



September 2013

Pipeline Safety Enhancement Plan

Background

In June 2011, the California Public Utilities Commission ordered PG&E and other California gas utilities to submit a plan for validating, testing or replacing its entire gas transmission pipeline system. PG&E responded with its Pipeline Safety Enhancement Plan (PSEP).

Plan Fundamentals

Goal: Improve gas system safety through key infrastructure upgrades that will occur in two phases. PSEP addresses the highest priority projects in Phase 1, which runs from 2011 through 2014. PG&E has not yet developed the full scope of Phase 2.

Since Work Began on Phase I of PSEP in 2011, PG&E:

- Devoted nearly \$1 billion to improve the gas transmission system, including more than two million employee-hours as of January 2013
- Plans to strength test approximately 783 miles of pipeline (including confirmation that existing strength-test records are complete and verifiable)
 - Completed strength testing for 522 miles of pipeline through July 31, 2013
 - 406 miles validated through hydrostatic pressure testing
 - 116 miles validated through previous records
- Plans to automate 228 valves on large-diameter, high-pressure pipelines located in heavily populated areas
 - Automated 81 valves as of July 31, 2013
- Plans to replace 185 miles of pipeline
 - Replaced 62 miles of pipeline as of July 31, 2013
- Plans to have a total of 199 miles of transmission pipeline retrofitted to accommodate in-line inspection tools
 - 133 miles have been retrofitted as of July 31, 2013
- Plans to conduct a total of 234 miles of in-line inspections in 2013 and 2014
 - Inspected 39 miles using in-line inspection tools as of July 31, 2013
- Continues to improve its process and schedule performance
 - Pipe replacement, valve automation, in-line inspection and strength-test schedulers were combined into one team in 2013 to increase efficiency and promote consistency
 - Schedule logic and durations have been modified based on 2012 benchmarking (e.g. time required to obtain permits from municipalities and agencies) and continue to be refined for 2013 projects

Pipeline Integrity

Goal: Enhance the integrity of PG&E's gas system by validating the maximum allowable operating pressure (MAOP) of transmission pipelines and conducting leak surveys and direct assessments.

To achieve this goal, PG&E:

- Completed MAOP validation on all of its 6,750 miles of transmission pipeline in July 2013
- Retrieved and scanned more than 3.5 million paper documents going back more than 50 years
- Completed an accelerated, comprehensive leak survey of PG&E's entire transmission pipeline system



- Completed an accelerated direct assessment survey of PG&E's gas transmission lines in San Bruno and the distribution system in and around the neighborhood affected by the accident in 2012

Outreach and Communication

Goal: Raise public awareness of gas system safety issues and capital investment projects.

To achieve this goal, PG&E:

- Conducts extensive community outreach to notify and educate customers about field activities that may affect them, and answer any questions or concerns they may have
 - Conducts public outreach through door-to-door canvassing, door hangers, open houses, automated calls, letters, news releases, PGE.com website, social media, 24-hour dedicated phone line, and public service announcements
 - Provides customers who live near construction activities with letters, gas-safety pamphlet and fact sheets explaining the work PG&E is doing in the community
- Informs public and local government officials of schedule and progress of field work