



## PIPELINE CONTROL VALVES

Southern California Gas Co.'s (SoCalGas) system contains about 700 valves on the transmission pipelines covered by our proposed Pipeline Safety Enhancement Plan that enable us to control the flow of natural gas or, if necessary, shut off the flow of natural gas in a pipeline. The system of valves enables us to isolate portions of our system to perform routine maintenance or repair of leaks or ruptures. All of the valves can be manually opened or closed.

Over 200 of these valves are equipped with functionality that allows remote (electronic) and/or automatic shutoff to control gas flow in the event of an emergency, such as a rupture accompanied by a large pressure drop. Additionally, many of these valves also provide routine pressure-control to ensure that the pipeline's maximum pressure is not exceeded.

Following the 2010 natural gas pipeline rupture in San Bruno, a city just south of San Francisco, the California Public Utilities Commission (CPUC) launched a pipeline safety rulemaking proceeding. The intent of the proceeding is to adopt new safety and reliability regulations for natural gas pipelines, based upon lessons learned.

As part of the proceeding, the CPUC ordered the state's four natural gas transmission pipeline operators – Pacific Gas & Electric, Southwest Gas and San Diego Gas & Electric, as well as Southern California Gas Company -- to develop plans to replace or pressure test all natural gas transmission pipelines that have not been tested to modern standards. Regulations specifying pressure testing were implemented after many of the transmission pipelines were installed. The order also addressed the possibility of adding requirements related to the use of remote control and automatic shutoff valves.

In response, SoCalGas has submitted to the CPUC a Pipeline Safety Enhancement Plan, in which we propose a valve enhancement plan.

SoCalGas is proposing to upgrade, replace or add about 487 valves with remote control capability. This includes installing or modifying 293 valves to provide for expanded remote control and automatic shutoff valve capability on its pipeline system; upgrading 94 existing automatic shutoff valves to support added remote control functionality; and, installing remote communications at another 100 existing automatic shutoff valves sites. The plan also includes installing 50 new pipeline volume measurement stations to support improved operator control and decision making. Over 600 pressure measurement points will also be added to help operators monitor changes in pipeline pressures which might indicate a pipeline leak or rupture.

By installing the additional valves or adding remote control and automatic shutoff capabilities, SoCalGas will reduce the time required to identify and characterize a pressure drop as a result of a pipeline leak or rupture. The shutoff valves will help to provide for automatic closure locally, thus eliminating the time for operators to determine when to close them. The additional remote control valves will also reduce the time required to identify and shut off a transmission pipeline. SoCalGas is utilizing remote control valves in locations where automatic shutoff valves do not make sense.