

DE 04-105

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

**Petition for License to Construct and Maintain Electric Lines
Over and Across the Public Waters of the Suncook River
in the Towns of Allenstown and Pembroke, New Hampshire**

**Order Nisi Granting License to Construct and Maintain
Electric Lines Over and Across Public Waters**

ORDER NO. 24,349

July 9, 2004

On June 7, 2004, Public Service Company of New Hampshire (PSNH) filed a petition under RSA 371:17 with the New Hampshire Public Utilities Commission (Commission) for a license to construct and maintain electric lines over and across the Suncook River in the Towns of Allenstown and Pembroke, New Hampshire. PSNH supplemented its petition on June 22, 2004. PSNH states that the new crossing will be a relocation of an existing crossing necessitated by reconstruction of the Main Street Allenstown/Pembroke Bridge (Bridge) by the New Hampshire Department of Transportation (NHDOT). PSNH states that this distribution line is required to serve local customers in the Towns of Allenstown and Pembroke, and is designated as circuit 44W2.A.

PSNH proposes to build a new 12.47 kilovolt (kV) distribution line crossing for the Suncook River just south of the Bridge, but still wholly within the NHDOT right of way. The petition states that the new crossing will connect to the existing circuit at the next pole beyond each end of the Bridge. The line crossing will consist of two poles numbered #4/458 and #45/456.

PSNH states that new construction is necessary due to reconstruction of the Bridge. PSNH further states that the NHDOT requested PSNH to permanently relocate circuit

44W2.A off of the Bridge. According to PSNH, NHDOT expects to start construction in August 2004.

The petition states that the crossing of the Suncook River will consist of pole #4/458, a new 45 foot Type A tangent pole located on the easterly side of the crossing, and pole #45/456, a new 65 foot Type A tangent pole located on the westerly side of the crossing. PSNH states that the span between these two structures will be 204.6 feet.

The petition states that the three-phase conductors will be 1/0 6/1 ACSR conductor, constructed in a horizontal configuration, tensioned to 2,000 pounds, and sagged to National Electrical Safety Code (NESC), ANSI C2-2002 Heavy Loading conditions (0 degrees Fahrenheit, 4 pounds per square foot wind loading, and ½ inch radial ice). According to PSNH, Phase conductor sag of 2.75 feet (3.0 feet at NESC Heavy Loading) will occur at the maximum conductor temperature of 212 degrees Fahrenheit. PSNH states that under maximum conductor temperature and NESC Heavy Loading conditions, phase conductors remain 48.6 feet and 48.35 feet respectively above the Suncook River 100 year flood stage elevation of 262.0 feet. PSNH has determined that according to NESC Table 232-1, Note 19, the design water surface area for the crossing is 22 acres. For water areas of 20 to 200 acres that are suitable for sailing, NESC (Table 232-1) requires that primary conductor clearance to the water surface be 28.5 feet. PSNH points out that the planned clearance exceeds the NESC standard.

According to the petition, the single neutral conductor will be 1/0 ACSR 6/1, constructed seven feet below the phase conductors, tensioned to 2,000 pounds, and sagged to NESC Heavy Loading conditions. PSNH points out that the maximum sag of the neutral conductor at 105 degrees Fahrenheit is 1.76 feet (3.00 feet at NESC Heavy Loading conditions).

Under NESC Heavy Loading and maximum expected ambient conditions, the neutral conductor will remain 42.5 feet and 43.74 feet respectively above the Suncook River 100 year flood stage elevation of 262.0 feet. PSNH has determined that according to NESC Table 232-1, Note 19, the design water surface area for the crossing is 22 acres. For water areas of 20 to 200 acres that are suitable for sailing, NESC (Table 232-1) requires that neutral conductor clearance to the water surface be 25.5 feet. PSNH points out that the planned clearance exceeds the NESC standard.

PSNH calculates the distance between the phase and neutral conductors at maximum expected ambient and NESC Heavy Loading conditions to be 4.86 feet and 5.85 feet respectively. NESC (Table 235-5) requires that clearance between the phase and neutral conductor be 1.33 feet. PSNH points out that the planned clearance exceeds the NESC standard.

According to PSNH, all crossing construction will be in upland areas and the installation methods to be used in the reconstruction of the 44W2.A crossing will avoid impacts to any wetlands in the areas of the crossing. Therefore, PSNH asserts that no wetlands permits are required.

PSNH has stated that NHDOT has approved the proposed location of the two new pole structures by letter of NHDOT Utilities Engineer Lennart D. Suther, P.E., dated May 27, 2004, and attached to its petition as Exhibit 3.

PSNH states that the use and enjoyment by the public of these waters will not be diminished in any material respect as a result of the proposed aerial line crossings. PSNH further attests that the construction of the aerial electric lines will meet or exceed the requirements of the National Electrical Safety Code, ANSI C2-2002.

RSA 371:17 provides in part that whenever it is necessary, in order to meet the reasonable requirements of service to the public, that any public utility should construct a line of poles or towers and wires and fixtures thereon over or across any of the public waters of New Hampshire, it shall petition the Commission for a license to construct and maintain the same. “Public waters,” as defined in RSA 371:17, means “all ponds of more than ten acres, tidewater bodies, and such streams or portions thereof as the Commission may prescribe.” Based on the information presented, the Commission prescribes the part of the Suncook River under the proposed aerial electric lines as being “public waters” under RSA 371:17.

Based on the information presented by PSNH and Staff’s recommendation, we find such crossing necessary for PSNH to meet the reasonable requirements of reliable service to the public within PSNH’s authorized franchise area and the requested license may be exercised without substantially affecting the public rights in the waters of the Suncook River. We find that the crossing is in the public good and we will approve the petition on a nisi basis in order to provide any interested party the opportunity to submit comments on said petition or to request a hearing.

Based upon the foregoing, it is hereby

ORDERED NISI, that subject to the effective date below, PSNH is authorized, pursuant to RSA 371:17 et seq., to construct, maintain and operate the aerial electric lines over and across the Suncook River in Allenstown and Pembroke, New Hampshire as depicted on plans and drawings submitted June 7, 2004, supplemented on June 22, 2004, and on file with this Commission; and it is

FURTHER ORDERED, that all construction, maintenance and future reconstruction to these approved crossings shall conform to the requirements of the NESC and all other applicable safety standards in existence at that time; and it is

FURTHER ORDERED, that PSNH operate these new crossings in conformance with the NESC; and it is

FURTHER ORDERED, that PSNH remain in compliance with all terms of the correspondence with the State of New Hampshire, acting by and through the Department of Transportation, dated May 27, 2004 and filed as part of its petition, and any other terms subsequently determined by NHDOT; and it is

FURTHER ORDERED, that PSNH shall provide a copy of this order to the (i) Town Clerks of Allenstown and Pembroke, (ii) New Hampshire Attorney General and the owners of the land bordering on said public waters at the location of the river crossing, pursuant to RSA 371:19, and (iii) pursuant to RSA 422-B:13, New Hampshire Department of Transportation and the Office of Secretary, U.S. Department of Commerce, by first class mail, no later than XXX, 2004, and to be documented by affidavit filed with this office on or before XXX, 2004; and it is

FURTHER ORDERED, that PSNH shall cause a copy of this Order Nisi to be published once in a statewide newspaper of general circulation or of circulation in those portions of the state where operations are conducted, such publication to be no later than July 20, 2004 and to be documented by affidavit filed with this office on or before August 2, 2004; and it is

FURTHER ORDERED, that all persons interested in responding to this petition be notified that they may submit their comments or file a written request for a hearing on this matter before the Commission no later than July 27, 2004; and it is

FURTHER ORDERED, that any party interested in responding to such comments or request for hearing shall do so no later than August 2, 2004; and it is

FURTHER ORDERED, that this Order Nisi shall be effective August 9, 2004, unless PSNH to satisfy the publication obligation set forth above or the Commission provides otherwise in a supplemental order issued prior to the effective date; and it is

By order of the Public Utilities Commission of New Hampshire this ninth day of July, 2004.

Thomas B. Getz
Chairman

Susan S. Geiger
Commissioner

Graham J. Morrison
Commissioner

Attested by:

Debra A. Howland
Executive Director & Secretary