

Status Report on NTSB Recommendations to the CPUC

August 2014

NTSB Recommendation P-10-5

Develop an implementation schedule for the requirements of Safety Recommendation P-10-2 (Urgent) to Pacific Gas and Electric Company (PG&E) and ensure, through adequate oversight, that PG&E has aggressively and diligently searched documents and records relating to pipeline system components, such as pipe segments, valves, fittings, and weld seams, for PG&E natural gas transmission lines in class 3 and class 4 locations and class 1 and class 2 high consequence area [HCA] that have not had a maximum allowable operating pressure [MAOP] established through prior hydrostatic testing as outlines in Safety Recommendation P-10-2 (Urgent) to PG&E. These records should be traceable, verifiable and complete; should meet your regulatory intent and requirements; and should have been considered in determining maximum allowable operating pressures for PG&E pipelines.

In response to NTSB Recommendation P-10-5, by letter dated January 3, 2011, the CPUC directed Pacific Gas and Electric (PG&E) to conduct the necessary records search. By D.11-06-017, issued June 9, 2011, the CPUC further required PG&E and other operators to file an implementation plan to validate Maximum Allowable Operating Pressure (MAOP) and pressure test or replace all untested transmission pipeline and to establish an MAOP based on pressure testing.

PG&E completed MAOP validation of its transmission pipeline system, comprised of approximately 6,750 miles, on July 1, 2013. The main components of the process used by PG&E to validate MAOP were comprised of:

1. Record search and retrieval efforts
2. Building of Pipeline Feature Lists
3. MAOP Engineering and Validation

CPUC reviewed the PG&E MAOP validation project with the intent to gain a thorough understanding of the criteria, implementation, records, and data used by the operator to validate the MAOP of its transmission system and confirm its alignment with regulatory requirements and expectations. CPUC scoped its review to ensure that:

- The MAOP for transmission pipeline components was established and supported by complete pressure test records in compliance with historical regulatory requirements and best practices
- Material specifications critical to calculating MAOP of pipeline components were supported by existing records
- Conservative engineering-based assumptions were used when those critical material specifications were unsupported by records
- MAOP Validation was conducted in accordance with regulatory requirements and mandates, including NTSB recommendations to PG&E P-10-02 and P-10-03

CPUC completed the review and issued a report with findings on April 25, 2014. Through the review, CPUC determined that PG&E validation of MAOP was consistent with the CPUC's requirements and P-10-02. However, much work still remains to ensure the continued

Status Report on NTSB Recommendations to the CPUC

August 2014

improvement of the data quality gathered. The CPUC will continue maintain close oversight of PG&E's efforts to improve the quality of pipeline data and ensure the judiciousness of the conservative assumptions applied as an interim measure.

With the acknowledgement that ensuring that PG&E maintains adequate documents and records relating to pipeline system components is an ongoing function of the Gas Safety Program, the CPUC submitted Recommendation P-10-05 to be considered closed with acceptable action on August 15, 2014.

NTSB Recommendation P-10-6

If such a document and records search cannot be satisfactorily completed, provide oversight to any spike and hydrostatic tests that Pacific Gas and Electric Company is required to perform according to Safety Recommendation P-10-4.

To ensure the safety and reliability of gas pipeline systems in California, the CPUC has adopted several of the most stringent pipeline safety rules in the nation. Driving these rules is the CPUC's commitment to eliminate the grandfathering of historical pressures levels by requiring jurisdictional operators to hydrostatically test or replace their pipelines. Specifically, CPUC Decision (D.) 11-06-017, directed all California natural gas transmission operators to develop and file for CPUC consideration implementation plans for comprehensive pressure testing, also known as Pipeline Safety and Enhancement Plans (PSEP), to achieve the goal of orderly and cost effectively replacing or testing all natural gas transmission pipelines that have not been pressure tested. The CPUC approved PG&E PSEP in December, 2012, in Decision (D.) 12-12-030. Subsequently, PG&E filed Application (A.) 13-10-017 on October 29, 2013 (PSEP Update Application), to update PSEP scope based on the results of the MAOP validation project. The PG&E PSEP Update Application is currently under CPUC review.

As of April, 2014, PG&E has hydrostatically tested over 565 miles and replaced approximately 90 miles of pipeline. To ensure that PG&E properly hydrotests its pipelines, pursuant to NTSB Safety Recommendation P-10-4, the CPUC has been performing ongoing oversight of spike and hydrostatic tests performed by PG&E, including:

- Field presence at over 65 % of PG&E PSEP projects in 2013
- Review of PG&E PSEP procedures, policies and records
- Review of quarterly PG&E PSEP progress reports

PG&E currently estimates that work to address safety recommendation P-10-4 will be complete by 2017. CPUC will continue oversight of PG&E PSEP activities until the completion of the program.

NTSB Recommendation P-10-7

Through appropriate and expeditious means, including posting on your website, immediately inform California intrastate natural gas transmission operators of the circumstances leading up to and the consequences of the September 9, 2010, pipeline

Status Report on NTSB Recommendations to the CPUC August 2014

rupture in San Bruno, California, and the National Transportation Safety Board's urgent safety recommendations to Pacific Gas and Electric Company so that pipeline operators can proactively implement corrective measures as appropriate for their pipeline systems.

The natural gas pipeline operators were immediately notified of the circumstances of the PG&E San Bruno pipeline explosion by a letter from Executive Director Clanon along with a posting on the CPUC Website on January 3, 2011. Furthermore, the CPUC Decision (D.) 11-06-017, directed all California natural gas transmission operators to develop and file for CPUC consideration implementation plans for comprehensive pressure testing. The CPUC also directed the utilities to file Gas Safety Plans, which were reviewed by CPUC staff and approved by the CPUC on June 30, 2013.

The recommendation P-10-07 was closed with acceptable action by NTSB on March 29, 2011.

NTSB Recommendation P-11-22

With assistance from the Pipeline and Hazardous Materials Safety Administration (PHMSA), conduct a comprehensive audit of all aspects of Pacific Gas and Electric Company operations, including control room operations, emergency planning, record-keeping, performance-based risk and integrity management programs, and public awareness programs.

The CPUC worked closely with PHMSA to complete a series of audits of PG&E's operations, including:

PG&E Audit	Date
Public Awareness Plan (PAP)	November 1 -3, 2011
Risk Assessment Program	April 5 – 8, 2011
Operation, Maintenance, and Emergency Plans	February 13 -17, 2012
Transmission Integrity Management Program (TIMP)	August 27-31, 2012 and September 10-14, 2012
Operation Qualification Program	October 22-26, 2012
Control Room Management Program	October 29- November 2, 2012
Distribution Integrity Management Program	December 10-14, 2012
North Bay Division	April 8 – 12, 2013

During the audits, the CPUC placed emphasis on the findings of the NTSB as noted in its report on the San Bruno Incident. Specifically, the CPUC extensively reviewed the effectiveness of PG&E's PAP and TIMP, and noted several deficiencies. CPUC staff is continuing to work with PG&E to correct the various deficiencies identified in the audits.

Status Report on NTSB Recommendations to the CPUC August 2014

These comprehensive audits have proven to be beneficial to both the CPUC and PHMSA in that they provide regulatory insight by combining the strengths of both regulatory entities into one with the goal of ensuring the safety and reliability of gas pipeline systems. The CPUC committed to continuing working closely with PHMSA and submitted Recommendation P-11-22 to be considered closed with acceptable action on August 15, 2014.

NTSB Recommendation P-11-23

Require the Pacific Gas and Electric Company to correct all deficiencies identified as a result of the San Bruno, California, accident investigation, as well as any additional deficiencies identified through the comprehensive audit recommended in Safety Recommendation P-11-22., and verify that all corrective actions are completed.

The CPUC is currently adjudicating three formal investigatory proceedings regarding PG&E's operations. The first proceeding, opened in February 2011, is considering PG&E's recordkeeping practices as they relate to its natural gas pipeline systems. The second proceeding, opened in November 2011, is investigating the operations and practices of PG&E regarding natural gas transmission pipelines in locations with high population density. The third investigation, opened in January, 2012, is the CPUC's investigation and penalty proceeding into the operations and practices of PG&E to determine violations of Public Utilities Code Section 451, General Order 112-E, and other applicable standards, laws, rules and regulations in connection with the tragic San Bruno explosion and fire on September 9, 2010. The CPUC will direct PG&E to correct all the deficiencies identified in its investigatory proceedings.

On July 31, 2014, the Administrative Law Judges presiding over the investigations issued a ruling stating that the decisions in the San Bruno investigations will be issued within 60 days. Once the Administrative Law Judges' decisions are issued they become the decisions of the CPUC after 30 calendar days unless a party to the proceeding files an appeal or a Commissioner requests a review. Should either occur, the Administrative Law Judges will review the appeals and either make changes to their decisions or keep them the same, and the recommendations would then come before the Commissioners for a vote in open session at a Voting Meeting. Commissioners also have the option of writing Alternate decisions for consideration.