



Southern
California
Gas Company

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PIPELINE SAFETY HYDROSTATIC PRESSURE TESTING

Southern California Gas Company (SoCalGas®) is the nation's largest distributor of natural gas, delivering safe and reliable service to nearly 21 million customers through almost 6 million meters. To reach those customers, natural gas is transported over 4,000 miles of gas transmission pipelines, 48,000 miles of distribution pipelines and 49,000 miles of service lines.

At SoCalGas, the safety of our employees, our customers and the communities we serve has been and will continue to be our highest priority. Reflecting that commitment to safety, we construct, operate, and maintain our pipeline system to meet or exceed all applicable federal and state regulations and requirements.

SoCalGas routinely performs various pipeline safety and maintenance tasks, including patrolling, inspecting, testing, repairing and replacing pipelines. Testing activities are designed to measure that a pipeline segment is sound, often referred to as its "integrity." One of the common methods for assessing pipeline integrity is the hydrostatic pressure test.

Hydrostatic pressure testing is a process that uses water to exert pressure on a pipeline at levels much greater than its usual operating pressure. The segment of pipeline that is being tested is temporarily removed from service and excavations are dug at both ends of the segment to expose the pipeline. Then, the natural gas inside is safely vented.

Short sections of pipeline are removed from both ends of the segment to be tested and the ends are sealed with test caps. Next, the sealed test segment is filled with water using a pump. The water pressure



Work crew members guide a test head cap into position at one end of a pipeline segment to be pressure-tested.

is increased to a point higher than the pipeline will normally operate to see if it has any leaks. After holding the increased pressure for eight hours or more, the test is complete.

The water is then drained from the pipeline test segment in accordance with applicable regulations and local requirements, and the test caps are removed from the ends. The pipeline segment is then thoroughly dried and new replacement pipe is installed at both ends to reconnect the pipeline segment into the system. Natural gas is safely reintroduced into the pipeline and it is brought back into service.

Continued on back



A pipeline test head cap is carefully welded to the end of a pipeline segment to be pressure-tested.



Water is pumped into a test head to conduct a pressure test.

Hydrostatic pressure testing is one of the many tools SoCalGas uses to help maintain the safety and integrity of its natural gas pipeline system.

Whenever SoCalGas conducts a hydrostatic pressure test project in a community, we make every effort to minimize and mitigate any impacts. Potential community impacts may include seeing trucks and equipment on the streets, excavation sites, temporary "No Parking" signs on streets, possible lane reductions or closures, detours and temporary delays on surface streets.

The community also may hear some work-related noise and notice an occasional natural gas odor. In some instances, there may be temporary natural gas service interruptions but we strive to provide continuous natural gas service for our customers while testing is being performed.

Safety always comes first when performing a test, so SoCalGas will have plans in place and repair teams standing by in the event a pipeline fails the test or needs to be repaired. If a pipeline ruptures during testing, a large amount of water will be released at the rupture site but it should dissipate quickly.

If a hydrostatic pressure test of a pipeline section results in a leak or a rupture, the pipeline will be repaired or replaced. If repairs are needed, we will make them and then perform a second pressure test to confirm the success of the repairs. If the failed segment needs to be replaced, we will do so with a pipe that has already passed a pressure test.

SoCalGas appreciates the co-operation and patience of our customers and the communities we serve as we work to enhance the safety of our natural gas pipeline system.



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