PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

February 5, 2021

Christine Cowsert
VP, Gas Asset Management and System Operations
Pacific Gas and Electric Company
Gas Transmission and Distribution Operations
6121 Bollinger Canyon Road
San Ramon, CA 94583

GI-2020-09-PGE-13-02ABC

SUBJECT: SED's Closure Letter for General Order 112-F Gas Inspection of PG&E's Sacramento Division

Dear Ms. Cowsert:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission reviewed Pacific Gas & Electric Company's (PG&E) response letter dated January 14, 2021 for the findings identified during the General Order (GO) 112-F inspection of PG&E's Sacramento Division (Division) which was conducted from September 28 to October 16, 2020.

A summary of the inspection findings documented by SED, PG&E's response to our findings, and SED's evaluation of PG&E's response taken for each identified Violation and Area of Concern is attached.

This letter serves as the official closure of the 2020 GO 112-F inspection of PG&E's Sacramento Division and any matters that are being recommended for enforcement will be processed through the Commission's Citation Program or a formal proceeding.

If you have any questions, please contact Kai Cheung at (415) 940-8836 or by email at Kai.Cheung@cpuc.ca.gov.

Sincerely,

Dennis Lee

Dennis Lee, P.E.
Program and Project Supervisor
Gas Safety and Reliability Branch
Safety and Enforcement Division

cc: Susie Richmond, PG&E Gas Regulatory Compliance
Paul Camarena, PG&E Gas Regulatory Compliance
Terence Eng, SED
Mahmoud Intably, SED

Summary of Inspection Findings

Dates of Inspection: 9/28/2020 – 10/16/2020

Operator: PACIFIC GAS & ELECTRIC CO

Operator ID: 15007 (primary)

Assets (Unit IDs): P&GE Sacramento Division (85399)

System Type: GD

Inspection Name: PG&E Sacramento Division

Lead Inspector: Kai Cheung

Operator Representative: Paul Camarena

I. Unsatisfactory Results

(1) Records: Uprating (PRR.UPRATE)

(1.1) Question Text Do records indicate that increases in MAOP of pipeline were determined in accordance with 192.553?

References 192.553(a) (192.553(b), 192.553(c))

Assets Covered P&GE Sacramento Division (SA)

Issue Summary Title 49 CFR §192.553(c) states:
"Written plan. Each operator who uprates a segment of pipeline shall establish a written procedure that will ensure that each applicable requirement of this subpart is complied with."

PG&E Uprate Written Plan of Project #31284129 states:
"Using the method of "Uprating by testing as for a new main" for a low pressure uprate described in TD-4125P-03 "Revising the MAOP of Pipelines Operating at 60 psig or Less," revise the MAOP from 12 in-WC (low pressure) to 50 psig (high pressure) as depicted in the uprate drawings (attached). Utility Procedure TD-4125P-03, Attachment 1, "Uprate Matrix for Less Than 60 PSIG," contains the procedural steps for executing the uprate."
"Pressure-test main and services with air to a pressure of 100-110 psig for a minimum of 4 hours."

PG&E Utility Procedure: TD-4125P-03, Revising the MAOP of Pipelines Operating at 60 psig or Less, Step 2.1.2 Rev: 0c (Effective 04/01/2019) states:
"For all low pressure and semi-high pressure uprates, pressure-test the main and services being uprated with air to a pressure of 100-110 psig for a minimum of 4 hours."

PG&E uprated two distribution segments, PM#31284129 and PM#31323918, from 12 in-WC (low pressure) to 50 psig (high pressure) in the scope of the inspection. After reviewing all record documents of the uprating projects, including additional records and responses PG&E provided in follow-up data requests SA#52 and SA#57, SED found that, in one of the projects, PM#31284129, all pressure tests conducted were two hours or less, which did not comply with PG&E's Uprate Written Plan. PG&E explained in SA#57 that the effective standard during the time of construction was TD-4125P-03 Rev 0b, which did not include Step 2.1.2. However, pressure test and work clearance records show that all pressure tests were conducted during April and May of 2019, which were after the Rev 0c effective date of 04/01/2019. Therefore, TD-4125P-03 Rev 0c applies.

PG&E failed to follow their Uprate Written Plan and violated Title 49 CFR §192.553(c).

PG&E's Response PG&E recognizes this finding and has taken the following actions:

PG&E initiated project PM# 44514951 to address the lack of a 4-hr min test duration under PM# 31284129 (Att01). The pressure test under PM# 44514951 was completed on 12/15/2020 (Att02). While our initial pressure test did not meet the requirements of the uprate test plan, the pipeline was tested in accordance with 49 CFR, Subpart K and the pipeline has been operating safely.

Att01 & Att02 - Operational Change Notices (OCN's) and accompanying test charts depicting the work that was performed for re-testing uprate project PM# 31284129. Please reference original documentation for PM# 31284129 as submitted from data requests during 2020 Sacramento distribution division inspection.

SED's Conclusion SED has reviewed the response and all 4 attachments from PG&E and has opted not to impose a fine or penalty since PG&E took appropriate remedial actions. However, PG&E should continue to work on the Apparent Cause Evaluation and finalizing the review of 2020 uprate projects as stated in PG&E's Audit Response Cover Letter and update SED accordingly.

(1.2) Question Text Do records indicate that increases in MAOP were preceded by the actions specified in 192.557?

References 192.553(b) (192.553(c), 192.553(a), 192.557(b), 192.557(c))

Assets Covered P&GE Sacramento Division (SA)

Issue Summary Title 49 CFR §192.557(b) states in part:

"Before increasing operating pressure above the previously established maximum allowable operating pressure, the operator shall:

(1) Review the design, operating, and maintenance history of the segment of pipeline;

(6) If the pressure in main or service line, or both, is to be higher than the pressure delivered to the customer, install a service regulator on each service line and test each regulator to determine that it is functioning."

PG&E Utility Procedure: TD-4125P-03 Attachment 1, Uprate Matrix for Less Than 60 psig, Rev: 0b (Effective 04/01/2019) states:

1. *The following matrix identifies each activity that needs to be considered in each particular type of uprating procedure. Direct particular attention towards properly documenting certain activities while performing each uprate project.*
2. *All items normally required for the procedure are identified in the "Activity" column. To the right of the "Activity" column are columns for each type of uprating. The activity items needed for each type of uprating are identified by a "Y" in the appropriate column, if needed, and an "N" if not needed.*

Table 1. Uprate Matrix for Less Than 60 psig

Step	*Activity*	*Uprating in Increments*	*Uprating by Testing as for a New Main*	
Before Uprating		*HP*	*LP*	*SHP*
1	*Prepare a written plan describing the method of uprating required for the pressure system.*	*Y*	*Y*	
2	*Review the design, operating, and maintenance history of the pipeline to be uprated. For uprates involving cast iron or ductile iron facilities, evaluate the level of safety of the pipeline when operating at the proposed increased pressure, in accordance with 49 CFR 192.557(d).*	*Y*	*Y*	

PG&E uprated two distribution segments, PM#31284129 and PM#31323918, from 12 in-WC (low pressure) to 50 psig (high pressure) in the scope of the inspection. After reviewing all record documents of the two uprating projects, including additional records and responses PG&E provided in follow-up data requests SA#52 and SA#57, SED found that, prior to the uprate:

1. PG&E did not conduct a design review of the two pipeline segments.
2. PG&E did not test each service regulator to determine that it is functioning.

PG&E first provided two project packages in SA#45 which only included Uprate Written Plans and As-Built drawings. SED submitted follow-up data request SA#52 for additional records to verify that PG&E has considered/performed/completed activities as listed on TD-4125P-03 Attachment 1, "Uprate Matrix for Less Than 60 psig". The response of SA#52 included As-Built Drawings and Checklists, Operating Change Notices (deactivation, activation, and tie-in), Pressure Test Charts, Field Inspector Notes, Operator Qualifications, and Cathodic Protection Review Form (CPRF). While the CPRF meets the requirement of reviewing the operating and maintenance history per 192.557(b)(1), the rest of the documents contain no information of pre-uprate leak survey, design review, and service regulator tests. SED further requested these documents specifically in SA#57. PG&E provided special leak survey records but were unable to provide design review and service regulator test records.

PG&E failed to review the design of pipeline segments prior to the pressure uprate and violated Title 49 CFR §192.557(b)(1). PG&E did not test each service regulator before the tie-in and violated Title 49

CFR §192.557(b)(6). PG&E failed to follow their Utility Procedure TD-4125P-03 Attachment 1 and violated Title 49 CFR §192.553(c).

SED recommends PG&E create a form for their Utility Procedure: TD-4125P-03 Attachment 1, Uprate Matrix for Less Than 60 psig, so that the project manager and the QA/QC personnel can keep track of the required work completed before, during, and after a pressure uprate project.

PG&E's Response PG&E respectfully disagrees a design review and function test of service regulators was not conducted on the two segments of pipeline for PM# 31284129 and PM# 31323918.

Records provided in the three data requests referenced, in conjunction with explanation from the engineer responsible for the project demonstrated that a review of the design, operating, and maintenance history of the segment of pipeline was conducted. However, PG&E recognizes the opportunity to provide clearer guidance and has updated TD-4125P-03 to better document the design review process through forms. (Att03 & Att04)

Att03 – Attachment reflecting revision to document TD-4125P-03.
Att04 – To better demonstrate our compliance, we've attached a spreadsheet that reflects testing of regulators as completed for distribution uprate projects PM# 31284129 and PM# 31322318.

SED's Conclusion SED has reviewed the response and all four attachments from PG&E. The lock-up data listed on Attachment 4 demonstrates that PG&E has tested each service regulator per CFR §192.557(b)(6). SED acknowledges that PG&E implemented SED's recommendation of updating PG&E's Uprate Procedure TD-4125P-03 and creating new attachment Forms F02, F03, F04, F05, and F06 to document each required step to be completed before, during, and after a pressure uprate project. However, only F02 requires the reviewer to document their LAN ID and review date. SED recommends PG&E also add a LAN ID and date requirement to step 2 of F04 and F06.

PG&E has not provided records to demonstrate that the design of pipeline segments has been reviewed prior to the pressure uprate and violated 49 CFR §192.553(b):

"Records. Each operator who uprates a segment of pipeline shall retain for the life of the segment a record of each investigation required by this subpart, of all work performed, and of each pressure test conducted, in connection with the uprating."

SED has opted not to impose a fine or penalty since PG&E took the appropriate remedial actions, and the violations did not create any hazardous conditions for the public or utility employees.

II. Concerns

(1) Records: Uprating (PRR.UPRATE)

(1.1) Question Text Do records indicate that increases in MAOP are limited in accordance with 192.619 and 192.621?

References 192.553(b) (192.553(c), 192.553(d), 192.557(a))

Assets Covered P&GE Sacramento Division (SA)

Issue Summary Title 49 CFR §192.621(a) states in part:
"No person may operate a segment of a high pressure distribution system at a pressure that exceeds the lowest of the following pressures, as applicable:
(1) The design pressure of the weakest element in the segment, determined in accordance with C and D of this part."

Title 49 CFR §192.557(b) states in part:
"Before increasing operating pressure above the previously established maximum allowable operating pressure, the operator shall:
(1) Review the design, operating, and maintenance history of the segment of pipeline;"

Since PG&E failed to review the design of pipeline segments prior to the pressure uprate per 49 CFR §192.557(b)(1) (see the unsatisfactory section for details), it is unknown if the maximum allowable operating pressure (MAOP) of the two uprated segments exceeds the design pressure of the weakest element in the segment, therefore put the compliance of Title 49 CFR §192.621(a) in question.

PG&E's Response PG&E respectfully disagrees a design review was not conducted on the two segments of pipeline for PM# 31284129 and PM# 31323918.

Records provided in the three data requests referenced, in conjunction with explanation from the engineer responsible for the project demonstrated that a review of the design, operating, and maintenance history of the segment of pipeline was conducted. PG&E recognized the opportunity to provide clearer guidance and has updated TD-4125P-03 to better document the desgin review process through forms. (Att03 & Att04)

SED's Conclusion SED has reviewed the response and all 4 attachments from PG&E and is satisfied with the appropriate remedial actions taken by PG&E. However, PG&E should continue to work on the Apparent Cause Evaluation and finalizing the review of 2020 uprate projects as stated in PG&E's Audit Response Cover Letter and update SED accordingly.

(2) Records: Operations and Maintenance (PRR.OM)

(2.1) Question Text Do records indicate determination of the MAOP of pipeline segments in accordance with 192.619 and limiting of the operating pressure as required?

References 192.619(a) (192.619(b), 192.621(a), 192.621(b), 192.623(a), 192.623(b))

Assets Covered P&GE Sacramento Division (SA)

Issue Summary Title 49 CFR §192.621(a) states in part:
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