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The Northeast Utilities System

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June 17, 2010

Stephen S. Perkins, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency, Region 1
8 Post Office Square, Suite 100
Boston, MA 02109-3912

Re: Public Service Company of New Hampshire/Schiller Station: Request for Information

Dear Mr. Perkins:

We have received your June 1, 2010 correspondence in response to Public Service Company of New Hampshire's ("PSNH") written request for an extension of time to respond to certain portions of the United States Environmental Protection Agency's ("EPA") May 4, 2010 supplemental request for information (the "Supplemental RFI"). We appreciate EPA's agreement to extend the time to respond to those items in the Supplemental RFI under the headings "Application for renewal of NPDES Permit No. NH0001473" and "Thermal Discharge."

We must, however, request clarification of EPA's current position and express our considerable concern, on behalf of our customers, to the extent EPA is unwilling to extend PSNH's time to respond fully to EPA's information requests relating to the performance of an important alternative intake technology at Schiller Station (*i.e.*, wedgewire screens), and to the relationship between the costs and environmental benefits of this and other cooling water intake technologies, and respectfully request that EPA reconsider its decision. Briefly, our reasons are as follows.

First, we are aware of no basis for EPA not to agree to a reasonable request for extension by a permit applicant, particularly given the substantial uncertainty that has persisted (and continues to exist) regarding EPA's currently suspended Phase II Rule for existing facilities and the cost-benefit test (which was the subject of litigation through the United States Supreme Court). Moreover, we are hard pressed to understand why, as a matter of common sense, Schiller Station is now on such a fast track that a reasonable extension request cannot be granted: PSNH submitted its renewal application to EPA in 1995 and responded fully and promptly to EPA's prior information request. EPA has taken no action of which PSNH is aware, except issuing the Supplemental RFI. As such, a demand for an immediate response by PSNH seems unwarranted.

Second, we are concerned that the information that PSNH is currently obtaining – which reflects evolving information regarding the efficacy of wedgewire screens – is simply too substantively important for EPA to ignore in any permitting decision. As a result, any best technology available ("BTA") determination made by EPA without this critical information would be arbitrarily premature. We are also concerned that – were EPA to proceed with drafting the NPDES permit for Schiller Station without considering this important information, particularly with full knowledge that all of this information will be submitted to EPA in October of this year (*i.e.*, within 120 days of the due date of the response to the supplemental request for information for Merrimack Station) – any proposed permit would be more readily susceptible to needless and disruptive challenge. PSNH would like to err on the side of prudence, by asking EPA to await the reasonable supplementation of the permit record in response to the Supplemental RFI:

- Specifically, PSNH requested (1) an extension to August 8, 2010 to provide EPA with a report on wedgewire screen efficacy at other electric generating stations, with our request necessary to account for consolidating this information from other station owners; and (2) an extension to October 22, 2010 to submit a comprehensive efficacy report on the site specific application of this technology at Schiller Station.[1] PSNH has requested a reasonable, but accelerated, period of time to complete the necessary studies which we believe are essential to an equitable permitting process and will provide a report on those site-specific studies by October 22, 2010. Certainly, PSNH is willing to provide interim progress reports on both of these efforts, if that would advance EPA's consideration of PSNH's request to provide the additional time necessary to prepare this critical information.

- With respect to the relationship between the costs and benefits of closed cycle cooling or any of the various alternative intake technologies, PSNH has asked for a similar extension to October 22, 2010 to provide such an analysis. As mentioned in prior correspondence, the U.S. Supreme Court has held that it is entirely reasonable for EPA to rely on a comparison of the costs and benefits of various technologies when implementing §316(b) of the Clean Water Act. As such, PSNH respectfully asserts that a site-specific BTA determination for Schiller Station should have the benefit of such information. Again, certainly, PSNH is willing to provide interim progress reports on this effort, if that would advance EPA's willingness to take this vital information into consideration.

PSNH's existing submission already establishes support for a BTA determination in favor of wedgewire screens. PSNH believes that – on the face of its October 2008 submittal ("RFI Response") alone – a reasonable regulator certainly could conclude that the costs of closed cycle cooling are wholly disproportionate to the environmental benefits, particularly because:

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[1] To the extent EPA believes PSNH already has begun a site-specific study (beyond the informal but knowledgeable assessment of experienced engineers), that is incorrect. PSNH's October 2008 submittal (the "RFI Response") recommended a pilot study to identify appropriate final design parameters to minimize biofouling potential (*see* RFI Response, pp. 84, 107). Nowhere in the RFI Response did PSNH state that it was undertaking such a study nor did EPA comment on the submittal or indicate in any manner that PSNH should proceed.

- PSNH's RFI Response indicates that the performance (in terms of a reduction in impingement mortality and entrainment ("I&E")) of wedgewire screens is comparable to closed cycle cooling. *Compare* RFI Response, p. 85, Table 6.3 (Wedgewire Screen Biological Benefit) to RFI Response, p. 60 (assumed closed cycle cooling reductions in impingement and entrainment).

- Closed cycle cooling provides no meaningful environmental benefit (and, in fact, poses substantial adverse environmental impacts including to air quality – *see* RFI Response, pp.61-62) over other available and significantly less costly technologies, including particularly wedgewire screens. Attachment 4 to the RFI Response estimates that the capital costs of closed cycle cooling are between $48.5 and $53.5 million (Attachment 4, pp. 4-5) as compared to $2.4 to $4.1 million (depending upon slot size and vendor) for wedgewire screens (Attachment 4, pp. 10-17).

Thus, PSNH asserts that – based solely on a comparison of the capital costs of the various technologies and their respective I&E performance – the only reasonable conclusion is that closed cycle cooling costs are wholly disproportionate to their environmental benefits.

Nonetheless, PSNH respectfully requests the ability to supplement its filing, including with respect to:

- Estimated performance penalties resulting from any closed cycle cooling conversion (p. 52 – an average annual power loss of 21.59 MW), as well as the parasitic losses attributable to closed cycle cooling (p. 53 – an average annual power loss of 2.76 MW). These power losses supplement the high capital costs of cooling towers and, in light of PSNH's status as a regulated utility, represent costs that must be borne by New Hampshire customers.

- The cumulative efficiency of wedgewire screens and closed cycle cooling relative to I&E, accounting for the likely significantly more time required for installation of closed cycle cooling as compared to the deployment of wedgewire screens.

- A social cost analysis of the costs and environmental benefits of the various technologies not only for purposes of sound decision-making at EPA, but also to justify the cost of any BTA determination to our customers. To that end, PSNH has retained an economics consultant and will provide to EPA a cost and benefits assessment of closed cycle cooling and various alternative intake technologies by October 22, 2010. Again, PSNH believes strongly that it would be unreasonable for EPA to proceed with a BTA determination without considering this information.

We would appreciate EPA's confirmation that PSNH's deadlines are acceptable, and we look forward to submitting the above-referenced information. Please do not hesitate to contact me or Allan Palmer at (603) 634-2439 if you would like to discuss this further.

Yours truly,

Linda T. Landis

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