



TRANSMISSION PIPELINE INTEGRITY MANAGEMENT PROGRAM

Pipeline safety has always been an essential part of Southern California Gas Company's (SoCalGas®) natural gas delivery system. The U.S. Department of Transportation classifies pipelines with specific properties and operating characteristics as "Transmission." These transmission pipelines are generally larger, higher pressure pipelines that deliver natural gas into the local distribution system.

SoCalGas transmission pipelines are designed and built to meet stringent standards that consider the environment around the pipeline, including population density and natural hazards such as earthquake faults. Before the pipelines are put into service, they are tested to verify that they can hold a pressure greater than the level at which they will be operated. We also install and maintain systems to prevent steel pipes from corroding.

SoCalGas regularly conduct leakage surveys and patrols of pipelines to identify potential leaks or problems. And, whenever we work on a line, we look for potential problems and often use ultrasound, x-ray and other technologies to inspect the pipe.

Historically, most of this work has been performed routinely and quietly. As a result, it generally has been unseen by the public. However, the Pipeline Safety Improvement Act of 2002 has resulted in an increase in excavations and associated construction activity on transmission pipelines. This work is necessary to comply with additional regulatory requirements, including inspections of segments of the transmission pipeline system and implementation of a transmission pipeline integrity management program.

These additional regulations also have driven replacements of valves and certain bends in the pipe to allow advanced inspection tools to move through the inside of the pipelines. All of this work has and will continue to result in occasional interruption of gas service and traffic congestion on city streets.

High Consequence Areas

New federal and state regulations include prescriptive detail to identify the segments of pipelines that travel through "high consequence areas" (HCAs). HCAs generally are heavily populated areas or sites where 20 or more people gather 50 or more days a year.

About 1,200 miles of pipelines in SoCalGas' service territory are in these HCAs, which generally are heavily populated areas or sites where 20 or more people gather 50 or more days a year. Less populated areas can also be classified as HCAs if they meet specific additional requirements, such as buildings accommodating low-mobility residents or areas where people gather for a specific number of days per year.

Assessment

As required by law, we completed our baseline integrity assessment of the pipelines in 2012. We will continue to reassess those pipelines every seven years.

The law also outlines the inspection methodologies that may be used for these assessments, including:

- **Internal inspection.** This method sends technologically advanced equipment, which are often referred to as “smart pigs” or in-line inspection tools, inside the pipeline. The tools record data, such as the thickness of the walls, as they move through the pipeline. To use this method, we have had to retrofit our pipelines to accommodate the internal inspection equipment. This can require a significant amount of excavation in streets where our pipelines are located. It also takes time. The entire process, from planning, permitting, retrofit, inspection and data analysis through needed repairs or replacement, could take as long as four years just for one pipeline.

- **Hydrostatic pressure testing.** This involves filling the pipeline with water under a pressure that is greater than the operating pressure to check for a sufficient safety margin.
- **Direct assessment.** This technique requires the use of above ground technologies to identify where there may be damage or degradation to the external coatings or wrap that prevent corrosion on pipelines. Excavations are performed based upon the findings and the pipeline is visually inspected.

Benefits

Although customers may be impacted temporarily when a line is taken out of service to complete the retrofit and commuters may be affected by our work in the streets, our Pipeline Integrity Program is important to maintain the safety of our system.



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