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

September 24, 2021 GI-2021-07-PGE-29-08

Ms. Janisse Quiones
SVP, Gas Engineering
Pacific Gas and Electric Company
6121 Bollinger Canyon Road
San Ramon, CA 94583

SUBJECT: General Order 112-F Inspection of PG&E's Transmission Integrity Management Program – Direct Assessment (ECDA, ICDA, SCCDA, etc.)

Dear Ms. Quiones:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission, Paul Penney and Kai Cheung conducted a General Order 112-F inspection of Pacific Gas & Electric Company's (PG&E) Transmission Integrity Management Program (TIMP) July 12-16, 2021, and July 19-23, 2021. The inspection included a review of procedures and records related to the TIMP Inspection Assistant (IA) question set, which was focused on Direct Assessment.

SED's findings are noted in the Post-Inspection Written Preliminary Findings (Summary) which is enclosed with this letter. The summary reflects only those procedures and records that SED inspected during the inspection. SED discovered four violations and no 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 violations noted in the Summary.

If you have any questions, please contact Paul Penney at (415) 703-1817 or by email at Paul.Penney@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 (Susie.Richmond@pge.com ), PG&E, Regulatory Compliance Manager,
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# Post-Inspection Written Preliminary Findings

**Dates of Inspection:** July 12-16, and July 19-23, 2021
**Operator:** PACIFIC GAS & ELECTRIC CO
**Operator ID:** 15007 (primary)
**Inspection Systems:** PG&E's Transmission System
**Assets (Unit IDs) with results in this report:** All Transmission Lines with DA Used ()
**System Type:** GT
**Inspection Name:** (2021) PG&E TIMP Audit (ECDA, ICDA and SCCDA Focused)
**Lead Inspector:** Paul Penney
**Operator Representative:** Anthony Kwong, et al.

# Unsatisfactory Results

## Assessment and Repair : Confirmatory Direct Assessment (AR.CDA)

Question 4. Is an adequate Confirmatory Direct Assessment Plan in place?

References 192.931(a) (192.931(b), 192.931(c), 192.931(d))

Assets Covered All Transmission Lines with DA Used (Trans with DA)

Issue Summary According to PG&E's procedure list (Data Request (DR) #1) a procedure for Confirmatory Direct Assessment (CDA) has not been written. However, a CDA project was done in 2016 per DR #2 (CDA-119B).

However, 192.931 states in part:

*An operator using the confirmatory direct assessment (CDA) method as allowed in §192.937 must have a plan that meets the requirements of this section and of §§192.925 (ECDA) and §192.927 (ICDA).*

PG&E is therefore in violation of 192.931 for not having a procedure as required by the underlined portion of this code section.

## Assessment and Repair : Internal Corrosion Direct Assessment (ICDA) (AR.IC)

Question 5. Do records demonstrate that the requirements for an ICDA pre-assessment were met?

References 192.927(c)(1) (192.947(g))

Assets Covered All Transmission Lines with DA Used (Trans with DA)

Issue Summary GSRB staff believes that project IC19-109 should not have been assessed with ICDA because there were no liquid hold up points on this short section of pipe coming out of the Milpitas terminal. PG&E's Report B, Item 7 states that this section of pipe is horizontal. Therefore, any liquid introduced would be expected to be transported downstream. Part 192.927(c)(1) states in part:

*Preassessment. In the preassessment stage, an operator must gather and integrate data and information needed to evaluate the feasibility of ICDA for the covered segment, and to support use of a model to identify the locations along the pipe segment where electrolyte may accumulate, to identify ICDA regions, and to identify areas within the covered segment where liquids may potentially be entrained. This data and information includes, but is not limited to...*

As noted in the underlined code section, the purpose is to sample areas along the High Consequence Areas (HCA) segment where liquids may be entrained and where internal corrosion might be

found. PG&E should have found this section of pipe to be infeasible for the ICDA process because there are no liquid holdup points.

As further identified by PG&E, the direct examinations covered approximately 50% of the footage of the HCA. PG&E could have chosen another assessment technique such as direct examination for this HCA segment.

PG&E is therefore in violation of 192.927(c)(1).

Data Request:

Please provide a plan for reassessing this HCA segment with an approved reassessment technique per 192.937(c) before the next scheduled reassessment would have been scheduled.

Question 9. Do records demonstrate that sites were identified where internal corrosion may be present?

References 192.947(g) (192.927(c)(3), 192.927(c)(5))

Assets Covered All Transmission Lines with DA Used (Trans with DA)

Issue Summary PG&E applied ICDA to a 47-foot segment that was horizontal in project IC19-109. There were no critical inclination angles or other potential liquid hold up locations (i.e., sags, drips, dead legs, etc.). This section of pipe was horizontal. PG&E therefore picked two locations near the beginning and near the end of the 47-foot segment. These are random locations that do not meet the requirements of 192.927(c)(3), which states in part:

*"(3) Identification of locations for excavation and direct examination. An operator's plan must identify the locations where internal corrosion is most likely in each ICDA region. In the location identification process, an operator must identify a minimum of two locations for excavation within each ICDA Region within a covered segment and must perform a direct examination for internal corrosion at each location, using ultrasonic thickness measurements, radiography, or other generally accepted measurement technique. One location must be the low point (e.g., sags, drips, valves, manifolds, dead-legs, traps) within the covered segment nearest to the beginning of the ICDA Region. The second location must be further downstream, within a covered segment, near the end of the ICDA Region. If corrosion exists at either location, the operator must..."*

PG&E is therefore in violation of 192.927(c)(3).

PG&E needs to identify all other segments where ICDA was used over the past seven years (2013-2020) as assessment techniques and there was no critical inclination angle or liquid hold up points on the covered segments, and the covered segments were not part of a larger ICDA region.

Data Request:

1. Please provide a list of ICDA segments, including the name of the segment, the ICDA project name, and the mile points associated with the ICDA project.

2. Please indicate how PG&E will reassess each of these covered segments before the next assessment is due to assess for Internal corrosion using another assessment technique.

# Assessment and Repair : In-Line Inspection (Smart Pigs) (AR.IL)

Question 7. Do records demonstrate that the assessment methods shown in the baseline and/or continual assessment plan were appropriate for the pipeline specific integrity threats?

References 192.947(g) (192.919(b), 192.921(a), 192.937(c))

Assets Covered All Transmission Lines with DA Used (Trans with DA)

Issue Summary For the ICDA assessment project IC19-109, PG&E used Guided Wave Ultrasonic Technology (GWUT) to examine a portion of pipe encased in concrete (a thrust block). While the use of GWUT is acceptable to examine for internal corrosion, it does not appear that PG&E obtained a special permit prior to using this technology. This is based on a review of special permits issued by PHMSA in 2018 and 2019.

192.937(c)(4) states:

*(4) Other technology that an operator demonstrates can provide an equivalent understanding of the condition of the line pipe. An operator choosing this option must notify the Office of Pipeline Safety (OPS) 180 days before conducting the assessment, in accordance with §192.949. An operator must also notify a State or local pipeline safety authority when either a covered segment is located in a State where OPS has an interstate agent agreement, or an intrastate covered segment is regulated by that State.*

PG&E is therefore in violation of 192.937(c)(4) for not obtaining a special permit prior to using GWUT within the ICDA process for project IC19-109.

# Concerns

## No Concerns.