

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 16, 2017

Mr. Sumeet Singh, Vice President
Pacific Gas and Electric Company
Gas Asset and Risk Management
6111 Bollinger Canyon Road, Room 4590-D
San Ramon, CA 94583

GI-2016-10-PGE29-08

SUBJECT: General Order 112 Inspection of PG&E's Transmission Integrity Management Program (TIMP)

Dear Mr. Singh:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission, Paul Penney and Terence Eng conducted a General Order 112¹ inspection of Pacific Gas & Electric Company's (PG&E) Transmission Integrity Management Program (TIMP) on October 24-28, 2016. The inspection included a review of records related to the internal and external corrosion threats. The inspection also included a review of records related PG&E's response to a girth weld issue identified in a PG&E self-report.

SED's findings are noted in the Summary of Inspection Findings (Summary) which is enclosed with this letter. The Summary reflects only those records and pipeline facilities that SED inspected during the safety 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, recommendations and follow-up questions 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 "Kenneth A. Bruno".

Kenneth Bruno
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division

Enclosure: Summary of Inspection Findings

cc: Susie Richmond, PG&E Compliance, Mike Bradley, PG&E Compliance,
Terence Eng, SED/GSRB, Dennis Lee, SED/GSRB,
Kelly Dolcini, SED/GSRB

¹ General Order 112-F was adopted by the Commission on June 25, 2015 via Decision 15-06-044. The effective date for implementation of the rule changes was January 1, 2017.

SUMMARY OF INSPECTION FINDINGS

I. Probable Violations

A. SED Findings

No SED findings.

B. PG&E Findings

Prior to the beginning of the audit, PG&E provided SED staff with a summary of an External Corrosion Direct Examination (ECDA) review, entitled “Background of ECDA Review.” According to this document, PG&E did a thorough multi-step analysis of 20 ECDA projects conducted from 2013 to 2015. There were a total of approximately 78 ECDA projects conducted in this time frame. The results of this multi-stage analysis include the following:

- In step one of the analyses, a PG&E contractor did an in-depth review of these 20 ECDA projects. The contractor found 1181 issues in multiple categories. The categories included: code compliance; industry guidance, non-compliance with PG&E’s procedures; SME best practices, editorial, discussion and common issues. There were a total of 71 non-compliances with code; and 466 non-compliances with PG&E procedures, which are also code non-compliances under Title 49 Code of Federal Regulations (CFR) Part 192.13(c).
- In step two of the analyses, PG&E with the support of another contractor did an analysis of the 1181 findings to determine if there were any safety or integrity related impacts. This part of the analysis was conducted in multiple stages. First, each item was placed in a general category, and then the items were reviewed to determine if any of the findings raised safety of integrity related concerns. Out of this review, 91 items required additional analysis for the following reasons: missed route in pre-assessment, missed/incorrectly performed inspections, potential electrical interference on the line, missed excavations, missed opportunity for better excavation location and finding greater corrosion than expected.
- In step three of the analyses, PG&E did a further in-depth analysis of the 91 issues/items. The results of this analysis were put into the following buckets:
 - No further In-direct Inspection Technique (IIT)/Direct Examinations –No additional field work is necessary to close out the item –Total 50
 - Excavation –Additional dig(s) are likely needed to address the issue identified –Total 18.
 - IIT/ Influence Study –Additional testing or indirect inspections or testing may be necessary to confirm if further action is required –Total 23.
- In the fourth step, the remaining items that were flagged as Code Compliance, Non-Compliance with PG&E procedures, and Discussion were reviewed a second time to determine if any safety or integrity related issues were found. PG&E reported that no issues were found from this second review.

SED staff believes the approach taken by PG&E to review and identify issues from a sampling of prior ECDA projects in the 2013—2015 time frame is the correct approach in that PG&E sought to identify issues/deficiencies in the ECDA process that presented immediate (or longer term) safety or integrity related concerns whether or not they were violations of code.

From the filtered spreadsheet of 91 issues, PG&E’s review identified 23 violations of code. These were also violations of PG&E’s own procedures, which shows a strong correlation with code requirements; this correlation is required by CFR 192.13(c). See the follow-up questions section below to respond to questions from the spreadsheet of 91 issues.

For the original spreadsheet of 1181 issues, PG&E’s review identified a total of 71 violations of code. Fifty-nine of these were also violations of PG&E’s own procedures. Eleven of the 12 that were not violations of PG&E’s own procedures were related to OQ qualifications. A total of 454 issues were violations of PG&E’s own procedures, which are violations of code per CFR 192.13(c).

II. Concerns and Recommendations

As noted in SED’s review of the 91 issues, the breakdown of these issues from the ECDA four step process shows:

ECDA Step	Issues Identified
Pre-Assessment	2
Indirect Inspection	36
Direct Examination	45
Post Assessment	8
Total	91

For the indirect inspection step, 36 issues were identified, with 22 of the issues related to the potential for interference currents (one was identified in the Direct Examination step). For the direct examination step, 45 issues were identified; with 15 related to the excavation category (three were identified in the Post Assessment step). Given these results, SED staff recommends that PG&E consider additional training for PG&E staff in recognizing the potential for interference currents from the IIT data and identifying correct/better excavation locations.

III. Follow-up Questions

SED staff has a number of follow-up questions and requests related to the ECDA analysis. They include:

1. Please provide a status update on the remaining 58 ECDA projects from the 2013 to 2015 time frame. When does PG&E expect the analysis to be complete? If the analysis is complete, please provide a copy of the reports.
2. What additional actions has PG&E taken related to two of the categories of findings from the “Background of ECDA Review?” Please provide a progress report. The categories are:
2.1 Excavation –Additional dig(s) are likely needed to address the issue identified (18)
2.2 IIT/influence study –Additional indirect inspections or testing may be necessary to confirm if further action is required (23).
3. SED staff has reviewed PG&E’s list of 91 issues, and has follow-up questions related to some of these issues. The follow up questions are in column S in the spreadsheet provided by PG&E, which is in a separate attachment to this letter. The questions exclude items in the “Category” column (column Q) for which PG&E has identified either “IIT/Influence Study” or “Excavation” as the issue (i.e., the subset of 50 issues).