

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



July 11, 2019

GI-2019-04-PGE-29-08

Ms. Christine Cowsert, VP, Gas Asset Management and System Operations
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
– In-Line-Inspection Focused

Dear Ms. Cowsert:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission, Paul Penney, Sikandar Khatri, Kai Cheung, Nathan Sarina, Molla Mohammad Ali and Wai-Yin Chan conducted a General Order 112 inspection of Pacific Gas & Electric Company's (PG&E) Transmission Integrity Management Program (TIMP) May 6-10, 2019 and May 13-17, 2019. The inspection included a review of procedures and records related to the Transmission Integrity Management Program (TIMP) Inspection Assistant (IA) question set, which was focused on the In-Line-Inspection (ILI) assessment technique.

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.

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, concerns and recommendations 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,

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: Post-Inspection Written Preliminary Findings

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Post-Inspection Written Preliminary Findings

Date of Transmittal: 07/11/2019

Dates of Inspection: May 6-10, 2019 and May 13-17, 2019

Operator: PACIFIC GAS & ELECTRIC CO

Operator ID: 15007 (primary)

Inspection Systems: System Wide

Assets (Unit IDs): Main Office (Specialized Inspections) (86283)

System Type: GT

Inspection Name: (2019) PG&E TIMP Audit - ILI Focused

Lead Inspector: Paul Penney

Operator Representative: Anthony Kwan and other engineers as identified on the sign in roster.

Unsatisfactory Results

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

1. Question Text Do records demonstrate that personnel who conduct assessments or review assessment results are qualified per the process requirements?

References 192.947(g) (192.915(a), 192.915(b))

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

Issue Summary All of Joseph Yu and Chris Wehling's training records under TD 4180S-01, Attachment 1, were not available at the end of the audit. PG&E was still trying to find the appropriate training records for each ILI Engineer at the end of the audit.

On 7-3-19, PG&E provided a preliminary written response along with a table showing training dates as follows:

Please refer to the table below for the 2015-2018 TD-4810P-11 – In-line Inspection Procedure training dates of Joseph Yu, David Slane, and Chris Wehling. PG&E is still compiling documentation to support the dates listed below.

Year	Dates of Training
2015	November 5, 2015
2016	Unknown*
2017	September 6, 2017
2018	December 10, 2018

*PG&E is still researching 2016 training dates.

In lieu of finding and providing the training records, PG&E is in violation of 192.947(g) and 192.915(b).

2. Question Text 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 Main Office (Specialized Inspections) (86283 (29))

Issue Summary

During the audit, GSRB staff discussed with PG&E the issue of ILI tools not being able to interrogate the entire pipe length (measure pipe wall loss, etc.) within an HCA due to the limitations of the tool. This includes both non-traditional ILI and traditional ILI tools. GSRB staff understands this issue to be related to the MFL sensors moving away from the pipe wall during angle changes of the line pipe.

After careful consideration of PG&E's comments during the audit, GSRB staff still believes that if a portion of the HCA is not assessed via the ILI tool because of the limitations of the tool, another assessment technique must be used to assess the missed portion of the pipe. This is fundamental to a continual process of evaluation and assessment outlined 192.937 for all threats identified for a particular covered segment.

Because of the issue identified above, PG&E is in violation of 192.937(c) for not assessing the entire portion of the HCA segments where portions of segments were skipped. Further, PG&E must assess all portions of pipeline segments that were not assessed during the last ILI assessment because of the limitations of the non-traditional or traditional tool.

Concerns

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

1. Question Text Does the process for validating ILI results ensure that accurate integrity assessment results are obtained?

References 192.921(a)(1) (192.937(c))

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

Issue Summary

PG&E has incorporated API 1163 into TD-4810P-11, page 26, Section 6.a (ILI Run Validation); this requirement became effective on 9/18/17.

CONCERN:

1. PG&E should create a validation form to summarize validation efforts. This will ensure a more

easily auditable trail and meet compliance with 192.947(g). As noted in PG&E's current ILI standard, TD-4810P-11, page 26 of 43, "It is PG&E's goal to validate all ILI vendor reports per API 1163 (April 2013 Second Edition) requirements to the highest level that is practical." A form will make clear whether API 1163 was used, and if not, how ILI data was validated. A validation form will also make clear what level of validation is used (i.e., Level 1, 2 or 3).

2. Question Text Is the process for ILI survey acceptance criteria adequate to assure an effective assessment?
- References 192.921(a)
- Assets Covered Main Office (Specialized Inspections) (86283 (29))
- Issue Summary This item is covered in TD-4810P-11, Section 5.5.7 (Verification of ILI Quality). The section also say that the minimum requirements shall meet the requirements in API 1163, Section 7 for a system operational verification. This is covered in Form L - ILI Run Acceptance, which both PG&E and the vendor are required to sign.
- NOTE: Section 5.5.7 states: This verification shall meet or exceed the requirements in API 1163 for operational verification.
- CONCERN:
- Form L does not appear to capture sufficient information to meet the requirements of API 1163 Section 7 for operational verification. Thus it is not clear that PG&E is meeting or exceeding the requirements of API 1163 as their procedure states in cases where PG&E uses API 1163. GSRB staff recommends that PG&E update Form L.
3. Question Text Do records demonstrate that required actions are being taken to address significant corrosion threats identified during in-line inspections?
- References 192.933 (192.917(e)(5))
- Assets Covered Main Office (Specialized Inspections) (86283 (29))
- Issue Summary PG&E staff stated that for ILI runs, this section of code [192.917(e)(5)] was interpreted to mean similar covered and non-covered segments along the same route. If PG&E has this interpretation, then the language should be added to Section 12.5 for ILI runs.

Assessment and Repair : Repair Criteria (AR.RC)

4. Question Text Does the Integrity Management Plan and/or maintenance processes include all of the actions that must be taken to address integrity issues in accordance with 192.933?
- References 192.933(a) (192.933(c), 192.933(d))
- Assets Covered Main Office (Specialized Inspections) (86283 (29))
- Issue Summary TD-4810P-11, While reviewing TD-4810P-11, Table 1, SED staff noted that scheduled one-year conditions includes conditions under which strain values become a one-year condition: 6% strain on the pipe body; and 4% on pipe that effects ductile girth welds or seam welds.
- RECOMMENDATION #1: SED staff recommends putting a footnote in TD-4810P-11, Table 1 defining critical strain along with the source of the definition (i.e., B31.8)
- RECOMMENDATION #2: Evaluate the need to provide more guidance on what constitutes "critical strain" for all pipeline materials properties in PG&E's system.

Integrity Management : Quality Assurance (IM.QA)

5. Question Text Does the process include requirements that non-mandatory requirements (e.g., "should" statements) from industry standards or other documents invoked by Subpart O (e.g., ASME B31.8S-2004 and NACE SP0502-2010) be addressed by an appropriate approach?
- References 192.7(a)

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

Issue Summary RECOMMENDATION:

PG&E should add a footnote or addition to the definition of "should" to incorporate FAQ 244. PG&E showed language in the DA procedure that meets the intent of this recommendation. Therefore, please confirm the language has been added.