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COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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December 22, 2003

U.S. Environmental Protection Agency
Clerk of the Board, Environmental Appeals Board 1103B
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460-0001

Re: In re: USGen New England, Inc.
NPDES Permit No. MA-0003654
NPDES Appeal No. 03-12

Dear Sir or Madam:

Enclosed for filing with the Environmental Appeals Board in the above entitled NPDES appeal are the Massachusetts Department of Environmental Protection's Motion to For Leave To File Amicus Brief and the Amicus Brief, and a Certificate of Service.

Thank you for your time and attention to this matter.

Sincerely,

Richard Lehan
Richard Lehan
Deputy General Counsel

Enclosures

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

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ENVIR. APPEALS BOARD

In re:
USGen New England, Inc.

NPDES Appeal No. 03-12

NPDES Permit No. MA-003654

**MOTION OF THE
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
FOR LEAVE TO FILE AMICUS BRIEF
IN SUPPORT OF EPA NPDES PERMIT NO. MA-003654**

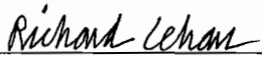
The Massachusetts Department of Environmental Protection (the "Department") hereby moves, pursuant to 40 CFR 124.19, for leave to file the enclosed amicus brief with the EAB to affirm the federal and state law and regulatory basis for the federal NPDES permit issued by EPA and to request that the EAB deny the Petitioner's petition for review for its failure to make the required showing under 40 CFR 124.19(a).

As explained in more detail in the accompanying brief, NPDES Permit No. MA-003654 was jointly issued by EPA and the Department and consists of two separate and independent federal and state permit authorizations. The state surface water discharge permit is the subject of a separate state appeal. Consequently, the Department is not a party to the federal appeal before the EAB on the separate federal NPDES permit issued by EPA. However, the Department has an interest in this proceeding both because the conditions in its state permit are identical to the conditions in the federal permit, and the Department issued a water quality certification for the federal permit pursuant to Section 410 of the CWA. For these reasons, the Department's brief is relevant to how the federal

permit is in accordance with federal and state law and why the Petitioner is not entitled to a further review of the final permit by the EAB.

Respectfully submitted,
Massachusetts Department of Environmental Protection
By its attorney:

Date: December 22, 2003



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

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ENVIR. APPEALS BOARD

In re:
USGen New England, Inc.

NPDES Appeal No. 03-12

NPDES Permit No. MA-003654

**AMICUS BRIEF OF THE
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
IN SUPPORT OF EPA NPDES PERMIT NO. MA-003654**

For the reasons stated below, the Massachusetts Department of Environmental Protection (the "Department") is filing this amicus brief with the Environmental Appeals Board (the "EAB") in support of NPDES Permit No. MA 003654 issued by EPA for the Brayton Point Station ("BPS") in Somerset MA.

I. Introduction

On October 6, 2003 the Department and EPA issued the above referenced joint NPDES permit to USGen New England, Inc., the owner of the BPS. NPDES Permit No. MA-003654 consists of two separate and independent federal and state permit authorizations: (1) an NPDES permit issued by EPA in compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. ss.1251 et seq.; the "CWA"); and (2) an identical Surface Water Discharge Permit issued by the Department in compliance with the Massachusetts Clean Waters Act, as amended, (M.G.L. c. 21, ss.26-53; the "MA CWA"). The Department also issued a Water Quality Certification, dated September 24, 2003, for the federal NPDES permit pursuant to Section 401 of the CWA.

On November 5, 2003 USGen New England, Inc. (the "Petitioner") filed a Petition for Review of the federal NPDES permit with the EAB pursuant to 40 CFR 124.19, NPDES Appeal No. 03-12. On the same date, the Petitioner also filed a Notice of Claim for an adjudicatory appeal of the state permit with the Office of Administrative Appeals in the Massachusetts Executive Office of Environmental Affairs, Docket No. 2003-15. On November 13, 2003 the EAB sent a notice to the Department enclosing the petition filed by the Petitioner before the EAB and requesting the Department to prepare a response that addresses whether the Petitioner has satisfied the requirements for obtaining review by the EAB.

Because the Department issued its own state permit that is the subject of a separate state appeal process, the Department is not a party to the federal appeal before the EAB on the separate federal NPDES permit issued by EPA. However, the Department has an interest in this proceeding in that EPA and the Department jointly developed and issued identical federal and state permits, and the Department issued a water quality certification for the federal permit pursuant to Section 410 of the CWA. For this reason, the Department has moved, pursuant to 40 CFR 124.19, for leave to file this amicus brief with the EAB to affirm the federal and state law and regulatory basis for the federal NPDES permit issued by EPA and to request that the EAB deny the Petitioner's petition for review for its failure to make the required showing under 40 CFR 124.19(a).¹

¹ The Petitioner has the burden under 40 CFR 124.19(a) to show how one or more of the conditions in the NPDES permit are based on "a finding of fact or conclusion of law which is clearly erroneous," or "an exercise of discretion or an important policy consideration which the Environmental Appeals Board should, in its discretion, review." The preamble to 40 CFR 124.19 states that "this power of review should only be sparingly exercised", and that "most permit conditions should be finally determined [by the permitting authority]". *EAB Practice Manual*, pp. 38-39, citing 45 Fed. Reg. 33,290, 33,412 (May 19, 1980).

II. Argument

A. The Ecological Impacts of BPS' Existing Operation

The BPS is currently operating under the terms of a joint NPDES permit first issued by EPA and the Department in 1993. That permit expired in 1998, but remains in effect pending the resolution of the separate federal and state appeals of the final NPDES permit.² EPA's administrative record for the draft and final NPDES Permit No. MA-003654 amply documents the long standing and substantial adverse ecological impacts of BPS on Mount Hope Bay.

Utilizing essentially the same "once-through" cooling water technology that was installed almost 40 years ago, the BPS withdraws nearly 1 billion gallons per day from Mount Hope Bay, and then discharges the water back into the bay at temperatures of up to 95 degrees Fahrenheit. BPS has a total annual heat discharge to the bay of 42 trillion British Thermal Units (BTUs). BPS' daily cooling water withdrawals contain trillions of marine organisms, including billions of fish eggs and larvae, which are killed by being "entrained" or "impinged" by the facility.³ This activity has resulted in the massive annual loss of fish species that have important commercial, recreational and forage purposes.⁴ BPS' thermal discharge has, in turn, elevated the temperature in the bay by about 1.5 degrees Fahrenheit, as compared to similar local water bodies, thereby

² It is the Department's understanding that the contested federal permit conditions are automatically stayed by the Petitioner's filing of its appeal with the EAB. In the state appeal, the Administrative Law Judge granted the Petitioner's motion to stay the identical contested state permit conditions, which the Department did not oppose.

³ Some of these organisms are killed when they are pulled through (or "entrained") in the facility; many juvenile and mature fish become trapped (or "impinged") against the intake screens due to the water velocity at the intake pipes.

⁴ EPA estimates that the annual losses of fish eggs and larvae due to BPS' existing cooling water withdrawals include 251 million winter flounder, 11.8 billion bay anchovy, 375 million windowpane flounder, and 3.5 billion tautog.

adversely affecting the fragile ecosystem of the bay. More specifically, the resulting negative impacts include altering the thermal profile of the bay, disrupting normal fish migration, rendering areas inhospitable to native fish species, and undermining the viability of Mount Hope Bay as an important spawning and nursery area for a variety of commercial fish and shellfish. These cumulative impacts are dramatically evidenced by the 87% decline in fish population in the bay after 1984, which coincided with a 45% increase in cooling water withdrawals by BPS. The bay's fish stocks have essentially collapsed and many fish species show no signs of recovery, despite stringent restrictions on fishing. In short, the limitations on BPS' thermal discharge limits and cooling water withdrawals in NPDES Permit No. MA-003654 are an overdue and necessary response to the severe ecological impacts caused by the BPS once-through cooling water operation.

B. The Section 316(a) Variance-Based Thermal Discharge Limits

The Petitioner requested alternative variance-based thermal discharge limits pursuant to Section 316(a) of the CWA. EPA is authorized to grant a Section 316(a) variance from either or both the technology-based or water quality-based effluent limits if less stringent variance based limits will nevertheless be sufficient to "assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife" in the receiving waters.⁵ EPA determined, and the Department concurred, that the thermal discharge limits in NPDES Permit MA-003654, which represent a 96% reduction over the current discharge⁶, are both necessary and sufficient to "assure the

⁵ EPA and the Department determined that the water quality-based limits derived from the Department's mixing zone evaluation would have resulted in *no* thermal discharge at certain times to ensure adequate zones of passage for migrating fish, and, therefore, were more stringent than the alternative limits authorized by the Section 316(a) variance. See *EPA's Response to Comments, dated October 3, 2003, on the Draft NPDES Permit No. MA-003654, p. V-9 through V-11.*

⁶ The permit reduces the total annual heat discharge to the bay from 42 trillion BTUs to 1.7 trillion BTUs a year.

protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife” in Mount Hope Bay, as required by Section 316(a) of the CWA. See *EPA’s Response to Comments, dated October 3, 2003, on the Draft NPDES Permit No. MA-003654*, p. I-2. EPA also evaluated and determined that the significantly less stringent discharge limits requested by the Petitioner will not meet the above standard.⁷

The Department’s Water Quality Certification documents our concurrence with EPA’s establishment of the Section 316(a) variance based thermal discharge limits in NPDES Permit MA-003654. The Department’s certification does not impose any conditions that are more stringent or inconsistent the thermal discharge limits in the joint permit. As noted therein, the relevant provisions in the Department’s Surface Water Quality Standards at 314 CMR 4.05(4)(a)2.c. and 4.05(4)(b)2.c. state that “any determinations concerning thermal discharge limitations in accordance with 33 U.S.C. 1251 s.316(a) will be considered site-specific limitations in compliance with 314 CMR 4.00.” The Department’s Water Quality Certification properly concluded, therefore, that the thermal discharge limits in NPDES Permit No. MA-003654 are site-specific limits in compliance with the Department’s Surface Water Quality Standards.

C. Section 316(b) Cooling Water Intake Structure Limit

EPA also determined that the Cooling Water Intake Structure (“CWIS”) flow limit in NPDES Permit MA-003654, which represents a 94% reduction in water

⁷ The Petitioner proposed a thermal discharge limit of 28 BTUs. Among the reasons for rejecting this alternative limit, EPA determined that it would still result in 62% of the volume of bottom waters exceeding the critical threshold temperature for winter flounder avoidance, as compared to only 10% of the volume when using the permit’s thermal discharge limits. See *EPA’s Response to Comments, dated October 3, 2003, on the Draft NPDES Permit No. MA-003654*, p.III-13.

withdrawals from the bay⁸, ensures that the capacity of the BPS CWIS reflects “the Best Technology Available [“BTA”] for minimizing adverse environmental impacts,” resulting from entrainment and impingement of marine organisms by the BPS, as required by Section 316(b) of the CWA. In applying the BTA standard under Section 316(b), EPA conducted a comprehensive review of both the technological options available to minimize such impacts and the costs of implementing each option, and concluded that the costs of using BTA would not be “wholly disproportionate” to the benefits.

In comparison, the Department has no independent state technology standard that it applied to the CWIS. Instead, the Department’s Water Quality Certification acknowledged that EPA’s Section 316(b) evaluation resulted in a CWIS flow limit that is based on the Petitioner’s ability to meet that limit using the best technologies available, such as cooling towers. The Department determined, in turn, that the CWIS permit requirements will adequately address the entrainment and impingement impacts from the BPS and thereby allow for the attainment of designated uses of the state receiving waters, as required by the Department’s Surface Water Quality Standards.

More specifically, the Department’s Water Quality Certification regarding the BPS CWIS flow limit is consistent with its authority under Section 401 of the federal CWA and the MA CWA. The United States Supreme Court has held that as long as there is a *discharge* to trigger application of the state water quality certification provisions under Section 401, a state may place conditions on the permit applicant’s *activity as a whole* to ensure compliance with any applicable water quality standard or other

⁸ The permit reduces the scope of BPS’ water withdrawals from the bay from nearly 1 billion gallons per day to 56 million gallons per day, and is a flow limit consistent with the use of “closed-cycle” cooling technologies.

requirement of state law. *PUD No. 1 of Jefferson County v. Washington Department of Ecology*, 511 U.S. 700, 711-712 (1994) (upholding a minimum stream flow requirement that the state of Washington imposed on a hydroelectric project to enforce a designated use in the state's water quality standards). The language of Section 401(d) refers to the compliance of the applicant, not the discharge, and, therefore, allows the state to impose "other limitations" on the project in general to assure compliance with the CWA and other appropriate requirements of state law. *Id.*; see also *EPA's Response to Comments*, dated October 3, 2003, on the Draft NPDES Permit No. MA-003654, pp. V-6 through V-9. Thus, consistent with its authority under Section 401 of the federal CWA, the Department's Water Quality Certification properly addressed whether the CWIS flow limit for the BPS, as distinct from the thermal discharge limits, would allow for the attainment of the designated uses for state receiving waters in the Department's Water Quality Standards.

Similarly, the MA CWA provides that "no person shall engage in any other activity [i.e., other than a discharge of pollutants] which may reasonably result, directly or indirectly, in the discharge of pollutants to waters of the [state] without a currently valid permit from the Department". *M.G.L. c. 21, s.43(2) and 314 CMR 3.04 of the Department's Surface Water Discharge Permit Regulations*. As an integral component of a once-through cooling water operation, BPS' cooling water withdrawals is an "activity" that directly results in a thermal discharge. A thermal discharge is a discharge of pollutants under the MA CWA.⁹ On that basis alone, BPS' cooling water withdrawals is an activity that is subject to the permit jurisdiction of the Department.

⁹ "Pollutant" is broadly defined in M.G.L. c. 21, s.26A to include "heated effluent".

The MA CWA also provides that in addition to specifying effluent limits, Department permits may specify “technical controls and other components of treatment works to be constructed or installed...which [the Department] deems necessary to safeguard the quality of the receiving waters”. *M.G.L. c. 21, s.43(7)*. “Treatment Works” is broadly defined to include “any and all devices, processes and properties, real or personal, used in the collection, pumping, transmission...recycling...or reuse of waterborne pollutants.” *M.G.L. c. 21, s.26A and 314 CMR 3.02*. Thus, in addition to BPS’ cooling water withdrawals being an activity directly related to a discharge of pollutants, its CWIS also constitutes an integral component of the facility’s once through cooling water “treatment works”. The Department is authorized, therefore, to impose permit conditions on the BPS CWIS.

Moreover, when the relevant provisions of the Department’s Surface Water Discharge Permit Regulations and Surface Water Quality Standards are read together, it is clear that the permitted BPS CWIS must allow for attainment of the designated uses of state receiving waters, as required by the Department’s Surface Water Quality Standards.

314 CMR 3.07(4) states that the Department shall not issue a permit “when the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States.” This regulatory prohibition does not narrow the scope of permit conditions to only those applying directly to the discharge. The Department is also authorized under 314 CMR 3.11(11)(a) to include in a permit “any requirements established under a state or other appropriate certification under 33 U.S.C. 1251 s.401.” As affirmed by the United States Supreme Court, the Department’s authority under Section 401 of the CWA includes placing conditions on a permit

applicant's activity as a whole to ensure compliance with state water quality standards. Accordingly, the language of 314 CMR 3.11(11)(a) is an express regulatory affirmation that the Department has independent state permit authority to condition a permit applicant's activity as a whole consistent with the scope of the Department's certification authority under Section 401 of the CWA .

The Department may also modify, suspend or revoke any outstanding permit for cause, including, any change in or discovery of conditions that calls for the reduction or discontinuance of the "authorized discharge or activity". (Emphasis added). *314 CMR 3.13(1)*. This regulatory provision is a further affirmation of the Department's position that an "activity", as distinct from a "discharge," may also be regulated in a surface water discharge permit.

The broad reach of the MA CWA and the Surface Water Discharge Permit Regulations governs how the Department interprets and applies its Surface Water Quality Standards. The stated purpose of the standards in 314 CMR 4.01(4) include to "designate the most sensitive uses for which the various waters of the [state] shall be enhanced, maintained and protected," and to set forth regulations "necessary to achieve the designated uses". More specifically, 314 CMR 4.05 classifies and identifies the designated uses of the state's surface waters. "Each class is identified by the most sensitive, and therefore governing, water uses to be achieved and protected," and "shall be regulated by the Department to protect and enhance the designated uses." *314 CMR 4.05 (1)*. The regulations establish the *minimum* water quality criteria applicable to each class of inland and coastal surface waters. *314 CMR 4.05(2)*.

In the case of BPS' cooling water withdrawals and thermal discharge, the affected Massachusetts portions of Mount Hope Bay are designated as Class SA or Class SB waters. Under 314 CMR 4.05(4)(a), the designated uses for Class SA waters include "an excellent habitat for fish, other aquatic life and wildlife and for primary and secondary contact recreation." Under 314 CMR 4.05(4)(b), the designated uses for Class SB waters include "a habitat for fish, other aquatic life and wildlife and for primary and secondary contact recreation." *See also EPA's Response to Comments, dated October 3, 2003, on the Draft NPDES Permit No. MA-003654, pp. V-9 through V-13.*

As explained above, the Department has independent state law authority to regulate BPS' cooling water withdrawals. Where, as in the instant case, the Department exercised that authority by concurring with the incorporation in the joint permit of the CWIS flow limit established by EPA, the Department first had to satisfy itself that such permitted activity will comply with our water quality standards. The Department is prohibited from issuing a permit unless it has determined that the conditions contained therein will ensure compliance with state water quality standards. *314 CMR 3.07(4)*. The scope and range of adverse environmental impacts caused by the BPS serves as a stark reminder of why it was imperative for the Department to ensure that the CWIS flow limit is protective enough to allow for the attainment of designated uses:

- BPS' daily cooling water withdrawals of 1 billion gallons per day destroys *trillions* of marine organisms, including billions of fish eggs and larvae, in waters of Mount Hope Bay in Massachusetts that have been designated by the Department for use as an "excellent" habitat for fish and other aquatic life and wildlife.

- BPS' annual heat discharge of 42 billion BTUs has, in turn, adversely altered and disrupted the temperature profile and aquatic habitat of the bay and been a key factor in the collapse of the fisheries.

By any reasonable measure, these severe, systemic impacts result in a clear violation of the designated uses for the SA and SB receiving waters in Massachusetts. The Department concurs, therefore, with EPA's conclusion that a CWIS that withdraws and kills trillions of marine organisms - from eggs and larvae to juvenile and adults - is inconsistent with providing either an "excellent" fish habitat (SA waters) or a "healthful" fish habitat (SB waters).¹⁰ See *EPA's Response to Comments, dated October 3, 2003, on the Draft NPDES Permit No. MA-003654, pp. V-11*. The magnitude of these ongoing losses will prevent the recovery of local fish populations and preclude the attainment of designated uses, as required by the Department's Water Quality Standards. The permit's required 94% reduction in cooling water withdrawals the from the bay (from nearly 1 billion gallons per day to 56 million gallons per day), to be achieved through the use of closed-cycle technology, will eliminate most of the annual fish losses, improve habitat quality, and thereby allow for the attainment of the above referenced designated uses in the bay. Accordingly, the Department's Water Quality Certification properly determined that the permit's CWIS limitations adequately address the facility's entrainment and impingement impacts and will comply with state water quality standards.

III. Conclusion

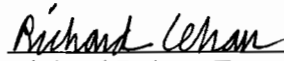
For the above stated reasons, the Department affirms its strong support for the joint NPDES Permit No. MA-003654 issued by both agencies, and the Water Quality

¹⁰ The Department also agrees with EPA that an SB fish habitat must be "healthful" and of at least somewhat high quality given the provisions of 314 CMR 4.01(4) and 314 CMR 4.05(1) and given the Department's mixing zone evaluation. *Id.*

Certification issued by the Department on the federal permit. The Petitioner has failed to meet its burden under 40 CFR 124.19(a) to show how one or more of the conditions in the above permit are based on “a finding of fact or conclusion of law which is clearly erroneous,” or “an exercise of discretion or an important policy consideration which the Environmental Appeals Board should, in its discretion, review.” Consequently, the EAB should deny the Petitioner’s petition for review and affirm the conditions in the final permit.

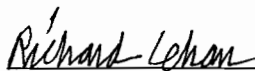
Respectfully submitted,
Massachusetts Department of Environmental Protection
By its attorney:

Date: December 22, 2003


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CERTIFICATE OF SERVICE

I, Richard Lehan, do hereby certify under the pains and penalties of perjury, that true and complete copies of the foregoing Motion to File Amicus Brief and the Amicus Brief was served by First Class, U.S. Mail on this day on Wendy B. Jacobs, Esquire, Foley Hoag LLP, counsel for the Petitioner, USGen New England, Inc., and on Mark Stein, Esquire, Office of Regional Counsel, United States Environmental Protection Agency, Region 1, One Congress Street, Suite 1100, Boston, MA 02114-2023.



Richard Lehan

Dated: December 22, 2003

