

Position Paper Replacement of Gas Distribution Pipelines

Position

Consistent with the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration's (PHMSA) "Call to Action" to accelerate the rehabilitation, repair, and replacement of high-risk pipeline infrastructure identified through distribution integrity management programs (DIMP), PPI encourages federal and state policymakers as well as gas distribution operators to consider polyethylene, polyamides, and spoolable composite piping when replacing and upgrading distribution facilities.

Background

In January 2012, President Obama signed the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, which required PHMSA to ensure that pipeline operators adequately plan for necessary infrastructure investments. PHMSA also spearheaded a "Call to Action" to encourage commissioners of state utility regulatory agencies to accelerate the repair, rehabilitation, and replacement of the highest-risk pipeline infrastructure. In a December 2011 letter to the National Association of Regulatory Utility Commissioners (NARUC), PHMSA encouraged commissioners to accelerate the replacement of the following "high risk" gas infrastructure:

- *"Cast iron gas mains, which can be prone to failure as a result of graphitization or brittleness;*
- *Plastic pipe manufactured in the 1960s to the early 1980s, which is susceptible to premature failures as a result of brittle-like cracking;*
- *Mechanical couplings used for joining and pressure sealing pipe, which are prone to failure under certain conditions;*
- *Bare steel pipe without adequate corrosion control (i.e., cathodic protection or coating);*
- *Copper piping;*
- *Older pipe, if it is vulnerable to failure from time-dependent forces, such as corrosion, stress corrosion cracking, settlement, or cyclic fatigue factor"*

In July 2012, the American Gas Foundation released a report entitled *Gas Distribution Infrastructure: Pipeline Replacement and Upgrades*, which clearly indicated that plastic pipe was the preferred material of the gas distribution pipeline industry, stating:

"One of the present challenges facing LDCs, regulators and other industry stakeholders is the impact of leak-prone infrastructure installed using materials that are susceptible to corrosion or other material failure. LDCs are working closely with federal and state regulators to enhance the safety and efficiency of distribution networks by upgrading distribution facilities, including the replacement of leak-prone mains and service lines with medium and high-density polyethylene (PE) plastic pipe that is the current industry standard for most distribution pipe sizes."

Plastic piping provided by PPI member companies offer piping systems that have demonstrated significant performance advantages and are corrosion and fatigue resistant. As states and localities develop and implement gas distribution pipeline replacement and upgrade programs, polyethylene, polyamide, and spoolable composite piping should be afforded ample consideration.