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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's Own Motion to Adopt New Safety and Reliability Regulations for Natural Gas Transmission and Distribution Pipelines and Related Ratemaking Mechanisms	R.11-02-019 (Filed February 24, 2011)

REPORT OF PACIFIC GAS AND ELECTRIC COMPANY ON STATUS OF MAXIMUM ALLOWABLE OPERATING PRESSURE VALIDATION PROJECT AS OF JUNE 30, 2011

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REPORT OF PACIFIC GAS AND ELECTRIC COMPANY ON STATUS OF MAXIMUM ALLOWABLE OPERATING PRESSURE VALIDATION PROJECT AS OF JUNE 30, 2011

Pacific Gas and Electric Company ("PG&E") hereby provides a status update as of June 30, 2011, on PG&E's records collection, Pipeline Features List ("PFL") build, Maximum Allowable Operating Pressure ("MAOP") validation efforts, and ongoing efforts to locate records of pressure tests. PG&E has completed the MAOP validation for the 152 Priority 1 miles by the June 30, 2011 completion date and is working as expeditiously as possible to try to meet the July 31, 2011 completion date for the Priority 2 miles within the stringent quality guidelines appropriately set by the California Public Utilities Commission ("Commission") in the interest of public safety.[1/]

The scope and timetable for this undertaking is unprecedented. The fundamental goal of this exhaustive exercise is to "ensure safe operations and to restore public trust", pulling together complete and detailed records with which to validate the MAOP of PG&E's gas transmission system. D.11-06-017, at p. 17 and Ordering Paragraph 1, at p. 30. PG&E appreciates the

1/ PG&E is continuing to submit monthly status reports consistent with "PG&E's Compliance Plan for NTSB Safety Recommendations" ("Compliance Plan"), submitted to the Commission as part of the March 24, 2011 stipulation between PG&E and the Commission's Consumer Protection and Safety Division ("CPSD"). See PG&E's Compliance Plan for NTSB Safety Recommendations, at pp. 2-3. As explained in prior monthly reports, the CPUC has not directly ruled on the Compliance Plan, although Decision No. 11-06-017 directs PG&E to complete its MAOP validation effort. D.11-06-017, Ordering Paragraph 1.

Commission's extraordinary focus on both enhancing safety and restoring the public's trust reflected in the Commission's various directives on this project. The Commission has set a new standard for the industry for data and MAOP validation, which PG&E fully supports.

In order to meet the pressing goal of data and MAOP validation, PG&E is conducting an effort of unprecedented scope and speed to collect and review hundreds of thousands of documents; build PFLs for the identified pipeline segments based on these documents; subject these PFLs to several layers of rigorous quality control and quality assurance reviews; and, from these verified PFLs, validate the MAOP of each segment. PG&E has mobilized several specialized and nationally recognized engineering firms and literally hundreds of highly skilled employees to undertake the new and extremely detailed and cumbersome process of performing forensic analysis of all relevant documents to identify the location, characteristics and qualities of all pipeline components. The rigorous quality control and quality assurance focus is extremely time-consuming but critical given the Commission's appropriate concern that the work be completed carefully and accurately in the interests of public safety.

I. BACKGROUND

On January 3, 2011, the National Transportation Safety Board ("NTSB") issued three urgent safety recommendations to PG&E with respect to searching for records and validating the MAOP of PG&E's transmission lines in Class 3 and Class 4 locations and Class 1 and 2 high consequence areas ("HCAs").[2/] That same day, Commission Executive Director Clanon sent PG&E a letter directing the company to comply with the first two NTSB recommendations. With respect to the NTSB's third recommendation, Mr. Clanon said PG&E "will receive further directives from the Commission." The Commission ratified the Executive Director's directive in Resolution L-410 (January 13, 2011).

2/ As PG&E has previously noted, this is not the definition of HCAs that PG&E uses for its integrity management program. For the sake of simplicity, this Status Report uses "HCAs" to refer to all the pipe segments in Class 3 and Class 4 locations and Class 1 and 2 HCAs, and phrases such as "HCA pipelines" and "HCA miles" to refer to the pipelines covered by the records validation, not PG&E's integrity management program.

PG&E's Compliance Plan was submitted to the Commission as Attachment 1 to the March 24, 2011 stipulation between PG&E and CPSD. The Compliance Plan identifies the priorities and the schedule for completing PG&E's MAOP validation efforts. PG&E and CPSD identified the following four priorities for validating the MAOP for pipeline segments in HCAs for which PG&E has not yet located pressure test records:

- **Priority 1:** 152 miles for segments for which the records indicate the segments have common characteristics with the records for the ruptured segment of Line 132, specifically pre-1962 24- to 36-inch double submerged arc welded (DSAW) pipe or pre-1974 seamless pipe greater than or equal to 24 inches in diameter.
- **Priority 2:** 295 miles for segments for which the records indicate the pipe contains low frequency electric resistance welds (ERW), single-submerged arc welds (SSAW), or flash and lap welded pipe installed prior to 1970.
- **Priority 3:** 206 miles of all remaining segments installed prior to July 1, 1970 for which records are still under review.
- **Priority 4:** 52 miles of all remaining segments installed after July 1, 1970 for which records are still under review.

On June 30, 2011, PG&E submitted a report on PG&E's system-wide class location verification effort to the CPUC. That report explained that a number of miles of pipeline had changed in class location. As a result of the class location verification review, 94 miles of pipelines that were not HCA pipelines have now been identified as Class 3 and Class 4. PG&E will prioritize gathering the necessary records for these segments to perform the records-based MAOP validation.

II. UPDATE ON PRESSURE TEST RECORDS

The additional pressure test records identified after the March 15, 2011 Report have reduced the miles to be pressure tested, and changed the MAOP Priority category miles.[3/] As discussed in the Background section above, the MAOP Priority mileages were based upon validating the MAOP for pipeline segments in HCAs for which PG&E had not yet located

3/ Despite having confirmed additional miles of complete pressure test records PG&E has completed all 152 Priority 1 miles.

pressure test records. The segments for which PG&E has located pressure test records after March 15 are a lower priority.

Since the June 10, 2011 Report, PG&E has located complete pressure test records for 0.18 more miles. PG&E also located "partial" records (which have not yet been linked to specific segments) for an additional 2.93 miles, for a total of 3.11 miles no longer in the "incomplete" category.

Table 1 below shows the March 15 mileage and current mileage, grouped by completion date:

Table 1
UPDATED PRIORITY MILEAGE IN LIGHT OF RECENTLY LOCATED OR CONFIRMED PRESSURE TEST RECORDS

Priority	Completion Date	Compliance Plan Miles	Complete Pressure Test Miles Confirmed Between March 15 and June 30	Revised Mileage
1	June 30, 2011	152	12	140
2	July 31, 2011	295	32	263
3 & 4	August 31, 2011	258	24	234
Total		**705**	**68**	**637**

Table 2 shows the current pressure test records status grouped by date of installation and shows partial pressure test records, similar to the table on page 13 of the March 15 Report:

Table 2
UPDATED MILES OF PRESSURE TEST RECORDS BY INSTALLATION DATE

Records	Installed Before 7/1/1961	Installed 7/1/1961 to 6/30/1970	Installed 7/1/1970 and after	Total
Pressure Test (Complete Record)	197	280	679	1155
Pressure Test (Partial Record)	86	33	12	132
Pressure Test (1968 CPUC Filing)	21	4	N/A	26
Still Reviewing Records	418	36	38	492
Total Miles	**722**	**354**	**729**	**1805**
% with Pressure Test Records	42%	89%	95%	73%

For approximately 325 miles of the lines PG&E has verified pressure test documentation, the STPR footage tested does not equal the pipeline HCA footage. PG&E will continue to analyze all job-related documents such as construction field drawings, sketches, letters, and job notes to confirm that all relevant portions of the line have been pressure tested. Figures may not sum due to rounding.

Table 3 shows the change from what PG&E reported on page 13 of the March 15 Report:

Table 3
CHANGE IN MILES OF PRESSURE TEST RECORDS BY INSTALLATION DATE FROM MARCH 15 REPORT

Records	Installed Before 7/1/1961	Installed 7/1/1961 to 6/30/1970	Installed 7/1/1970 and after	Total
Pressure Test (Complete Record)	+109	+6	+21	+137
Pressure Test (Partial Record)	+7	-1	-7	-1
Pressure Test (1968 CPUC Filing)	-34	0	N/A	-33
Still Reviewing Records	-82	-5	-14	-103
Total Miles	**722**	**354**	**729**	**1805**
% with Pressure Test Records	+11%	+1%	+2%	+6%

Figures may not sum due to rounding

PG&E also anticipates that as the PFL build process continues in the coming months we will continue to confirm complete hydrotest records for particular segments, which would result in further mileage adjustments.

As explained in the June 10 Report regarding the status as of May 31, 2011, in order to focus resources on the highest priority segments, PG&E is completing the PFLs and the MAOP

validation of approximately 11 miles of certain "shorts" with the respective priority of the mainline pipeline. This change results in approximately 2 miles of "shorts" previously identified in Priority 2 now being completed with Priorities 3 & 4, and approximately 9 miles being completed with segments of lower priority than 3 & 4. It also allows PG&E to focus on validating higher priority miles as part of the July 31st milestone and, consistent with PG&E's discussions with CPSD, to retain 295 miles as the July 31st deliverable.

III. RESULTS OF MAOP VALIDATION FOR PRIORITY 1 MILES

PG&E has completed the MAOP validation effort for the 152 Priority 1 miles.[4/] As explained in the June 10 Report, in May PG&E reduced the MAOP of a 25-mile section of Line 131 from 525 psig to 492 psig, based on conservative assumptions regarding a pipe feature for which the original job did not contain all desired information. In June, PG&E has taken several additional pressure reductions as a result of the MAOP validation effort. Almost all of the pressure reductions listed below are due either to work with the class location change efforts or to utilizing conservative assumptions where PG&E has been unable to find records about a particular piece of equipment, such as a field elbow. PG&E will be conducting field excavations and non-destructive testing to confirm the actual physical properties of these segments, which should in most cases allow PG&E to restore the segments to their original MAOP.

The June pressure reductions[5/] were as follows:

4/ Because the detailed MAOP validation information being provided includes sensitive infrastructure information, such as the precise location of valves, taps and regulators, PG&E is providing the DVDs to CPSD under Public Utilities Code section 583. PG&E will make DVDs with more high level, summary information available to any interested parties. PG&E is also providing CPSD with a DVD with the additional pressure test records located since May 31. As before, PG&E is submitting the pressure test records under section 583 due to employee names, but will make available a redacted version.

5/ PG&E also reduced the pressure on Line 114 in Brentwood from 360 psig to 324 psig as a result of a field excavation. This was not MAOP validation per se, but rather was due to a conservative assessment of the condition of a manufactured bend (elbow). Similarly, PG&E temporarily reduced pressure on a section of Line 300A in San Bernardino County after a field inspection had potential linear indications on a short section of pipe. That short section of pipe was replaced and the section of Line 300A has been restored to its original pressure.

- Line 107: PG&E lowered the pressure on a section of Line 107 in Sunol from 398 psig to 375 psig, based on conservative assumptions about a field bend (elbow) for which PG&E could not locate complete records.
- Line 131: PG&E lowered the pressure on a section of Line 131 in Fremont from 595 psig to 440 psig, based on conservative assumptions about a field bend (elbow) for which PG&E could not locate complete records.
- Line 300A: PG&E has lowered or is in the process of lowering the pressure on several sections of Line 300A:
    - A section in Barstow from 573 psig to 478 psig in light of a class location designation change.
    - A section in San Bernardino County from 861 psig to 741 psig in light of a class location designation change. Although the prior pressure test satisfied the federal and state regulations to support 861 psig, under PG&E's more rigorous standards the pressure test ratio only supports an MAOP of 741 psig.
    - A section in Kern County from 861 psig to 740 psig in light of a class location designation change.
    - A section in Kern County from 757 psig to 688 psig in light of a class location designation change.
    - A section in San Jose from 558 psig to 440 psig based on conservative assumptions about a field bend (elbow) for which PG&E could not locate complete records.
    - A section in Kern County from 757 psig to 688 psig in light of a class location designation change
- Line 300B: PG&E is in the process of lowering pressure on a section of Line 300B in Morgan Hill from 631 psig to 526 psig in light of a class location designation change.
- Line 400: PG&E lowered the pressure on a section of Line 400 in Antioch from 975 psig to 788 psig, based on conservative assumptions about a tee fitting, as a combined effort of the class location review and the MAOP validation effort. After the pressure was reduced, PG&E conducted a field inspection, which included a radiographic and ultrasonic inspection that did not indicate any problems. As a result of this successful field inspection, the MAOP has been restored to 975 psig (although the pressure itself has not yet been increased).

IV. THE OUTLOOK FOR COMPLETING ALL PRIORITY 2 MILES BY JULY 31 AND ALL PRIORITY 3 & 4 MILES BY AUGUST 31

As PG&E continues our aggressive effort on this important work, a key distinction has emerged between the Priority 1 miles validated and the Priority 2, 3 and 4 miles; namely, the

remaining priority miles are comprised of much smaller segments – each of which requires its own quality-checked PFL. PG&E will have completed MAOP validation on substantially more segments and miles as part of its Priority 2 effort than the 152 miles that were completed as part of the June 30, 2011 Priority 1 MAOP validation effort. In fact, both the Priority 2 and the Priority 3 and 4 miles of MAOP validation will involve nearly three times as many PFLs as were needed to perform Company's June 30, 2011 Priority 1 MAOP validation – approximately 370 PFLs by July 31 versus 130 completed for June – for less than double the number of miles. In addition, both the July 31st and August 31st work includes more than 10 times the number of "shorts" as compared to Priority 1.

PG&E currently has over 300 full time personnel (consultants, employees and support staff) working on this project. Approximately 120 people are identifying, collecting, and scanning the relevant documents necessary to compile PFL's and build folder packages. Another approximately 150 people are building the PFL's, performing quality control, resolving issues that arise and validating the MAOP. These personnel are supplemented by a team of program management, information technology and quality assurance personnel.

PG&E personnel are working six days/week and in many cases seven days/week. PG&E has reached out to other utilities to see if they have engineers available. Several have declined due to their own workload but just this week one utility agreed to provide PG&E with several engineers.

Despite PG&E's efforts, the rigorous process requirements combined with the steep increase in work volume has the potential to impact the Company's ability to complete the Priority 2 pipeline segments by July 31st and the Priority 3 and 4 pipeline segments by August 31st. While PG&E is continuing to work diligently to meet these goals, we currently expect it will be very challenging to complete all Priority 2, 3 and 4 mileage by August 31st. We will update the Commission on both Priority 2 efforts and our progress on Priorities 3 and 4 in our next status report.

V. STATUS REPORT

A. Status of "traceable, verifiable and complete" documentation of "all as-built drawings, alignment sheets, and specifications, and all design, construction, inspection, testing, maintenance and other related records."

The purpose of this effort is to prepare the PFL folder, which contains the records documentation that will support the eventual PFL for each pipeline segment and respective components (e.g., valves, sleeves, bends, fittings, etc.), including as-built construction drawings, pipeline plan and profile drawings, bill of materials, material requisitions and specifications, A-forms, and pressure test records. As of June 30, PG&E has completed this phase for all Priority 2 segments. PG&E has completed this step for most, but not all, of Priorities 3 and 4. [6/]

B. Status of compilation of the PFL, including identification of all assumptions made in completing the PFL and of all field work to complete the PFL, and the results of all field work.

As of June 30, 2011, it is taking longer than anticipated to complete the PFLs for Priority 2, 3 and 4 segments. Although PG&E had planned to have completed the "initial pass" of the PFL build, i.e., prior to quality control review, for all of Priority 2 and at least a quarter of Priorities 3 and 4 by June 30, PG&E has completed approximately 85% of Priority 2 miles at month's end. PG&E is continuing to develop the remaining PFLs, which undergo a rigorous, multi-level quality control check, including physical field verification of some pipeline characteristics where necessary.

PG&E performed three field excavations in June for MAOP Validation related to Priority 1 pipe.[7/] CPSD Staff was notified of each excavation. The first excavation was on June 15 on Line 300A in Barstow to characterize the 34" pipe seam type. The second excavation was on June 30 on Line 400 in Antioch to obtain wall thickness measurements of various components

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6/ PG&E has increased the miles of pipe being validated in each phase for efficiency purposes and to be able to tie starting and ending points to physical appurtenances above ground. In other words, some segments may be listed as beginning or ending at a particular mile point, but when building a PFL it is necessary to tie starting and ending points to appurtenances, and not just a mile point on a drawing.

7/ PG&E is scheduling additional excavations for Phase 1 segments in July, and will report on the results of those excavations in our August 10 Report for work in July.

including 36" tee, 36" x 26" reducer and 26" elbows. The third excavation began on June 30 and was completed on July 5 on Line 107 in Fremont along the Alameda Flood Control District channel to obtain wall thickness and validate yield strength measurements of 24" pipe and 24" elbow. The results of the excavations confirmed that the assumptions used by PG&E for the unknown component specifications are more conservative than actual values obtained through field tests.

C. Status of PG&E's progress in using "the traceable, verifiable, and complete records … to determine the valid maximum allowable operating pressure, based on the weakest section of the pipeline or component."

As of June 30, 2011, PG&E has validated the MAOP for all 152 miles of Priority 1 segments. PG&E is providing CPSD with a DVD containing the MAOP validation documentation for all Priority 1 miles not previously provided.

D. Summary of Quality Assurance/Quality Control recommendations and resulting process changes.

PG&E continues to have a team dedicated to perform Quality Control (QC) of all PFLs and has also identified a separate team of contractors to be responsible for independent Quality Assurance (QA) work for all steps in the process of the MAOP Validation Project. PG&E continues to refine the MAOP validation process, as appropriate, and over the course of the last month has made several process changes:

- Streamlined and improved the document review and PFL folder preparation to ensure the most relevant information is provided to the PFL build teams,
- Provided PFL build vendors with increased access to PG&E technology reference tools and geographical systems to aide in the PFL development process.
- Increased tracking of metrics and utilization of corrective actions to further improve the quality of the initial PFL builds.

E. Discussion of any change PG&E makes to the transmission pipeline system as a result of any of the MAOP validation efforts.

See Section III above.

VI. CONCLUSION

PG&E remains committed to operating and maintaining its gas transmission pipeline system safely and reliably. The information PG&E is gathering, including the Pipeline Features Lists, are important components of our goal of improving our overall system performance and safety. We will continue to adopt a conservative approach to the MAOP validation effort, and we will strive to complete the remaining phases as soon as feasible despite all of the challenges.

Respectfully Submitted,

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