



**Public Service
of New Hampshire**

261

780 No. Commercial Street,
Manchester, NH 03101

Public Service Company of New Hampshire
P.O. Box 330
Manchester, NH 03105-0330
(603) 669-4000

The Northeast Utilities System

February 13, 2009

David Webster
Office of Ecosystem Protection
United States Environmental Protection Agency
One Congress Street, Suite 1100, Mail Code CMA
Boston, MA 02114-2023

By Overnight Mail

**Re: Public Service Company of New Hampshire
Merrimack Station
National Pollutant Discharge Elimination System Permit No. NH0001465**

Dear Mr. Webster:

Public Service Company of New Hampshire ("PSNH") wishes to express its appreciation to the United States Environmental Protection Agency ("EPA") for convening the December 4, 2008 meeting to discuss the draft National Pollutant Discharge Elimination System permit for PSNH's Merrimack Station (the "Station") in Bow, New Hampshire (the "Permit"). We believe that engaging in such dialogue is essential to a balanced permitting process and a reasonable outcome. PSNH welcomes continued communications and face-to-face meetings so that PSNH and EPA may work together to resolve the key biological and engineering issues relevant to EPA's renewal of the Permit, including the Station's existing Clean Water Act ("CWA") §316(a) variance.

To ensure the Permit is based on a complete and accurate administrative record, PSNH will be providing to EPA and the New Hampshire Department of Environmental Services within the next few weeks the following new reports as discussed in our December meeting. These reports analyze new biological and engineering data obtained during 2008 to address CWA §316(a) and §316(b) compliance:

1. Normandeau performed supplemental §316(a) studies regarding Hooksett Dam tailwater temperatures and potential thermal effects on yellow perch and white sucker age and growth;
2. Normandeau performed supplemental §316(b) studies regarding white sucker entrainment survival and larval transport and flux in Hooksett Pool;
3. Normandeau performed an analysis of Merrimack River ambient pH between June 2002 and May 2007; and
4. Enercon is preparing an engineering analysis of seasonal use of wedgewire screens at the Station's cooling water intake structures ("CWISs") as requested by EPA at the December 2008 meeting and supplemental to the technology evaluation already provided to EPA in response to the July 31, 2007 CWA §308 letter.

In particular, the second report described above will present the results of the 2008 white sucker larval transport and flux study, which will significantly supplement the existing record and provide data and analysis essential to EPA's making a technically grounded decision with respect to the Station's §316(b) compliance. As Dr. Mattson explained in December, the objective of this study (in conjunction with the 2008 white sucker entrainment survival study) is to determine whether entrainment by the Station's CWISs has an adverse environmental impact on the white sucker population of Hooksett Pool. Because white sucker is the single species accounting for most (approximately 55% to 74%) of the total entrainment at the Station, the results of this study will provide critical information regarding the small fraction of fish entrained at the Station compared to the overall fish population in the source water body.


PSNH urges EPA to review all of these new reports and submissions prior to issuing a draft NPDES permit for the Station, to ensure that the draft permit is based on accurate facts and appropriately reflects and responds to fisheries conditions in a manner consistent with applicable law.

Normandeau and Enercon's enclosed presentations summarize the results of their various analyses and evaluations completed through 2007 in support of the renewal of the Station's Permit and CWA §316(a) variance. With regard to §316(a), the Station's historical thermal and biological monitoring data show that such a renewal is warranted. Thermal and biological monitoring data collected since 1967 demonstrate that historically (1) the Station's thermal discharge has not caused any prior appreciable harm to the balanced indigenous population or community ("BIP/C") of shellfish, fish and wildlife that live in or migrate through the Merrimack River in the sphere of influence of the Station's hydrothermal regime, and (2) the Station's thermal discharge will not, in the future, negatively impact the protection and propagation of such BIP/C.

With regard to §316(b), the enclosed presentations summarize studies indicating that the magnitude of the Station's annual entrainment and impingement losses is minimal compared to other plants with similarly sized intakes, and that if determined to be necessary, the installation and operation of an upgraded fish return system and targeted timing of spring maintenance outages will further reduce entrainment and impingement mortality. As noted above, Normandeau's new 2008 supplemental §316(b) studies will provide additional information essential to the determination of whether such further reductions are in fact necessary.

We look forward to continued cooperation and dialogue with EPA. Please do not hesitate to call me if you have any questions.

Very truly yours,


William H. Smagula, P.E.
Director-Generation

cc: Linda T. Landis, Esq.
Elise N. Zoli, Esq.
Allan Palmer, PSNH