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Highlights

Highlights of [GAO-06-474T](#), a testimony before the Subcommittee on Highways, Transit and Pipelines, Committee on Transportation and Infrastructure, House of Representatives

Why GAO Did This Study

About a dozen people are killed or injured in natural gas transmission pipeline incidents each year. In an effort to improve upon this safety record, the Pipeline Safety Improvement Act of 2002 requires that operators assess pipeline segments in about 20,000 miles of highly populated or frequented areas for safety risks, such as corrosion, welding defects, or incorrect operation. Half of these baseline assessments must be done by December 2007, and the remainder by December 2012. Operators must then repair or replace any defective pipelines, and reassess these pipeline segments for corrosion damage at least every 7 years. The Pipeline and Hazardous Materials Safety Administration (PHMSA) administers this program, called gas integrity management.

This testimony is based on ongoing work for this Subcommittee and for other committees, as required by the 2002 act. The testimony provides preliminary results on the safety effects of (1) PHMSA's gas integrity management program and (2) the requirement that operators reassess their natural gas pipelines at least every 7 years. It also discusses how PHMSA has acted to strengthen its enforcement program in response to recommendations GAO made in 2004.

GAO expects to issue two reports this fall that will address these and other topics.

www.gao.gov/cgi-bin/getrpt?GAO-06-474T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Katherine Siggerud at (202) 512-2834 or siggerudk@gao.gov.

GAS PIPELINE SAFETY

Preliminary Observations on the Integrity Management Program and 7-Year Reassessment Requirement

What GAO Found

Early indications suggest that the gas transmission pipeline integrity management program enhances public safety by supplementing existing safety standards with risk-based management principles. Operators have reported that they have assessed about 6,700 miles as of December 2005 and completed 338 repairs for problems they are required to address immediately. Operators told GAO that the primary benefit of the program is the comprehensive knowledge they must acquire about the condition of their pipelines. For some operators, the integrity management program has prompted such assessments for the first time. Operators raised concerns about (1) their uncertainty over the level of documentation that PHMSA requires and (2) whether their pipelines need to be reassessed at least every 7 years.

The 7-year reassessment requirement is generally consistent with the industry consensus standard of at least every 5 to 10 years for reassessing pipelines operating under higher stress (higher operating pressure in relation to wall strength). The majority of transmission pipelines in the U.S. are estimated to be higher stress pipelines. However, most operators told GAO that the 7-year requirement is conservative for pipelines that operate under lower stress because they found few problems requiring reassessments earlier than the 15 to 20 years under the industry standard. Operators GAO contacted said that periodic reassessments are beneficial for finding and preventing problems; but they favored reassessments on severity of risk rather than a one-size-fits-all standard. Operators did not expect that the existence of an "overlap period" from 2010 through 2012, when operators will be conducting baseline assessments and reassessments at the same time, would create problems in finding resources to conduct reassessments.

PHMSA has developed a reasonable enforcement strategy framework that is responsive to GAO's earlier recommendations. PHMSA's strategy is aimed at reducing pipeline incidents and damage through direct enforcement and through prevention involving the pipeline industry and stakeholders (such as state regulators). Among other things, the strategy entails (1) using risk-based enforcement and dealing severely with significant noncompliance and repeat offenses, (2) increasing knowledge and accountability for results by clearly communicating expectations for operators' compliance, (3) developing comprehensive guidance tools and training inspectors on their use, and (4) effectively using state inspection capabilities.

Pipeline Failure Resulting from Corrosion



Source: CC Technologies.