



**Public Utilities Commission**  
STATE OF CALIFORNIA

**Citation Date:** December 23, 2016  
**Citation #:** D.16-09-055 G.16-12-001

**Safety and Enforcement Division Investigation Report**

**Notice of Violations**

**Utility:** Pacific Gas & Electric Company (PG&E)

**Utility Operating Unit:** PG&E's Gas Business Unit

**Subject of Report:**

Self-identified Finding –

- (1) The Utility did not ensure that its contractor inspectors were qualified to perform Atmospheric Corrosion (AC) inspections of PG&E's gas distribution gas meters located in its seven Divisions in 2014 as per Title 49, CFR, § 192.805 (b).

SED Findings –

- (2) Utility did not complete AC inspections of exposed distribution pipeline located in seven Divisions within 39 months from the previous inspections as per Title 49, CFR, § 192.481 (a).
- (3) Utility did not report the self-identified violations to the CPUC within 10 days of the discovery as per CPUC's Resolution ALJ-274.

**SED Investigator:** Banu Acimis

**Summary:**

**1. Title 49, Code of Federal Regulations (CFR), § 192.805 Qualification Program.**

§192.805 states in part:

*"Each operator shall have and follow a written qualification program. The program shall include provisions to:*

*b) Ensure through evaluation that individuals performing covered tasks are qualified;.."*

The California Public Utilities Commission's (CPUC) Safety and Enforcement Division (SED) investigated PG&E's self-identified violations and determined that PG&E is in violation of CFR, Part 192, Subpart N—Qualification of Pipeline Personnel, §192.805 (b) because PG&E failed to ensure that 101 contractor inspectors were qualified to perform AC inspections of gas distribution meters in PG&E's seven Divisions.

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SED determined that the violation of operator qualification of contractor employees is a repeat violation that SED previously identified as a result of its investigation and issued Citation 16-03-001 on 3/29/16 with a penalty amount of \$200,000.

In this case, 101 non-operator qualified inspectors conducted AC inspections between February 2014 and May of 2014, and also in November, 2014. SED determined that this is violation of Title 49 CFR § 192.805(b). D.16-09-055 limits the maximum amount of a penalty to \$8 million per citation.<sup>1</sup>

Therefore, SED assesses a penalty of \$50,000 for each non-operator qualified contractor inspector, with a total financial penalty amount of \$5,050,000 for 101 employees per §192.805 (b).

## 2. Title 49, CFR, § 192.481 Atmospheric corrosion control: Monitoring.

§192.481 states in part:

*“(a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows: If the pipeline is located onshore, then the frequency of inspections is at least once every 3 calendar years, but within intervals not exceeding 39 months.”*

SED determined that PG&E is in violation of CFR, Part 192, Subpart I—Requirements for Corrosion Control, §192.481 (a) Atmospheric corrosion control because in 2014 PG&E did not complete the inspection of all of its distribution pipeline system that is exposed to atmosphere for evidence of AC within 39 months from the previous inspections in its seven Divisions.

SED determined that PG&E was not able to complete the AC inspections of distribution gas meters located in its seven Divisions within 39 months from the previous valid inspections, completed before 2014.

Therefore, SED concluded that PG&E is in violation of CFR, Part 192, Subpart I—Requirements for Corrosion Control, §192.481 (a) because in 2014 PG&E did not complete the inspection of all of its distribution pipeline system that is exposed to the atmosphere for evidence of AC within 39 months from the previous valid inspections, prior to 2014, in its seven Divisions. D.16-09-055 limits the maximum amount of a penalty to \$8 million per citation.<sup>2</sup> SED also assesses a penalty of \$50,000 for late AC inspections in each Division, with a total penalty of \$350,000 for seven Divisions per 192.481 (a).

<sup>1</sup> See D.16-09-055, mimeo, pp. 86-87, Conclusion of Law 8.

<sup>2</sup> See D.16-09-055, mimeo, pp. 86-87, Conclusion of Law 8.

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### 3. CPUC's Resolution ALJ-274

SED also noted that even though PG&E discovered the system-wide operator qualification deficiency of its contractor inspectors in 2015 and early 2016, it did not report it to SED until September 14, 2016. Therefore, PG&E also violated the 10-day self-reporting requirement of CPUC Resolution ALJ-274, which was in effect at the time of the violation. D.16-09-055 limits the maximum amount of a penalty to \$8 million per citation.<sup>3</sup> To keep within this limit, SED assesses a penalty of \$50,000 for this single violation.

Therefore, SED assesses a penalty of \$50,000 for this violation.

#### **Total Penalty Amount**

As a result of all violations determined by SED and identified in this report, the total amount of this citation is \$5,450,000.

#### ***Findings:***

On September 14, 2016, in accordance with Resolution ALJ-274, PG&E self-reported to the CPUC's SED a notification of violations discovered in November 2015 related to AC Inspections of its gas distribution meters performed in 2014 by non-operator qualified personnel.

After PG&E reported the self-identified violations, SED's Gas Safety and Reliability Branch (GSRB) staff investigated PG&E's findings reported on September 14, 2016 and also conducted an audit of PG&E's AC inspection program, training and qualifications process for contractor inspectors who performed AC inspections in 2014 and 2015, their evaluation and qualification records, and PG&E's relevant AC inspection standards and procedures from October 24 through 26, 2016.

During the audit, SED also reviewed contracts between PG&E and contractor companies, their Alcohol Misuse and Drug Prevention Plans, and AC inspectors' drug & alcohol test results for the years 2014 & 2015.

In its self-report, PG&E explained that in 2015, as part of SED's Sierra Division Audit, SED staff had requested operator qualification (OQ) records of personnel who performed AC inspections in 2014. While responding to SED's record request, PG&E discovered that some contract personnel were not qualified when they performed AC inspections in Sierra Division in 2014. PG&E submitted this discovery to SED on December 2015 and SED included this finding as a violation in its Sierra Division Audit Letter, see Enclosure 3.

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<sup>3</sup> Id.

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After the initial discovery of the problem with its contractor employees' qualification in Sierra Division in November 2015, PG&E initiated a review of all AC inspections completed system-wide in 2014. As a result, PG&E identified other AC inspections performed by non-operator qualified personnel in 2014 in six other Divisions consist of De Anza, Diablo, North Bay, Peninsula, Sacramento, and San Jose. PG&E discovered that approximately 35% of the total number of 1.5 million AC inspections that were completed in 2014 in PG&E's seven Divisions were performed by non-operator qualified personnel.

However, even though PG&E discovered the deficiency in its seven Divisions in 2015, it did not report it to SED until September 2016. PG&E explained that it did not provide timely notification of this self-report because of a lapse in its system. PG&E stated that the findings were delayed due to three major factors: inadequate tracking of self-reports, time spent to fully identify the problem before reporting, and time spent to fully identify corrective and preventive actions before reporting.

SED determined that PG&E notification did not meet the 10-day requirement as per CPUC's Resolution ALJ-274 which was in effect at the time of the violation.

PG&E explained that in order to ensure that it complies with CPUC's Resolution ALJ-274 and to prevent similar delays in the future, PG&E made several improvements and implemented additional measures in its reporting system such as enhanced tracking and review of potential issues.

### ***PG&E's Self-identified Violations:***

PG&E reported that although all contractor employees received training from PG&E on how to conduct AC inspection covered tasks in 2014, a total of 101 employees did not complete one or more components of the required qualification process and were missing some of necessary operator qualification records.

Upon the discovery of invalid AC inspections in PG&E's seven Divisions, PG&E started re-inspecting its aboveground gas meters and associated equipment which were previously inspected by non-operator qualified individuals. PG&E reported that as of September 2016, approximately 64% of the re-inspections have been completed and the remaining 36% will be performed by the second quarter of 2017.

SED reviewed PG&E's 2014 AC Inspection Program details and noted the following:

- PG&E utilized two vendors to perform AC inspections in 2014.
- There were a total of 1,727,130 AC inspections performed by approximately 1,046 contractor inspectors in PG&E's all Divisions in 2014.
- There were a total of 1,558,209 AC inspections completed by approximately 275 inspectors in seven Divisions in 2014.

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- Approximately 35% (550,656 inspections) of the total number of inspections were completed by 101 non-operator qualified inspectors in seven Divisions.
- From 2011 through 2013, PG&E administered qualifications for both contractors and employees by training them on three web-based training classes and performing evaluations.
- In 2014, PG&E hired a third party vendor, Veriforce, which administered OQ of contractor employees. The Veriforce qualification process was different than the previous years and had only one covered task training and two evaluations.
- From 2011 through 2013, Alisto Engineering Group Inc. performed qualification verification of AC inspectors.
- In 2014, PG&E required AC inspectors to hold appropriate qualifications but did not have a formal process in place to verify AC inspector OQs; therefore, PG&E did not verify the qualifications of the inspectors prior to performing the inspections.
- In 2014, PG&E did not have any internal or third-party quality assurance (QA) and quality control (QC) system for AC inspections.
- In 2015, PG&E hired a third-party contractor, Canus Corporation, to perform qualification verification of AC inspectors prior to the work being performed.
- In 2016, PG&E employed a third party to review all operator qualifications for contract personnel performing AC inspections.
- In 2016, PG&E's third party contractor, E2 Engineering Consulting, Inc., has performed QA/QC work within PG&E's Gas Transmission & Distribution Construction Management group and PG&E's Gas Quality Management group has overseen quality control of their work.
- A total of 13 meters and 41 risers were identified to have "Severe" grading by unqualified inspectors in seven Divisions in 2014. On the other hand, re-inspections of the same distribution system performed by qualified inspectors so far have revealed 10,725 meters and 7,486 risers with severe corrosion indications.
- The unqualified inspectors identified only approximately 0.3% of the total number of 18,211 severe indications that have thus far been discovered as a result of re-inspections performed by qualified inspectors in PG&E's seven Divisions. Moreover, PG&E must still conduct approximately 36% of the half a million re-inspections; therefore, the number of previously unidentified severe conditions may increase.

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### ***Violations Identified by SED and Severity of Those Violations:***

Since approximately half a million AC inspections of the gas distribution meters located in seven Divisions performed by non-operator qualified contractor employees in 2014, they were not valid and required to be repeated. PG&E has started performing the repeat inspections discovered invalid from 2014 and would complete all of the re-inspections by the second quarter of 2017. PG&E's further investigation found that approximately 63,498 of the 550,656 locations have been leak surveyed before the compliance due date of September 2014.

SED found that even though approximately 12% of the locations were inspected by leak surveyors for indications of AC within intervals not exceeding 39 months, the inspections of the remaining approximately 487,000 gas distribution meters were required to be completed in 2016 and 2017; therefore, once completed, they would be inspected beyond the allowed 39-month monitoring cycle, as required by §192.481.

As a result of this investigation, SED determined that the root cause of having non-operator qualified personnel to perform AC inspections in PG&E's system was PG&E's lack of operator qualification verification, quality control, and quality assurance.

Therefore, SED concluded the following:

1. PG&E failed to properly train and qualify its contractor employees to perform AC inspections.
2. PG&E failed to verify the qualifications of its contractor employees prior to performing work.
3. PG&E failed to have any internal or third-party quality control and quality assurance controls in place to ensure that its contractor employees were operator qualified in 2014.
4. PG&E failed to have an effective procedure for QA/QC of the Atmospheric Inspections performed in 2014.
5. PG&E failed to inspect all of its gas distribution meters located in seven Divisions for indications of AC within intervals not exceeding 39 months.
6. PG&E failed to provide the notification of the self-identified within 10 days as per Resolution ALJ-274.

Commission Resolution ALJ-274 requires SED staff to consider factors in Public Utilities Code § 2104.5 for self-identified and self-corrected violations. In determining whether a citation should be issued and the severity of that violation, SED has considered the size of PG&E, the gravity of the self-reported violation, and the good faith demonstrated by PG&E in its efforts to achieve compliance going forward.

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In that regard, SED is aware that:

- 1) PG&E's violation of CFR, §§ 192.481 (a) & 192.805 (b) did not result in any injuries or damages;
- 2) PG&E has made significant changes to its training and qualification process in order to ensure its inspectors are operator qualified before doing inspections, since the discovery of the OQ problems;
- 3) PG&E has also improved QA/QC process not only to verify that inspectors are operator qualified prior to performing work but also to verify the quality of work performed in the field;
- 4) The improved QA/QC procedure requires performing re-inspections of the facilities that were completed by inspectors and comparing the results with the original findings to determine the accurate grading for corrective actions;
- 5) PG&E has initiated corrective actions by performing re-inspections of its distribution system which was originally inspected by non-operator qualified personnel. PG&E has completed the majority of the re-inspections thus far and the remaining will be completed by the second quarter of 2017;
- 6) PG&E has also initiated taking mitigative actions for more than 18,000 severe corrosion problems discovered as a result of re-inspections;
- 7) Additionally, PG&E made several improvements in its reporting system in order to enhance tracking of self-identified violations and implemented additional measures to prevent delays of potential issues as required by CPUC Resolution ALJ-274.

SED recognized PG&E's mitigative actions taken to correct the violations and preventive measures taken to prevent future similar occurrences from happening. SED also acknowledged PG&E's efforts to improve its training and qualification of inspectors as well as to strengthen quality control systems to ensure qualification of personnel and quality of work performed in the field.

However, SED also determined that the violations affected PG&E's seven Divisions and resulted in about half a million re-inspections. As a result of the invalid inspections, PG&E was also unaware of any significant corrosion problems that existed in its system until those distribution assets were properly inspected by qualified personnel. Additionally, some of the severe corrosion issues that recently identified are still pending corrective actions.

It is imperative that PG&E operate its gas systems in compliance with GO 112-F and in a manner that promotes and safeguards the health and safety of the public. While it is fortunate that these self-reported violations did not result in any injuries or damages, they are, nonetheless, indicators of multiple deficiencies in PG&E's training and qualification program as well as QA/QC systems which

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are integral components of performing quality work to ensure safety of the public and utility employees.

In order to assure safe and reliable gas service, PG&E must train and qualify all employees including contractor inspectors in compliance with Title 49 CFR §192.805(b) prior to performing covered tasks and verify the qualification of all personnel for the covered tasks that they are responsible for performing. PG&E must also perform atmospheric corrosion inspections of each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of AC at least once every three calendar years, but intervals not exceeding 39 months.

SED concluded that PG&E potentially created a hazardous condition for the public and utility employees by not ensuring that individuals performing AC inspection covered tasks were qualified as required by Title 49, CFR, § 192.805 (b) and not properly inspecting its distribution gas meters that are exposed to the atmosphere for evidence of AC at least once every 39 months as required by Title 49, CFR, § 192.481 (a).

### **Remedies:**

SED identifies following remedial measures to address the violations identified herein. Following these remedies are conditions of reducing the fine amount to \$5.45 million.

1. PG&E must agree that it will not have another repeat violation of Title 49 CFR §192.805 or its successor requirement. If PG&E breaks this promise, that will factor into consideration of the severity of the next violation and SED will consider doing a formal investigation, and there may be other violations of Commission Rule of Practice and Procedure 1.1.
2. PG&E must continue to implement each of the measures identified above under the Section above, entitled "Violations Identified by SED and Severity of Those Violations".
3. PG&E shareholders pay for the entire cost of the work of the 101 non-operator qualified contractor AC inspections identified in this report. PG&E shall provide SED with a total cost of these inspections.