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

January 4, 2023

GI-2022-09-PGE-03-02ABC

Ms. Christine Cowsert, Vice President
Pacific Gas and Electric Company
Gas Asset Management and System Operations
6121 Bollinger Canyon Road
San Ramon, CA 94583

SUBJECT: General Order 112-F Gas Inspection of PG&E's Mission Division

Dear Ms. Cowsert:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission (CPUC), Randy Fienberg, Anthony Phu, Sikandar Khatri, Andrea Garcia Ruvalcaba, & Mathew Shaffer conducted a General Order 112-F & Section 114 inspection of Pacific Gas & Electric Company's (PG&E) Mission Division (Division) from September 26th through September 30th, 2022. The inspection included a review of the Division's records for the period of 2018 through 2021, as well as a representative field sample of the Division's facilities. SED staff also reviewed the Division's operator qualification (OQ) records, which included field observations of randomly selected individuals performing covered tasks.

SED's findings are noted in the Post-Inspection Written Preliminary Findings (Summary) which is enclosed with this letter. The Summary reflects only those particular records and pipeline facilities that SED inspected during the inspection. SED discovered one (1) unsatisfactory & five (5) concerns during the inspection.

Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by PG&E to address the concerns noted in the Summary.

If you have any questions, please contact Randy Fienberg at (415) 416-4409 or by email at Randy.Fienberg@cpuc.ca.gov.

Sincerely,

Terence Eng

Terence Eng, P.E.
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division

Enclosure: Post-Inspection Written Preliminary Findings

cc: Susie Richmond, PG&E Gas Regulatory Compliance
Glen Allen, PG&E Gas Regulatory Compliance
Dennis Lee, SED
Claudia Almengor, SED

Post-Inspection Written Preliminary Findings

Dates of Inspection: 9/26/2022 - 9/30/2022

Operator: PACIFIC GAS & ELECTRIC CO

Operator ID: 15007 (primary)

Inspection Systems: Mission Division

Assets (Unit IDs) with results in this report: PG&E Mission Division (86275)

System Type: GD

Inspection Name: 2022 PG&E Mission Division/Section 114

Lead Inspector: Randy Fienberg

Operator Representative: Glen Allen

Unsatisfactory Results

1) Time-Dependent Threats : Atmospheric Corrosion (TD.ATM)

Question Title, ID	Atmospheric Corrosion Monitoring, TD.ATM.ATMCORRODEINSP.O
Question	5. Do field observations indicate that pipe exposed to atmospheric corrosion is properly coated?
References	192.481(b) (192.481(c), 192.479(a), 192.479(b), 192.479(c), 192.481(d))
Assets Covered	PG&E Mission Division (Mission Division)
Issue Summary	SED observed one pipeline span (Equipment ID 44628926) to be in poor condition. SED reviewed this span's inspection history and found that the inspection in 2018 marked this span as needing remediation. The pipe was re-inspected in 2021 and noted the same issues. A request to repaint the pipe was found dated October 18, 2021, but had notes that documentation was missing. As of September 28, 2022, this span had not been remediated.

PG&E Procedure TD-4188S (revision 1, effective date 01/01/2017) "Atmospheric Corrosion Control of Gas Facilities" Section 4 "Mitigation" states:

"The mitigation timeline of atmospheric corrosion-related abnormal operating conditions (AOCs) found during monitoring must not exceed thirty-nine months from the date of the AOC identification, except assets that meet requirements in Section 1.4."

Title 49 Code of Federal Regulations (49 CFR) §192.605(a) states:

"General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response."

PG&E failed to remediate an atmospheric corrosion-related AOC within thirty-nine months from date of AOC identification for span 44628926. PG&E violated 49 CFR §192.605(a) for failing to follow their procedure TD-4188S to remediate within the given timeframe.

Concerns

1) Design and Construction : Meters, Service Regulators, and Service Lines (DC.METERREGSVC)

Question Title, ID: Customer Meters and Regulator Protection, DC.METERREGSVC.CUSTMETERREGPROT.O

Question: 2. Are meters and service regulators being protected from damage consistent with the requirements of 192.355?

References: 192.351 (192.355(a), 192.355(b), 192.355(c))

Assets Covered: PG&E Mission Division (Mission Division)

Issue Summary: SED observed 2 meter-sets at [redacted] & [redacted] that lacked meter protection.

2) Facilities and Storage : Facilities General (FS.FG)

Question Title, ID: Vault Inspection, FS.FG.VAULTINSPECT.O

Question: 4. Are inspections of selected vaults with internal volume =200 cubic feet (5.66 cubic meters) housing pressure regulating/limiting equipment adequate?

References: 192.749(a) (192.749(b), 192.749(c), 192.749(d))

Assets Covered: PG&E Mission Division (Mission Division)

Issue Summary: In early August 2022, a construction crew was dispatched to install a new SCADA system for the upstream Regulator Station RL-38. Upon opening the vault, the construction crew found an excessive amount of water & proceeded to dewater the vault & install a new SCADA system. SED was told that the Construction team communicated this to the local water agency as they suspected an underground leak but did not notify the GPOM team of this condition.

During the field observations of the Mission Division Audit on September 28, 2022, SED observed the upstream Regulator Station RL-38 vault was completely submerged in water upon opening the vault doors. The GPOM team proceeded to dewater the vault to safely perform maintenance on the regulator station which was completed as required. During post audit communications, it was learned that the abnormally high level of water intrusion was caused by nearby irrigation leaks which have since been repaired. PG&E has indicated that to prevent reoccurrence, Gas Construction Engineering will notify GPOM of any abnormalities encountered while working around the Regulation Stations. SED recommends that PG&E formalize this process by updating the Construction Dewatering Procedure (ENV-2301P-01) & Vault Dewatering Procedure (ENV-2202P-01) to include formal notification to the GPOM team of any Abnormal Operating Conditions (AOC's) including, but not limited to, abnormally high volumes of water.

3) Time-Dependent Threats : External Corrosion - CP Monitoring (TD.CPMONITOR)

Question Title, ID: Cathodic Protection Monitoring Criteria, TD.CPMONITOR.MONITORCRITERIA.O

Question: 3. Are methods used for taking CP monitoring readings that allow for the application of appropriate CP monitoring criteria?

References: 192.465(a) (192.463(b), 192.463(c), 192.463(a))

Assets Covered: PG&E Mission Division (Mission Division)

Issue Summary Per PG&E TD-4181S "External Corrosion Control of Gas Facilities" (rev. 2a) Section 7.4.3:

"7. Cathodic Protection Monitoring

(...)

7.4. Isolated Steel Monitoring

(...)

3. To ensure facilities are protected until the next monitoring cycle, a drivable anode must be installed if the P/S potentials are less negative than -900 mV with reference to a copper-copper sulfate electrode, with cathodic protection current applied."

Per PG&E TD-4181S "External Corrosion Control of Gas Facilities" (rev. 2a) Section 5.1.1:

"5. Cathodic Protection Criteria

5.1 Cathodic Protection Criteria Levels

(...)

1. Pipe-to-soil (P/S) potential - rectifier on: Cathodic protection areas are considered adequately protected when the P/S potentials are -850 millivolts (mV) or more negative, with reference to a copper-copper sulfate electrode, with cathodic protection current applied."

Per PG&E TD-4181P-601 "Test Procedure for Pipe Casings" (rev. 0c) Section 4:

"4. Evaluating Potential Measurement Test Results

a. Isolated Casing

IF both conditions below are found,

(1) Casing-to-soil (C/S) potential(s) are less negative than -800mV.

(2) The difference between the P/S potential(s) and the C/S potential(s) is 100mV or greater

THEN the casing is considered electrically isolated from the pipeline and no further action is required at this time."

SED observed the following CP monitoring equipment that did not meet cathodic protection monitoring criteria.

- 10%er (Equipment ID: 44795397) had a pipe-to-soil reading of -352mV, which did not meet the -900mV P/S potential requirement of PG&E TD-4181S Section 7.4.3.

- ETS (Equipment ID: 42080211) had a pipe-to-soil reading of -700mV, which did not meet the -850mV P/S potential requirement of PG&E TD-4181S Section 5.1.1.
- Casing with leads (Equipment ID: 45149030) had a casing-to-soil reading of -983mV and a nearby pipe-to-soil reading of -1060mV, which did not meet the isolated casing potential difference requirement of TD-4181P-601 Section 4.

4) Time-Dependent Threats : External Corrosion - Cathodic Protection (TD.CP)

Question Title, ID: Isolation from Other Metallic Structures, TD.CP.ELECISOLATE.O

Question: 12. Are measures performed to ensure electrical isolation of each buried or submerged pipeline from other metallic structures unless they electrically interconnect and cathodically protect the pipeline and the other structures as a single unit?

References: 192.467(a) (192.467(b), 192.467(c), 192.467(d), 192.467(e))

Assets Covered: PG&E Mission Division (Mission Division)

Issue Summary: Per PG&E TD-4181P-601 "Test Procedure for Pipe Casings" (rev. 0c) Section 4:

"4. Evaluating Potential Measurement Test Results

a. Isolated Casing

IF both conditions below are found,

(1) C/S potential(s) are less negative than -800mV.

(2) The difference between the P/S potential(s) and the C/S potential(s) is 100mV or greater

THEN the casing is considered electrically isolated from the pipeline and no further action is required at this time."

SED observed casing with leads with Equipment ID: 45149030 to be a contacted casing (-983mV casing-to-soil, -1060mV pipe-to-soil) as the potential difference (between the casing-to-soil reading and pipe-to-soil reading) of -77mV does not satisfy the -100mV minimum negative potential difference requirement of PG&E's TD-4181P-601 procedure.

The corrosion technician noted that this was a known contacted casing.

5) Section 114 : Section 114 - Gas Distribution (114.GD)

Question Title, ID: Leaks & Releases - Venting, 114.114.LKRLSVENT.P (also presented in: 114.MM)

Question: 6. Do procedures identify measures for minimizing natural gas release volumes associated with non-emergency venting and blowdowns from operations and maintenance?

References: 49 U.S.C. 60108(a)

Assets Covered: PG&E Mission Division (Mission Division)

Issue Summary: PG&E provided procedures TD-5601S and TD-5601P-01; these deal with transmission and distribution line > 60 psig. In response to a data request, documents "NGLA Approval letter to PGE 2022" and "2022 Leak Abatement Compliance plan" were provided. However, PG&E was not able to provide document(s) that outline measures/steps to minimize natural gas release volumes associated with non-emergency venting and blowdowns from operations and maintenance for distribution system (other than > 60 psig).

SED requests PG&E provide documents and indicate the sections that address measures to minimize natural gas volumes associated with non-emergency venting and blowdowns for distribution system other than > 60 psig (examples among others may include transfer of gas to a lower pressure pipeline system and routing of gas to other equipment for use as fuel gas to *prevent* non-emergency venting and blowdown; and isolating a smaller section of the pipeline by use of valves or the installation of control

fittings, reduction of pressure by use of in-line compression to *minimize* venting and blowdown volumes). If no documents exist, please create the required documents or incorporate appropriate measures in the relevant existing documents.

Question Title, ID Leaks & Releases - Leak Data Collection and Analysis, 114.114.LKRLSLKDATA.P (also presented in: 114.MM)

Question 8. Do procedures include a methodology to collect, retain and analyze detailed information from detected natural gas leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?

References 49 U.S.C. 60108(a)

Assets Covered PG&E Mission Division (Mission Division)

Issue Summary PG&E document TD-5100P-04, Table 2 identifies actions to be taken for various TLA Leaks (Tightening, Lubrication or Adjusting Leaks). This table shows that there are three types of TLA leaks which are entered into A-form (collected and retained in PG&E's SAP database for analysis and trending), however the non-hazardous leaks repaired with TLA during maintenance and collected on maintenance sheets (item 3 of Table 2) are not analyzed and trended. SED recommends that it is the apparent intent of the Pipeline and Hazardous Materials Safety Administration (PHMSA) that these TLA leaks be also analyzed and trended to identify systemic issues (if any) and prioritizing actions to reduce the emissions.