



**Kristina Castrence**  
Director  
Gas Regulatory and Risk

6121 Bollinger Canyon Road  
San Ramon, CA 94583  
**Phone:** 415-407-1152  
**E-mail:** Kristina.Castrence@pge.com

September 14, 2023

Mr. Terence Eng  
Program Manager  
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 Gas Inspection of PG&E's Bay Area West Transmission Area

Dear Mr. Eng:

Pacific Gas and Electric Company (PG&E) submits this response to the Safety and Enforcement Division's (SED) Post-Inspection Written Preliminary Findings (Summary) received August 15, 2023, stemming from the 2023 SED inspection of PG&E's Bay Area West transmission records and facilities conducted June 5 to June 23, 2023.

For clarity, each of the items identified in the Summary will be repeated followed by PG&E's response.

**Unsatisfactory Result #1: Time-Dependent Threats: Atmospheric Corrosion (TD.ATM)**

Question Title, ID	Atmospheric Corrosion Monitoring, TD.ATM.ATMCORRODEINSP.R
Question Text	4. Do records document inspection of aboveground pipe for atmospheric corrosion?
References	192.491(c) (192.481(a), 192.481(b), 192.481(c), 192.481(d))
Issue Summary	PG&E Procedure TD-4188S (revision 1, effective date 01/01/2017) Section 4 "Mitigation" states:

"The mitigation timeline of atmospheric corrosion-related abnormal operating conditions (AOCs) found during monitoring must not exceed thirty-nine months from the date of the AOC identification, except assets that meet requirements in Section 1.4."

Section 1.4 of this procedure states:

"Per 49 CFR §192.479 (c), the Company need not protect from atmospheric corrosion any pipeline (except portions of pipelines in off-shore splash zones or soil-to-air interfaces) for which the Company demonstrates by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will meet at least one of the following criteria:

- Only be a light surface oxide.
- Not affect the safe operation of the pipeline before the next scheduled inspection."


Title 49 Code of Federal Regulations (49 CFR) §192.605(a) states in part:

"General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response."

PG&E failed to remediate an atmospheric corrosion-related AOC within thirty-nine months from date of AOC identification for span 44447917 from 12/13/2017 to 06/22/2023, totaling sixty-six months. PG&E is in violation of 49 CFR §192.605(a) for failing to follow PG&E's procedure TD-4188S to remediate within the given timeframe.

**Response to Unsatisfactory Result #1:**

On December 13, 2017, PG&E performed an Atmospheric Corrosion (AC) inspection of Span #44447917 in San Mateo. Three abnormal operating conditions (AOCs) were identified as "Minor Issue (Small Holiday)" and indicated "No Corrosion Observed." These coating conditions correspond with "Condition 3," which did not require corrective action at that time per TD-4188P-02 (see Figure 1 below). PG&E evaluated the criteria on January 3, 2018, and determined no remediation was necessary (see Figure 2 below).



Utility Procedure: TD-4188P-02  
 Publication Date: 02/17/2016 Effective Date: 01/01/2017 Rev: 0

**Atmospheric Corrosion Inspection of Exposed Metallic Piping Systems**

5.2 See Table 1, "Guidelines for Condition Evaluation," for examples of AOCs found and the appropriate corrective action.

**Table 1. Guidelines for Condition Evaluation**

Condition	Description	Action
Condition 1	No corrosion or coating damage observed and the coating is expected to perform adequately until next inspection period	No action required
Condition 2	Cannot inspect the specified asset (e.g., portion of span is beyond binocular range)	Contact Corrosion services to schedule follow-up inspection.
Condition 3	Abnormal operating condition consisting of light surface rust or minor coating damage with no indications of pitting or coating disbondment	Notify local supervisor, but no other action required. However, spot repairs will extend the service life of the coating system.
Condition 4	Abnormal operating condition consisting of light surface rust at air-to-soil transitions, light surface rust under pipe insulation, or major coating issues	Contact Corrosion Services to perform engineering review and develop remediation plan as needed.
Condition 5	Abnormal operating condition consisting of pitting or mechanical damage	Inform local corrosion supervisor, who informs local pipeline engineering personnel to determine whether repair is required.

Figure 1. TD-4188P-02, rev 0 - Table 1

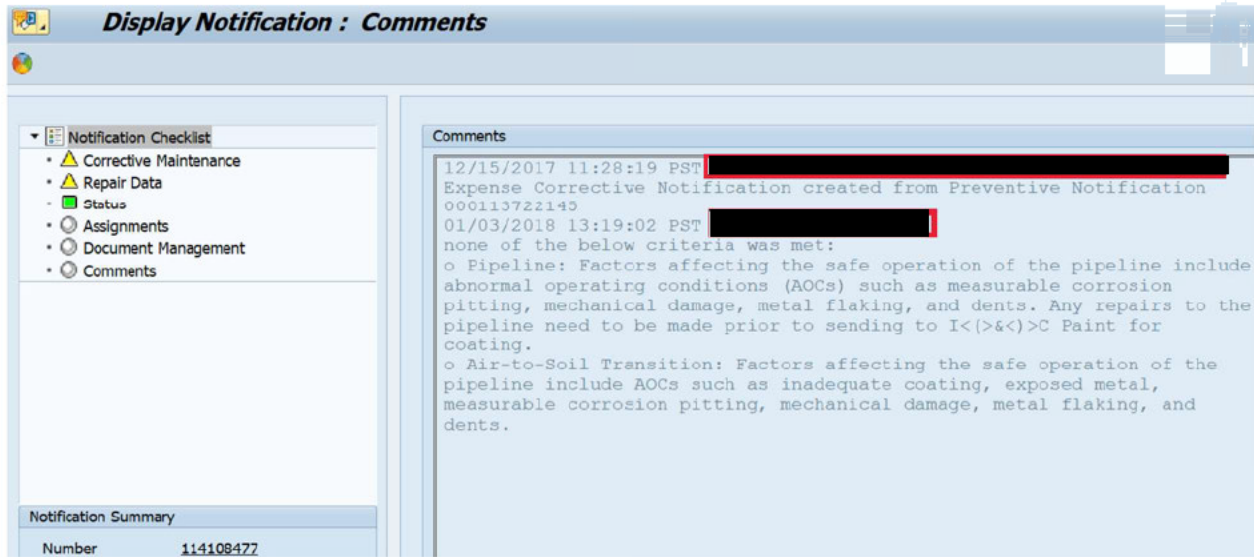


Figure 2. Notification # 114108477

In 2019, PG&E issued TD-4188P-02 Revision 1. As part of that procedural update, Table 1 was revised to clarify the required actions for each condition (see Figure 3 below). PG&E visited the span on November 10, 2020, and determined that the span was submerged/partially submerged and set up a Request for Work for a quarterly inspection on February 10, 2021, per TD-4188P-02 Sec. 2.1(c). On May 20, 2021, under notification # 120781387, PG&E performed the AC inspection, noting three coating conditions. As a result, corrective action # 121450630 was generated, which is scheduled to be completed in 2024 or earlier, within the 39 months of identification as required by our internal guidance documents.

Utility Procedure: TD-4188P-02  
Publication Date: 01/16/2019 Effective Date: 04/16/2019 Rev: 1

**Pacific Gas and Electric Company**

**Atmospheric Corrosion Inspection of Exposed Metallic Piping Systems**

6.2 See [Table 1](#) for examples of AOCs found and the appropriate corrective action.

**Table 1. Guidelines for Condition Evaluation**

Condition	Description	Action
Condition 1	No corrosion or coating damage observed, and the coating is expected to perform adequately until next inspection period	No action required.
Condition 2	Cannot inspect the specified asset (e.g., portion of span is beyond binocular range)	Work with Local Corrosion Supervisor on alternatives or contact Corrosion Field Support for additional support.
Condition 3	Light surface rust, major or minor coating damage with no indications of pitting or coating disbondment (excludes air-to-soil transitions and pipe-to-support interfaces)	Notify local supervisor, but no other action required. No compliance repairs needed. However, spot repairs or full recoats will extend the service life of the coating system.
Condition 4	AOC consisting of light surface rust or coating issues at air-to-soil transitions or under pipe insulation or at pipe-to-support interface	Contact local supervisor to create corrective to recoat. Compliance evaluations or repairs required.
Condition 5	AOC consisting of pitting or mechanical damage	Inform local corrosion supervisor, who informs local pipeline engineering or gas facility engineer personnel to determine whether repair is required. Compliance evaluations or repairs required.

Figure 3. TD-4188P-02, rev1 - Table 1



**Unsatisfactory Result #2: Training and Qualification: Operator Qualification (TQ.OQ)**

Question Title, ID	Contractor Qualification, TQ.OQ.OQCONTRACTOR.R
Question Text	5. Are adequate records containing the required elements maintained for contractor personnel?
References	192.807(a) (192.807(b))
Issue Summary	Title 49 CFR §192.807 states in part, “Each operator shall maintain records that demonstrate compliance with this subpart.”

SED reviewed contractors' Operator Qualification (OQ) records of inspector [REDACTED] (Tulsa LLC) for project PM-84008462 in 2019 (see Coating Inspection Report dated 06/05/19), and inspector [REDACTED] for file 74033845 and 74039822, project PM-84013693 in 2021 (see Pipe Inspection Form dated 09/27/21). PG&E was unable to provide adequate or traceable OQ records for the following employees performing covered tasks:

- OQ-0321 General Coating Inspections and OQ-0323 Wrapped & Hot Wax Coating Inspections for inspector [REDACTED]
- OQ-0309 Internal Corrosion/Monitor for inspector [REDACTED]

Therefore, PG&E is in violation of 49 CFR §192.807 for failing to provide records of contractors' qualification documentation, or records identifying the evaluation process used, and the qualification process used to qualify the individual for coating inspection and internal corrosion inspection.

**Response to Unsatisfactory Result #2:**

Prior to August 1, 2021, the qualifications for any individual performing PG&E gas pipeline & facility coating inspection work were successful completion of NACE CIP Levels 1, 2 or 3. Contractor coating inspector under alias [REDACTED] was certified as a NACE CIP Level 1, with effective date of September 4, 2018 (see Attachment 1\_Qualifications). Therefore, coating inspector [REDACTED] was qualified to perform the work on June 5, 2019, under PM# 84008462.

Operator Qualifications OQ-0321 “General Coating Inspections” and OQ-0323 “Wrapped & Hot Wax Coating Inspections”, were required dependent on the coating application being inspected with an effective date of August 1, 2021 (see Attachment 2\_5MM). PG&E Utility Procedure, TD-5100P-01 specifies only OQ-0305 and OQ-0306 are required for completing the pipe inspection form, TD-5100P-01-F03 (see Figure 3). Contractor coating inspector under alias was originally with E2 Consulting Engineers under the alias [REDACTED] then later worked for Gulf Interstate Field Services under the alias [REDACTED]. He qualified for OQ-0305 on August 26, 2021 and OQ-0306 on September 13, 2021 (see Attachment 1\_Qualifications). Therefore, coating inspector [REDACTED] was qualified to perform the work on September 27, 2021, under PM# 84013693.



Utility Procedure: TD-5100P-01

Publication Date: 06/16/2021 Effective Date: 07/01/2021 Rev: 1b

## Leak Repair and Pipe Inspection Documentation

### BEFORE YOU START

Operator Qualifications (OQ) are required, at the date of this publication, for specific sections of the A-Form and the Pipe Inspection Form as outlined below. Consult the PG&E gas qualifications task list or contact the Gas Qualifications department for updated OQ requirements and other covered task information,

Form Section	OQ	OQ Title	Requirements
Metallic Pipe Condition (External and Internal)	OQ 03-05	Pipe Inspection	To perform visual inspection
Cathodic Protection System Condition	OQ 03-06	Pipe-to-Soil Reads	To perform Pipe-to-Soil and Casing-to-Soil reads

Figure 2. TD-5100P-01, rev 1b - required OQs for pipe inspection

Please contact [REDACTED] for any questions you may have on this response.

Sincerely,

Kristina Castrence  
Director, Gas Regulatory and Risk

cc: Dennis Lee, CPUC  
Jason McMillan, CPUC  
Claudia Almengor, CPUC  
James Zhang, CPUC  
[REDACTED]

Attachments :

Attachment 1\_ Qualifications.pdf  
Attachment 2\_ 5MM.pdf