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April 12, 2011

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

Dear Ms. Quarterman:

This letter is in response to your March 31, 2011 letter. The Missouri Public Service Commission (MOPSC) significantly enhanced its pipeline safety regulations in December 1989. These enhancements included requirements for operators to establish prioritized replacement programs for unprotected steel mains, cast iron mains, unprotected steel service lines and unprotected steel yard lines. These replacement programs have eliminated substantial amounts of piping with integrity issues and we believe these replacement programs and enhanced requirements have paid tremendous safety dividends over the years. We share your concern for piping whose integrity is still questionable and would like to share with you how far the MOPSC has come in approximately 20 years.

Due to seven natural gas incidents that occurred in Missouri and Kansas in the winter of 1988/1989, which resulted in six fatalities, over a dozen injuries and at least seven structures being destroyed, the Commission took the initiative to develop significant revisions to the Missouri pipeline safety regulations. These new regulations became effective on December 15, 1989. Missouri's regulations on gas safety standards can be found at 4 CSR 240-40.030. The significant changes included:

- Requiring operators to address specific activities in the utilities' operation and maintenance (O&M) plans, and requiring operator personnel to review the plans.

- Requiring the training of operation/maintenance/emergency response personnel, and requiring successful demonstration that all such personnel possess the knowledge and skills needed to perform the assigned tasks (including review of O&M plans).
- Requiring leak detection surveys (with an instrument) on a more frequent basis - 1 year for all unprotected steel transmission pipelines, mains, service lines, and yard lines and 3 years for all other materials.
- Implementing systematic replacement programs and more frequent leak surveys pertaining to non-cathodically protected steel service lines and yard lines.
- Implementing systematic replacement programs (that must be approved by the Commission) for cast iron (CI) mains.
- Implementing systematic replacement and/or cathodic protection programs (that must be approved by the Commission) for non-cathodically protected steel mains.
- Prohibiting the installation of *customer-owned* service lines and yard lines.
- Requiring tests/checks of customer's facilities before initiation of service.
- Increasing the requirements for excavator notification to prevent damage to pipelines and for public education to enhance the recognition of and response to natural gas leaks.
- Requiring that all newly installed service regulators have full over-pressure protection.

These revisions to the Commission's gas pipeline safety regulations promoted increased safety on several fronts. First, programs were established to identify existing facilities that were considered as posing a potential safety risk (certain unprotected steel mains, certain cast iron mains, and non-cathodically protected steel service lines and steel yard lines) and to eliminate those facilities in those areas that presented the greatest potential for hazard first. Second, the preparation of a thorough, comprehensive operation and maintenance plan for each operator, coupled with required training of operations personnel, created a better trained workforce. Third, more frequent leak surveys were required to be conducted (with instruments) to enable operators to detect natural gas leaks before they become hazardous. This, in turn, can reduce the potential for problems/errors and enable operators to better identify potential problems on the system and correct them before hazardous situations occur.

The Commission's Pipeline Replacement Programs

Investor-owned and municipally-owned natural gas systems have been required by Missouri PSC regulations for approximately 20 years to accelerate leak surveys and prioritize replacement for piping that has the greatest potential for hazard (integrity issues). The operators must:

- Conduct annual leak surveys and replace unprotected (not protected from corrosion) steel service lines and yard lines.

- Replace cast iron pipelines in those areas that present the greatest potential for hazard in an expedited manner.
- Replace/cathodically protect unprotected steel transmission lines, feeder lines and mains in those areas that present the greatest potential for hazard in an expedited manner.

Results of the Commission's Pipeline Replacement Programs

- Almost 1,100 miles of cast iron mains have been eliminated, leaving approximately 1,200 miles to be replaced.
- Almost 1,100 miles of unprotected steel mains have been eliminated (replaced or protected), leaving approximately 10 miles to be replaced.
- Almost 300,000 unprotected steel service lines and yard lines have been eliminated, leaving approximately 33,150 unprotected steel service lines to be replaced.

Pursuant to previous Commission orders the remaining unprotected steel mains are required to be replaced by 2014 and the remaining unprotected steel service lines are required to be replaced by 2020.

Additional Replacement Programs Required by the Commission

In addition to the regulatory requirements for unprotected steel and cast iron pipelines noted above, the Commission's on-going inspection and investigation activities have identified other specific materials that could present integrity issues, so accelerated leak surveys and replacements were ordered by the Commission, including:

- Annual leak surveys and prioritized replacement of soft copper service lines (Laclede Gas Company...GO-99-155 and GS-2008-0038). The program resulted in over 80,000 soft copper service lines being replaced. The soft copper service line replacement program will be completed in 2011.
- Accelerated leak survey frequency over, and prioritized replacement of, identified older vintage plastic pipe (City Utilities of Springfield...GS-2004-0257). Current on-going program requires annual leak surveys over identified piping and replacement of at least six miles of identified plastic main annually.

Discussions on Aging Infrastructure

The Commission Staff recently recommended a review of the integrity of older cast iron and steel natural gas pipeline facilities in Missouri with the possible goal of initiating specific long-term replacement programs to eliminate significant mileage each year. The Staff has recommended meetings/roundtables with the utilities that have these facilities to discuss the issue of systematic replacement of the aging infrastructure and the impact on rates. There are integrity issues, maintenance issues, service reliability issues and rate issues involved. The issues are not

entirely related to safety, but there are also policy decisions that need to be evaluated to determine the implications of continuing to have certain steel piping and cast iron piping in distribution systems 30 years, 40 years or 80 years from now. The Commission will be considering this recommendation in the next few weeks.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin D. Gunn", with a long horizontal flourish extending to the right.

Kevin Gunn, Chairman
Missouri Public Service Commission