

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



January 17, 2025

GI-2024-09-PGE-29-09

Austin Hastings
Vice President, Gas Engineering
Pacific Gas and Electric Company
6121 Bollinger Canyon Road
San Ramon, CA 94583

SUBJECT: SED Closure Letter - General Order (GO) 112-F Gas Inspection of PG&E's Distribution Integrity Management Program (DIMP)

Dear Mr. Hastings:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-F inspection of Pacific Gas & Electric Company's (PG&E) Distribution Integrity Management Program (DIMP). The inspection took place between September 9-13 and 16-20, 2024.

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 finding is attached.

This letter serves as the official closure of the 2024 GO 112-F inspection of PG&E's Distribution Integrity Management Program (DIMP).

If you have any questions, please contact Sikandar Khatri at (415) 703-2565 or by email at Sikandar.Khatri@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Dennis Lee".

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

Enclosure: Summary of Inspection Findings

cc: Brian Stout, PG&E
Terence Eng, SED
Claudia Almengor, SED

Summary of Inspection Findings (Summary)

Dates of Inspection: September 9-13 and 16-20, 2024

Operator: PACIFIC GAS & ELECTRIC CO

Operator ID: 15007 (primary)

Inspection Systems: Distribution

Assets (Unit IDs) with results in this report: Main Office (Specialized Inspections) (86283)

System Type: GD

Inspection Name: 2024 PG&E DIMP Inspection

Lead Inspector: Sikandar Khatri

Operator Representative: Sajjad Azhar

Unsatisfactory Results

No Preliminary Findings.

Concerns

Gas Distribution Integrity Management : Knowledge of the System (GDIM.KN)

Question Title, ID System Knowledge - Information Needed, GDIM.RA.INFONEEDS.R

Question 4. Does the plan list the additional information needed to fill gaps due to missing, inaccurate, or incomplete records?

References 192.1007(a)(3)

Assets Covered Main Office (Specialized Inspections) (86283 (29))

Issue Summary PG&E stated that for the 2024 DIMP Cycle, the missing attributes have been identified and are being reviewed for further action per TD-4850P-01, Rev. 5, section 4.5.1.a. The same process is repeated every cycle. In addition, PG&E stated that currently several attributes have existing projects or routine Operation and Maintenance (O&M) processes to populate missing information.

PG&E has identified six attributes as 'missing' (REF: Data Request responses 25-01 and 27-01). This includes among others "INSTALLATIONMETHOD" for services with 77% percentage missing information and "CPPROTECTIONTYPEDESC" for mains with 28% missing information, and additionally there is missing information about the attribute "PLASTICTYPEDESC". On an inquiry, PG&E reported the distribution of missing records over

various decades. This missing attribute distribution indicates that there is information missing for considerable number of segments installed over the period 2001 -2023 (this is relatively recent data), and this is an alarming situation. In the same data responses, PG&E stated the various processes are in place for acquiring the missing information, while for three items "INSTALLATIONMETHOD", "COATINGTYPEDESC" and "JOINTTRENCHINDICATOR", the various methods are being explored.

Since, these attributes are important for risk assessment, PG&E shall make sure such data gaps do not occur in the future, while also continue its efforts to fill the existing gaps. In addition, PG&E should consider including "PLASTICTYPEDESC" variable into risk assessment model to differentiate between various types of plastic pipe.

PG&E's Response:

Breaking out an example of missing "Installation Method" percentages by installation year shows that, since 2013, there has been a significant decrease in the rate of missing installation information for newer installations (Table 1). This can be attributed to several major improvements beginning in 2012, including revamped gas records management and mapping standards (published 2013-2015), and the new Gas Distribution - Graphical Information System (GD-GIS; initiated in 2012). PG&E will continue these efforts to minimize data gaps going forward. As noted in PG&E's data responses referenced by SED, PG&E has existing processes for collecting missing information for older installations, such as cathodic protection type, and may initiate additional efforts as needed to fill identified gaps.

Regarding "PLASTICTYPEDESC" (plastic type), the DIMP risk assessment model for mains does consider plastic type data, in addition to installation years and historical leak rates. For services, the DIMP risk assessment model does not consider plastic type, but does consider installation year, which is more complete and has been determined by DIMP to be a statistically significant predictor of leaks related to plastic material failure.

SED's Response:

SED has reviewed the response and appreciates PG&E's efforts to close the data gaps. For plastic type attribute for services, although currently PG&E does not use this in DIMP analysis, however, it is an important attribute for any future DIMP needs, and in general for completeness of record in PG&E's system for use elsewhere. Hence, PG&E shall maintain records of the plastic type data for services. This will be followed up in the next inspection.

Gas Distribution Integrity Management : Identify Threats (GDIM.TH)

Question Title, ID Identify Threats - Information Considered, GDIM.RA.INFOCONSIDERED.P

Question 1. Did the operator consider the information that was reasonably available to identify existing and potential threats?

References 192.1007(b)

Assets Covered Main Office (Specialized Inspections) (86283 (29))

Issue Summary SED reviewed procedure TD-4850P-01, Rev5, Section 5, "Threat Identification Process".

PG&E procedure TD-4850P-01 Rev. 5, section 5.2.4 uses the term "Near-hit" instead of "Near Miss" as referred in GO 112-F, Section 105 "Definitions". The "Near Miss" terminology is also widely used in the natural gas industry. Additionally, PG&E's procedure has defined "Near-hit" under "Definitions" and stated as adapted from GO 112-F. However, it is missing one item "(d) An incorrectly mapped pipeline facility" stated in GO 112-F.

Therefore, PG&E, where applicable, shall rename "Near-hit" as "Near Miss" and completely adopt the definition of GO 112-F.

PG&E's Response:

PG&E will update TD-4850P-01 to rename "Near Hit" as "Near Miss" with a complete adaptation to the definition of GO 112-F. PG&E will clarify in TD-4850P-01 that "Near Hit" data from the company wide "Near Hit" program will be used for reference as the "Near

Miss" data necessary for new threat evaluation. CAP# 129863026, Task 3 will track PG&E's response to this concern.

Item "(d) An incorrectly mapped pipeline facility" will be added to the definition as part of this update. CAP# 129863026, Task 4 will track PG&E's response to this concern.

SED's response:

SED has reviewed the response and will follow up on it in the next audit.

Gas Distribution Integrity Management : Measure Performance and Evaluate Effectiveness (GDIM.EV)

Question Title, ID Measure Performance - Baseline, GDIM.QA.PERFMEASUREBASELINE.P

Question 1. Does the plan contain procedures for how the operator established a baseline for each performance measure?

References 192.1007(e)

Assets Covered Main Office (Specialized Inspections) (86283 (29))

Issue Summary SED reviewed the following procedures that PG&E uses to establish a baseline for each performance measure:

- TD-4850P-01 Rev 5 1/1/24
 - Section 8.3 Baseline discusses methods for establishing a baseline and part 5 states "A mitigation baseline is established for each threat identified from the performance data used in the MA analysis, measuring the effectiveness of mitigation activities. Each mitigation baseline is defined in DIMP Manual, Attachment A."
- Attachment A Rev 10 "Mitigation Activities"
 - Section 2.0 ATTACHMENT A CRITERIA describes effectiveness baseline, effectiveness measurements and
 - Section 3.0 ATTACHMENT A BASELINE AND EFFECTIVENESS MEASUREMENT CRITERIA states "Use the repaired leaks in the DIMP cycle (5 years of data) for the specific threat, line use, leak source or risk identified in the specified Job, Plat, Division or District."
 - For mitigation activities that reduce the consequences of an event there are no effectiveness measurements - see #116 in Attachment A Section 5 #116 where damage by earth movement is addressed by reducing the consequence by installing valves on selected locations.

PG&E should establish a measurable baseline for all risks being mitigated so that the effectiveness can be evaluated.

PG&E's Response:

PG&E will consider what would be a measurable baseline for future mitigation activities with non-leak-based risk reduction. PG&E will update the DIMP Manual, Attachment A, based on the determination of this review. CAP # 129863026, Task 5 will track PG&E's response to this concern.

SED's Response:

SED has reviewed the response and will follow up on it in the next audit.

Gas Distribution Integrity Management : GDIM Implementation (GDIM.IMPL)

Question Title, ID System Knowledge - Data Collection Forms, GDIM.RA.DATAFORMIMPL.R

Question 7. Are data collection forms used in conjunction with the operator's DIMP plan being fully and accurately completed?

References 192.1007(a)

Assets Covered Main Office (Specialized Inspections) (86283 (29))

Issue Summary SED reviewed TD-4461P-20 Rev 4 "Gas Distribution As-Built Documentation Process," which details the process of compiling and submitting the complete as-built records. PG&E has a QC process, final review, and "Checklist for Gas Distribution As-Built Records" (TD-4461P-20-F01) for as-built documentation. Additionally, PG&E has procedure TD-5100P-01 "Leak Repair and Pipe Inspection Documentation" for documenting leak repairs and uses forms TD-5100P-01-F01 "Leak Repair A-Form" and TD-5100P-01-F03 "Pipe Inspection Form" for this purpose.

SED reviewed sample data collection forms which included leak repair forms (A-form), Pipe Inspection Form and GSR (Gas Service Record) form. It was found that:

1. Leak repair form (Leak # 122951052):

Section "Repair Data" – Repair remarks state, "weld on new threaded nipple", but same section for the field "weld performed" states "No".

In response to a data request, PG&E stated that this will be checked and corrected, if needed.

2. Pipe Inspection Form (Leak repair/OCW Notification No. 126139347):

This is steel service leak repair. There is information about 'internal corrosion', however, there are no observations reported for 'external corrosion'.

Therefore, PG&E should ensure that all data collection forms used in conjunction with its DIMP program are fully and accurately completed.

PG&E Responses:

1. PG&E reviewed Notification #122951052 and acknowledges the discrepancy. The notification was updated to show that welding was performed.

2. PG&E reviewed Notification #126139347 and acknowledges SED's concern. As explained during the Construct demonstration on October 7, 2024, PG&E has various logic built into the mobile form to guide users through completion of the necessary fields. As a precaution, PG&E will validate the logic associated with these fields and determine whether there are potential improvements to enhance our data quality. CAP# 129863026, Task 6 will track PG&E's response to this concern.

SED Responses:

1. SED has reviewed the response and accepted the same.

2. SED has reviewed the response and will follow up on it in the next audit.

Question Title, ID Periodic Evaluation - Implementation (Frequency), GDIM.CA.PERIODICEVALFREQIMPL.R

Question 27. Have periodic evaluations of the DIMP plan been performed on the frequency specified in the plan? [If a periodic evaluation has not been required since plan implementation or the last inspection, mark questions 27-32 as "N/A".]

References 192.1007(f)

Assets Covered Main Office (Specialized Inspections) (86283 (29))

Issue Summary SED reviewed DIMP procedure TD-4850P-01 Rev 5 (Effective 1/1/24) section 9 "Program Evaluation and Continuous Improvement" which covers evaluation of the DIMP plan. The DIMP cycles are tracked through CAP (Corrective Action Program) numbers, PG&E provided the same for the years 2020-2024.

In addition to DIMP cycles, PG&E should consider carrying out a comprehensive evaluation every five years that will provide a wider perspective and meaningful insight into the performance of DIMP program over 5-years period.

PG&E's Response:

PG&E's cyclical and complete 5-year program reviews of DIMP are recorded in the DIMP cycle CAPs. PG&E's most recent 5-year program review was completed in 2024 for the 2023 DIMP Cycle. For further clarity, PG&E will distinguish the differences between its cyclical program reviews and its complete five-year program review in section 9 of its DIMP Procedure TD- 4850P-01, rev 6, by outlining the specific components involved in each review. PG&E will consider in future revisions if additional guidance within the scope of a complete program evaluation is appropriate. CAP# 129863026, Task 7 will track PG&E's response to this concern.

SED's Response:

SED has reviewed the response and will follow up on it in the next audit.