream in the Permit. EPA followed these principles in the Permit and thoroughly explained its reasoning. *See* AR-1885 at V-30-34.

The NELGs for the Steam Electric Power Generating Point Source Category are set out in 40 C.F.R. Part 423. Relevant here, the initial NELGs were promulgated by EPA in 1974 and were revised by the agency in 1982 (and later in 2015).³⁷ CRL is regulated as a LVW under the 1982 NELGs. LVW is a residual category of wastewater for steam electric power generating facilities “from all sources except those for which specific limitations or standards are otherwise established in [40 C.F.R. Part

³⁶ *See* AR-1885 at V-30-34.

³⁷ *See* 39 Fed. Reg. 36,186 (Oct. 8, 1974); 47 Fed. Reg. 52,290 (Nov. 19, 1982); 80 Fed. Reg. 67,838 (Nov. 3, 2015).

423].” 40 C.F.R. §423.11(b). EPA considered the pollutants of concern in CRL in issuing the 1982 NELGs. Specifically, EPA set effluent limits for LVW (which included CRL) based on best practicable control technology currently available but decided not to set BAT limits for LVW. EPA did so because it determined that the pollutants of concern for LVW “are present in amounts too small to be effectively reduced by technologies known to the Administrator,” 47 Fed. Reg. at 52,303, and it further provided that “[t]he remaining 119 pollutants [in LVW] are excluded from regulation.” *Id.* at 52,299.³⁸ Accordingly, EPA has not had the authority to establish BPJ effluent limitations for CRL for decades. *See NRDC v. EPA*, 822 F.2d at 111; 40 C.F.R. §125.3(c)(2); Manual at 5-45-46. Therefore, the Station’s prior NPDES permit and EPA’s proposed draft permits for the Station all applied the 1982 NELGs to CRL.

In 2015, EPA revised the steam electric NELGs, including for CRL,³⁹ and the Fifth Circuit in *SWEPCo* later *vacated* the 2015 NELGs. *See* 920 F.3d at 1033. The result of the Court’s vacatur is a reversion back to the 1982 NELGs, meaning CRL is once again defined as a LVW. *See, e.g., Paulsen v. Daniels*, 413 F.3d 999, 1008 (9th Cir. 2005) (“The effect of invalidating an agency rule is to reinstate the rule previously in force.”). EPA thus correctly explained that the practice of case-by-case BPJ effluent limitations for CRL “is foreclosed by the existence of applicable ELGs.” *See* AR-1885 at V-30.

Petitioners fail to acknowledge, much less identify error in, EPA’s stated reasoning on this issue. The entirety of Petitioners’ argument relies upon the Fifth Circuit’s explanation for its vacatur

³⁸ *See also*, 47 Fed. Reg. at 52,291 (not listing CRL or LVW as wastewater streams the agency reserved for future rulemaking).

³⁹ The 2015 NELGs removed CRL from the definition of “LVW,” separately defined CRL, and set BAT total suspended solids effluent limitations for the wastewater stream. *See* 80 Fed. Reg. at 67,896; *see also* 78 Fed. Reg. 34,431, 34,457 (June 7, 2013) (“EPA is proposing to remove . . . leachate from the definition of low-volume wastes.”); 80 Fed. Reg. at 67,849-50 (“EPA would establish a separate definition for combustion residual leachate, making clear it would no longer be considered a low volume waste source.”).

of the 2015 NELGs' CRL effluent limitations. *See* Pet. at 68-75. But the 2015 NELGs are no longer in effect. And the Fifth Circuit did not consider or review the 1982 NELGs (nor could it, as the deadline for judicial review had passed). Instead, EPA will presumably address the Fifth Circuit's concerns in a new national rulemaking.⁴⁰ But Petitioners may not achieve that review here before the Board by mischaracterizing EPA's permitting decision. Until EPA completes that rulemaking, permit writers *must* apply the applicable effluent limitations from the 1982 NELGs.

Courts that have considered this issue have reached the same conclusion as EPA did here. In *Louisville Gas & Electric Co. v. Kentucky Waterways Alliance*, 517 S.W.3d 479 (Ky. 2017), for example, the Supreme Court of Kentucky held that it was proper for the permit writer to not impose BPJ-based effluent limits for flue gas desulfurization wastewater because the pollutants in question were specifically addressed in the 1982 NELGs. The court held that where "the Administrator finds, as he did in the 1982 Guideline, that no meaningful reduction of a given pollutant is possible with current technology, then the lack of a [technology-based effluent limit] for that pollutant does not mean that the unregulated pollutant was unaddressed by or outside the scope of the Guideline." *Id.* at 488-89; *see also* *NRDC v. Pollution Control Bd.*, 37 N.E.3d 407, 413-14 (Ill. App. Ct. 2015) (rejecting petitioners' argument that the permit writer must include BPJ-based effluent limits for LVW in an NPDES permit because the pollutant was considered by EPA in its 1982 NELGs).

Because EPA's 1982 NELGs for LVW remain in effect, EPA was correct to apply the effluent limitations for LVW in 40 C.F.R. §423.12(b)(3) to Merrimack Station's CRL. *See* 40 C.F.R. §125.3(c)(2). Indeed, EPA had no authority to go further, or to conduct a case-by-case BAT analysis. Petitioners' challenge to Part I.A.4 of the Permit is nothing more than a belated attempt to challenge

⁴⁰ *See, e.g.*, 84 Fed. Reg. 64,620, 64,626 (Nov. 22, 2019) ("The EPA plans to address the Court's remand in [*SWEPCo*] with respect to the limitations for leachate . . . in a subsequent action.").

the substance of the 1982 NELGs, which they may not do in this permit appeal, and the Board should reject it.

B. Even in the Absence of NELGs, EPA Has the Discretion to Decline to Establish Case-by-Case Effluent Limitations Using BPJ

Even if the 1982 NELGs did not “occupy the field” as to CRL, EPA has discretion to decline to impose BPJ-based effluent limitations even in the absence of nationally-applicable standards and properly did so here. For this reason, too, its decision not to include BPJ-based effluent limitations in the Permit was not clear error.

The authority to utilize BPJ stems from 33 U.S.C. §1342(a)(1), which provides, in relevant part, that a permit writer is authorized to issue an NPDES permit containing “such conditions [she] *determines are necessary* to carry out the provisions of [the CWA]” prior to, among other things, the promulgation of nationally-applicable ELGs for a given point source category. *See* 33 U.S.C. §1342(a)(1) (emphasis added). The phrase “determines are necessary” provides EPA with discretion to decline to impose BPJ limitations, as EPA has successfully argued with respect to similar language in another CWA provision. *Gulf Restoration Network v. McCarthy*, 783 F.3d 227, 242-43 (5th Cir. 2015) (holding that, under provision pertaining to water quality standards, EPA “may decline to make a necessity determination if it provides an adequate explanation, grounded in the statute, for why it has elected not to do so”). EPA provided such an explanation in its Response to Comments for the Permit. *See, e.g.*, AR-1885 at V-10 n.6 (explaining this reasoning to “legacy wastewater”).

EPA’s implementing regulations similarly reflect EPA discretion to decline to use BPJ. *See* 40 C.F.R. §125.3(c)(2) (“Technology-based treatment requirements *may* be imposed . . . [o]n a case-by-case basis under section 402(a)(1) of the Act, to the extent that EPA-promulgated effluent limitations are inapplicable.” (emphasis added)). And, the Ninth Circuit has specifically held that formulating BPJ effluent limitations is *not* a mandatory duty. *See, e.g., NRDC v. EPA*, 863 F.2d 1420 (9th Cir. 1988).

Thus, even if EPA had the authority to issue BPJ limits for CRL in the Permit—which it did not—the agency’s decision not to do so in the Permit is permissible, and Petitioners have demonstrated no clear error in that decision.

CONCLUSION

For the reasons stated herein, the Petition for Review should be denied.

Dated: September 25, 2020

Respectfully submitted,

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STATEMENT OF COMPLIANCE WITH WORD LIMITATION

I hereby certify that this Response, including all relevant portions, contains fewer than 18,000 words, in accordance with this Board's June 16, 2020 Order Granting Consent Motion for Extension of Time and Increase Word Limits and Notifying the Parties of Electronic Service. According to the word count function of Microsoft Word, this Response contains 17,972 words excluding the caption, table of contents, table of authorities, signature block, statement of compliance with the word limitation, and certification of service.

s/ P. Stephen Gidiere III
Counsel for Permittee GSP Merrimack LLC

Date: September 25, 2020

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Response were served by email on the following persons, this 25th day of September, 2020:

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