



**Public Service
of New Hampshire**

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The Northeast Utilities System

January 5, 2010

By Facsimile and Overnight Mail

Mr. David Webster, Chief
Office of Ecosystem Protection
United States Environmental Protection Agency ("EPA")
NPDES Industrial Permit Branch (CIP)
5 Post Office Square - Suite 100, OEP06-1
Boston, MA 02109-3912

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

Dear Mr. Webster:

PSNH hereby respectfully responds to EPA's November 12, 2009 verbal request that it provide additional information in response to the July 2007 Clean Water Act ("CWA") § 308 letter regarding Merrimack Station (the "§ 308 Letter"). Briefly, EPA has asked PSNH to respond to the § 308 Letter's Item Nos. 5.b and 5.c – which respectively seek estimates of the "most stringent thermal discharge limits" and the "most stringent ... thermal load limits" with which the Station could comply using the cooling water intake structure ("CWIS") technologies required to be considered in PSNH's response to the § 308 Letter – by providing the estimated heat load that would be discharged to the Merrimack River at the end of the Station's cooling canal, in British Thermal Units ("BTU") per hour, for each such CWIS technology.

Merrimack Station currently maintains a CWA § 316(a) variance from otherwise applicable state thermal discharge limitations. Under applicable law, that variance is continued unless EPA has evidence, based on available monitoring, to establish that the existing thermal limits in the Station's NPDES permit are not adequate to assure the balanced indigenous populations of shellfish, fish and wildlife that reside within, or are migratory through, the Merrimack River in the vicinity of the Station (the "BIP"). All evidence provided by PSNH establishes that the BIP is protected. As such, and absent contrary EPA evidence of which we are aware, PSNH's existing § 316(a) variance should be continued. Moreover, EPA's request for information is difficult to reconcile with EPA's authority under § 316(a) and its implementing regulations. As such, PSNH respectfully requests that EPA withdraw, or appropriately clarify, its request.

Whether or not 316(a) shall be CWA's down to change or 308 cooling

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We appreciate that EPA may be interested in additional information, and PSNH is – of course – willing to provide such information, but we believe EPA’s current request reflects a misunderstanding of the technical information and conclusions already provided by PSNH in its response to EPA’s § 308 Letter. EPA has requested that we provide the most stringent thermal limits with which Merrimack Station could comply using the particular CWIS technology in question. We believe this question is not consistent with applicable law, which allows PSNH to obtain an alternative, more appropriate thermal limit than would otherwise apply under the CWA where that alternative thermal limit adequately preserves the BIP.

Specifically, CWA § 316(a), rather than allowing EPA to set the “most stringent” thermal effluent limits possible, entitles PSNH to a variance from those thermal effluent limits that would otherwise be applicable under § 301 where it demonstrates, based upon information reasonably available, that its proposed alternative thermal effluent limits – here, the Station’s current thermal limits contained in its existing NPDES permit – adequately “assure[s] 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” 33 U.S.C. §1326(a); *see also* 40 C.F.R. §125.73 (“Thermal discharge effluent limitations or standards established in permits may be less stringent than those required by applicable standards and limitations if the discharger demonstrates to the satisfaction of the director that such effluent limitations are more stringent than necessary to assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is made.”). Notably, the Vermont Supreme Court recently upheld this reading of CWA § 316(a) in a CWA permit case litigated on behalf of another electric power generating facility by PSNH’s outside counsel Elise Zoli. *See In re Entergy Vermont Yankee Discharge Permit 3-1199*, No. 2008-295, 2009 VT 124 (hereinafter “Vermont Supreme Court Entergy Opinion”), slip. op. at 13 (filed Dec. 18, 2009) (“Whether or not a thermal variance is appropriate turns on whether a ‘balanced indigenous population’ (‘BIP’) of fish, shellfish and wildlife can be adequately protected and propagated.”). (a copy of the Court’s opinion is attached for your convenience).

As significantly, since the issuance of Merrimack Station’s existing NPDES permit, PSNH has submitted numerous technical reports to EPA and the New Hampshire Department of Environmental Services (“NHDES”) summarizing and analyzing the more than 40 years of comprehensive environmental monitoring that has been performed in the Merrimack River in the vicinity of the Station since the late 1960s. These technical reports have covered a wide range of river temperature and flow conditions representative of thermal discharge conditions, and have included all major aquatic community components, including phytoplankton, zooplankton, benthic macroinvertebrates and resident and migratory fish. Moreover, both PSNH’s monitoring efforts and these technical reports have been subject to the continued scrutiny and direction of EPA and NHDES (as well as the Merrimack Station Technical Advisory Committee).

Most recently, PSNH has submitted the following three technical reports in support of our pending request for renewal of Merrimack Station’s existing § 316(a) variance: (1) *Merrimack Station Fisheries Survey Analysis of 1967 through 2005 Catch and Habitat Data* (Normandeau 2007) (2) *A Probabilistic Thermal Model of Merrimack River Downstream of Merrimack Station* (Normandeau 2007) and (3) *Merrimack Station Thermal Discharge Effects on Downstream Salmon Smolt Migration* (Normandeau 2006). These reports, prepared by leading aquatic

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biology expert Normandeau Associates, Inc., focus on thermal and biological monitoring data collected by PSNH's technical consultants in Hooksett Pool and upper Amoskeag Pool since 1967. Together with the other reports and studies previously submitted by PSNH – and consistent with applicable law, underscored by EPA guidance – these reports comprise both a retrospective (Type I) analysis based on the distribution and life history of each of nine Representative Important Species (“RIS”),¹ and a predictive (Type II) analysis of the lack of any effects of habitat changes resulting from Merrimack Station's historical and continued operations. In particular, the retrospective analysis evaluated the occurrence and relative abundance of each RIS of fish found in the vicinity of the Station during a period of comparable and documented electrofish sampling in Hooksett Pool in each of several selected sampling years between 1972 and 2005, and determined that the interannual trends in RIS abundance in Hooksett Pool during this period substantiate a finding of no prior appreciable harm. As addressed in the recent Vermont Supreme Court opinion obtained by Attorney Zoli, either of these approaches is adequate in the context of a variance renewal request, and both are conservative. *See Vermont Supreme Court Entergy Opinion*, pp. 13-16. As such, PSNH has overperformed in terms of § 316(a) with its submissions.² Finally, as you are aware, EPA's approach to § 316(a) reflects a rule of reason: Absolute certainty is not required; instead, EPA's decision must be made on a reasonable dataset. *Vermont Supreme Court Entergy Opinion*, p. 26. Here, there can be no doubt that the dataset satisfies the reasonableness test.

In sum, the data and analysis that PSNH has submitted to EPA to date provide a sound basis for EPA's renewing Merrimack Station's existing § 316(a) variance and issuing a draft NPDES permit that incorporates the thermal limits contained in that Station's existing permit. PSNH has satisfactorily demonstrated that the Station's thermal discharge into Hooksett Pool has not caused any prior appreciable harm to the BIP, and confirmed that Merrimack Station's existing NPDES permit adequately assures the protection and propagation of the BIP, as required under § 316(a) for renewal of the Station's existing variance. Viewed within this context, the Normandeau reports, and the robust dataset presented and interpreted therein, support renewal of our existing permit and § 316(a) variance on their existing terms. PSNH therefore asks EPA to find that these technical reports constitute a sufficient Type III demonstration that is consistent with EPA § 316(a) guidance, and to renew the Station's existing § 316(a) variance.

In addition, again, PSNH respectfully requests that EPA withdraw, or appropriately clarify, its request for additional information with respect to Item Nos. 5.b and 5.c of the § 308 Letter.

¹ The Merrimack Station Technical Advisory Committee unanimously selected and approved seven fish species as RIS for Merrimack Station in 1992: (1) alewife (*Alosa pseudoharengus*), (2) American shad (*Alosa sapidissima*), (3) Atlantic salmon (*Salmo salar*), (4) smallmouth bass (*Micropterus dolomieu*), (5) largemouth bass (*Micropterus salmoides*), (6) pumpkinseed (*Lepomis gibbosus*), and (7) yellow perch (*Perca flavescens*). Two additional species – fallfish (*Semotilus corporalis*), and white sucker (*Catostomus commersoni*) – were suggested but not formally recommended or approved by the Advisory Committee for inclusion as RIS; PSNH nonetheless incorporated them into its analysis. Thus, PSNH evaluated nine species, well over the minimum of five that EPA's 1977 guidance recommends. *See Vermont Supreme Court Entergy Opinion*, p. 23.

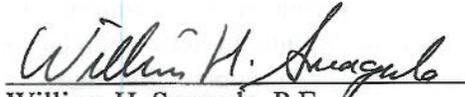
² Indeed, the dataset for Merrimack Station exceeds in length the dataset for Vermont Yankee. Likewise, and importantly, PSNH's submissions were developed and authored by Normandeau, the very expert that the Vermont Supreme Court concluded had performed a comprehensive and insightful analysis. *See Vermont Supreme Court Entergy Opinion*, pp. 17-19.

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This correspondence respectfully reserves PSNH's rights to challenge any aspect of the NPDES permit that EPA ultimately issues for Merrimack Station. Nothing herein is intended to, or should be in any way construed, as waiving PSNH's rights with respect to any pending considerations.

Please do not hesitate to call me if you have any questions.

Very truly yours,


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

cc w/out attachment: John Paul King, US Environmental Protection Agency
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Linda T. Landis, Esq.
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