U.S. Department
of Transportation
Pipeline and
Hazardous Materials Safety
Administration

400 Seventh St. S.W.
Washington, D.C. 20590

Mr. John Frantz
Manager Gas Engineering
PECO Energy
2301 Market Street
Philadelphia, PA 19101-0000

Dear Mr. Frantz,

The Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) and the National Association of Pipeline Safety Representatives (NAPSR) requests that the Gas Piping Technology Committee develop guidance that will help assure the integrity of gas distribution pipelines.

PHMSA promulgated regulations requiring integrity management (IM) programs for hazardous liquid pipelines (in 2000) and gas transmission pipelines (in 2003). Operators of these types of pipelines are required to implement programs that require them to identify the threats to their pipelines, analyze the risks they produce, and take actions as needed to mitigate these risks. These regulations require that pipeline operators, as part of their IM programs, conduct periodic inspections of the condition of their pipelines to identify and remediate conditions that could threaten pipeline integrity.

Distribution pipelines are not currently subject to IM regulations. Design differences between distribution pipelines and the pipelines now covered by IM regulations preclude use of the inspection techniques required by these regulations. At the same time, other elements of the IM regulations could be applied to distribution pipelines. The DOT Inspector General, testifying before Congress in 2004, recommended that IM programs be required of distribution pipeline operators. The report of the FY 2005 Conference Committee on Appropriations required DOT to report to the Congress on its plans for doing so.

As a result of this Congressional request, PHMSA worked with a number of stakeholder groups to evaluate IM requirements that could be applied to distribution pipelines in a practical manner. This program was described in DOT's report to Congress[1] as the first phase of a multi-phased effort. The Phase 1 program has now been completed, and has

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[1] Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, "Assuring the Integrity of Gas Distribution Pipeline Systems: A Report to the Congress," May 2005.

reached conclusions about the nature of IM programs that could be required of distribution pipeline operators.

The Phase 1 program concluded that it would be most appropriate to require IM programs of distribution pipeline operators through a high-level regulation that permits significant flexibility. Such a structure will best accommodate the wide diversity among distribution pipeline operators. Companion guidance is needed to enable operators and the public to understand better the actions that must be taken to implement the regulation, preferably providing options suitable for different circumstances faced by different operators. It would be most useful if this guidance were developed in parallel with the regulation, so that public comment on a proposed rule could be informed by the additional information that would be provided by the guidance. It is for this reason that PHMSA and NAPSR are requesting that GPTC undertake an effort to develop the needed guidance. We hope you share our sense of urgency for developing guidance to support implementation of final rule anticipated by late calendar year 2007.

The Phase 1 program, as described in the Phase 1 report, concluded that a high-level flexible regulation for distribution IM should include seven elements:

1. development of a written IM plan
2. assuring an understanding of an operator's infrastructure
3. identifying applicable threats, both current and potential
4. analyzing risks
5. implementing appropriate measures to address risks
6. measuring performance and adjusting the IM program as needed
7. reporting selected results to regulatory authorities on a periodic basis.

Guidance is needed for implementing these elements. In particular, guidance is needed to address:

- Information that an operator should gather through its routine activities to improve the understanding of its distribution system infrastructure
- How best to assemble detailed information on pipe characteristics (including material, manufacturer, batch, etc.) into an operator's understanding of its system to support current and future risk management activities
- Threat evaluation processes and data needed to support this evaluation
- Options for evaluating the relative importance of threats
- How risk analysis can be performed, encompassing situations from small, simple distribution systems to those that are large and complicated, and what use should be made of the results of these analyses
- Choices for decision processes and criteria for selecting prevention, detection and mitigation measures
- Choices for measuring safety program effectiveness and describing the situations under which the measures would be meaningful

- Choices an operator might make in evaluating the overall effectiveness of its program (e.g., how to determine it is being implemented as described; how to determine whether it is producing improvements)

In addition, specific guidance is needed to address:

- Criteria for determining whether it is feasible to install an excess flow valve (EFV) in a gas service line (i.e., would a valve work reliably if installed?)
- Risk factors, and a risk evaluation approach, for determining when it is appropriate to install an EFV in a gas service line where installation is feasible (i.e., should a valve be installed?)
- Implementing a comprehensive leak management program, which is fundamental to successful management of distribution risk, and thus is a vital risk control practice. At a minimum, guidance is needed to implement the LEAKS program described in the Phase 1 report for
    - o determining how local conditions and system knowledge should affect the frequency and type of leak surveys
    - o methods/criteria for evaluating the severity of leaks and need for action
    - o records that should be maintained to permit trending and identification of underlying problems
    - o perfoiniance metrics and the types of analyses in which they should be considered

The wide diversity among distribution pipeline operators will likely make it difficult to develop the necessary guidance. In particular, the guidance must be useful to operators of different size and with differing degrees of available resources and expertise. Many operators of distribution pipeline systems are small companies or municipal agencies, many without resources to develop custom IM plans or implementing procedures. These operators need detailed guidance, but guidance that includes enough options so that they will fit their individual circumstances. PHMSA and NAPSR considers that it would be useful for GPTC to establish a separate committee for this effort, or to augment its existing committee in a manner that will increase the participation by persons with expertise in the operation of small distribution pipeline systems, as well as by federal and state safety regulators. PHMSA and NAPSR look forward to discussions with GPTC concerning how the involvement of appropriate expertise can be assured.

ASME/ANSI B31.8S, Supplement to B31.8 on Managing System Integrity of Gas Pipelines, provides guidance for implementing the IM regulation for gas transmission pipelines. The portions of this document dealing with inspection/assessment will have no applicability to distribution pipeline integrity management, but the portions addressing other elements of the gas transmission IM regulation could provide a useful reference for developing applicable guidance for distribution pipelines.

PHMSA and NAPSR would appreciate the opportunity to meet with GPTC to discuss further plans for the expeditious development of the guidance necessary to implement IM requirements for gas distribution pipelines.

Please address any correspondence regarding this request to Mike Israni, PHMSA, and to Don Martin, NAPSR.

Sincerely,

Stacey Gerard
Acting Assistant Administrator/Chief Safety Officer

Don Martin
NAPSR National Chair