

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



November 2, 2018

Mr. Melvin Christopher, Vice President  
Pacific Gas and Electric Company  
Gas Transmission and Distribution Operations  
6121 Bollinger Canyon Road  
San Ramon, CA 94583

GI-2018-04-PGE-73

SUBJECT: General Order 112-F Gas Inspection of PG&E's Northern Area

Dear Mr. Christopher:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-F inspection of Pacific Gas & Electric Company's (PG&E) Northern Area (Burney District including Burney and Tionesta Compressor Station, North Valley Division, Willows District including Gerber and Delevan Compressor Station, Meridian District, Sierra Division and Sacramento Division) on July 23 – August 3, 2018 and August 20 – August 31, 2018. The inspection included a review of Northern Area's records for the period of 2015 through 2017, as well as a representative field sample of the Northern Area's facilities. SED staff also reviewed the Northern Area's operator qualification records, which included field observation of randomly selected individuals performing covered tasks.

SED's findings are noted in the Attached Post-Inspection Written Preliminary Findings (Summary) section of this letter. The Summary reflects only those particular records and pipeline facilities 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 and concerns noted in the Summary.

If you have any questions, please contact Shuai (James) Zhang at (415) 603-1310 or by email at James.Zhang@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

cc: Mike Bradley, PG&E Compliance  
Susie Richmond, PG&E Gas Regulatory Compliance  
Kelly Dolcini, SED

# Post-Inspection Written Preliminary Findings

**Dates of Inspection:** 7/23/2018 – 8/3/2018, 8/20/2018 – 8/31/2018

**Operator:** PACIFIC GAS & ELECTRIC CO

**Operator ID:** 15007 (primary)

**Inspection Systems:** Burney District (Burney and Tionesta Compressor Station), North Valley Division, Willows District (Gerber and Delevan Compressor Station), Meridian District, Sierra Division, and Sacramento Division.

**Assets (Unit IDs):** PG&E Northern Area (73)

**System Type:** GT

**Inspection Name:** PG&E Transmission Northern

**Lead Inspector:** James Zhang

**Operator Representative:** Mike Lang

## Unsatisfactory Results

### Design and Construction: Design of Pipe - Overpressure Protection (DC.DPCOPP)

Question Text Do records indicate that pressure relief or pressure limiting stations being installed comply with 192.201?

References 192.201(a) (192.201(b), 192.201(c))

Assets Covered PG&E Northern Area (PG&E North)

Issue Summary Title 49 CFR 192.201 (a)(2)(i) states in part: "if the maximum allowable operating pressure (MAOP) is 60 psig or more, the pressure may not exceed the MAOP plus 10 percent or the pressure that produces a hoop stress of 75 percent of SMYS, whichever is lower;"

During the review of Sacramento Division's pressure regulating station datasheet and maintenance records, SED found that the MAOP was 85 psig and the Monitor regulator set up point was 95 psig (should be 93.5 psig or lower) at

station GT C-30 at Teichert & Sons Reg Station. CFR 192.201(a)(2)(i) requires the pressure may not exceed the MAOP plus 10 percent if the MAOP is 60 psig or more. During the field visit at this station, PG&E lowered the setpoint by 15 psig per direction of engineering.

## **Facilities and Storage: Valves (FS.VA)**

Question Text Do records adequately document that compressor transmission line valves have been inspected and partially operated at the correct interval?

References 192.709(c) (192.745(a), 192.745(b))

Assets Covered PG&E Northern Area (PG&E North)

Issue Summary Title 49 CFR 192.745 (a) states: "Each transmission line valve that might be required during any emergency must be inspected and partially operated at intervals not exceeding 15 months, but at least once each calendar year."

SED reviewed Sacramento Division's valve maintenance records and found that PG&E did not perform the required valve maintenance in 2015 and 2016 for valve V-18 at Elk Grove – Clarksburg Primary Station B-27.

## **Maintenance and Operations: Gas Pipeline Operations (MO.GO)**

Question Text Has the operator conducted annual reviews of the written procedures or processes in the manual as required?

References 192.605(a)

Assets Covered PG&E Northern Area (PG&E North)

Issue Summary Title 49 CFR 192.605 (a) states: "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."

1. PG&E Utility Procedure TD-4188P-02 Section 1.3 states: Document each abnormal operating condition (AOC) observed on an exposed asset with photos and description..."

SED reviewed Burney District's exposed span inspections records and found that all five spans (equipment number: 41489657, 41484291, 41484300, 41489674, and 41489665) in Burney District were inspected in 2015 with no photos

taken.

2. PG&E Utility Procedure TD-4181P-601, Section 2.2.5 states in part: *"IF one or both of the conditions below are found ... THEN develop a contacted casing action plan in SAP (using the "notification long text comments"), PLM, or equivalent within 60 calendar days from the date the possible casing contact is found and notify corrosion services for additional investigative testing."*

SED reviewed Willows District's corrosion records and found in 2017 two casings (equipment number: 41483856 and 41483863) met the conditions in TD-4181P-601 section 2.2.5 for the "Interrupted Casing-to-Soil Test," but were not added on the contacted casing master list for further evaluation due to an error with SAP. This section of the procedure says that SAP will automatically notify corrosion services when the test indicates a potential contact. Upon discussion with PG&E, it seems that the logic is not actually in place in SAP to generate this notification. This means that corrosion services were not notified, and no action plan was created for these casings within 60 days as required in PG&E's procedure.

SAP equipment #	Date of possible casing contact	Date added to contacted casing master list
41483856	6/28/2017	8/2/2018
41483863	6/26/2017	8/2/2018

3. PG&E Utility Procedure TD-4181P-601, Section 2.1.4 states in part: *"IF one or both of the conditions below are found ... THEN develop a contacted casing action plan in SAP (using the "notification long text comments"), PLM, or equivalent within 60 calendar days from the date the possible casing contact is found and notify corrosion services for additional investigative testing."*

SED reviewed Sierra Division's corrosion records and found the following casings were possibly contacted but were not added to the Contacted Casings Master List within 60 days:

SAP equipment #	Date of possible casing contact	Date added to contacted casing master list
41413174	9/7/2017	8/7/2018

41413184	9/7/2017	8/21/2018
41417017	9/7/2017	8/21/2018

Question Text Are construction records, maps and operating history available to appropriate operating personnel?

References 192.605(a) (192.605(b)(3))

Assets Covered PG&E Northern Area (PG&E North)

Issue Summary Title 49 CFR 192.603 (b) states: "Each operator shall keep records necessary to administer the procedures established under 49 CFR 192.605." Also, Title 49 CFR 192.605 (b) (3) states: "Making construction records, maps, and operating history available to appropriate operating personnel."

During the record review, SED identified several instances where PG&E's records, such as work requests, corrective work orders, and maintenance records, are inaccurate or not available in SAP due to errors. The following record errors led to PG&E's failure to create notifications for maintenance or corrective action per code or procedure requirements:

1. SED reviewed Burney District's exposed span inspection records and found the inspection forms for the five spans (equipment number: 41489657, 41484291, 41484300, 41489674, and 41489665) indicated the need for work requests to address minor AOCs. However, the work requests could not be found in SAP or PLM to demonstrate remedial action(s) taken.

2. SED reviewed Willows District's corrosion records and found in 2017 two casings (equipment number: 41483856 and 41483863) met the conditions in TD-4181P-601 section 2.2.5 for the "Interrupted Casing-to-Soil Test," but were not added on the contacted casing master list for further evaluation due to an error with SAP. This section of the procedure says that SAP will automatically notify corrosion services when the test indicates a potential contact. Upon discussion with PG&E, it seems that the logic is not actually in place in SAP to generate this notification. This means that corrosion services were not notified, and no action plan was created for these casings. SED had previously identified

similar instances (equipment number: 41419633 and 41402273) during PG&E Central Transmission inspection.

3. SED reviewed the Sierra Division's corrosion records and found three casings (equipment number: 41413174, 41413184 and 41417017) were possibly contacted but were not added to the Contacted Casings Master List within 60 days per PG&E TD-4181P-601 section 2.1.4.

4. SED reviewed Sierra Division's exposed span inspections records and found five spans (equipment number: 42566379, 42566381, 42566396, 42566450, and 43188036) with corrective work orders created during the 2015 inspections. The corrective notifications for the first three spans were canceled without comment or documented justification. The remaining two corrective notifications were not entered in SAP. SED observed that the 2018 inspection records had almost the same concerns documented as in 2015. There were no available records to show corrective work performed.

5. SED reviewed Sierra Division's exposed span inspections records and found three spans (equipment number: 42566329, 43188056, and 43600417) that are no longer exposed in 2015, but remained listed as exposed spans in SAP until 4/27/18 and 5/18/18.

6. During the review of pressure regulating station maintenance records in Sacramento Division, SED found that PG&E did not maintain records for valve V-18 at Elk Grove – Clarksburg Primary Station B-27 as required by 192.603(b). According to PG&E, after reviewing as-built, the asset coordinator noticed that the valve was installed in 2012 but not present in their asset database. Upon discovery, the asset was created as V-18 as well as a valve card and maintenance record form. The valve was also inaccurately tagged as V-17, so the tag was switched to V-18 on 7/13/2018. PG&E also filled in the 2 previous valve inspections for V-18 from 7/9/2017 and 6/8/2018 based on memory of the maintenance occurring.

## **Time-Dependent Threats: External Corrosion - Atmospheric (TD.ATM)**

Question Text Do records document inspection of aboveground pipe for atmospheric corrosion?

References 192.491(c) (192.481(a), 192.481(b), 192.481(c))

Assets Covered PG&E Northern Area (PG&E North)

Issue Summary Title 49 CFR §192.481(a) states, in part: *"Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows: Onshore At least once every 3 calendar years, but with intervals not exceeding 39 months."*

SED reviewed Sacramento Division's exposed span inspection records and found that span 43188090 was discovered to not be on a maintenance plan on 1/3/2018. No records of prior inspections could be found; thus the span exceeded the 39-month inspection requirement.

Title 49 CFR §192.481(b) states, in part: *"During inspections the operator must give particular attention to pipe at soil-to-air interfaces..."*

SED reviewed Sacramento Division's exposed span inspection records and found that, in the 2015 inspection of span 42713199, the air-to-soil transition was not inspected due to excessive vegetation. No follow-up inspection was performed.

Title 49 CFR 192.481 (c) states: "If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion as required by 49 CFR 192.479."

1. SED reviewed Burney District's exposed span inspection records and found the inspection forms for the following five spans indicated work requests were opened to address minor AOCs. However, the work requests could not be found in SAP or PLM to demonstrate remedial action(s) taken.

- 41489657
- 41484291
- 41484300
- 41489674
- 41489665

2. SED reviewed Meridian District's exposed span inspections records and found the following four spans (equipment

numbers with Work Requests (WR)) that were canceled without comment or documented justification after their inspections in 2015 and 2016:

- 41427278
- 41427971
- 41427989
- 49932083

3. SED reviewed Sierra Division's exposed span inspections records and found the following equipment with corrective work orders created during the 2015 inspections. The corrective notifications for the first three spans were canceled without comment or documented justification. The remaining two corrective notifications were never entered in SAP. SED observed that the 2018 inspection records had almost the same concerns documented as in 2015. There were no available records to show corrective work performed.

- 42566379, WR # 110144579
- 42566381, WR # 110144580
- 42566396, WR # 110144576
- 42566450, WR # 110144586
- 43188036, WR # 110144577

4. SED reviewed Sacramento Division's span inspection records and found span 44273697 was inspected in 2016 when it was placed on a maintenance plan, and major coating issues were found. Corrosion engineering recommended creating a corrective notification to re-coat the span, but the corrective notification was not generated, and no corrective action was performed. The span was inspected again on 8/16/18. At that time, corrective notification 114898239 was created on 8/18/18 to remediate the span.



# Concerns

## **Design and Construction: Design of Pipe - Overpressure Protection (DC.DPCOPP)**

Question Text Do pressure relieving or pressure limiting devices meet the requirements of 192.199?

References 192.199(a) (192.199(b), 192.199(c), 192.199(d), 192.199(e), 192.199(f), 192.199(g), 192.199(h))

Assets Covered PG&E Northern Area (PG&E North)

Issue Summary During the field inspection at MLV Buckeye PLS in Willows District, SED noticed the cap on the blowdown stack was open. This cap should be kept closed to keep rain, dirt, etc. out of the blowdown stack. Please provide SED an update on any remedial actions taken.

Question Text Do pressure relief or pressure limiting stations comply with the requirements of 192.201?

References 192.201(a) (192.201(b), 192.201(c))

Assets Covered PG&E Northern Area (PG&E North)

Issue Summary During the field inspection at station GT C-30 in Sacramento Division, SED witnessed a leak originating from a weld at a gauge tap when a soap test was performed. A leak number (114933194) and PM (43450512) was created to repair this issue.

## **Maintenance and Operations: ROW Markers, Patrols, Leakage Survey and Monitoring (MO.RW)**

Question Text Are line markers placed and maintained as required?

References 192.707(a) (192.707(b), 192.707(c), 192.707(d))

Assets Covered PG&E Northern Area (PG&E North)

Issue Summary During the field inspection in Meridian District, SED found a downed marker post that had been hit by a vehicle. The marker was for L-302 and was located near the rectifier at Tule Rd MER. Please provide SED a status update on the

remediation.

## **Time-Dependent Threats: External Corrosion - Atmospheric (TD.ATM)**

Question Text Is pipe that is exposed to atmospheric corrosion protected?

References 192.481(b) (192.481(c), 192.479(a), 192.479(b), 192.479(c))

Assets Covered PG&E Northern Area (PG&E North)

Issue Summary During the field inspection at the Tionesta compressor station in Burney District, SED noticed the wraps at the air-to-soil transitions for both the intake and discharge locations of both lines 400 and 401 were coming loose.

During the field inspection at MLV Buckeye Pressure limiting station in Willows District, SED noticed atmospheric corrosion on a vent stack at MLV Buckeye PLS.

Please provide SED an update on any remedial actions taken.