

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

In re: Mirant Canal, LLC

NPDES Permit No. MA 0004928

NPDES Appeal No. 08-10

**EPA REGION 1 BRIEF ON THE ADEQUACY
OF THE OPPORTUNITY TO COMMENT ON THE ENTRAINMENT
CONTROL PROVISION OF CANAL STATION'S FINAL NPDES PERMIT**

Mark A. Stein, Senior Assistant Regional Counsel
Samir Bukhari, Assistant Regional Counsel
U.S. EPA - Region 1
1 Congress Street, Suite 1100 (RAA)
Boston, MA 02114-2023
Tel: (617) 918-1077
Fax: (617) 918-1029

Of Counsel:
Richard T. Witt, Attorney
Office of General Counsel (2355A)
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460
Tel: 202-564-5496
Fax: 202-564-5477

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Region 1 of the United States Environmental Protection Agency (“EPA” or “Agency”) submits this brief in accordance with the *Order Directing Briefing* issued on September 12, 2008, by EPA’s Environmental Appeals Board (“Board”).

INTRODUCTION

As demonstrated below, EPA Region 1 (“Region 1” or “Region”) provided Mirant Canal Station, LLC (“Mirant,” “Petitioner” or “Permittee”), with sufficient opportunity to comment on the closed-cycle cooling-based performance standard for entrainment reduction embodied in Part I.A.13.g of Canal Station’s final National Pollutant Discharge Elimination System (“NPDES”) permit. Although this final permit condition differs from the entrainment reduction provision in the draft permit, it is nevertheless “a logical outgrowth” of the draft permit record because it is based on closed-cycle cooling at Canal Station, an alternative that Region 1 not only evaluated in the draft permit record but also expressly determined would satisfy section 316(b) of the Clean Water Act, 33 U.S.C. § 1326(b). Because Part I.A.13.g is a logical outgrowth of the draft permit, and raises no substantial new questions, Region 1 has satisfied the notice-and-comment requirements of the Administrative Procedure Act, 5 U.S.C. § 553(b) (“APA”), and EPA regulations

promulgated under the federal Clean Water Act, 33 U.S.C. §§ 1251, et seq. (“CWA”), including 40 C.F.R. § 124.14(b).

BACKGROUND

I. Factual Background Concerning Canal Station, the Cape Cod Canal and Entrainment and Impingement by the Facility’s CWISs

Canal Station is an 1120 megawatt (“MW”) steam-electric power plant located on the southern shore of the Cape Cod Canal in Sandwich, Massachusetts (“Canal Station” or “Facility”). Ex. 3 (AR 86, Fact Sheet) at 1 and Attachment B.¹ The Facility has two primary generating units. *Id.* at 1. Unit 1 began operation in 1968, burns oil and is rated as a 560 MW unit, while Unit 2 began operations in 1978, is capable of burning either oil or natural gas, and is also a 560 MW unit. *Id.*

Canal Station uses an “open-cycle” (or “once through”) cooling system to condense the steam used to drive the Facility’s electrical generating turbines. *Id.* An open-cycle cooling system withdraws water from a water body, uses it to cool (or condense) the steam used by the power plant to drive its turbines, thereby transferring heat to the water, and then discharges the hot water back to the source water body. A closed-cycle (or “recirculating”) system uses some type of an alternative cooling apparatus, usually a cooling tower, to reduce the temperature of the cooling water after the steam is condensed, so that the cooling water can be reused for cooling instead of having to directly discharge the hot water to the water body. By reusing the water for cooling, closed-cycle cooling systems can decrease thermal discharges and cooling water withdrawals by as much as approximately 95 percent. *See In re Dominion Energy*

¹ Together with this brief, Region 1 is also filing an Exhibit List, copies of the listed exhibits, and a Certified Index of the Administrative Record for the permit at issue in this appeal (NPDES Permit No. MA0009428).

Brayton Point, L.L.C. (Formerly USGen New England, Inc.) Brayton Point Station, 12 E.A.D. 490, 501-02 (EAB 2006) (“*Dominion I*”) (general explanation of open-cycle and closed-cycle systems).

Canal Station’s open-cycle cooling system relies on the withdrawal of a total of 518 million gallons per day (“MGD”) of water from the Cape Cod Canal through two separate cooling water intake structures (“CWISs”). Ex. 3 (Fact Sheet) at 6, 39, 45. Each of these CWISs serves a separate generating unit. *Id.* at 6. The cooling water is heated to temperatures as high as 107°F, and as much as 35°F above the temperature of the intake water, prior to being discharged back to the Cape Cod Canal. *Id.* at 11, 23. Thus, the Facility disposes of waste heat via this “thermal discharge” to the Canal, and its wastewater also includes various other pollutants (*e.g.*, chlorine). *See id.* at 1, 11, 12.

The Cape Cod Canal is an unusual waterway. It is a seven-mile long, man-made conduit between two bays, Buzzards Bay and Cape Cod Bay, and the direction of flow through the Canal reverses with the tide. *See* Ex. 2 (AR 288, Responses to Comments (“RTC”)) at IX-11, n. 3. As a result, Canal Station’s withdrawal of water from the Canal affects both Bays, though the Facility is closer to Cape Cod Bay and, therefore, likely has greater effect on that water body. *Id.* Like a fast-flowing river, water moves through the Canal at relatively high velocity (except at slack tide), but unlike most rivers, the Canal is a habitat for high numbers of eggs and larvae due to the contribution from both Bays, where spawning occurs. *Id.* Moreover, some spawning occurs in the Canal itself. *Id.*

The Cape Cod Canal supports a diverse assemblage of organisms, including a number of species that are commercially and/or recreationally important. Ex. 3 (Fact Sheet) at 31-32. Some of these fish species, such as winter flounder, have been in

regional decline. *Id.* Fishery managers have been implementing increasingly restrictive fishing limitations on a variety of stocks in an effort to stimulate a recovery. *Id.*

Withdrawing water from a water body through a CWIS has two primary adverse environmental effects: entrainment and impingement. Entrainment occurs when fish larvae and eggs and other very small marine organisms are pulled, along with the water, through CWIS screens and into the facility's cooling system. Entrained organisms are typically killed by severe physical impacts and exposure to extremely hot water and chemicals. *Id.* at 30-31. Impingement occurs when juvenile or adult fish and other larger marine organisms are pulled with the cooling water into the CWIS and the organisms are caught against the screens, where they may be killed or injured, unless they can be safely returned to the water body. *Id.* at 36-37. *See also Dominion I*, 12 E.A.D. at 603 nn. 178-179 (defining entrainment and impingement).

There is no technology at either of Canal Station's two CWISs to prevent the entrainment of fish eggs or larvae in the water withdrawn from the Cape Cod Canal. As a result, any fish eggs and larvae in this water are killed by entrainment. Ex. 3 (Fact Sheet) at 9-10. The CWISs do have 3/8 inch-mesh traveling screens that prevent the entrainment of larger juvenile and adult fish, only to impinge them against the screens. *Id.* at 9-10, 37-39.

With regard to Canal Station, the Region found that:

... the permittee estimated that 2.6 to 3.6 billion eggs and 187-318 million larvae per year were entrained by the power plant. ... The permittee calculated annual entrainment estimates, shown in Table 5.1, for eighteen species representing sensitive species commonly found in entrainment samples from Mirant Canal Station in 1999-2000 and 2000-2001. The eggs and larvae of several Essential Fish Habitat species (e.g., hake, flounder and Atlantic mackerel) were found in significant numbers in entrainment samples. Seasonal differences in the species dominating in

entrainment samples were observed, with Atlantic herring, sand lance, sculpins/grubby and Atlantic cod particularly abundant in the winter and early spring. Cunner, tautog, winter flounder, hake, menhaden and Atlantic mackerel were more often abundant during early summer. Additionally, several species found in entrainment samples at Canal Station are forage species, those that provide an important food source for other species. Losses in forage species could have both immediate and long-term effects that could threaten the development and growth of species dependent upon these forage species as a food source.

Id. at 32-33.² Mirant also estimated that more than 71,000 fish per year are killed by impingement at Canal Station. *Id.* at 38-39. Based on the record, EPA found the losses due to entrainment and impingement at Canal Station to be “substantial.” *Id.* at 39.³

II. Substantive Legal Background – NPDES Permits and CWA § 316(b)

The NPDES permit program is central to the CWA’s scheme for improving the health of the Nation’s waters. CWA § 301(a), 33 U.S.C. § 1311(a), generally prohibits point source discharges of pollutants into waters of the United States unless authorized by an NPDES permit. CWA §§ 301(b) and 402(a), 33 U.S.C. §§ 1311(b) and 1342(a), require NPDES permits to include conditions based on applicable federal technology standards, while CWA §§ 301(b)(1)(C) and 401, 33 U.S.C. §§ 1311(b)(1)(C) and 1341, generally require any more stringent limitation needed to meet water quality standards.

While the CWA focuses primarily on regulating *discharges* of pollutants, CWA §

² Mirant also conducted an analysis estimating, based on certain assumptions, how many one-year old fish (and lobsters) would be lost to the ecosystem as a result of the death of the entrained eggs and larvae. Mirant estimated that Canal Station entrainment resulted in more than 400,000 “equivalent adults” being lost to the ecosystem in the year 1999-2000, and more than 750,000 in the year 2000-2001. *Id.* at 34 and Table 5.2. *See also id.* at 34 (discussing limitations of “adult equivalents” analyses).

³ Although not required, Region 1’s analysis also considered possible higher order effects from the entrainment and impingement losses at Canal Station. *See Ex. 3 (Fact Sheet)* at 29-34 (discussing potential for reductions in populations of species sought in commercial and recreational fishing, locally important forage species, and/or threatened/endangered species; reduced ecosystem diversity; food chain effects; interference with efforts to restore depleted populations; and reduction in species’ “compensatory reserve”).

316(b) focuses on cooling water *intake*. CWA § 316(b), 33 U.S.C. § 1326(b), requires EPA to establish technical standards for CWISs, mandating that:

[a]ny standard established pursuant to section 301 or section 306 of this Act and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.

EPA's NPDES regulations require that permits for individual facilities include § 316(b) requirements. *See* 40 C.F.R. §§ 122.44(b)(3), 125.90(b) and 401.14. The statute neither dictates particular technologies to be used for CWISs nor specifies how EPA should determine the BTA under § 316(b).

In the absence of regulations establishing national standards for CWISs, EPA has for more than thirty years developed CWA § 316(b) standards for specific facilities on a case-by-case, Best Professional Judgment (“BPJ”) basis. *See, e.g., Dominion I*, 12 E.A.D. at 538, 601-02. Until relatively recently, the only pertinent regulation was 40 C.F.R. § 401.14, which essentially repeats the text of CWA § 316(b). In December 2001, however, EPA promulgated the Phase I CWA § 316(b) Rule setting categorical, technology-based BTA requirements for *new* facilities with CWISs. 66 Fed. Reg. 65,256 (Dec. 18, 2001) (codified at 40 C.F.R. Part 125, Subpart I).⁴ In July 2004, EPA promulgated the Phase II CWA § 316(b) Rule, which set categorical, technology-based BTA requirements for large, existing power plants. 69 Fed. Reg. 41,576 (July 9, 2004) (codified at 40 C.F.R. Part 125, Subpart J). The “Phase II Rule” became effective on September 7, 2004, and applied to facilities, such as Canal Station, with, among other

⁴ This rule was upheld in all respects except for provisions regarding compliance through environmental restoration measures, which the court held were not in accordance with the CWA. *Riverkeeper, Inc. v. US EPA*, 358 F.3d 174 (2nd Cir. 2004).

things, a CWIS withdrawing 50 MGD or more of cooling water from a water of the United States. *See* 40 C.F.R. § 125.91(a)(2):

The Phase II Rule established categorical performance standards for reducing impingement mortality and entrainment (reduce impingement mortality by 80 to 95 percent and entrainment by 60 to 90 percent). 40 C.F.R. § 125.94(b)(1) and (2). The Rule also established five options for complying with the regulations, including the possibility of seeking less stringent site-specific performance standards in defined circumstances as well as approval for an environmental “restoration measures” compliance plan. 40 C.F.R. §§ 125.94(a), (b) and (c).

The Phase II Rule also contained a “transition provision,” 40 C.F.R. §§ 125.95(a)(2)(i) and (ii), so that expired NPDES permits requiring CWA § 316(b) limits could be reissued without waiting for the lengthy and complex compliance option selection and approval process under the Phase II Rule to conclude. Under the transition provision, BTA determinations under CWA § 316(b) were to continue to be made on a BPJ basis for facilities, like Canal Station, whose permits had already expired but had not yet completed the process for determining limits under the Phase II Rule.⁵ *Id.*

⁵ This understanding of 40 C.F.R. § 125.95(a)(2)(ii) is confirmed by EPA’s August 19, 2004, “Questions and Answers” regarding the Phase II Rule posted on EPA’s website (www.epa.gov/waterscience/316b). In Section 2 of that document, Question & Answer No. 3 explains how to address permitting circumstances such as those of Canal Station:

Q3: The Draft Permit is proposed after the 316(b) Phase II rule takes effect. At the time of permit issuance, the facility has not submitted the comprehensive demonstration study and other information needed to determine limitations under the 316(b) Phase II rule. What is the basis for the 316(b) limitations in the permit?

A3: The 316(b) limitations in the proposed and Final Permit would be based on BPJ under authority of 40 C.F.R. § 125.95(a)(2)(ii). The permit would also need to include a schedule requiring the facility to submit the comprehensive demonstration study and other information required by 40 C.F.R. § 125.95 as expeditiously as practicable but not later than January 7, 2008.

On January 25, 2007, the United States Court of Appeals for the Second Circuit decided challenges to the Phase II Rule. *Riverkeeper, Inc. v. EPA*, 475 F.3d 83 (2d Cir. 2007), cert. granted sub nom. *Entergy Corp. v. EPA*, 128 S. Ct. 1867 (2008) (“*Riverkeeper II*”). The *Riverkeeper II* court remanded significant portions of the Phase II Rule to the Agency, including provisions allowing site-specific performance standards, see *id.* at 113-15, and compliance through environmental restoration measures, see *id.* at 108-10, either because they were unauthorized by the CWA, because the Agency failed to provide adequate notice-and-comment regarding their terms, or because they might require further revision in light of other aspects of the court’s decision. See *id.* at 111-13.

In response to *Riverkeeper II*, EPA on July 9, 2007, published a notice in the Federal Register formally suspending the Phase II Rule. See 72 Fed. Reg. 37,107 (July 9, 2007). Effective upon publication, the notice suspended all of 40 C.F.R. Part 125, Subpart J, except for § 125.90(b), which provides that “[e]xisting facilities that are not subject to requirements under this [subpart J] or another subpart of this part [125] must meet requirements under section 316(b) of the CWA determined by the Director on a case-by-case, best professional judgment (BPJ) basis.” The suspension notice stated:

[n]otably, EPA by this action is not suspending 40 CFR 125.90(b). This retains the requirement that permitting authorities develop BPJ controls for existing facility cooling water intake structures that reflect the best technology available for minimizing adverse environmental impact. This provision directs permitting authorities to establish section 316(b) requirements on a BPJ basis for existing facilities not subject to categorical section 316(b) regulations. Establishing requirements in this manner is consistent with the CWA, case law, and the [EPA’s] March 20, 2007 memorandum’s direction to do so. Phase II facilities are not subject to categorical requirements under Subpart J while this suspension is in effect, and therefore this provision applies in lieu of those requirements.

Id. at 37,108.⁶ EPA further explained that the suspension provides a clear statement that the existing Phase II requirements are suspended and are not legally applicable. *Id.* at 37,108. The suspension notice also stated that “[i]n the event that the [*Riverkeeper II*] decision is overturned. . . the Agency will take appropriate action in response.” 72 Fed. Reg. 37,108 at n. 1.

III. Procedural History

A. Draft Permit Development

Prior to issuance of the permit currently on appeal, Region 1 had last issued Canal Station’s NPDES permit on June 23, 1989 (the “1989 Permit”). The 1989 Permit expired on June 23, 1994, but was administratively continued under 40 C.F.R. § 122.6(a) and (b). *See* Ex. 3 (Fact Sheet) at cover page, 1.

On April 21, 2000, Region 1 sent the Permittee an information request letter under CWA § 308(a), 33 U.S.C. § 1318(a), seeking information needed to develop permit limits under certain provisions of the CWA, including § 316(b). Ex. 5 (AR 45). At that time, as discussed above, there were no applicable national, categorical standards and permit limits under CWA § 316(b) were required to be developed on a BPJ basis. Region 1’s letter directed the Permittee to evaluate various options, including closed-cycle cooling, for possible use at Canal Station as the BTA under CWA § 316(b). *Id.* at 3, 4.

⁶ As indicated in the Federal Register notice, EPA had earlier issued a March 20, 2007, Memorandum from Benjamin Grumbles, EPA’s Assistant Administrator for Water, to “provide guidance on the status of the Cooling Water Intake Structure Phase II regulation . . .” Ex. 8. *See* Ex. 2 (RTC) at IX-18. The memorandum stated that “[w]ith so many provisions of the Phase II Rule affected by the [*Riverkeeper II*] decision, the rule should be considered suspended.” *Id.* The memorandum further stated that EPA anticipated issuing a Federal Register notice to formally suspend the Rule and that “[i]n the meantime, all permits for Phase II facilities should include conditions under section 316(b) of the Clean Water Act developed on a Best Professional Judgment basis. See 40 C.F.R. § 401.14.” *Id.*

On April 30, 2003, Region 1 sent a follow-up information request letter under CWA § 308. Ex. 6 (AR 8). This letter requested additional information regarding BTA options for Canal Station's CWIS, again expressly including closed-cycle cooling. *Id.* at 2. At the time of this letter, CWA § 316(b) continued to be applied on a BPJ basis.

In response to Region 1's requests for information, the Permittee submitted supplemental permit application material in October 2003, including a report by its contractor Alden Research Laboratory, Inc. ("Alden"). Alden's report entitled, "Evaluation of Fish Protection Alternatives for the Canal Generating Station" ("Alden Report"), evaluated a range of options for reducing entrainment and impingement by Canal Station's CWISs, including conversion to closed-cycle cooling. *See* Ex. 7 (Attachment C-1 of AR 158 (Mirant October 30, 2003, Permit Application)), at 1-1, Sections 3 – 6, Appendices A and B. Early in the analysis, a number of unproven or clearly ineffective technologies were ruled out (*e.g.*, "behavioral barriers"), *id.* at Section 3, while more promising technologies were assessed in greater detail. *Id.* at Sections 4 - 6. Options receiving more thorough analysis included closed-cycle cooling; operational restrictions or changes in pumping equipment or practices to reduce intake flow volumes; and certain types of "screening systems" and related intake modifications intended (a) to prevent entrainment by blocking tiny eggs and larvae from being drawn into the Facility's cooling system, and (b) to prevent impingement by reducing intake velocity sufficiently to allow adult and juvenile fish to swim away and avoid being caught against the screens. *Id.* at Sections 4 – 6, Appendices A and B.

As described above, EPA's Phase II CWA § 316(b) Rule became effective on September 7, 2004. 69 Fed. Reg. 41,576 (July 9, 2004). On December 30, 2004, Region

I sent Mirant another information request letter under CWA § 308. Ex. 11 (AR 341, Region 1 § 308 Letter to Mirant). This letter called for Mirant to submit certain information required to support the development of CWA § 316(b) limits under the Phase II Rule. The letter required that certain information be submitted by October 6, 2006, and that other information be submitted by January 8, 2008. *Id.* at 2-3. Region 1 indicated that it was authorized to issue a permit with BPJ-based CWA § 316(b) limits under 40 C.F.R. § 125.95(a)(2)(ii) of the Phase II Rule (*i.e.*, the transition provision), and that it was likely to issue a draft permit on a BPJ basis before Mirant's October 6, 2006, submission. *Id.* at 3-5.

Region 1 proposed a new draft permit for Canal Station on December 22, 2005 ("Draft Permit"). Ex. 4 (AR 86, Draft Permit). In the Fact Sheet issued in support of the Draft Permit, the Region again explained that the Phase II Rule's transition provision, 40 C.F.R. § 125.95(a)(2)(ii), applied to the Canal Station permit and that BTA-based limits under CWA § 316(b) would accordingly be developed on a BPJ basis. Ex. 3 (Fact Sheet) at 26-27, 45. *See also* Ex. 2 (RTC) at IX-10. In addition, Region 1 explained that various parties were challenging the Phase II Rule in federal court, Ex. 3 (Fact Sheet) at 25, and outlined how it intended to proceed if the Rule was not in effect at the time of final permit issuance:

... if it later turns out that for some reason the Phase II Regulations are not in effect at the time this Final Permit becomes effective (e.g., they have been stayed or remanded as a result of the litigation that has been filed regarding the new regulations), then the Final Permit would still have a proper BPJ-based foundation for its § 316(b) requirements.

Id. at 27. Thus, Region 1 explained that the Draft Permit was based on a BPJ analysis *in accordance with* the Phase II Rule, and that any final permit would be based on a BPJ analysis *regardless of* the status of the Phase II Rule.

For the Draft Permit, Region 1 evaluated a number of technological options for reducing entrainment and impingement mortality at Canal Station. *Id.* at 39-47. This evaluation was partly based on consideration of the Alden Report's assessment of technological options. *See id.*

Region 1 and the Alden Report both evaluated various types of screening systems and found that each had significant problems and/or uncertainties. Ex. 3 (Fact Sheet) at 39-43, 44-46; Ex. 7 (Alden Report) at 3-4 to 3-5, 3-7 to 3-8, 4-2 to 4-9, 4-13 to 4-16, 4-18 to 4-24, Sections 5 and 6, Appendix A. First, wedgewire screens offered the potential for significant entrainment and impingement reduction in an environment like the Cape Cod Canal, which has a relatively high velocity current that "sweeps" past the CWISs. Ex. 3 (Fact Sheet) at 42-43; Ex. 7 (Alden Report) at 4-4 to 4-6. However, the Region ultimately deemed the technology impracticable for application at Canal Station because the U.S. Army Corps of Engineers ("Corps"), which governs construction activity in the Cape Cod Canal, informed Region 1 that a wedgewire screen installation would unacceptably interfere with navigation by extending into the Canal. Ex. 3 (Fact Sheet) at 42-43, 46. *See also* Ex. 2 (RTC) at IX-90 to IX-91 (quoting Mirant comments regarding serious issues that might prevent use of wedgewire screens and suggesting that Region 1 did not take these concerns seriously enough). The Corps also questioned whether the screens would stand up to winter icing conditions. Ex. 3 (Fact Sheet) at 42. Region 1

ultimately proposed that wedgewire screens could receive further consideration *if* the navigational and engineering issues could be resolved. *Id.* at 42-43, 46.

Second, Region 1 assessed fine-mesh “Ristroph” screens and explained that they might have some potential for reducing entrainment and impingement mortality, but Region 1 and the Alden Report both found that the extent of adverse impact reduction achievable by this technology was uncertain because (a) the eggs of some species of concern at Canal Station would be smaller than the openings in the fine-mesh screens and, therefore, would continue to be entrained, and (b) the extent to which formerly entrained eggs and larvae could survive being blocked (*i.e.*, impinged) by the fine-mesh screens was unclear, as was the extent to which it would be possible to safely remove any surviving organisms from the screens and return them to the Canal.⁷ Ex. 3 (Fact Sheet) at 41-42, 46; Ex. 7 (Alden Report) at 4-2 to 4-4, 6-1. The Region ultimately expressed agreement with the Alden Report that this technology “would likely result in some level of improvement but that there are limits to what it can achieve and additional study would be needed to characterize its overall effect.” Ex. 3 (Fact Sheet) at 41-42. Finally, consistent with the Alden Report, Region 1 ruled out other types of screening systems, either because they were impracticable for application at Canal Station or because they would help reduce impingement mortality but not entrainment. Ex. 3 (Fact Sheet) at 43; Ex. 7 (Alden Report) at 4-6 to 4-9, 6-1.

EPA also considered the Alden Report’s options for reducing impingement mortality and entrainment by pumping modifications to cut water withdrawal volumes by up to 60 percent. Ex. 3 (Fact Sheet) at 43-44; Ex. 7 (Alden Report) at 4-9 to 4-10, 5-2, 5-

⁷ See 69 Fed. Reg. 41599 (July 9, 2004) (Preamble to Final Phase II Rule) (“EPA notes that screening to prevent organism entrainment may cause impingement of those organisms instead.”).

7, 6-1 to 6-2, Appendix B. Options evaluated included shutting down some of the facility's intake pumps, throttling discharge valves, or using variable speed drives. Ex. 3 (Fact Sheet) at 43. The Alden Report estimated this approach to be the most expensive of all the options reviewed, however, because of the curtailed electrical generation that it predicted would be necessary if a 60 percent flow reduction was mandated. Ex. 3 (Fact Sheet) at 42; Ex. 7 (Alden Report) at 5-7, 6-1. This was, at least in part, because Alden predicted that reduced cooling water volumes would cause the Facility to violate its permitted thermal discharge limits unless generation was curtailed. Ex. 3 (Fact Sheet) at 43; Ex. 7 (Alden Report) at 4-10, 5-2, 5-7, 6-1.

Finally, reducing intake flow by converting Canal Station to closed-cycle cooling was also evaluated. Ex. 3 (Fact Sheet) at 40, 44-46; Ex. 7 (Alden Report) at 3-6, 3-8, 4-11 to 4-12, 5-2, 5-7, 6-1 to 6-2, Appendix B. Both Region 1 and Mirant deemed this option to be feasible. Ex. 7 (Alden Report) at 3-6, 3-8, 4-11, 6-1 to 6-2. As the Region stated in the Fact Sheet for the Draft Permit:

[a] mechanical draft cooling tower could be retrofitted to the existing circulating system at Canal Station. Many of the components of the condenser system would remain intact and the flow through the condenser would remain approximately the same. Land is available at the site and construction could take place independent of the existing plant operations.

Ex. 3 (Fact Sheet) at 44. The Fact Sheet for the Draft Permit noted the Alden Report's prediction that "mist eliminators and plume abatement equipment would be required to minimize impacts on nearby transportation . . .," *id.*, but the Region went on to explain that "whether or not plume abatement equipment would be needed would require careful analysis of many factors, but that if they were required, it would add cost to the cooling tower system." *Id.* Still, both Region 1 and the Alden Report estimated that this option

would be both less expensive (approximately \$108 million versus \$160 million) and capable of larger flow and entrainment/impingement reductions than the reduced pumping options (reductions of from 70 to 98 percent for closed-cycle cooling, depending on certain factors, versus reductions of 60 percent or less for reduced pumping). *Id.* at 44, 46; Ex. 7 (Alden Report) at 3-6, 3-8, 4-9 to 4-12, 5-2, 5-7, 6-1 to 6-2. Therefore, Region 1 eliminated the reduced pumping options in favor of the closed-cycle cooling option as a means of reducing the volume of water withdrawn. Ex. 3 (Fact Sheet) at 43-44.

Although less expensive than the reduced pumping options, Region 1 explained that the costs estimated by the Alden Report for closed-cycle cooling were still substantial, and approximately ten times the cost estimated for the screening options. *See* Ex. 3 (Fact Sheet) at 44, 46. Region 1 also noted that:

... Alden did not appear to quantify certain costs of Alternative 6 [(i.e., closed-cycle cooling)], such as the cost of lost generation during any construction-related plant shutdowns. Therefore, this comparison of costs between the alternatives may warrant refinement in the future.

Id. at 44. Nevertheless, the analysis indicated that closed-cycle cooling would achieve the largest reductions in adverse impacts of all the options, and substantially larger reductions than the screening options. Closed-cycle cooling would reduce entrainment and impingement by 70-98%, while the screening options would reduce entrainment by an uncertain degree and would also cause an uncertain degree of increased impingement mortality. Ex. 3 (Fact Sheet) at 44, 46; Ex. 7 (Alden Report) at 4-3 to 4-4, 4-6, 4-11 to 4-16, 6-1 to 6-2.

The Fact Sheet for the proposed permit reflects Region 1's views about the appropriateness of closed cycle cooling systems for Mirant. Region 1 stated that:

[t]he adverse effects of entrainment and impingement by the plant's intake structures could be avoided or reduced by the installation of existing, practicable cooling water intake technologies and the implementation of practicable operational measures at Canal Station. Some combination of steps will be needed to meet the CWA § 316(b) requirement that the design, location, construction and capacity of cooling water intake structures reflect the BTA for minimizing adverse environmental effects.

Ex. 3 (Fact Sheet) at 45. The Region also stated that it had “assessed the entrainment impacts of Canal Station and ... determined that control measures to reduce entrainment are necessary to provide the BTA for minimizing adverse environmental impacts, as required by CWA § 316(b).” *Id.* at 46. Region 1 further stated that:

... permit limits based on the installation of Alternative 6 [(i.e., closed-cycle cooling)], which would yield the largest entrainment and impingement mortality reduction of the six alternatives, would satisfy CWA § 316(b)'s BTA requirements, see 40 C.F.R. § 125.94(a)(1)(i), and that Alternative 6 remains open to Canal Station as a potential means of compliance.

Id. at 44.

The Fact Sheet for the Draft Permit also reflects the tension inherent in developing CWA § 316(b) permit conditions on a BPJ basis at the same time that the Agency was phasing in the new Phase II national requirements. The Region's BPJ determination at this stage of the permit proceeding was informed by the provisions of the then effective, applicable Phase II Rule, which raised several issues with respect to the potential selection of closed-cycle cooling as the BTA. As a result, Region 1 stated that it was not selecting closed-cycle cooling as the prohibitive BTA at Canal Station for the Draft Permit, but it remained as a possible BTA for the final permit. It explained that:

... EPA has assessed the entrainment impacts of Canal Station and has determined that control measures to reduce entrainment are necessary to provide the BTA for minimizing adverse environmental impacts, as required by CWA § 316(b). While Canal could comply with CWA § 316(b)'s BTA requirement by deciding to retrofit its cooling system with

closed-cycle cooling (Alternative 6, discussed above), EPA is not *presently* prepared to mandate closed-cycle technology in this permit because of the need to further evaluate its cost as well as the performance capabilities of other significantly less expensive alternatives. Regarding the other technologies that can reduce entrainment, further evaluation is needed of their entrainment reduction capabilities, any offsetting impingement mortality increases they might cause, their costs, and any problems with engineering/logistical practicability that they might pose (e.g., possible interference with navigation in the Cape Cod Canal).

EPA notes that the new Phase II Regulations require the development of the information necessary to compare compliance alternatives and identify BTA requirements, and that deadlines for submitting this information are phasing in over the next few years. Thus, for example, facilities must submit a Proposal for Information Collection (PIC) by October 2006 and a Comprehensive Demonstration Study (CDS) by January 2008. See 40 C.F.R. § 125.95(a)(2)(ii) and (b). Therefore, EPA's site-specific BPJ determination of BTA limits under CWA § 316(b) with respect to entrainment reduction for Canal's permit is to require Canal to follow the procedures for developing, selecting, and implementing one of the five compliance alternatives, mandated by the Phase II Regulations. These requirements are spelled out in Section 8 of the Draft Permit and will include submission to EPA and DEP as soon as practicable, but no later than October 7, 2006, of the permittee's preliminary selection of one of the five compliance alternatives discussed in 40 C.F.R. § 125.94 for providing the Best Technology Available for minimizing adverse environmental impact and submission to EPA and DEP of the permittee's final compliance alternative selection no later than January 7, 2008.

Id. at 45-46 (emphasis added)). *See also id.* at 44 (discussing why the Region was not mandating the option of closed-cycle cooling as the BTA for Canal Station “at this time”).

Despite the superior performance of closed-cycle cooling, the Region proposed not to require the closed-cycle cooling-based alternative “at this time” unless and until these issues could be resolved. *Id.* at 44. First, as indicated above, Region 1 stated that there were questions about the cost of closed-cycle cooling and the performance capabilities and technical difficulties associated with of the screening options. *Id.* at 46. Under the Phase II Rule, the five available compliance options included the chance for a

facility to obtain less stringent, site-specific standards if it could demonstrate that its costs for meeting the Rule's otherwise applicable performance standards would be significantly greater than either the benefits of meeting those standards or the costs that EPA had contemplated would be borne by like facilities in meeting the standards. *See* 40 C.F.R. § 125.94. Second, Region 1 considered the fact that the Rule also allowed permittees to propose meeting applicable performance standards with restoration measures. *Id. See also* Ex. 3 (Fact Sheet) at 46, 25.

Finally, the Region recognized that there might be equitable concerns with imposing entrainment reduction limits on a BPJ basis that reflected closed-cycle cooling as the BTA for Canal Station when the Phase II Rule allowed facilities to seek less stringent site-specific performance standards once the Phase II regulations were fully implemented.⁸ *Id.* For example, it was possible that Canal Station would have been able to qualify for and meet such standards using one of the screening systems evaluated in the Draft Permit, or an environmental restoration program, or a combination of the two.

Region 1 proposed that an appropriate way to address the concerns and uncertainties raised by the facts of the case without a long-term delay in permit issuance would be for the Region to address entrainment reduction by including in the permit (a) a

⁸ Region 1's decision to account for equitable considerations when applying its BPJ is supported by *NRDC v. EPA*, 863 F.2d 1420 (9th Cir. 1988). *See* Ex. 2 (RTC) at IX-15. In this case, the United States Court of Appeals for the Ninth Circuit indicated that in the absence of national categorical effluent limitations, the Agency should include permit conditions based on a BPJ application of the operative technology standard. 863 F.2d at 1425-28, 1432-33. The court also decided, however, that it would defer to EPA's exercise of discretion not to include a BPJ-based limit for a particular pollutant because of the unusual facts of the case under which EPA expected to promulgate a national guideline in the near future which could have been far less expensive to comply with than a BPJ limit determined at the time of permitting. *Id.* at 1425-28. This sort of equitable concern was equally (or more) acute for Region 1 with regard to the Canal Station permit because – despite the fact that, as discussed above, the Rule provided expressly for BPJ permitting during the transition period to the Phase II standards, *see* 40 C.F.R. § 125.95(a)(2)(ii) – the Phase II Rule was already *in effect*. While Region 1 was not legally required to take this approach, the Region proposed it as a reasonable way of dealing with the equitable concerns raised by the facts of the case. *See also* Ex. 2 (RTC) at IX-20 to IX-22.

schedule that tracked the Phase II Rule's schedule for the submission of information for determining entrainment reduction requirements to comply with the Rule, and (b) a requirement that the BTA subsequently identified in that process be implemented. Ex. 3 (Fact Sheet) at 46; Ex. 4 (Draft Permit) at 8-9 (Part I.A.8), 15 (Part I.A.13.g). Although the Draft Permit failed to include specific technology-based entrainment requirements, the Region proposed that embodying the Rule's BTA determination schedule in the Draft Permit would be appropriate for entrainment reduction because it would avoid possible inequities associated with foreclosing alternatives specifically authorized by the then effective Phase II Rule.⁹

B. Public Comments on the Draft Permit and Final Permit Development

Comments were submitted to Region 1 regarding the Draft Permit by Mirant and a number of federal and state natural resource protection agencies. With regard to entrainment reduction requirements, Mirant indicated support for the Draft Permit's schedule of information gathering and submissions tracking the Phase II Rule's requirements. Ex. 2 (RTC) at IX-2 (quoting Mirant's comments). Mirant specifically commented on and opposed the option of closed-cycle cooling for its facility.

Indeed, Mirant urged that any additional requirements would:

... exceed EPA's regulatory authority under the Phase II Rules, circumventing the step-wise process EPA put in place to ensure that permittees have an opportunity to select compliance alternatives and design "technology installation and operation plans" ("TIOPs") that will comply with the applicable performance standards. For the reasons discussed in the following sections, Mirant Canal believes that imposition of § 316(b)-related requirements beyond those in Part I.A.8 are neither

⁹ With regard to reducing impingement mortality, Region 1 did not have the same equitable concerns that it had with regard to entrainment reduction. This was because steps for reducing impingement mortality were both relatively straightforward and relatively inexpensive. See Ex. 3 (Fact Sheet) at 46-47. Therefore, Region 1 proposed specific substantive requirements for reducing impingement mortality.

legally justified nor warranted as a practical or environmental matter. Imposing such requirements, when they are or may prove to be inconsistent with the results of the PIC/CDS process would be arbitrary and capricious, especially given the fairly short period of time involved until those reports are complete.

Id. (RTC) at IX-3 (quoting Mirant's comments) (emphasis in original). With regard to the closed-cycle cooling option, Mirant stated that:

[w]ith respect to EPA's analysis of the potential applicability of wet recirculating cooling [(i.e., closed-cycle cooling)] at the Canal Station, Mirant Canal disagrees with EPA's statement that this alternative "remains open" as a potential means of compliance. Fact Sheet, p. 44. At a projected cost of \$122.2 million, even without detailed cost-benefit analysis, the cost of this option is self-evidently "significantly greater" than the benefits and could not be justified under the Phase II Rule. Equally important, this option raises a number of environmental concerns, including creation of a fog bank in the area of the plant (and associated road hazards to navigation), noise impacts, aesthetics, creation of drift and solid waste, and others. Mirant Canal also notes that EPA specifically concluded, as part of its Phase II rulemaking, that retrofitting recirculating cooling should not be used as the basis for setting BTA performance standards.

We note also that EPA says with respect to this alternative that "[a]nother option that could be considered would be to provide closed-cycle cooling for some, but not all, of the plant's cooling needs." In addition to the objections noted above, which apply equally to this option, it would diminish potential entrainment and impingement benefits while not necessarily reducing the costs.

Id. (RTC) at IX-4 to IX-5 (quoting Mirant's comments).

Mirant further commented that "... the existence of the final Phase II Rule makes the alternatives analysis the Agency undertook unnecessary." *Id.* at IX-88 (quoting Mirant's comments). Nevertheless, "for the sake of argument," *id.*, Mirant commented that:

... based on the information available at this time, none of the technology alternatives EPA rejected would qualify as "BTA," nor would EPA have had any reasonable justification for requiring them.

We also note that for none of these technologies had Mirant Canal performed the kind of detailed engineering, biological, and cost assessment necessary to select among options for purposes of the Phase II Rule, or to determine whether an alternative performance standard is appropriate for this site. Indeed, for many technologies that might be considered, pilot testing could prove necessary to adequately assess performance in this environment.

Id. at IX-88 to IX-89.

Meanwhile, the Massachusetts Division of Marine Fisheries (“MA-DMF”)

commented that:

Section 5.3 of the Fact Sheet provides technological options for entrainment reduction required under section 316(b) of the Clean Water Act, and indicates EPA may give further consideration to alternative 1 (expand intake and install fine mesh Ristroph screens), 2 (retrofit intake with submerged, cylindrical wedge wire screens), and 6 (retrofit plant with closed-cycle cooling system). Alternative 1 may reduce entrainment of some but not all fishery species, and alternatives 1 and 2 will cause mortality to fish eggs and larvae from impingement on the screen surfaces. Therefore *Marine Fisheries* supports EPA alternative 6 to retrofit the plant with a closed-cycle cooling system. Further evaluation of available technological and/or operational measures is dependent on the Proposal for Information Collection and the Comprehensive Demonstration Study that will be submitted to EPA.

Id. at IX-92 (quoting MA-DMF). In addition, the National Marine Fisheries Service (“NMFS”) of the National Oceanic and Atmospheric Administration (“NOAA”) commented on the permit in the context of its review under the Essential Fish Habitat (“EFH”) provisions of the Magnuson-Stevens Fishery Conservation and Management Act. *See id.* at IX-5 (quoting NMFS). NMFS initially objected to the Draft Permit’s failure to specify the steps that would be taken to reduce entrainment at Canal Station, and the level of adverse impact that would remain. *Id.* As a result, NMFS called for the EFH consultation to be held in abeyance until the information was developed. *Id.* NMFS subsequently withdrew this objection, however, on the grounds that the Draft Permit’s

information submission requirements were based on the “implementation period associated with the Clean Water Act 316(b) Phase II regulations . . .” *Id.* NMFS then stated its support for reducing entrainment mortality and its understanding that the BTA for entrainment reduction would be determined in the future based on the information submitted.¹⁰ *Id.*

While Region 1 was working to develop the final permit for Canal Station, the Second Circuit issued the *Riverkeeper II* decision, as discussed above, on January 25, 2007. *Riverkeeper II* not only remanded core provisions of the Rule to EPA for further proceedings, but held it unlawful either to use cost/benefit analysis in making BTA determinations under CWA § 316(b), 475 F.3d at 99-105, 114-15, or to use environmental restoration programs to satisfy the BTA standard. *Id.* at 108-10. Furthermore, EPA responded to *Riverkeeper II* by suspending the Phase II Rule except for 40 C.F.R. § 125.90(b), thus dictating that CWA § 316(b) permitting should go forward on a BPJ basis until further notice. *See* 72 Fed. Reg. 37,107 (July 9, 2007). *See also* Ex. 2 (RTC) at IX-18 to IX-19.

In light of *Riverkeeper II* and EPA’s subsequent suspension of the Phase II Rule, Mirant requested termination of the pending CWA § 308 information request from Region 1 that tracked the information submission requirements of the Phase II Rule (and Draft Permit). *See* Ex. 9 (AR 347, October 29, 2007, Letter from Shawn Konary, Director, Environmental Policy and Regulatory Affairs, Mirant Canal, LLC, to Stephen S. Perkins, Director, Office of Ecosystem Protection, U.S. EPA, Region 1); Ex. 11

¹⁰ In addition, the Massachusetts Office of Coastal Zone Management and the Riverways Program of the Massachusetts Department of Fish and Game sent comment letters that called for improvements to reduce mortality from entrainment and impingement, but did not comment on specific technologies. In effect, these agencies accepted that entrainment reduction requirements would be specified after completion of the Phase II Rule compliance option determination process. *Id.* (RTC at IX-6) (quoting state agencies).

(Region 1 CWA § 308 Letter). Mirant Canal did not request that Region 1 re-notice the permit for public comment. *Id.* Instead, Mirant stated its understanding that that permit development would continue on a BPJ basis in accordance with 40 C.F.R. § 125.90(b), and stated that “it would be happy to discuss with the Region *whether any information in addition to that already submitted by Mirant Canal is necessary* in order for EPA to make a BPJ § 316(b) determination.” (emphasis supplied).

In response, Region 1 confirmed that the final permit would continue to be developed on a BPJ basis, and informed Mirant that “EPA intends to issue a final permit in the near future that contains 316(b) requirements based on BPJ.” Ex. 10 (AR 325, November 29, 2007, Letter from Stephen S. Perkins, Director, Office of Ecosystem Protection, U.S. EPA, Region 1, to Shawn Konary, Director, Environmental Policy and Regulatory Affairs, Mirant Canal, LLC). During the period between the *Riverkeeper II* decision and issuance of the Final Permit, Mirant never requested reopening of the comment period or submitted additional information regarding the closed-cycle cooling alternative.

Region 1 issued the final permit to Canal Station on August 1, 2008 (“Final Permit”), Ex. 1 (AR 287, Final Permit), approximately 18 months after *Riverkeeper II* was issued. In light of the legal developments described above, and the public comments received on the Draft Permit, Region 1 reconsidered the alternatives evaluated for the Draft Permit and discussed in the Fact Sheet for the Draft Permit. Ex. 2 (RTC) at IX-7 to IX-8, IX-15 to IX-46. As the Region explained:

[t]he suspension of the Phase II Rule[] and its national, categorical BTA determination as well as specific provisions regarding information submissions and compliance alternatives has clarified the uncertainties and resolved the equitable concerns raised by the Phase II Rule that prompted

EPA to forego selection of a single, definitive BTA at the Draft Permit stage.

Id. at IX-20 (footnote omitted). Region 1 further explained that because “the Rule’s information gathering requirements and schedule are no longer in effect, they no longer provide a basis for the Draft Permit’s conditions in that regard.” *Id.* See also *id.* at IX-21.

Region 1 then concluded that closed-cycle cooling represented the BTA for entrainment reduction at Canal Station. *Id.* at IX-20 - IX-21. The Region pointed out that both it and Mirant had found closed-cycle cooling to be technologically feasible and to result in the largest reductions in entrainment and impingement mortality (*i.e.*, to *minimize* adverse environmental impacts). *Id.* The Region also concluded that both it and Mirant had found closed-cycle cooling technology to be expensive, but economically practicable for Canal Station. See *id.* at IX-27, IX-29, IX-34 to IX-36. In addition, the Region determined that the Rule’s suspension had removed the equitable concerns that had prompted Region 1 to defer specifying BTA-based entrainment reduction requirements in the Draft Permit. *Id.* (RTC at IX-20 to IX-21).¹¹ Under the Phase II Rule’s transition provision, Region 1 could have determined on a BPJ basis that closed-cycle cooling would minimize adverse environmental impacts at Canal Station, but did not because the Facility might have been able to qualify for less stringent, site-specific standards under the cost/benefit or cost/cost provisions of the Rule, and could have sought approval of an environmental restoration alternative in lieu of specific CWIS technology. *Id.* at IX-20 to IX-21, n. 8. The Phase II Rule was no longer in effect, however, and the Region explained that it was uncertain when a new Phase II Rule would

¹¹ Region 1 also found that its conclusion at the Draft Permit stage that the Alden Report had not accounted for the cost of generating outages in its assessment of closed-cycle cooling, see Ex. 3 (Fact Sheet) at 44, was in error. Therefore, this issue was resolved for the Final Permit. Ex. 2 (RTC) at IX-35, n. 34.

come into effect. *Id.* at IX-19 to IX-21. Therefore, Region 1 based the Final Permit's entrainment reduction requirements on closed-cycle cooling, which, in Region 1's view, was plainly the BTA for Canal Station based on the record in this case.¹² *See id.* at IX-19 to IX-21, IX-50.

Although Region 1 based the entrainment reduction requirements of Part I.A.13.g of the Final Permit on closed-cycle cooling, the Final Permit does *not* specifically dictate that closed-cycle cooling must be used. *See* Ex. 1 (AR 287, Final Permit) at 16 (Part I.A.13.g and h); Ex. 2 (RTC) at IX-21 to IX-22, IX-50 to IX-51. Rather, the Final Permit sets a *performance standard* requiring that entrainment be reduced to a level comparable to what could be achieved by a closed-cycle cooling system optimized for Canal Station. *Id.* In its RTC, Region 1 explained as follows:

Although EPA has now definitively determined that closed-cycle cooling is the BTA for Canal Station, it should also be understood that the Final Permit does not *per se* require the installation of closed-cycle cooling. EPA has, instead, drafted the Final Permit to impose a *performance standard* that requires performance comparable to what could be achieved by an optimized closed-cycle cooling system at Canal Station, but without specifically mandating the use of that technology. The Permittee may use *any* technology capable of meeting the performance standard. The Fact Sheet for the Draft Permit discussed technological alternatives to closed-cycle cooling and the uncertainties regarding their performance that precluded their being designated as the BTA at that time. As discussed above, the record currently demonstrates that these uncertainties remain. Nevertheless, the Final Permit's conditions do not preclude using these (or any other) technologies if it is later determined that they are able to meet the Permit's performance standards.

Furthermore, EPA has expressly stated that it understands that when the Final Permit is issued, Canal Station will not already have the technology

¹² Region 1 also stated, Ex. 2 (RTC) at IX-29, that:

It is important to emphasize, once again, that this is not a finding of what would constitute the BTA on a national, industrial category-wide basis. For this permit analysis, EPA is only making a site-specific BTA determination and is not making any sort of determination or undertaking an analysis of what would constitute the BTA on a national, industrial category-wide basis.

in place to comply with the Permit's limits, though the Permit will require immediate compliance. Therefore, EPA expects to issue the Permittee an administrative compliance order that will provide an enforceable timetable under which the Permittee can consider alternative ways of coming into compliance with the Final Permit's performance standards and ultimately select and install an appropriate compliance option. If as a result of this analysis Mirant thinks that closed-cycle cooling is not the correct BTA, and that the Final Permit should not contain performance standards based on that technology, then the Final Permit specifies that Mirant can apply for a permit modification.

Id. (RTC) at IX-50 to IX-51. *See also id.* at IX-21 to IX-22.

In concluding that closed-cycle cooling was the BTA, Region 1 acknowledged that Mirant's comments opposed such a decision, but also noted that MA-DMF expressly supported it, while the comments from the other commenting agencies lent general support for the decision. *Id.* (RTC) at IX-22 to IX-23. Region 1 also responded to Mirant's comments that opposed the selection of closed-cycle as the BTA on the grounds of cost/benefit analysis, *id.* at IX-23, and its comments raising concerns about the "creation of a fog bank in the area of the plant (and associated road hazards to navigation), noise impacts, aesthetics, creation of drift and solid waste, and others." *See id.* (RTC) at IX-5, IX-17, IX-28 to IX-46.

While Mirant never asked the Region to reopen the comment period in the eighteen months that followed the Second Circuit remand, the RTC discusses in detail Region 1's consideration of whether it should reopen the public comment period as a result of the differences between the Draft Permit and Part I.A.13.g of the Final Permit. The Region decided not to do so and fully explained its decision. *Id.* (RTC) at IX-46 to IX-53. The Region explained that Part I.A.13.g was a logical outgrowth of the Draft Permit, and that no "substantial new questions" under 40 C.F.R. § 124.14(b) had been raised since the noticing of the Draft Permit and its supporting record. Moreover, the

Region stated that even if such questions had been raised, it would have exercised its discretion not to reopen the public comment period because the permit is long overdue and addresses many important environmental issues, including but not limited to CWIS impacts, and because Region 1 had fully explained its assessment of the issues so as to enable any party to prepare a permit appeal. *Id.* at IX-53.

C. The Current Permit Appeal

On August 1, 2008, Region 1 issued the Final Permit to Canal Station, together with the RTC. Mirant filed a petition for review of the Final Permit with the Board on September 2, 2008 (“Petition”). As a result, the Final Permit is stayed and the 1989 Permit remains in effect. Along with its Petition, Mirant submitted a Joint Scheduling Motion on behalf of it and Region 1 requesting the Board to issue a scheduling order permitting Mirant to file a “Supplemental Petition” by September 30, 2008, and the Region to file its Response to the Petition by December 31, 2008.

After reviewing the Petition and certain other materials, however, the Board issued the *Order Directing Briefing* stating that:

... we hereby order the Region to file a preliminary brief responding solely to Mirant Canal’s contention that it was not provided an adequate opportunity to comment on the contents of Part I.A.13.g of the final permit due to changes between the draft and final permits. In addressing this issue, the Region shall discuss the applicability or inapplicability of 40 C.F.R. 124.14(b) to this permit.

The Board indicated it would hold the Joint Scheduling Motion in abeyance while considering the procedural issue to be addressed by the current round of briefing.

ARGUMENT

IV. Mirant Received an Adequate Opportunity to Comment on the Entrainment Reduction Requirements Embodied in Part I.A.13.g of the Final Permit

A. The Logical Outgrowth Standard

Section 553 of the APA, 5 U.S.C. § 553, requires agencies to provide notice of, and an opportunity to comment on, proposed rules. The courts have applied these APA requirements to EPA's issuance of NPDES permits. *See, e.g., NRDC v. EPA*, 279 F.3d 1180, 1186 (9th Cir. 2002). EPA's NPDES regulations reflect these requirements. *See* 40 C.F.R. §§ 124.6, 124.8, 124.9(a), 124.10, 124.11, 124.15, 124.17(a), 124.18(a) and (b).

In issuing a final permit, EPA may alter the conditions proposed in the draft permit without necessarily triggering the need for a new round of notice and comment.

As the Board has explained:

[a] final permit need not be identical to the corresponding draft permit and, indeed “[t]hat would antithetical to the whole concept of notice and comment.” It is, in fact “the expectation that the final rules will be somewhat different and improved from rules originally proposed by the agency.”

In re District of Columbia Water and Sewer Authority, NPDES Appeal Nos. 05-02, 07-10, 07-11, 07-12, slip op. at 61 (EAB, March 19, 2008) [hereinafter “WASA”] (quoting *NRDC v. EPA*, 279 F.3d 1180, 1186 (9th Cir. 2002)). *See also, e.g., American Medical Ass’n v. United States*, 887 F.2d 760, 767-68 (7th Cir. 1989) (changes between final rule and proposed rule not necessarily trigger need for additional comment).

Additional notice and comment is not required if the changed permit conditions are a “logical outgrowth” of the permitting process. As the United States Supreme Court has explained:

[t]he Administrative Procedure Act requires an agency conducting notice-and-comment rulemaking to publish in its notice of proposed rulemaking “either the terms or substance of the proposed rule or a description of the subjects and issues involved.” The Courts of Appeals have generally interpreted this to mean that the final rule the agency adopts must be “a ‘logical outgrowth’ of the rule proposed.” . . . The object, in short, is one of fair notice.

Long Island Care at Home, Ltd. v. Coke, 127 S.Ct. 2339, 2351 (2007) (citations omitted) (finding notice sufficient for final rule that ultimately rejected proposed rule and reached opposite, but reasonably foreseeable, result). *See also American Medical*, 887 F.2d at 767-68. The Board, too, has applied the logical outgrowth test in NPDES permit appeals to resolve notice issues concerning changed permit conditions. *See WASA*, slip op. at 61 (stating that “a final permit that differs from a proposed permit and is not subject to public notice and comment must be a ‘logical outgrowth’ of the proposed permit.”).¹³

The application of the logical outgrowth standard does not turn on whether the final permit conditions are different, even very different, from the draft permit conditions. Rather, the “‘essential inquiry’” for determining whether a final permit is a logical outgrowth of the permitting process “‘focuses on whether interested parties reasonably could have anticipated the final rulemaking from the draft permit.’” *WASA*, slip op. at 61-62 (quoting *NRDC*, 279 F.3d at 1186). In *American Medical*, the Seventh Circuit stated that the language of APA § 553(b):

¹³ The recent *WASA* decision appears to be the first time the Board expressly applied the logical outgrowth test to resolve a notice issue. Yet, this standard from APA jurisprudence has long been implicit in the Board’s approach to notice issues because, as the Board states in *WASA*, slip op. at 62, “EPA rules and previous Board decisions reflect this standard.” In this regard, the Board points specifically to 40 C.F.R. § 124.14(b), which, as discussed farther below, has often been applied to decide notice issues arising from changed permit conditions. *See, e.g., In re Indeck-Elwood, LLC*, PSD Appeal No. 03-04, slip op. at 28-30 (EAB, Sept. 27, 2006); *In the Matter of Amoco Oil Company*, 4 E.A.D. 954, 980-81 (EAB 1993); *In the Matter of GSX Services of South Carolina, Inc.*, 4 E.A.D. 451, 466-67 (EAB 1992). *See also In the Matter of Old Dominion Electric Corp.*, 3 E.A.D. 779, 797 (Adm’r 1992) (reopening comment period not necessary under § 124.14(b) because, among other reasons, “[t]he revised permit by all accounts is a logical outgrowth of the notice and comment process . . .”).

... makes clear that the notice need not identify every precise proposal which the agency may ultimately adopt; notice is adequate if it apprises interested parties of the issues to be addressed in the rule-making proceeding with sufficient clarity and specificity to allow them to participate in the rulemaking in a meaningful and informed manner.

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The crucial issue, then, is whether parties affected by a final rule were put on notice that "their interests [were] 'at stake'"; in other words, the relevant inquiry is whether or not potential commentators would have known that an issue in which they were interested was "on the table" and was to be addressed by a final rule.

887 F.2d at 767-69. *See also Long Island Care*, 127 S.Ct. at 2351 (notice sufficient where final rule, though rejecting and reaching opposite result from proposal, was a "reasonably foreseeable" possibility); *NRDC*, 279 F.3d at 1188 (logical outgrowth if clear that possible change in approach "was on the table"). In determining whether a final permit could reasonably have been anticipated and is, thus, a logical outgrowth of the draft permit, the Board has also explained that "one of the most salient questions is whether a new round of notice and comment would provide the first opportunity for interested parties to offer comments that could persuade the agency to modify its rule." *Id.* at 61-62 (quoting *NRDC*, 279 F.3d at 1186).

Courts have found changes embodied in a final permit or rule to be reasonably foreseeable when they stem from a range of alternatives described with reasonable specificity by the agency at the proposal stage of the proceedings. *See, e.g., Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983) ("Agency notice must describe the range of alternatives being considered with reasonable specificity. Otherwise, interested parties will not know what to comment on . . ."). This is so even when the final permit conditions were not proposed in the draft permit because, in such cases, interested parties were on notice that they should comment on potential

permit conditions based on the alternative(s) in question. In sum, the logical outgrowth test turns on whether interested parties were on notice that certain issues and alternatives were on the table, such that they could reasonably have anticipated the possibility of the final permit turning out as it did and formulated comments on the alternative in question.

Certainly, an agency will not be allowed “to use the rulemaking process to pull a *surprise switcheroo* on regulated entities.” *Envtl. Integrity Project v. EPA*, 425 F.3d 992, 996 (D.C. Cir. 2005) (quoting *Kooritzky v. Reich*, 17 F.3d 1509, 1513 (D.C. Cir. 1994)). Yet, even a substantial change between a draft and final rule does not necessarily require re-noticing the rule. The crux of the problem facing an agency deciding whether to re-notice a permit lies not in whether there is a switch, but in whether there is truly a surprise. As indicated by the discussion above, courts have declined to require a new notice-and-comment process when a final rule was very different, or even reversed course, from the proposal, so long as the change was reasonably foreseeable. *See Long Island Care*, 127 S.Ct. at 2351 (reasonably foreseeable that agency might ultimately reject its proposed rule and reach contrary result because a proposal is only an option that an agency is “*considering*”) (emphasis in original) (citing *Arizona Public Serv. Co. v. EPA*, 211 F.3d 1280, 1299-1300 (D.C. Cir. 2000), cert. denied *sub nom. Michigan v. EPA*, 532 U.S. 970 (2001)); *Career College Assoc’n v. Riley*, 74 F.3d 1265, 1276 (D.C. Cir. 1996) (final rule rejecting proposal and taking different approach was nevertheless a “logical outgrowth” of proposal because notice reasonably identified that definitional issue was “on the table” and that proposed approach was, despite statements favoring it, subject to change). Thus, in *American Medical*, the court stated that:

. . . without reciting in detail the facts of other cases, we note that courts have upheld final rules which differed from proposals in the following

significant respects: outright reversal of the agency's initial position; elimination of compliance options contained in an NPR; collapsing, or further subdividing, distinct categories of regulated entities established in a proposed rule; exempting certain entities from the coverage of final rules; or altering the method of calculating or measuring a quantity relevant to a party's obligations under the rule.

887 F.2d at 767-69 and n. 8 (list of citations to cases upholding final rules that significantly differed from proposals).

B. Part I.A.13.g of the Final Permit for Canal Station Is a Logical Outgrowth of the Permitting Process, Including the Draft Permit and Its Fact Sheet and Supporting Record

In *WASA*, slip op. at 63, the Board explained that determining whether changed provisions in a final permit satisfy the “logical outgrowth” standard involves a “fact-based inquir[y] . . . [concerning] the evolution of the permit condition at issue, and the Region’s corresponding explanatory statements.” *Id.* at 63. *See also American Medical*, 887 F.2d at 768 (“[t]he adequacy of notice in any case must be determined by a close examination of the facts of the particular proceeding . . .”). The facts in this case show that Part I.A.13.g of the Final Permit, which sets a performance standard requiring entrainment reductions comparable to what could be achieved by a closed-cycle cooling system, is a logical outgrowth of the process leading to the development of the Draft Permit, the Draft Permit itself, the Fact Sheet supporting the Draft Permit, and the supporting record for the Draft Permit. While the Draft Permit’s entrainment-related provisions were not based on closed-cycle cooling – and were instead patterned after the Phase II Rule’s facility-specific BTA determination process – closed-cycle cooling was an alternative that was expressly “on the table” *throughout* the permit development process for Canal Station. This was so from Region 1’s first information request letter in 2000, to its second such letter in 2003, to the Draft Permit and Fact Sheet in 2005 (in

which Region 1 explicitly stated that this technology would satisfy § 316(b)'s BTA standard), to the Final Permit in 2008.

Moreover, the Final Permit condition does not require the use of closed-cycle cooling *per se*. It allows the use of any other technology that can reduce entrainment to a comparable degree. This condition not only adds flexibility to the Final Permit, but it also reasonably reflects both the Region's consideration of alternative technologies in the Draft Permit record and its estimation of the uncertainties regarding their performance.

Mirant argues that while the logical outgrowth test might allow the Region's Final Permit to change "the details of the study" required by the Draft Permit, the Final Permit cannot be a logical outgrowth of the Draft Permit here because it represents a "180-degree change of course." *Petition* at 48. Mirant also posits that if the Final Permit can be a logical outgrowth of the Draft Permit in this case, then it "would make the logical outgrowth test meaningless . . . [and, i]n effect, almost any change would count as a logical outgrowth." *Petition* at 47. These arguments go too far. Although there was no "180-degree change of course" in this case, the Supreme Court has made clear that such a change would not necessarily be incompatible with adequate notice if interested parties were fairly apprised that such a change was a possibility. *See Long Island Care*, 127 S.Ct. at 2351.

Finding the Final Permit to be a logical outgrowth of the Draft Permit and the permit proceeding in this case would in no way render the test meaningless or result in *any* change qualifying as a logical outgrowth. A final permit based on an option not identified for consideration in the draft permit, or that was given only scant attention, is

unlikely to represent a logical outgrowth from the draft permit. These scenarios, however, are a far cry from the facts of this case.

Evaluation of closed-cycle cooling was expressly required by Region 1's information request letters in 2000 and 2003. Ex. 5, Ex. 6. Moreover, these letters identified the broad nature of the issues related to closed-cycle cooling that could be considered (*e.g.*, cost, engineering feasibility, entrainment and impingement reductions, fuel use, land use, etc.). The Permittee understood this and carefully evaluated the closed-cycle cooling "alternative" in the Alden Report submitted in October 2003.

Closed-cycle cooling was also an option that received highly prominent consideration in the Draft Permit Fact Sheet as an "alternative" for possible designation as the BTA for Canal Station. To begin with, Region 1 stated in the Fact Sheet for the Draft Permit that steps would have to be taken to reduce (and ultimately "minimize") entrainment at Canal Station in order to comply with CWA § 316(b). For example, Region 1 stated that:

[t]he adverse effects of entrainment and impingement by the plant's intake structures could be avoided or reduced by the installation of existing, practicable cooling water intake technologies and the implementation of practicable operational measures at Canal Station. Some combination of steps will be needed to meet the CWA § 316(b) requirement that the design, location, construction and capacity of cooling water intake structures reflect the BTA for minimizing adverse environmental effects.

Ex. 3 (Fact Sheet at 45). *See also id.* at 46 ("EPA has assessed the entrainment impacts of Canal Station and has determined that control measures to reduce entrainment are necessary to provide the BTA for minimizing adverse environmental impacts, as required by CWA § 316(b)."). In addition, Region 1 expressly stated that closed-cycle cooling would be feasible at Canal Station, *id.* at 44, and that:

... permit limits based on the installation of Alternative 6 [(i.e., closed-cycle cooling)], which would yield the largest entrainment and impingement mortality reduction of the six alternatives, would satisfy CWA § 316(b)'s BTA requirements, see 40 C.F.R. § 125.94(a)(1)(i), and that Alternative 6 remains open to Canal Station as a potential means of compliance.

Ex. 3 (Fact Sheet) at 44. See also *id.* at 45 (“... Canal could comply with CWA § 316(b)'s BTA requirement by deciding to retrofit its cooling system with closed-cycle cooling (Alternative 6, discussed above)”).

Region 1 never stated in the Draft Permit that closed-cycle cooling was off-limits and could not be required. It only stated that it was not “presently” or “at this time” prepared to mandate closed-cycle cooling as the BTA for entrainment reduction at Canal Station. *Id.* at 44, 46. In so doing, the Region put Mirant on explicit notice that it might decide for the final permit that closed-cycle cooling was the BTA, if warranted by the record, including the yet-to-be-received public comments, and potential changes in applicable law.

The fact that both Mirant and MA-DMF submitted comments concerning the closed-cycle cooling alternative is evidence that interested persons were on notice that this technology was under consideration, and that the ultimate selection of closed-cycle cooling as the BTA for Canal Station was indeed reasonably foreseeable. It is indisputable that a new comment period now would *not* be the first opportunity that Mirant would have to offer comments on closed-cycle cooling in an effort to persuade Region 1 to reject it as the BTA for Canal Station. Not only did it have the opportunity to evaluate closed-cycle cooling in the Alden Report submitted to Region 1, but Mirant’s comments on the Draft Permit addressed this technology by stating that it disagreed with Region 1 that closed-cycle cooling “remains open” as a compliance option, proposing

different cost figures, *see* Ex. 2 (RTC) at IX-35 n. 33, and alleging (in conclusory fashion) a variety of problems that it believed would be associated with the technology. *Id.* (RTC) at IX-4 to IX-5 (quoting Mirant's comments)). Mirant also commented that the "final Phase II Rule makes the alternatives analysis the Agency undertook unnecessary . . .," and then, "for the sake of argument," offered additional comments pertaining to that analysis. *See Id.* (RTC at IX-88 to IX-89). These facts show that Mirant understood that Region 1 regarded closed-cycle cooling to be an alternative under consideration. Mirant's comments opposing closed-cycle cooling do not change the fact that Region 1 had put the Permittee on notice that the Region might find closed-cycle cooling to be the BTA for Canal Station.

The comments of MA-DMF on closed-cycle cooling as the potential BTA confirm that the issue was reasonably foreseeable and independently underscore the adequacy of notice on this alternative. This state agency not only noted that Region 1 had indicated that it could further consider the closed-cycle cooling alternative, but also indicated its support for selection of that option as the BTA. *See* Ex. 2 (RTC) at IX-92.

Mirant argues that "the 'logical outgrowth' test is especially likely to be failed when, as here, the fundamental law on which permit requirements are based changed after the close of the comment period." *Petition* at 6. This argument is off target. While it is true that the regulatory regime under which the Region evaluated technologies for BTA changed at multiple points during the permitting process, this is irrelevant to the issue of whether Mirant had adequate opportunity to comment on closed-cycle cooling as an option for the appropriate BTA basis for the permit's § 316(b) limits. That closed-cycle cooling was a technology option being considered by Region 1 is beyond dispute.

Moreover, the applicable law in this case has *not* changed at a fundamental level. The BPJ application of CWA § 316(b) has been the applicable legal construct throughout this permit proceeding. It applied at the time of Region 1's information request letters in 2000 and 2003; it applied at the time of the Draft Permit under the Phase II Rule's transition provision, 40 C.F.R. § 125.95(a)(2)(ii); and it applied at the time of the Final Permit (and currently) in accordance with 40 C.F.R. § 125.90(b) and the suspension of the Phase II Rule.

This is not changed by the fact that Region 1's BPJ at the Draft Permit stage was reasonably informed by the terms of the Phase II Rule. By clearly stating that the Draft Permit was based on a BPJ application of § 316(b), the Region also made clear that it was not strictly tied as a matter of law to the other substantive terms of the Phase II Rule. To be sure, in applying its BPJ and crafting the Draft Permit's conditions, the Region reasonably took account of the Phase II Rule in determining that closed-cycle cooling was only one among several potential options for the BTA for entrainment reduction, rather than the single, definitive, BTA. Yet, the fact remains that closed-cycle cooling was clearly an alternative on the table for the BTA, just as the fact remains that Region 1's BPJ determination for the Draft Permit was subject to possible change for the Final Permit.

Moreover, the Region expressly noted in the Fact Sheet for the Draft Permit that it was possible that the Phase II Rule would not be in effect at the time of final permit issuance because of pending legal challenges, and that if this turned out to be the case, then the Final Permit could still go forward on a BPJ basis. *Id.* at 25, 27. Thus, Region 1 had underscored for interested parties the possibility that the Final Permit would be

issued on a BPJ basis in the absence of the Phase II Rule. Ultimately, this is exactly what happened.

At the same time, even if the fundamental law had changed between the Draft and Final Permits, this would not *per se* require re-notice of the draft permit under EPA's NPDES regulations. These regulations confirm that permitting agencies are not required to reopen comment periods due to a change in law (*i.e.*, a change in the "applicable requirements"), but rather retain discretion to decide whether doing so would be appropriate. The regulations state:

... [40 C.F.R. s]ection 124.14 (reopening of comment period) provides a means for reopening EPA permit proceedings *at the discretion of the Director* where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable.

40 C.F.R. § 122.43(b) (emphasis supplied). Thus, Region 1 had the discretion to decide whether or not to reopen the comment period in response to the legal changes resulting from by *Riverkeeper II* and the suspension of the Phase II Rule.

In this case, Region 1 reasonably exercised its discretion in declining – though never asked – to reopen the comment period. In its RTC document, the Region discussed and explained the changes in applicable legal requirements. Ex. 2 (RTC) at IX-18 to IX-23. The Region also expressly considered whether or not these changes should prompt a reopening of the comment period and explained why it had decided that they should not. *Id.* at IX-48 to IX-53. The Region explained that it was choosing not to reopen the comment period because the BTA option selected for entrainment reduction following the legal changes was an option already analyzed on a BPJ basis for the Draft Permit. Region 1 also concluded that the analysis in the RTC regarding the law would fully

enable any party to develop an appeal on these legal issues to the EAB. Moreover, the Region explained that a new Canal Station permit was long overdue and that the facility's various adverse environmental effects needed to be addressed under the CWA. *Id.* at IX-53. This was a reasonable exercise of the Region's discretion.¹⁴

Mirant's arguments about the state of the law also beg the question at the heart of the logical outgrowth inquiry. The question is not whether the law has changed, but whether it was clear that the final options selected (or the issues related to them) were under consideration at the proposal stage so that the public had an adequate opportunity to comment on them. For the Draft Permit, Region 1 specifically found that technological improvements were needed at Canal Station to reduce entrainment and satisfy CWA § 316(b) and specifically evaluated closed-cycle cooling and expressly stated that it would achieve the highest level of entrainment reduction and would satisfy CWA § 316(b). The Region also expressly noted that challenges to the Phase II Rule could change the state of the law during the permitting process, but that BPJ permitting could proceed even in the absence of the Phase II Rule. In short, in this case, all parties

¹⁴ It should be noted that some 9 months before issuance of the Final Permit, an exchange of letters between Mirant and Region confirmed the parties' mutual understanding that the permit would go forward on a BPJ basis. In an October 29, 2007, letter to Region 1, Mirant requested to be relieved of submitting information previously required as a result of the Phase II Rule (and a Region 1 information request letter) in light of *Riverkeeper II* and the suspension of the Rule. Ex. 9. In this letter, Mirant expressly indicated its awareness that permitting was to proceed on a BPJ basis. Mirant neither requested that the comment period be reopened nor indicated that it wanted to submit additional information regarding any of the technological alternatives that were evaluated for the Draft Permit development. Mirant only stated that "it would be happy to discuss with the Region *whether any information in addition to that already submitted by Mirant Canal is necessary* in order for EPA to make a BPJ § 316(b) determination." Ex. 9 (emphasis supplied). In its November 29, 2007, response letter, the Region stated that "EPA intends to issue a final permit in the near future that contains 316(b) requirements based on BPJ," and did not request additional information. Ex. 10. This effectively informed Mirant that Region 1 was planning to issue the permit based on the existing record. Nevertheless, at no point during the 18 months between the *Riverkeeper II* decision and issuance of the Final Permit on August 1, 2008, did Mirant request reopening of the comment period or submit additional information about why closed-cycle requirements should not be adopted.

were reasonably apprised that the closed-cycle cooling alternative was on the table, and reopening the comment period for the permit is not necessary.

Finally, Petitioner's suggestion that "if Mirant Canal had known the Region was proposing closed cycle cooling, it would have commented on [the issues laid out in the petition]," *Petition* at 51, is also unavailing. As explained above, Mirant *did* comment on closed-cycle cooling. Moreover, federal regulations governing the NPDES permitting process require interested persons to "raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position" during the public comment period. *See* 40 C.F.R. § 124.13. Permit issuers are "under no obligation to speculate about possible concerns that were not articulated in the comments." *In re New England Plating Co.*, 9 E.A.D. 726, 735 (EAB 2001). *Accord, e.g., In re Teck Cominco Alaska Inc., Red Dog Mine*, 11 E.A.D. 457, 481 (EAB 2004); *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 229-31 (EAB 2000). Mirant is not entitled to have the public comment period reopened because it may have failed to submit comments supporting its opposition to closed-cycle cooling that would have reflected reasonably available arguments and reasonably ascertainable issues at the time of the comment period. *See In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 250 (EAB 1999); *In re Christian County Generation, LLC*, PSD Appeal No. 07-01, slip op. at 5, (EAB Jan. 28, 2008) (petitioner obliged to raise issues during comment period that are contingent on subsequent change in law where possibility of such change is reasonably ascertainable).

V. Region 1 Reasonably Exercised its Discretion Under 40 C.F.R. § 124.14(b) in Deciding Not to Reopen the Public Comment Period

The Board's *Order Directing Briefing* dictates that in addressing whether Mirant had an adequate opportunity to comment on Part I.A.13.g of the Final Permit, "the

Region shall discuss the applicability or inapplicability of 40 C.F.R. 124.14(b) to this permit.” Region 1 concludes that this regulation does apply, to the extent detailed below, and that Region 1 has satisfied its terms.

The regulation in question provides, in relevant part, that:

[i]f any data[,] information[,] or arguments submitted during the public comment period . . . appear to raise substantial new questions concerning a permit, the Regional Administrator may . . . [r]eopen or extend the comment period under § 124.10 to give interested persons a chance to comment on the information or arguments submitted.

40 C.F.R. § 124.14(b)(3). On its face, this regulation pertains to cases in which new data, information or arguments *submitted during the public comment* period raise substantial new questions. In this case, although comments on the Draft Permit were submitted by a number of parties, the comments raised no substantial “new questions.” Instead, they addressed the very issues put on the table by the Draft Permit, and Region 1 responded to these comments in its RTC issued with the Final Permit.

Nevertheless, 40 C.F.R. § 124.14(b) applies to the instant case for two reasons. First, as discussed above, 40 C.F.R. § 122.43(b) expressly indicates that § 124.14(b) may be applied to give a permitting authority the discretion to reopen a comment period in response to changes in applicable law. As explained above, Region 1 reasonably exercised its discretion in this regard not to reopen the comment period in this case.

Second, EPA and the Board have long interpreted § 124.14(b) to apply more broadly than would be suggested by a strict reading of its terms. In other words, the application of § 124.14(b) has not been limited to cases involving information, data or arguments submitted during the comment period. Presumably, this is because the regulation provides a useful construct for evaluating when it may be appropriate to

reopen the public comment period on a draft permit in other situations as well, such as in light of changed permit conditions or additions to the permit record.

Thus, EPA and the Board have long applied 40 C.F.R. § 124.14(b) to the question of whether a public comment period should be reopened due to changed conditions between a draft and final permit. *Indeck-Elwood*, slip op. at 28-30; *Amoco Oil Company*, 4 E.A.D. at 980-81; *GSX Services*, 4 E.A.D. at 467; *Old Dominion*, 3 E.A.D. at 797 (Adm'r 1992) (reopening comment period not necessary under § 124.14(b) because, among other reasons, “[t]he revised permit by all accounts is a logical outgrowth of the notice and comment process . . .”). In *WASA*, the Board for the first time expressly applied the logical outgrowth test to a question concerning the adequacy of notice for a changed permit condition, but did so in conjunction with 40 C.F.R. § 124.14(b). The Board explained that the logical outgrowth standard is reflected in the “substantial new question” test of § 124.14(b). *WASA*, slip op. at 62. The Board further stated that its task in *WASA* was not just to apply the logical outgrowth standard, but also “[t]o determine whether the changes that appear in the Final Permit raise ‘substantial new questions’ . . .,” thus indicating that 40 C.F.R. § 124.14(b) applies to the issue of changed permit conditions. *Id.* at 63.¹⁵ While stating that reopening under § 124.14(b) is discretionary and that it will often defer to the permit issuer’s decision, the Board also emphasized that it reviews such questions on a case-by-case basis and that it may require a comment period to be reopened depending on the significance of the changed permit conditions. *Id.* Region 1’s view is that it is reasonable to conclude that both the logical outgrowth test under the APA and 40 C.F.R. § 124.14(b) can be applied to notice questions

¹⁵ Region 1 notes that the rest of the discussion of the notice issue in *WASA* is phrased in terms of the logical outgrowth test, however, rather than the substantial new questions test of 40 C.F.R. § 124.14(b).

involving changed permit conditions and that, as the Board stated, the former is reflected in the latter.

As indicated above, Region 1 submits with regard to the Canal Station Final Permit that the logical outgrowth test is satisfied *and* no substantial new questions have been raised by the changed permit conditions. Moreover, even if the Final Permit condition could be regarded to have raised certain substantial new questions, Region 1 reasonably exercised its discretion not to reopen the comment period based on a number of legal and equitable considerations. In particular, Region 1 considered that the closed-cycle cooling alternative has been on the table for review and comment throughout the permit proceeding, that the Final Permit record adequately explains the Region's decision to enable interested parties to develop an appeal, and that issuance of the long overdue Canal Station NPDES permit is needed to address a variety of the Facility's environmental effects. Ex. 2 (RTC) at IX-52 to IX-53.

Finally, 40 C.F.R. § 124.14(b) is also relevant to Mirant's assertion that additional public comment is required because the Draft Permit was prepared under the Phase II Rule, but the Rule was suspended after the comment period and the Final Permit then included a "whole new analysis of best technology available" that was not made available for public comment. *Petition* at 7. The Board has also long applied 40 C.F.R. § 124.14(b) to the question of whether additional public comment is needed when a permit issuer adds material to the record in response to comments, or on remand, in the process of finalizing a permit. *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 586-88 (EAB 1998), *rev. denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999); *Dominion I*, 12 E.A.D. 490, at 696; *Environmental Disposal Systems*, UIC Appeal No. 07-03. slip

op. at 42 (EAB, July 18, 2008)(Order Denying Review). In *Dominion I*, the Board summarized the legal framework for this application of 40 C.F.R. § 124.14(b) as follows:

[t]he critical elements of this regulatory provision are that new questions must be 'substantial' and that the Regional Administrator 'may' take action.' *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 585 (EAB 1998), *rev. denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999); *accord In re Ash Grove Cement Co.*, 7 E.A.D. 387, 431 (EAB 1997).

Thus, based on the language of this regulation, the Board has long acknowledged that the decision to reopen the public comment period is largely discretionary." *NE Hub*, 7 E.A.D. at 585; *Amoco Oil.*, 4 E.A.D. at 980; *see also Old Dominion*, 3 E.A.D. at 797. Furthermore, where the Agency adds new information to the record in response to comments, "the appellate review process affords [petitioner] the opportunity to question the validity of the material in the administrative record upon which the Agency relies in issuing a permit." *Caribe*, 8 E.A.D. at 705 n.19 (EAB 2000); *accord NE Hub*, 7 E.A.D. at 587 n. 14; *Ash Grove*, 7 E.A.D. at 431.

12 E.A.D. at 695. The Board reviews a permit issuer's decision not to reopen the comment period under 40 C.F.R. § 124.14(b) in the face of substantial new questions under an "abuse of discretion" standard and the Board has noted that the permit issuer has "substantial discretion" in this regard. *In re Chelalis Generating Station*, PSD Appeal No. 01-06, slip op. at 32-33 (EAB, Aug. 20, 2001) (Order Denying Review). *See also In re Metcalf Energy Center*, PSD Appeal Nos. 01-07 & 01-08, slip op. at 27-30 (EAB, Aug. 10, 2001) (Order Denying Review). In addition, the Board has stated that its review under § 124.14(b) will be "deferential." *NE Hub*, 7 E.A.D. at 585.

The federal courts have also reviewed questions about whether comment periods should be reopened due to information being added to the record between a proposed and final rule as a question of fair notice. *See, e.g., BASF Wyandotte Corp. v. Costle*, 598 F.2d 637, 644-45 (1st Cir. 1979), *cert. denied*, 444 U.S. 1096 (1980), *later proceeding*, 614 F.2d 21 (1st Cir.1980) (dismissing petitions for review). Like the Board, the courts also have not construed applicable law to require additional rounds of public comment in

every case in which new information is added to the record. *Id.* See also *Community Nutrition Institute v. Block*, 749 F.2d 50, 57-58 (D.C.,1984). The courts have recognized that the addition of new information is contemplated by the administrative process and the law should not be applied in a way that would create a disincentive for agencies to respond to comments by improving their analyses. *BASF*, 598 F.2d at 644-45.

Otherwise, agencies would be forced into a Catch-22 situation of choosing between inferior quality decisions or a never-ending public comment process. See, e.g., *id.* at 644-47; *Rybachek v. EPA*, 904 F.2d 1276, 1287 (9th Cir. 1990).

Thus, in responding to comments, a Region may generate new information and analysis and add new materials to the administrative record without necessarily triggering a need to reopen the public comment period under 40 C.F.R. § 124.14(b). See also 40 C.F.R. §§ 124.17(b) (in responding to comments, new materials may be added to administrative record for final permit) and 124.18(b)(4). To warrant reopening the comment period, the questions raised by the new information must be both new (*i.e.*, not involve issues already evident in the permit proceeding) and substantial (*i.e.*, have a material effect on the permit result). Moreover, even if a question is new and substantial, the Region may still exercise reasonable discretion in deciding whether to reopen the comment period. Many considerations may inform the Region's exercise of this discretion, including whether permit conditions have been significantly changed as a result of the substantial new questions, whether the new information was developed in response to comments received during the permit proceeding, whether the record adequately explains the Agency's reasoning so that a dissatisfied party can fairly develop a permit appeal, and the significance of adding delay to the particular permit proceeding.

See, e.g., Chelalis, slip op. at 33, 35-36; *Metcalf Energy*, slip op. at 29; *NE Hub*, 7 E.A.D. at 587, n. 14; *Old Dominion Elec. Co.*, 3 E.A.D. at 797-98 (Adm'r 1992); *In re Thermalkem, Inc., Rock Hill, South Carolina*, 3 E.A.D. 355, 357-58 (Adm'r 1990).

While Mirant argues that Region 1 included “a whole new analysis” of BTA, this argument is wrong on the facts. Region 1 expanded its existing analysis in response to public comments. The Region assessed closed-cycle cooling, building off of the Alden Report submitted by the Permittee, and, like the Alden Report, the Region concluded for the Draft Permit that this technology could be implemented at Canal Station. For the Final Permit, Region 1 evaluated certain issues related to closed-cycle cooling in further detail in response to Mirant’s comments asserting (in conclusory fashion) problems with the closed-cycle cooling option.

Therefore, the new information added to the record by Region 1 does not raise “new questions” because, as described above, closed-cycle cooling has been on the table as an option throughout the permit development process. As a result, issues related to the cost, energy effect, noise, water vapor plume, environmental, engineering and process ramifications of the technology have also been on the table throughout the process. As directed by Region 1’s information request letters, these issues were assessed in the Alden Report. They were also assessed in the Fact Sheet for the Draft Permit and were directly addressed in Mirant’s comments on the Draft Permit, which stated that:

[a]t a projected cost of \$122.2 million, even without detailed cost-benefit analysis, the cost of this option is self-evidently “significantly greater” than the benefits and could not be justified under the Phase II Rule. Equally important, this option raises a number of environmental concerns, including creation of a fog bank in the area of the plant (and associated road hazards to navigation), noise impacts, aesthetics, creation of drift and solid waste, and others.

Ex. 2 (RTC) at IX-5 (quoting Mirant). Therefore, Region 1's further analysis of these issues, as presented in the RTC, *see id.* at IX-23 to IX-46, does not raise substantial new questions. Moreover, by including the material in the RTC, Region 1 has provided a record upon which any party to the proceeding may base an appeal to the Board.¹⁶

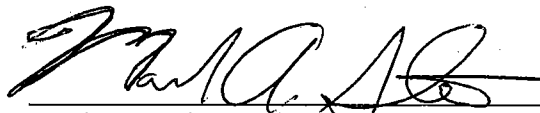
The Region's considered decision not to reopen the comment period was therefore reasonable and not an abuse of discretion.

CONCLUSION

For the foregoing reasons, the Board should rule that Region 1 provided an adequate opportunity to comment on the NPDES permit for Canal Station and that no remand is necessary to provide for further comment.

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Respectfully submitted by EPA Region 1,



Mark A. Stein, Senior Assistant Regional Counsel
Samir Bukhari, Assistant Regional Counsel
U.S. EPA - Region 1
1 Congress Street, Suite 1100 (RAA)
Boston, MA 02114-2023
Tel: (617) 918-1077
Fax: (617) 918-1029

Of Counsel:
Richard T. Witt, Attorney
Office of General Counsel (2355A)
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460
Tel: 202-564-5496
Fax: 202-564-5477

¹⁶ Region 1 also explained in the RTC why even if the Final Permit had raised substantial new questions, it concluded that a discretionary reopening of the comment period would not have been warranted under the facts and circumstances of this case. *See* Ex. 2 (RTC) at IX-52.

