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October 22, 2021

Mr. Terence Eng
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

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

Dear Mr. Eng:

The Safety and Enforcement Division (SED) of the CPUC conducted a General Order 112-F inspection of PG&E's Transmission Integrity Management Program (TIMP) on July 12-16, 2021 and July 19-23, 2021. On September 24, 2021, the SED submitted their inspection report, identifying four violations. Below is PG&E's response to the SED inspection report.

Violation 1: [192.931] Is an adequate Confirmatory Direct Assessment Plan in place?

SED's Finding: 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.

PG&E's Response: PG&E disagrees with this violation. When using Confirmatory Direct Assessment (CDA), 192.931 requires an operator to have a plan that meets the requirements of 192.925 for external corrosion and 192.927 for internal corrosion. Although PG&E did not have a CDA procedure in place at the time, PG&E's plan for the 2016 CDA project followed the External Corrosion Direct Assessment (ECDA) procedure which meets the requirements of 192.925. In addition, not only was an appropriate external corrosion procedure followed, but more stringent requirements were applied to the CDA project than what is provided in 192.931. When performing CDA to address the external corrosion threat, the plan must comply with 192.925 with the following exceptions, (1) the indirect examination may allow use of only one indirect examination tool suitable for the application and (2) all immediate action indications must be excavated and at least one high risk indication that meets the criteria of scheduled must be excavated in each region. PG&E used three indirect examination tools for the 2016 CDA project (rather than the allowed use of only one) and excavated all scheduled indications for each region and a monitored criteria indication as an effectiveness dig for the project. Based on the above explanation, PG&E disagrees with this violation since it utilized a plan for the 2016 CDA project that met the requirements of 192.925 and 192.931.

Violation 2: [192.927(c)(1) and 192.947(g)] Do records demonstrate that the requirements for an ICDA pre-assessment were met?

SED's Finding: 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. SED also requests that PG&E provide a plan for reassessing this HCA segment with an approved technique.

PG&E's Response: PG&E does not agree with this violation. The finding presents itself as a question of ICDA effectiveness as opposed to ICDA feasibility. 192.927(c)(1) lists some of the data to be collected for an ICDA project, low points being one of those data elements, but it does not specifically state that a low point in the covered segment is required for ICDA to be feasible. PG&E's procedures not only incorporate the requirements of 192.927, but also follow the NACE ICDA industry standard SP0206. Section 3.3 within SP0206 lists the conditions that would make ICDA infeasible, none of which states the presence of a low point in the covered segment is required for feasibility. PG&E agrees that the IC19-109 project was less effective than planned due to the lack of a liquid hold up location but was still feasible since all four phases of the ICDA process can be performed on this horizontal piping. In addition, as stated in PG&E's response in data request #10, PG&E performed an ILI run on L-109 in 2019, downstream of IC19-109, and the results did not indicate any internal corrosion on the pipeline. Since there were no indications of internal corrosion in IC19-109 or the 2019 ILI run, the IC threat became inactive in 2020 and there are no planned reassessments for this threat. Therefore, it is PG&E's belief that it is not in violation of 192.927(c)(1).

Additionally, PG&E requests that SED clarify its statement 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*". Specifically, is SED implying that an IC threat does not exist due to the lack of low spots or liquid hold up points in the pipeline?

Violation 3: [192.927(c)(3)&(5) and 192.947(g)] Do records demonstrate that sites were identified where internal corrosion may be present?

SED's Finding: 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).

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. SED also requests following data from PG&E:

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.

PG&E's Response: PG&E does not agree with this violation and disagrees with the SED's statement that the digs selected were random. 192.927(c)(3) specifies that one dig must be at the beginning of the covered segment and the other further downstream in the covered segment, and PG&E applied these criteria during the dig selection process. Since this piping is horizontal, based on the flow conditions, the beginning site would be the most likely location for liquid collection if there was no flow, and the site at the end of the segment would likely be a liquid collection point if there was flow. Therefore, PG&E disagrees that these locations were randomly selected and thus not in violation of 192.927(c)(3).

In response to SED's data requests, PG&E reviewed all ICDA projects from 2013-2020 and determined that other than IC19-109, all other projects had critical inclination angles or liquid hold up points. This list of ICDA projects is provided in Table 1 below for SED's review. Since all other ICDA projects had either a critical inclination angle or liquid hold up point, PG&E does not believe it is necessary to reassess these covered segments using a different method prior to the next assessment cycle.

Table 1. 2013-2020 ICDA Projects

Year	Project Name	Critical Inclination Angle/Low Point Location	Low Point - Mile Points
2013	IC13-119	Yes	0.01, 9.08, 1.63, 1.68, 69.81, 0.0096, 16.46, 8.96
2013	IC13-123	Yes	4.4, 7.92, 14.96, 2.31, 11.44, 2.86, 4.35, 4.18, 0.00, 3.47
2013	IC13-191-1	Yes	9.92, 10.33, 15.38, 15.43, 15.78
2014	IC14-101	Yes	0.00
2014	IC14-118	Yes	20.393, 20.88, 43.242, 0.0272, 49.43, 13.69, 25.01, 40.94
2014	IC14-121	Yes	0.049, 1.774, 0.0009, 0.0073, 0.0049
2014	IC14-148	Yes	0.00, 0.605, 8.912, 0.017, 10.137, 13.169, 0.004
2014	IC14-300	Yes	490.9285, 491.828, 0.00, 490.83, 450.83, 134.435, 0.0362, 0.0054, 0.027
2018	IC18-118	Yes	0.011, 0.057, 39.95, 12.55, 13.08, 24.54
2019	IC19-191-1	Yes	35.568, C-Street Station
2019	IC19-3019-01	Yes	0.00, 0.026, 0.009
2020	IC20-021A	Yes	19.7312, 12.8453, 12.697
2020	IC20-057A	Yes	9.111, 9.093
2020	IC20-121	Yes	7.921, 11.366, 10.061, 11.71, 9.857
2020	IC20-138	Yes	43.4501, 24.41.54, 1.7892, 2.465
2020	IC20-0817-01	Yes	0.0315, 0.171, 0.1957, 0.2495

Violation 4: [192.919(b), 192.921(a), 192.927(c)(3) and 192.947(g)] Do records demonstrate that the assessment methods shown in the baseline and/or continual assessment plan were appropriate for the pipeline specific integrity threats?

SED's Finding: 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.

PG&E's Response: PG&E does not agree with this violation. SED's finding indicates that the use of GWUT for this project is considered "other technology" and a notification to PHMSA for use of this technology should have been made 180 days prior to its use. However FAQ-235 states: "…If guided wave technology is being used as a tool to examine the predicted locations to determine if corrosion exists, then it is being used in a manner consistent with the ICDA process and would not be considered "other technology". If, on the other hand, the intent is to use guided wave technology in some other manner to assess internal corrosion (e.g., not first analyzing the pipeline to determine likely locations for internal corrosion), then its use would be different from the normal ICDA process and it would be considered "other technology"". Since GWUT was used in a manner consistent with the ICDA process and the guidance in FAQ-235, PG&E does not believe it is in violation of 192.937(c)(4).

Please contact Anthony Kwong at (415) 238-4080 or Anthony.kwong@pge.com for any questions you may have regarding this response.

Sincerely,

Jerrod Meier
Director, Compliance

cc: Paul Penney, CPUC
Dennis Lee, CPUC
Kai Cheung, CPUC
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Susie Richmond, PG&E