

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



June 12, 2017

GI-2016-10-PGE29-11

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

SUBJECT: General Order 112 Gas Inspection of PG&E's Welding and Joining Program

Dear Mr. Singh:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112 inspection of Pacific Gas & Electric (PG&E) Company's Welding and Joining Program from October 31 – November 4, 2016.¹ The inspection included an evaluation of PG&E's Welding and Plastic Joining Standards, Procedures and qualification records.

SED's findings are noted in the Summary of Inspection Findings (Summary) which is enclosed with this letter. The Summary reflects only those particular records that SED inspected during the audit.

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 observations noted in the Summary.

If you have any questions, please contact Sikandar Khatri at (415) 703-2565 or by email at Sikandar.Khatri@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Kenneth A. Bruno".

Kenneth Bruno - Program Manager
Safety and Enforcement Division

Enclosure: Summary of Inspection Findings

cc: Dennis Lee, SED
Mike Bradley, PG&E Compliance Gas Operations
Susie Richmond, PG&E Gas Operations Regulatory Compliance and Risk Analysis

¹ General Order 112-F was adopted by the Commission on June 25, 2015 via Decision 15-06-044.

SUMMARY OF INSPECTION FINDINGS

I. Probable Violations

1. Title 49 Code of Federal Regulations §192.287 Plastic pipe: Inspection of joints states that:

“No person may carry out the inspection of joints in plastic pipes required by §§192.273(c) and 192.285(b) unless that person has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure.”

SED found that PG&E procedure D-34 does not address this section of the federal Code. Hence, PG&E needs to:

- (a) incorporate it in relevant standards and procedures
- (b) let SED know the required knowledge and experience that PG&E uses to designate the person(s) to inspect plastic pipe joints

2. Title 49 Code of Federal Regulations §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...”

PG&E procedure PG&E Procedure TD-4160P-51_Rev0, Section 1.1 (4) states:

“In special cases of Branch Welds, Wide Gap Welds, Sleeve Welds, Multiple Repair Welds, and Back Weld, the designator of “6” will be used for all conditions of the grouping designator. If an all conditions WPS is available, individual procedures for each descriptor may not be available (i.e., 166Sc-Br is available but the 122Sc-Br is not), thereby grouping and simplifying the WPS choices”

And section 2.3. states:

“Determine pipe diameter being joined and select appropriate pipe diameter grouping. See Table 2, “Pipe Diameter Grouping Designator.”

Table 2. Pipe Diameter Grouping Designator

| Option | Description |
|--------|-------------------------------|
| 1 | Diameters < 2.375" OD |
| 2 | Diameters 2.375" to 12.75" OD |
| 3 | Diameters > 12.75" OD |
| 6 | All Diameters |

SED observed that for the following weld, wrong Welding Procedure Specification (WPS) was used.

Project Order Number: 41914988
Project ID: T-377-14
Line: L-134A
Location: Firebaugh, CA
Date: 10/29/2014
Weld Number: TW-179
Components: 4" Pipeline & 1" Save-A-Valve
WPS Used: 122Sc-BR

In this case, procedure 122S_c-BR has been mentioned. However, since a 1" and 4" pipe is used in this weld, a WPS with a '6' Pipe Diameter Grouping Designator (based on Table 2 above) should have been used to select the appropriate WPS.

In addition, the procedure 122S_c-BR was an interim procedure which expired on 6/30/2013.

II. Areas of Concern/ Observations/Recommendations

SED made following observations during the audit.

1. The “General Requirements”, section 10 (B) of PG&E document D-34 talks about requalification. It says communicate if there is a pressure test failure. It does not:
 - (a) Specify the "timeframe" in which the joiners have to communicate?
 - (b) Outline the 'next step(s)' for the joiner who made the failed joint such as whether continue to work or stop etc.

SED also recommends keeping the records as outlined in PG&E document D-34, Section 10 B.

2. Since, PG&E does not consider D-34 as an Operation and Maintenance (O&M) document, therefore in addition to D-34, the instructions regarding the communication of pressure test failure (as outlined above in 1) should appear in all relevant plastic joining related O&M documents for the knowledge of plastic joiners.
3. PG&E procedure, TD-4170P-34 has instructions to make a Butt joint. It outlines steps leading to Sections 4 and 5 which are about “visual inspection' and “remove unacceptable connections” respectively. However, there are no instructions for ‘pressure/leak test’. This information needs to be included in this and other documents where necessary.

Please make the change in appropriate documents and provide an update to SED.

4. Title 49 Code of Federal Regulations §192.283 Plastic pipe: Qualifying joining procedures, section (a) and (b) outlines that the procedures must be qualified by subjecting specimen joints to certain tests, please refer to these code sections.

SED requested PG&E to provide documents showing that procedures used by PG&E have been qualified as per the above referred code provision. PG&E provided a report produced by the consultants, Northeast Gas Association (NGA). This report recommended re-qualifying the procedures every five years citing the examples that there may be changes in material, techniques, equipment etc. that may require different temperatures or other parameters.

In addition, Title 49 Code of Federal Regulations §192.3 outlines the various standards incorporated by reference, such as American Society of Testing Material, ASTM D-2513. Since, these standards change, these may require updating of PG&E’s qualifying procedures.

SED noted that PG&E’s procedures for heat fusion and electro-fusion were qualified in 1987. Hence, SED recommends that PG&E should make sure that the qualified procedures address all material and equipment used by PG&E currently. During the audit, PG&E mentioned that all plastic joining procedures are being re-qualified. Please provide an update.