

RECEIVED
U.S. E.P.A.

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

07-01-06 AM 10:06
ENVIR. APPEALS BOARD

In re: Dominion Energy Brayton)
Point, LLC (formerly)
USGen. New England, Inc.)
Brayton Point Station))

NPDES Appeal No. 07-01

NPDES Permit No. MA 0003654)

PETITIONER'S REPLY BRIEF

SUBMITTED ON BEHALF OF DOMINION ENERGY BRAYTON
POINT, LLC

BY: Wendy B. Jacobs
John M. Stevens
Elisabeth M. DeLisle
Foley Hoag LLP
155 Seaport Boulevard
Boston, MA 02210-2600
TEL: (617) 832-1000
FAX: (617) 832-7000

TABLE OF CONTENTS

| | |
|---|----|
| TABLE OF AUTHORITIES | ii |
| ARGUMENT | 3 |
| I. Region 1's Five-Day Exposure Criterion And, Accordingly, The Permit's Thermal Discharge Limits Are Based On A Clear Error Of Fact..... | 3 |
| II. Region 1's Production Foregone Analysis And, Accordingly, The Permit's Cooling Water Intake Limitations Are Based On Clear Errors Of Fact | 10 |
| III. The Board Either Should Not Consider The Region's Statements Concerning Current Fish Populations Or Should Direct That The Record Be Reopened For Comment | 14 |
| CONCLUSION..... | 15 |

TABLE OF AUTHORITIES

Cases

| | |
|--|------|
| <i>AFL-CIO v. McLaughlin</i> , 702 F. Supp. 307 (D.D.C. 1988)..... | 3 |
| <i>Delano v. Roche</i> , 391 F. Supp. 2d 79 (D.D.C. 2005)..... | 8 |
| <i>Esch v. Yeutter</i> , 876 F.2d 976 (D.C. Cir 1989)..... | 8 |
| <i>Food Marketing Institute v. ICC</i> , 587 F.2d 1285 (D.C. Cir. 1978)..... | 2, 3 |
| <i>In the Matter of Great Lakes Chemical Corp.</i> , 2 E.A.D. 68 (E.A.B. 1985)..... | 8 |
| <i>In re Hadson Power14-Buena Vista</i> , 4 E.A.D. 258 (E.A.B. 1992)..... | 9 |
| <i>In re Metcalf Energy Center</i> , PSD Appeal No. 01-7, 01-8 (Aug 10, 2001)..... | 8 |
| <i>In re Old Dominion</i> , 3 E.A.D. 779 (Adm'r 1992)..... | 9 |
| <i>In re Spokane Reg'l Waste-to-Energy</i> , 2 E.A.D. 809 (Adm'r 1989)..... | 9 |
| <i>Tex Tin Corp. v. EPA (Tex Tin II)</i> , 992 F.2d 353 (D.C. Cir. 1993)..... | 8 |
| <i>The Fund for Animals v. Williams</i> , 391 F. Supp. 2d 191 (D.D.C. 2005)..... | 8 |

Region 1's Response to the Petition for Review filed by Dominion Brayton Point, LLC (the "Petitioner" or "Brayton Point Station") discloses that both of the principal conditions in the Permit--limitations on Brayton Point Station's thermal discharge and on its cooling water intake--are based upon clear errors of fact. The limitations on thermal discharge rely on the proposition that the protection of fish in Mt. Hope Bay will not be assured if they are exposed to five or more days of a particular temperature in a summer month; however, the Region acknowledges having fundamentally misunderstood the single scientific study that it referenced as showing adverse effects from exposure to warm temperatures for fewer than seven days. Similarly, the limitations on cooling water intake are based upon the Region's conclusion that an unacceptably large biomass of fish is lost due to impingement and entrainment of eggs, larvae and small fish --a concept known as production foregone--in Brayton Point Station's cooling water equipment; however, the Region acknowledged having made errors in its calculation of production foregone, and its calculations show that not all of those errors have been corrected and that, if corrected, the production foregone would be well below the level Region 1 says would be associated with the technology it advocates.¹

Each of these clear errors of fact came to light only as a result of the remand by the Board. In response to the Board's direction that it provide a theretofore absent explanation for the five-day threshold for exposure to warm water temperatures, Region 1 revealed its fundamentally erroneous interpretation of the 1982 Casterlin and Reynolds study in its Determination on Remand (hereinafter, sometimes, the "DOR"). See *In re Dominion Energy Brayton Point, LLC*, NPDES Appeal No. 03-12 (hereinafter, the "Remand Order") at 135; AR²

¹ By concentrating on the two issues on which Region 1's clear errors of fact are most readily apparent, Brayton Point Station does not waive the other issues raised by the Petition but relies on the Petition in support thereof.

² References to the Administrative Record are by the letters "AR" and document number.

4065. In response to the Board's direction that the Region add to the record an apparently missing attachment said to show its corrected calculations of "production foregone" (see Remand Order at 6 & n.2), Region 1 added the attachment in connection with the Determination on Remand. When Brayton Point Station pointed out in the Petition that the attachment did not contain calculations of "production foregone," the Region finally produced the calculations, which turned out not all to have been corrected, in connection with its Response to the Petition for Review (hereinafter, the "Response").

In its Response, Region 1 takes the view that its clear errors of fact should be insulated from review by the Board on both procedural and substantive grounds. Procedurally, the Region contends that the time has passed for adding new material to the record or even for presenting argument with respect to the errors. Substantively, it contends that its errors are harmless, that they relate to scientific questions and that on matters of science it is entitled to extreme deference.

The Region's attempts to shield its errors from review are without merit. In terms of procedure, the Region offers no support for the proposition that a region may withhold material and explanations that should have been provided in connection with issuance of both draft and final Permits until ordered to do so on remand and then maintain that clear errors in that material and those explanations may not be rebutted because the time for submitting comments is long past. No permittee can be expected and thus required to point out clear errors in calculations and explanations until it has seen those calculations and heard those explanations.

In terms of substance, far from being entitled to special deference from the Board, Region 1's Determination on Remand should receive heightened scrutiny. In that regard, the Region fails entirely to distinguish *Food Marketing Institute v. ICC*, 587 F.2d 1285 (D.C. Cir.

1978). There, the Court of Appeals ruled that there should be a greater degree of scrutiny for an agency decision that, on remand, reaffirmed a prior decision which itself departed from earlier decisions. *Id.* at 1290. *See also AFL-CIO v. McLaughlin*, 702 F. Supp. 307, 310 (D.D.C. 1988) (“when remanding a decision to an agency for a reasoned explanation, an agency is not permitted to engage in *post-hoc* rationalization”), *appeal dismissed as moot following promulgation of regulation, AFL-CIO v. Dole*, No. 89-5011 (D.C. Cir. Aug. 9, 1989) (as reported in *AFL-CIO v. Dole*, 884 F.2d 597 (D.C. Cir. 1989)). Both of the *Food Marketing* factors are present here. On remand, Region 1 merely reaffirmed its prior decision and reissued the Permit without any change whatsoever. That prior decision was itself an unprecedented departure from the Agency’s consistent practice of not requiring existing power stations employing once-through cooling to convert, as a result of extremely stringent permits limits, to closed-cycle cooling.

ARGUMENT

I. Region 1’s Five-Day Exposure Criterion And, Accordingly, The Permit’s Thermal Discharge Limits Are Based On A Clear Error Of Fact.

The Permit limits Brayton Point Station’s thermal discharge to the amount of heat that, in the judgment of the Region, will reasonably assure the protection and propagation of the balanced indigenous population (the “BIP”) of fish, shellfish and wildlife in Mount Hope Bay.³ In order to determine the amount of heat that would adversely affect the BIP, the Region concentrated its analysis on a single species of fish that is sensitive to warm water temperatures, winter flounder. AR 192, Ex. 3, Vol. I at 6-56 - 6-57. As water temperatures in the Bay gradually rise in the Spring and Summer, as a result of evolutionary adaptation, adult winter

³ Dominion continues to disagree with Region 1’s position, upheld by the Board, that EPA need not determine and apply the least stringent limits that would assure the protection and propagation of the BIP.

flounder depart for deeper waters, but juveniles tend to remain. The best habitat for juvenile winter flounder, the Region has concluded, is the shallow sandy areas that predominate in the northern portion of the Bay near Brayton Point Station's discharge. DOR at 16-17. The Region has also concluded that, if temperatures rise above a certain level for a certain period of time, juvenile winter flounder will avoid their optimal habitat, grow at reduced rates or suffer other adverse effects inconsistent with protection and propagation of the BIP. See DOR at 18-21.

These conclusions led Region 1 to create a three-part construct involving area, temperature and duration of exposure. As to area, the Region determined that no more than 10 percent of Mt. Hope Bay should experience what it considered persistent or frequent elevated temperatures. AR 192, Ex. 3, Vol. I at 6-56 - 6-57. Elevated temperatures, it decided, were water temperatures of 24°C or higher.⁴ *Id.* at 6-34, 6-37, 6-56 - 6-57. Finally, the Region determined that this water temperature was unacceptably persistent or frequent if it occurred on more than five days, which would tend to be consecutive, in a summer month. Putting these three components together, the Region established as a proposition underlying the Permit's thermal discharge limits that water temperatures should not reach 24°C in more than 10 percent of Mt. Hope Bay on more than five days in a month. *Id.* at 6-56 - 6-57.

On its initial appeal of the Permit to the Board, Brayton Point Station challenged the Region's entire construct. Brayton Point Station was and is of the view that the selection of an

⁴ While assenting to Brayton Point Station's motion to strike from the record new material relating to the temperature criterion, in its Response Region 1 nevertheless alters its previous position regarding the 24°C threshold. Previously the Region asserted that the critical threshold temperature, at which complete avoidance occurs, was 24°C or 25°C. AR 192, Ex. 3, Vol. 1 at 6-34, 6-37, 6-39. It now suggests only that at temperatures greater than 24°C, a substantial number of--but not all--juvenile winter flounder will avoid habitat. This shift, while seemingly slight, makes a dramatic difference. Under an operating scenario proposed by Brayton Point Station, water temperatures will be 24°C or higher for five or more days in approximately 60 percent of Mt. Hope Bay but will be 25°C or higher with that frequency in only 11 percent of the Bay. AR 3263, Ex. 33, Vol. II, Tab 11 at Figure I-16. The Region's retreat on these issues undermines the Permit's thermal discharge limits.

arbitrary area of the Bay, a single temperature and a set duration do not reflect a sound scientific approach to the protection of the BIP in Mt. Hope Bay or elsewhere. See, e.g., US Gen New England, Inc.'s Nov. 4, 2003 Petition for Review at 30. Accordingly, as the Region states and reiterates in its response to the current Petition, Brayton Point Station did not, for example, propose an alternative to the five-day duration of elevated temperatures used by Region 1. See Response at 27.

In the Remand Order, the Board upheld the permissibility of the Region's general approach of using a defined percentage of the Bay, a single temperature and an established duration of exposure to that temperature. See Remand Order at 132. It also concluded that, of the three components, Region 1 had adequately explained and supported two: the focus on 10 percent of the Bay and the use of 24°C as a threshold or critical temperature. *Id.* at 126-27, 132-33. However, the Board concluded that the Region had not provided a sufficient explanation for its conclusion that five days of exposure to that temperature would have adverse effects on juvenile winter flounder and, therefore, on the BIP. *Id.* at 133-35. Accordingly, the Board remanded to Region 1 to "provide a rational explanation for its selection of five days." *Id.* at 135, 293.

In its Determination on Remand, the Region did not provide a sound scientific explanation for the five-day duration demanded by the Board, and it cannot do so because its selection of the five-day period is demonstrably and admittedly based on a clear error of fact. This conclusion holds even if virtually all of the remaining issues raised in the Petition are settled, for purposes of argument, in favor of the Region. For example, even if Region 1 is permitted to maintain it is basing the discharge limits on avoidance behavior while actually relying on scientific studies looking at the more stringent standard of less than optimal growth,

Region 1's conclusion is still erroneous. See Petition at 11-13. Even if, assuming *arguendo*, the Region is correct on all of those issues, there is still no support in the record whatsoever that juvenile winter flounder exposed to elevated temperatures for fewer than seven days will experience adverse effects.

As is evident from the Determination on Remand and the Region's Response, the five-day standard is based upon a fundamentally erroneous interpretation of a single scientific study. In both the Determination on Remand and the Response, Region 1 points to only a single study that it contends shows that juvenile winter flounder exposed to a constant temperature of 24°C for fewer than seven days exhibit avoidance behavior, a preference for cooler temperatures or experience any other adverse effect. See DOR at 261; Response at 17. That single study is a 1982 study by Casterlin and Reynolds (AR 385, Ex. R7), to which the Region devotes a full ten pages of its Response. See Response at 28-38. In the Determination on Remand, the Region revealed that it interpreted the Casterlin and Reynolds study to have involved placing juvenile winter flounder in shuttleboxes maintained at a constant temperature and observing the temperatures preferred or, the Region would say, avoided by the fish. DOR at 24. The study was conducted over a 72-hour period and during that period, according to the Region, most of the juvenile winter flounder either avoided temperatures of 24°C or greater or preferred temperatures of 24°C or less.⁵ *Id.* Therefore, the Region concluded that three days of exposure to 24°C would produce avoidance behavior by juvenile winter flounder and therefore that exposure of less than seven days to water temperatures of 24°C or greater would produce adverse effects on the BIP. *Id.* at 28-29.

⁵ Brayton Point Station continues to disagree with Region 1's contention that the study supports either an avoidance or preference threshold of 24°C.

However, as shown in the Petition, the Region's interpretation of the 1982 Casterlin and Reynolds study was fundamentally in error. Petition at 10. The Region admits this clear error. Response at 35-36. The study actually involved two connected shuttleboxes, but neither of them was maintained at a constant temperature. *Id.* at 36. As a result, the fish were not exposed to a water temperature of 24°C or any other constant temperature for three days or for any other specified period of time.

The Region's clear error as to the methodology employed in the 1982 Casterlin and Reynolds study is shown by a 1977 study by Reynolds, which was referenced in the 1982 study as describing the methodology and brought to the attention of the Region and the Board in the Petition. See Petition at 10-11 and Ex. B. There was no occasion for Brayton Point Station to make the earlier study a part of the record before this time. Not only did the Region not disclose its erroneous understanding of the Casterlin and Reynolds study in connection with issuance of the draft and final Permits, but as the Board concluded in ordering a remand, Region 1 had provided no adequate explanation at all for the five-day component of the Permit's thermal discharge limits. See Remand Order at 133-35. Only in its Determination on Remand were the Region's clear error of fact -- and the consequent need for adding the earlier Reynolds study to the record -- revealed.

In these circumstances, Region 1's request that the Board strike Reynolds (1977) and all arguments related to it from the record on appeal is surprising. By this request, the Region in essence is asking the Board to ignore its clear error. A party cannot be faulted for not having presented factual material before it had any reason to understand its relevance or materiality. See 40 C.F.R. §§ 124.13, 124.19(a) (only reasonably ascertainable arguments must be raised during the comment period to be preserved for review); *see, also, e.g., In the Matter of Great Lakes*

Chemical Corp., 2 E.A.D. 68 (E.A.B. 1985). The Region cannot insulate from review the error underlying its explanation of the five-day criterion by not disclosing its explanation until ordered to do so by the Board. Rather, the Board should treat the Petitioner's submissions as part of the administrative record. See *In re Metcalf Energy Center*, PSD Appeal No. 01-7, 01-8 (Aug 10, 2001), unpublished final order at 22, n.13. Alternatively, the Board should supplement the record with Reynolds (1977) because it provides background information necessary to understand the issues clearly and indicates that Region 1 failed to consider all the factors relevant to its decision. See, e.g., *Esch v. Yeutter*, 876 F.2d 976, 991 (D.C. Cir 1989); *The Fund for Animals v. Williams*, 391 F. Supp. 2d 191 (D.D.C. 2005); *Delano v. Roche*, 391 F. Supp. 2d 79, 89 (D.D.C. 2005) (noting exception to administrative record rule where "supplemental information is relevant to the final decision").

Region 1's suggestion that the study be stricken is particularly troubling in light of the circumstances. The Region relied on an unfounded assumption and now seeks to exclude evidence and discussion which indicates its error. The Region is not entitled to rely on unsupported assumptions. See, e.g., *Tex Tin Corp. v. EPA (Tex Tin II)*, 992 F.2d 353, 355 (D.C. Cir. 1993) (agency may not rely on conclusory statements and unsupported assumptions to support its scientific conclusions). The Region's attempts to hide its clear error behind a procedural hurdle belies its contention that any error stemming from its reliance on unsupported assumptions was harmless.

Region 1's error was not harmless because, as a result, the Region determined the permissible frequency or duration of exposure to warm water temperatures on the basis of a study that, in fact, had nothing to do with frequency or duration of exposure to warm water

temperatures.⁶ As made clear in Reynolds (1977), the methodology used in the 1982 Casterlin and Reynolds study was designed to determine what water temperatures were preferred by juvenile winter flounder in an artificial environment of continuously changing temperatures and readily available alternatives. Each of several juvenile winter flounder, all acclimatized to water temperatures of 15° to 17°C, was placed in a structure consisting of two connected shuttleboxes. AR 385, Ex. R7 at 178; Ex. B at 301. When a fish was present in one of the shuttleboxes, a heater caused the water temperature to rise; in the other, a cooling element caused the water temperature to drop. Ex. B at 301. Because of the connection between the two boxes, the difference in water temperature was approximately 2°C. *Id.* The temperature changes were too rapid to determine effects of extended exposure to any particular temperature because fish were observed usually to have “learned to use the device” in less than an hour. *Id.* Spring became Summer -- and Summer became Fall -- in minutes rather than months. This study has no bearing whatsoever on what duration or frequency of exposure to warm water temperatures in terms of days per summer month will trigger avoidance behavior or have other adverse effects on juvenile winter flounder that have become acclimatized to gradually warming temperatures over a period of months and have no known, nearby alternative of cooler water.

Not only is Region 1's clear error of fact not harmless, but it is fatal to the Permit's thermal discharge limits. The Region points to no support other than the 1982 Casterlin and

⁶ The decisions to which Region 1 cites as support for its claim of harmless error either are distinguishable or suggest that the Region's error is not harmless. *In re Hadson Power 14-Buena Vista*, 4 E.A.D. 258, 278-286 (E.A.B. 1992), and *In re Old Dominion*, 3 E.A.D. 779, 780-782 (Adm'r 1992), stand for the proposition that an error may be considered harmless if there is an alternative basis to support the agency's determination that is not erroneous. Here, the Region has erroneously relied on a single study and has no alternative basis to support its assertion of the appropriateness of using three days as a floor. *In re Spokane Reg'l Waste-to-Energy*, 2 E.A.D. 809, 815 (Adm'r 1989) it was found that the failure to examine thoroughly alternate technologies that were not BACT was unnecessary where “the analysis would only satisfy academic concerns and would have no effect on the outcome of the permit determination.” Here, in contrast, the Region's error substantially affects the permit determination.

Reynolds study for the proposition that exposures to water at 24°C for a period of less than seven days will produce adverse effects on juvenile winter flounder. The shortest duration of exposure to warm water temperatures considered in any of the other authorities reference by the Region is the seven-day period considered in such EPA publications as the Gold Book.⁷ See DOR at 26-28. Therefore, the Permit's requirement that water temperatures not be equal to or greater than 24°C for five or more days in a month lacks any support in the record and cannot stand.

II. Region 1's Production Foregone Analysis And, Accordingly, The Permit's Cooling Water Intake Limitations Are Based On Clear Errors Of Fact.

The Permit imposes stringent cooling water intake limitations because of Region 1's conclusion that Brayton Point Station's intake of cooling water has an unacceptably great effect on fish populations in Mt. Hope Bay. Some young fish are lost because they are impinged on the screens that prevent large objects from entering the cooling water system. AR 192, Ex. 3, Vol. I at 7-103. Some fish eggs and larvae are lost because they pass through the screens and are entrained in the cooling water system. AR 192, Ex. 3, Vol. I at 7-110.

A widely accepted means of gauging the magnitude of the effect of impingement and entrainment on the fish in Mt. Hope Bay is to calculate the additional fish biomass that would exist in the Bay if Brayton Point Station were not operating. The result of that calculation is referred to as "production foregone." See AR 192, Ex. 3, Vol. I at 7-123. The calculation involves estimating how many of the eggs entrained in the cooling system would become larvae,

⁷ The Gold Book (AR 4002, Ex. R8) presents a rule of thumb regarding optimal growth, not avoidance, and is not specific to winter flounder. Fish will tend to move toward temperatures that will optimize biological function. Thus, those temperatures are preferred. However, optimum temperatures are not necessary for a population to thrive. The Region's newly produced Attachment A to Appendix A of the Response mistakenly confounds notions of avoidance and preference.

how much biomass those larvae and the larvae entrained in the system would add during the larval stage, how many of those larvae would become young fish and how much biomass those fish and the young fish impinged on the screens would add during their life spans. See Ex. 1 at 1-2.⁸

Region 1 initially calculated production foregone in connection with the issuance of the draft Permit. See AR 192, Ex. 3, Vol. I at 7-123 - 7-126. It determined that the production foregone as a result of Brayton Point Station's current operations was 69 million pounds per year. Response, Att. A at 2. If the Station converted to closed-cycle cooling, the Region concluded, that figure would be reduced to slightly more than 3 million pounds per year. See AR 192, Ex. 3, Vol. I at 7-125. By issuing the Permit authorizing operation with closed-cycle cooling, Region 1 indicated the acceptability of that level of production foregone.

Region 1's initial calculations of production foregone were in error. In comments, Brayton Point Station indicated that, calculated properly, production foregone as a result of its operations would be a small fraction of Region 1's total. AR 3263, Ex. 33, Vol. II, tab 11 at II-8 - II-19. In response, the Region acknowledged that there had been errors in its calculations and stated that they "were corrected" in connection with issuance of the final permit. AR 3346, Ex. 2, Vol. I at IV-47.

Region 1 did not produce "corrected" calculations until this year. The Response to Comments issued along with the final Permit in October 2003 contained an appendix in which the Region's consultant Stratus Consulting stated that there had been errors and that "a re-analysis was conducted incorporating the changes (see attached)." AR 3347, Ex. 2, Vol. II, Ex. X at 2. However, no re-analysis was attached. In remanding the matter to the Region in

⁸ The comments of Brayton Point Station on the calculations produced by Region 1 in March 2007 are filed herewith as Exhibit 1.

February 2006, the Board directed that Region 1 add to the Record “[t]he missing ‘re-analysis’ [which] details the production foregone calculations performed by Stratus Consulting in response to comments pointing out several errors in the initial calculations.” Remand Order at 6 & n. 2. In its November 30, 2006 Determination on Remand, Region 1 supplied an attachment to the Stratus appendix, but this attachment did not comply with the Board’s order for it did not contain a re-analysis detailing the production foregone calculations performed by Stratus in response to comments pointing out errors in its initial calculations. See AR 4020, Ex. R6. Only after Brayton Point Station stated in the current Petition that the Region had not complied with the remand order were “corrected” calculations produced in the form of a memorandum from Stratus Consulting to Region 1 dated February 26, 2007. AR 4068, Ex. R15.

The new calculations produced in March 2007 do not respond to the comments pointing out errors in the initial calculations. They make certain minor adjustments to the initial calculations, resulting in a reduction of the 69 million pounds per year figure to approximately 51.5 million pounds per year. Ex. 1 at ii-iii, Table 3. However, they correct none of the principal substantive errors pointed out in the comments made by Brayton Point Station. See Ex. 1 at 2-7.

As a result of the Region’s failure to correct its acknowledged errors, the production foregone analysis on which the Region relied in setting cooling water intake limitations is based on clear errors of fact. The clear error with the greatest consequences is also the most readily understood. Region 1’s calculations assume that eggs increase in weight. Ex. 1 at 4-5. While an egg develops and produces new tissue, it is from mass contained within the egg, and there is no addition of biomass during the egg phase. *Id.* Correction of the single clearly erroneous

assumption that eggs grow in mass would reduce the Region's calculation of production foregone by 78 percent. *Id* at ii.

As with the recent disclosure of the Region's fundamental misunderstanding of the Casterlin and Reynolds study, the Board should not exempt the Region's erroneous production foregone calculations from substantive review. The calculations, the Board held, should have been included in the Response to Comments. Remand Order at 6 & n.2. They should have been placed in the record, as the Board ordered, when the Determination on Remand issued. *Id*. Brayton Point Station cannot be punished for the Region's delay by being deprived of an opportunity to comment.

Nor is there merit to the arguments in the Region's response that the errors in its production foregone calculations are harmless. In addition to assuming that eggs grow in mass, the Region made calculation errors and clear errors in size and weight assumptions that, in some cases, exaggerated larval production by thousands of times. Ex. 1 at 6-7 and Table 2. When these errors are corrected, the actual production foregone as a result of Brayton Point Station's cooling water intake is shown to be approximately 215,000 pounds per year. *Id*. at 7 and Table 3. This amount is less than one-tenth the amount of production foregone that Region 1 predicted would result from closed-cycle cooling, a technology it determined was protective of fish populations. AR 192, Ex. 3, Vol. I at 7-125 - 7-126. If the impact of Brayton Point Station's current operations is a small fraction of an acceptable impact, then there is no basis in the record for imposing additional burdensome and stringent limitations on its cooling water intake.

III. The Board Either Should Not Consider The Region's Statements Concerning Current Fish Populations Or Should Direct That The Record Be Reopened For Comment.

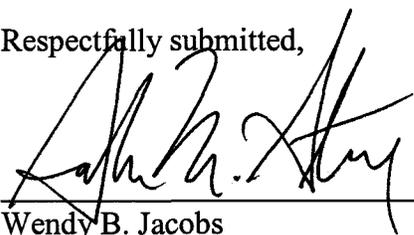
In connection with its Determination on Remand, Region 1 introduced into the record selected data relating to fish populations during periods subsequent to the issuance of the Permit. See DOR at 12, n. 12. It did so without offering Brayton Point Station and other interested parties a like opportunity. Based upon the selected recent data, the Region stated that there was no sign of a recovery of the fish populations. *Id.*

Solely to respond to the Region's selected data, Brayton Point Station proffered in association with its Petition recent studies and data that did show signs of recovery in fish populations. This response produced a vigorous debate, particularly in the *amicus* brief of the State of Rhode Island. While Rhode Island's brief helps somewhat in providing additional information about the recent studies, the parties continue to disagree on their usefulness. Brayton Point Station did not mean to suggest that Mark Gibson was the sole author of an article on which he is listed as a collaborator and does not doubt the documents created in 2007 showing that Timothy Lynch at some time asked to have his name removed from an abstract and a presentation made in 2003. See Ex. E to Petition; Petition Table 1 at 2. What is of significance, however, is that a 2005 trawl survey conducted by the Rhode Island Department of Environmental Management throughout Narragansett Bay and Mt. Hope Bay has shown a spike in age 1 winter flounder, see Ex. E to Petition, and that a recent peer-reviewed scientific study shows that trends in abundance of winter flounder and other species in Mt. Hope Bay are consistent with those in Narragansett Bay. See Petition Table 1 at 2. This material is important information that, if the Region's selected information concerning recent population data is allowed to remain in the record, also ought to be considered in connection with the issuance of Brayton Point Station's Permit.

CONCLUSION

For the foregoing reasons and the reasons stated in the Petition, the Board should grant the Petition and hear on the merits Brayton Point Station's appeal of the limitations on its thermal discharge and cooling water intake as they relate to and arise from the Region's determination as to the frequency or duration of exposures to temperatures of 24°C or greater, its conclusion that closed-cycle cooling operation likely will not violate applicable noise standards and its calculation of production foregone.

Respectfully submitted,



Wendy B. Jacobs
John M. Stevens
Elisabeth M. DeLisle
Foley Hoag LLP
155 Seaport Boulevard
Boston, Massachusetts 02210-2600
TEL: (617) 832-1000
FAX: (617) 832-7000
Attorneys for Petitioner

Dated: April 5, 2007

B3339447.3