

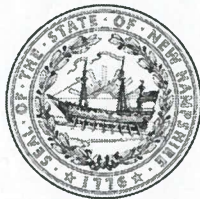
DG 16-489

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STATE OF NEW HAMPSHIRE



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NHPUC 25JAN17PM2:28

January 25, 2017

Ms. Debra A. Howland  
Executive Director  
New Hampshire Public Utilities Commission  
21 S. Fruit Street, Suite 10  
Concord, NH 03301

Re: DG 16-489, Petition of Northern Utilities, Inc. for a License to Cross Public Waters-  
Commission Staff Recommendation-Randy Knepper

Dear Ms. Howland:

Please find attached the Commission Staff Recommendation from Randy Knepper,  
Director of Safety Division, filed in the above-captioned proceeding.

Sincerely,

A handwritten signature in blue ink that reads "Kerri-Lyn Gilpatric".

Kerri-Lyn Gilpatric  
Program Assistant II

cc: Service List

# STATE OF NEW HAMPSHIRE

## Inter-Department Communication

**DATE:** January 25, 2017

**AT (OFFICE):** NHPUC

**FROM:** Randy Knepper, Director of Safety Division *RSK*

**SUBJECT:** DG 16-489 Petition of Northern Utilities, Inc. for a License  
To Cross Public Waters

**TO:** Debra Howland, Executive Director  
Steve Frink, Assistant Director of Gas  
Alex Speidel, Staff Attorney  
Robert Wyatt - Assistant Director, Safety Division

### **Project Overview:**

In its petition filed on April 25, 2016, Northern Utilities, Inc. ("Northern") is requesting the New Hampshire Public Utilities Commission ("NHPUC") grant a License to construct and maintain distribution gas mains across the public waters of the Cocheco River in Dover, NH.

Northern asserts the City of Dover plans to reconstruct the Whittier Street Bridge over the Cocheco River. The Whittier Street Bridge is red-listed on the State of New Hampshire Department of Transportation's ("NHDOT") list of troubled municipally-owned bridges and is scheduled for replacement.<sup>1</sup> During the process of this bridge replacement, the old bridge will be dismantled and removed to make way for the new bridge. This project makes it necessary that Northern replace the existing gas main, which is attached to the underside of the red-listed bridge and has been in place since 1982. It also makes it necessary for Northern to install a temporary main across the Cocheco River.

In its petition, Northern is not certain whether of RSA 371:17 requires the company to have a crossing license for either the temporary gas main utility bridge crossing or the permanent gas main attached to the underside of the new Whittier Street Bridge. The Company does state that both the temporary and the permanent crossings are necessary for the continued provision of natural gas service to customers on both sides of the bridge.

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<sup>1</sup> This is a City of Dover municipal project with design specification and planning assistance provided by the NHDOT Bureau of Planning and Community Assistance. The project has been designated NHDOT Project No. 15405.

Northern believes both the temporary crossing, and the permanent crossing, as described in its petition, can be exercised without substantially affecting public rights in said waters, as required in RSA 371:20.

## **Gas Distribution Main Crossing Details:**

### **Temporary Gas Main Bridge**

During the Whittier Street Bridge dismantling/construction project, Northern's gas main will be relocated to a temporary gas main bridge, designed and constructed specifically for this type of utility infrastructure. Specifics related to the temporary gas main bridge design are as follows:

- The temporary gas main bridge will be located parallel to, and approximately ten feet southeast of the Whittier Street Bridge.
- All work will be in conformance with the NHDOT Standard Specifications for road and bridge construction, 2010.
- A support system of four reinforced concrete piers and footings used for the temporary gas main bridge will be Class A with a design compressive strength of 4,000 PSI.
- Structural steel girders will be ASSHTO M270, Grade 50W (ASTM A709, Grade 50W), unpainted, unless otherwise noted.
- The main span across the river will be 177 feet, primary pier to primary pier, at an elevation of 51 feet. There will be additional spans of approximate 52 foot lengths on each side of the river, between the primary and secondary piers, at elevations of 58 (south) and 59 feet (north). The FEMA 50-year flood level at this location is 46.8 feet, with the FEMA 100-year flood level at 47.7 feet.
- These piers and footings will be constructed within the limits of the existing right-of-way or within the project's construction easements.
- All materials, labor and equipment required to construct and connect the temporary gas line, expansion joints, valves, etc. to the existing gas main will be provided by Northern.
- After the permanent gas main is operational on the new Whittier Street Bridge, the entire temporary utility gas main bridge will be removed by Northern's contractor.
- Portions of the concrete piers and pier footings two feet or more below finished grade may be left in place.

### **Permanent Gas Main on the New Whittier Street Bridge**

Northern's permanent gas distribution main will be attached to the new Whittier Street Bridge upon completion of the bridge construction process.

- The permanent gas main will be attached to utility support structures that are welded to bridge girders between girders numbered 4 and 5 of 5. The bridge design calls for 15 utility support structures that are spaced 10-feet apart. The bridge girders are below and supporting the reinforced concrete bridge deck.

- The 8-inch gas distribution pipe will pass under each bridge approach, through the support abutments on each side of the river, and through pipe roller supports attached to the utility support structures.
- The permanent gas main design includes expansion joints and shut off valves.

#### **Staff Analysis regarding Permanent Installations**

New utility installations, additions to or alterations of existing installations, adjustments or relocations of utilities within the rights-of-way (“ROW”) of highways and railroads fall under the jurisdiction of the Commissioner of the State of New Hampshire Department of Transportation (“NHDOT”) or the local selectman. This understanding is described in the NHDOT’s published Utility Accommodation Manual (“UAM”), February 2010. Additionally, Appendix D1 of the UAM pertains to Chapter 231:159-231:189, Cities, Towns and Village District Highways. Puc 506.02 (a) requires compliance with UAM.

Jurisdiction for permits or licenses concerning city maintained highways are addressed by the board of mayor and aldermen or board of mayor and council of the city in which the highway is located. Cities or towns are authorized to delegate all or any part of the powers conferred upon them to such agents as they may duly appoint. Petitions for permits or licenses concerning all class I and class III highways, and state maintained portions of class II highways are addressed by the commissioner of transportation, who has exclusive jurisdiction of the disposition of such petitions to the same effect as is provided for selectmen in other cases.

Whittier Street, in Dover, NH is classified as a Class V, Highway, maintained by the City of Dover Public Works department. The permanent installation of a gas main within the Highway right of way does not require a license for this crossing of the Cocheco River.

#### **Staff Analysis regarding Temporary Installations**

Temporary utility installations are common occurrences for utilities to maintain existing service and crossings of public waters and public lands are often the only practical means of supplying service. In general, these temporary installations also provide a myriad of regulatory review difficulties including:

- Design information supplied may not match the temporary condition applicable, relevance and treatment of final code requirements becomes far less clear, level of analysis varies depending upon duration of the temporary need, and ever shifting schedules of temporary utility installations are all complicating factors that must be considered. In many instances, they are dependent upon other external factors that are outside of the control of the utility and lend themselves to multiple changes from what is the initial proposed temporary solution. These amendments may require multiple revisions to Commission orders.
- Temporary utility installations during emergencies resulting from natural events such as windstorms, ice events, snow storms, flooding, and landslides are situations that do not lend themselves to a thorough process of reviewing final plans and determining if the water or land crossing will be impacted when more

immediate needs such as restoration of power, gas service or other public services are the primary goals of the crossings. Expedited reviews are impractical during an emergency and usefulness of the review results usually last only until a more permanent solution can be implemented.

- For water bodies, there are no established standards readily publicized for many other factors including projected water levels for short durations. All common engineering standards are for scenarios associated with long duration periods such as 10 year flooding events and 100 year flooding events.
- Materials are typically selected based on permanent conditions that would be encountered such as ultra violet degradation considerations, weight impacts, elimination of fatigue failures, thermal cycling and other typical considerations. These factors normally are not applicable to temporary installations and would not be easily correlated to established engineering standards.

Historically, within the last decade, licenses issued by the Commission through orders included language that is very precise, usually referencing a specific type, diameter, wall thickness, coating, height or depth, material, length or span and include conditions to limit the future impacts associated with the long term needs of the public. While RSA 371:17 may not explicitly state the purpose is meant for permanent or long term installations of utilities, Staff believes it is impractical to apply internal design reviews having a basis centered on longevity to temporary installations that have a more transient basis for many of the reasons listed above. Staff notes RSA 371:17 does fall within the Eminent Domain Titles of New Hampshire statutory framework, again referring to a more permanent and lasting condition that requires careful decision making and review as the impacts can change the landscape for long periods.

In the case of this crossing, the temporary nature of the installation of a gas main outside the Highway right of way should not require a license for this crossing of the Cocheco River. Staff does reserve the right to review the crossing for pipeline safety considerations beyond what is required for a license recommendation.

### **Overall Staff Conclusion and Recommendation:**

Based on its understanding of these statutes, Staff believes Northern's petition to the NHPUC in the instant docket, for Licenses to Cross Public Waters of the Cocheco River, are not applicable. As such, Staff recommends the petition be denied either through a Secretarial Letter or Order Nisi as it is unnecessary to grant a license.

**SERVICE LIST - EMAIL ADDRESSES - DOCKET RELATED**

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**Pursuant to N.H. Admin Rule Puc 203.11 (a) (1): Serve an electronic copy on each person identified on the service list.**

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Docket #: 16-489-1      Printed: January 25, 2017

**FILING INSTRUCTIONS:**

- a) Pursuant to N.H. Admin Rule Puc 203.02 (a), with the exception of Discovery, file 7 copies, as well as an electronic copy, of all documents including cover letter with:**

DEBRA A HOWLAND  
EXECUTIVE DIRECTOR  
NHPUC  
21 S. FRUIT ST, SUITE 10  
CONCORD NH 03301-2429

- b) Serve an electronic copy with each person identified on the Commission's service list and with the Office of Consumer Advocate.**
- c) Serve a written copy on each person on the service list not able to receive electronic mail.**