



Public Service  
of New Hampshire

# 2076

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The Northeast Utilities System

April 9, 2007

D25893

**By Overnight Mail**

Mr. John P. King  
Office of Ecosystem Protection  
US Environmental Protection Agency  
Region 1  
1 Congress Street  
Suite 1100, *Mail Code: CIP*  
Boston, MA 02114-2023

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

Dear Mr. King:

Please find enclosed three copies of the following two final reports prepared by Public Service Company of New Hampshire's consultant, Normandeau Associates, Inc., with regard to Merrimack Station in Bow, NH (the "Station"):

1. *Merrimack Station Fisheries Survey Analysis of 1967 through 2005 Catch and Habitat Data* dated April 2007; and
2. *A Probabilistic Thermal Model of the Merrimack River Downstream of Merrimack Station* dated April 2007.

PSNH is providing these reports in support of our pending request for renewal of the Station's existing Clean Water Act ("CWA") §316(a) variance, as well as to ensure that the draft National Pollutant Discharge Elimination System ("NPDES") permit for the Station, including the renewed §316(a) variance, is based on a complete and accurate administrative record. We will be submitting a "Summary Report" that addresses the key conclusions of these reports and the December 2006 Normandeau report entitled *Merrimack Station Thermal Discharge Effects on Downstream Salmon Smolt Migration* (which we have previously provided under separate cover).

Briefly, the Station's existing permit governs discharges from the Station to the Merrimack River, including thermal discharges, and specifies monitoring requirements to assure compliance with applicable limitations. The Station received a variance from otherwise applicable thermal discharge limits by providing reasonable assurances, based upon reasonably available information, that the permit's alternative thermal discharge limits adequately "assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on the body of water into which the discharge is to be made..." See CWA §316(a), 33 U.S.C. §1326(a). Of critical importance, both historical technical studies and analyses of the effects of the Station's discharge and those submitted under cover of this letter demonstrate that there has been no prior appreciable harm to the "balanced indigenous population" in the portion of the Merrimack River that receives the Station's discharge (the "BIP") from 1968 to the present, and therefore support the renewal of the existing variance.

At a May 2002 meeting, the United States Environmental Protection Agency ("EPA") indicated its intent to propose new thermal limits that are more stringent than the §316(a) variance-based alternative thermal criteria presently contained in the existing permit. It is PSNH's contention, based on the significant body of analytical data that has been submitted, that more stringent thermal limits are not necessary to assure the protection and propagation of the BIP. The data show that the Station's operations have not appreciably harmed the BIP in the past and suggest that they will continue not to appreciably harm the BIP in the future – in other words, that the §316(a) variance-based limits in the existing permit have assured and will continue to assure protection and population of the BIP.

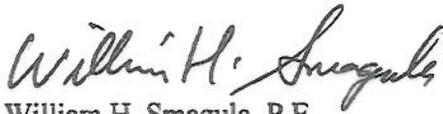
In addition, more restrictive thermal limits could create severe adverse operational impacts that would significantly increase customer costs and potentially compromise electric system reliability. The overly stringent limits would particularly affect a high demand period (May 1 through October 31) which includes the summer peak, when system reliability is at its most critical. PSNH is concerned that Station operations may be impaired to the extent that the Station is prevented from continuing to function in its role as a base-load generating station providing reliable, affordable electricity to 475,000 customers in New Hampshire.

In October 2006, ISO New England released its comprehensive ten-year Regional System Plan. As you are undoubtedly aware from the media coverage, the ISO study concluded that New England, with its lack of new capacity and increasing electricity demand, is facing a potentially severe electrical capacity shortage that could lead to a failure to meet established reliability criteria, thereby greatly increasing the possibility of rolling blackouts, particularly during periods of peak demand. Shortages could occur as early as 2008. Moreover, ISO projects that energy demand by 2015 will require 4,300 megawatts of new generation capacity, or the equivalent of about nine large new power plants. It is clear that the Station's role is increasingly vital to the State of New Hampshire in meeting increasing demand and in averting an energy crisis in the next decade.

In addition, the ISO report emphasized the need for resources that can respond to system contingencies. EPA may not be aware that the Station has been identified as a key resource in the electric system restoration plan because of its ability to reenergize the system in the event of a system-wide blackout. In other words, the Station has a vital role in maintaining electric system equilibrium. In sum, the Station provides essential low-cost electric energy to its customers, critical system reliability and much-needed fuel diversity (as an alternative to oil and gas dependence in region).

PSNH believes it is imperative that these societal prerogatives receive appropriate recognition in the permitting process. We appreciate this opportunity to share our concerns with EPA and look forward to discussing the technical data in the enclosed reports with you. Please continue to contact Allan Palmer at (603) 634-2439 if you have any questions and to arrange a meeting to discuss the details of the reports.

Very truly yours,



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

cc: Harry Stewart, NHDES  
Elise N. Zoli, Esq., Goodwin Proctor  
Linda T. Landis, Esq., PSNH

