Natural gas pipeline safety – hydrostatic pressure testing

SDG&E® by the numbers

We provide safe and reliable energy service to **3.4 million** consumers through **1.4 million** electric meters and more than **860,000** natural gas meters in San Diego and southern Orange counties. Natural gas is transported through **15,000** square miles of gas lines.

One of our top priorities is providing you with safe and reliable energy. This means we're always monitoring our gas and electric systems. As the region continues to grow, so does the need for energy. To keep up with the increase in energy use, we'll make upgrades to our systems.

We construct, operate and maintain our pipeline system to meet or exceed all applicable federal and state regulations and requirements. Through our testing activities we measure a pipeline segment to make sure it's sound – in other words, the pipeline has "integrity". One of the common methods for assessing pipeline integrity is the hydrostatic pressure test.

About hydrostatic testing

With this process, water is used to exert pressure on a pipeline at levels much greater than its usual operating pressure. The segment of pipeline that's 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 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. After the water is drained from the pipeline test segment and the test caps removed from the ends, the pipeline segment is 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 brought back to service.

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

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Safety during testing

Safety always comes first when performing a test. We 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 rupture, the pipeline will be repaired or replaced. If repairs are needed, we'll make them and perform a second pressure test to make sure there are no leaks. If the failed segment needs to be replaced, we'll do so with a pipe that's already passed a pressure test.

What to expect

We'll work as quickly and safely as possible and make every effort to minimize disruptions. But here's what you may potentially experience:

- Seeing trucks and equipment on the streets
- Excavation sites
- Temporary "No Parking" signs on streets
- Possible lane reductions or closures, detours
- Temporary delays on surface streets.
- Work-related noise
- Occasional odor of natural gas

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

In some instances, our work may require us to shut-off natural gas service for safety purposes. It this is necessary, we'll contact you in advance to help make sure you're prepared.

Contact information

Thank you in advance for your patience and cooperation while we work in your community. If you have any questions or concerns, please call us at **1-800-411-7343**. For more information, visit *sdge.com/pipelinesafety*.

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