



**THE COMMONWEALTH OF MASSACHUSETTS**  
**DEPARTMENT OF PUBLIC UTILITIES**

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LIEUTENANT GOVERNOR

**RICHARD K. SULLIVAN, JR.**  
SECRETARY OF ENERGY  
AND ENVIRONMENTAL AFFAIRS

**ONE SOUTH STATION**  
**BOSTON, MA 02110**  
(617) 305-3500

**ANN G. BERWICK**  
CHAIR

**JOLETTE A. WESTBROOK**  
COMMISSIONER

April 12, 2011

Ms. Cynthia L. Quarteman  
Administrator  
U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
1200 New Jersey Avenue, S.E.  
Washington, D.C. 20590

RE: Replacement of Aging Pipelines in Massachusetts

Dear Ms. Quarterman:

This letter is in response to your March 31, 2011 letter to Ann G. Berwick, Chair, Massachusetts Department of Public Utilities ("DPU"). The DPU has recognized for a long time the risks and problems that old pipelines present. The 11 gas distribution operators in the state have over 21,000 miles of gas mains and over 1 million gas service lines in their systems. Nearly one-third of the mains are constructed of cast iron or unprotected steel. Some of the cast iron mains were installed in the 1800s.

In the 1980s, the DPU passed a set of regulations requiring gas companies to develop cast iron abandonment plans for their systems. At that time, there were about 5,000 miles of cast iron gas mains in the state. The plans were to focus first on small diameter cast iron pipe that was manufactured after 1930. A Cornell University study determined that this was the type of cast iron most prone to failure. The same study also found that encroached cast iron pipe was likely to fail. The regulations required companies to replace pipe that had been encroached upon immediately. Since these regulations were passed, about 20 percent of the cast iron pipe in Massachusetts has been replaced. In the last six years alone, about 320 miles

of cast iron mains have been replaced. As of December 31, 2010, 3,990 miles of cast iron pipe remains in service.

Cathodically unprotected steel pipe is another major risk factor in Massachusetts. Much of this pipe was installed in the first half of the 20<sup>th</sup> century. As of December 31, 2010, there were 3,080 miles of unprotected and/or uncoated steel pipe in service in the state. Operators are replacing this pipe. Since 2005, they have replaced an average of 73 miles per year. The DPU has approved three operators' Targeted Infrastructure Recovery Factor ("TIRF") programs. These programs allow companies to recover the cost of unprotected steel and cast iron pipe replacement work at a faster rate. The TIRF programs were approved as part of rate making proceedings. Other companies have, or will be, petitioning the DPU for approval of similar recovery plans.

The DPU also has a strong pipeline safety enforcement program. The partnership with PHMSA is an important part of this program. Please feel free to contact the DPU if you have any further questions or concerns.

Sincerely,

/s/

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Christopher Bourne, Director  
Pipeline Engineering and Safety Division

cc: Ann G. Berwick, Chair-DPU  
Jolette A. Westbrook, Commissioner-DPU