

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

September 4, 2016

GI-2016-05-SWG30-07

Jerry Schmitz
Vice President/Engineering
Southwest Gas Corporation
P. O. Box 98510, LVA-581
Las Vegas, NV 89193-8510

SUBJECT: General Order 112 Gas Inspection of Southwest Gas Corporation's Operator Qualification Plan

Dear Mr. Schmitz:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112¹ inspection of Southwest Gas Corporation's (SWG) Operator Qualification Plan from May 23 through 27, 2016. SED's findings are noted in the Summary of Inspection Findings (Summary) which is enclosed with this letter. The Summary reflects only those particular written procedures that SED reviewed during the inspection.

Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by SWG to address the violations and observations noted in the Summary. Pursuant to Commission Resolution ALJ-274, SED staff has the authority to issue a citation for each violation found during the inspection.

If you have any questions, please contact Alula Gebremedhin at (415) 703-1816 or by email at ag5@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

Enclosure: Summary of Inspection Findings

cc: Erich Trombley, SWG, Manager/Engineering Staff
Laurie Brown, SWG Administrator/Compliance Engineering
Dennis Lee, SED
Terence Eng, SED

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

SUMMARY OF INSPECTION FINDINGS

A. SED Findings

1. Title 49 CFR §192.805 states:

“Each Operator shall have and follow a written qualification program.”

SWG’s OQ Plan Section 11.1.1.2 states in part,

“Conduct an annual effectiveness review by running the LMS report on all failed covered tasks for Company and contractor personnel, incident critiques and OQ Disqualification Reports.”

However, SWG did not provide records of an annual effectiveness review for the 2014 calendar year.

On 06/07/2016, in its post-inspection note, SWG submitted a record of the 2014 effectiveness review document dated 06/06/2016 (after the inspection) and stated;

“The report was completed last year; however, it was lost or misplaced, as such GOSS had to recreate the report with the 2014 data.”

Therefore, SWG is in violation of 192.805 for failing to follow its own procedure to conduct the annual effectiveness review on time.

B. Areas of Concern / Observations / Recommendations

1. Title 49 CFR 192.803 Definitions states:

“Abnormal operating condition (AOC) means a condition identified by the operator that may indicate a malfunction of a component or deviation from normal operations that may:

- (a) Indicate a condition exceeding design limits; or*
- (b) Result in a hazard(s) to persons, property, or the environment.”*

SWG’s Operation Manual, titled “*Abnormal/ Unusual Operating Conditions Procedure*”, lists the following conditions as Unusual Operating Conditions instead of Abnormal Operating conditions, which will affect the planned remediation time.

- Inoperable Valve,
- Inadequate Support – excessive bending or loading on facilities,
- Damaged and/or lost test station/test point leads,
- Damaged and/or inadequate pipe coating,
- Corrosion occurring on pipelines operating at or above 20% SMYS and resulting in an SRC,
- Exposed main and/or service lines,
- Ground level riser buried too deep,
- Bent Riser,
- Pipe nicked during excavation,
- Missing/damaged support system,
- Atmospheric corrosion on above ground facilities,

SED believes that most of, if not all, the conditions listed above meet the definition of AOC as per 192.803, and recommends SWG to review and revise those accordingly.

2. Title 49 CFR §192.807 Record keeping states:

“Each operator shall maintain records that demonstrate compliance with this subpart.

(a) Qualification records shall include:

- (1) Identification of qualified individual(s);*
- (2) Identification of the covered tasks the individual is qualified to perform;*
- (3) Date(s) of current qualification; and*
- (4) Qualification method(s).*

(b) Records supporting an individual's current qualification (emphasis added) shall be maintained while the individual is performing the covered task”

SWG retains test results of qualifications to show a “pass” or “fail”, but does not keep records of the actual test or numerical results of each individual’s written tests. SED believes SWG’s record keeping practice could improve upon the 192.807(b) requirements if SWG also retained these records.

3. Title 49 CFR §192.805 (g) states:

“Identify those covered tasks and the intervals at which evaluation of the individual’s qualifications is needed”

3.1.

SWG OQ plan section 5.10 states, *“5.10 Requalification of employees may include refresher training for specific covered tasks and must be completed by the methods listed in the covered task list.”*

The ASME B31Q project team, which is assigned to develop a consensus code on pipeline personnel qualification, advises in its standard:

“9.5 Subsequent Qualification Interval

9.5.2 Methods. The subsequent qualification interval may be established by one of the following methods:

- (a) SME consensus in accordance with para. 9.5.3*
- (b) difficulty and importance or difficulty, importance, and frequency analysis in accordance with para. 9.5.4*
- (c) adoption of Nonmandatory Appendix 5A subsequent qualification interval(s) in accordance with para. 9.5.5*
- (d) any other process that provides a rational and verifiable basis for the interval*

SWG’s covered task list covers the requalification interval including methods of qualification; however, it does not state the basis how those intervals were established.

On 06/07/2016, SWG responded in its post-inspection note stating:

“As discussed, Southwest Gas has voluntarily adopted certain elements of B31Q in its Operator Qualification Plan and agrees with Staff’s recommendation to review the re-evaluation intervals for covered tasks. Upon completion of this activity, any changes to the intervals will be incorporated into the Operator Qualification Plan and Staff will receive a copy through the regular manual update process.”

SED recommends SWG to consider establishing the requalification interval as per the method recommended under ASME B31Q Section 9.5.2.

3.2.

On a side note, SWG uses in its procedure the same term “Requalification” for both “Subsequent Evaluation” and “Requalification” (when an individual could not pass the initial qualification). SED found it difficult to differentiate the two separate meanings from the same term.

On 06/07/2016, SWG responded in its post-inspection note stating:

“Southwest Gas agrees with Staff and has revised the Terms and Definitions section of its Operator Qualification Plan to include the definition of “Requalification” as it pertains to

Southwest Gas. The change has been reflected in the pending release of the Operator Qualification Plan effective July 31, 2016.

SED agrees with the corrective plan. This note serves only for the purpose of record and SWG need not to respond. SED will check the update in future inspections.

4. SWG OQ Plan Section 2.1 states,

“2. WORKERS SUPPLIED THROUGH A MUTUAL ASSISTANCE AGREEMENT OR ACQUISITION

*2.1 The Company may accept qualifications obtained under the OQ (Operator Qualification) program of other operators and/or contractors with which the Company has a written Mutual Assistance Agreement, **or (emphasis added)** when the following conditions have been met:*

- The OQ program complies with all provisions of CFR 49 Part 192.801-809*
- The standards used for qualification are acceptable to the Company*
- A documented audit has been conducted of the operator’s program”*

SED believes that regardless of the content of the “Mutual Assistance Agreement”, the three conditions mentioned above have to be met in order to perform any covered task, and recommends revising the above section to reflect that, specifically to change or remove the word “or” from the section.

On 06/07/2016, SWG responded in its post-inspection note stating:

“...Regarding Staff’s recommendation to revise Section 2.1 of the Operator Qualification Plan to remove the word “or,” Southwest Gas agrees and the change has been reflected in the pending release of the Operator Qualification Plan effective July 31, 2016”

SED agrees with the corrective plan. This note serves only for the purpose of record and SWG need not to respond. SED will check the update in future inspections.

- 5.** During SWG presentation of sample training modules, SED found that the training material for covered task “CT-Testing requirements and methods for testing pipeline facilities” does not cover some basic elements of Pressure Test (Example: hydro test or using other test mediums, leak test, spike test, temperature variation, elevation variation and others).

On 06/07/2016, SWG responded in its post-inspection note stating:

“As discussed with Staff, Southwest Gas is currently revising the training module, specific to the basic elements of pressure testing. The revised training module is expected to be completed by December 31, 2016.”

SED agrees with the corrective plan. This note serves only for the purpose of record and SWG need not to respond. SED will check the update in future inspections.

6. Title 49 CFR §192.805 (a) states:

“ (a) Identify Covered Task ”

The SWG master covered task list is not updated to reflect some of the covered task’s name changes on the training module.

On 06/07/2016, SWG responded in its post-inspection note stating:

“As discussed with Staff, Southwest Gas is in the process of revising its naming convention for covered tasks. Upon completion, the changes will be incorporated into the Operator Qualification Plan and Staff will receive a copy through the regular manual update process. Southwest Gas agrees with Staff’s recommendation to reference the covered task list in the Operator Qualification Plan. The change has been reflected in the pending release of the Operator Qualification Plan effective July 31, 2016.”

SED agrees with the corrective plan. This note serves only for the purpose of record and SWG need not to respond. SED will check the update in future inspections.

7. SWG OQ plan Section 9: Management of Change states in part:

“9.1 Operations and/or Engineering Staff will evaluate changes in Company policies/procedures (emphasis added) or the use of new equipment to determine the impact on covered tasks. At a minimum the evaluation will determine:

- If a current covered task is affected*
- If a new covered task needs to be created*
- What changes are necessary to the qualification module or if a new module needs to be created*
- The method for communicating the change and the requalification of appropriate Company employees and contractor personnel”*

SED recommends including a process to receive feedback from qualified individuals during the effectiveness review or subsequent evaluations.

On 06/07/2016, SWG responded in its post-inspection note stating:

“In anticipation of the Operator Qualification, Cost Recovery, and Other Pipeline Safety Changes final rule (Docket No. PHMSA-2013-0163), Southwest Gas is in the process of reviewing and revising the program effectiveness section, which will include a method of receiving feedback from employees on the effectiveness of training. ”

SED agrees with the corrective plan. This note serves only for the purpose of record and SWG need not to respond. SED will check the update in future inspections.

- 8.** During discussion, SWG explained that any changes would be communicated with employees at least 30 days before the effective date of the changes. In addition, personnel (employee or contractor) affected by the changes will be trained and qualified before the effective date.

However, the above is not explicitly stated in the OQ plan. SED recommends SWG explicitly address the above in its plan.

On 06/07/2016, SWG responded in its post-inspection note stating:

“Southwest Gas is revising its Operator Qualification Plan to clarify that changes will be communicated at least 30 days in advance of the effective date and that employee and contractor training related to the changes will occur before the effective date. This revision will be reflected in the December 2016 release of the Operations Manual.”

SED agrees with the corrective plan. This note serves only for the purpose of record and SWG need not to respond. SED will check the update in future inspections.

9. SWG uses a program, Learning Management System (LMS), to track a list of qualified employees. SED recommends using the same program for automated notification of the requalification (subsequent evaluation) due date, in addition to the division supervisors’ manual tracking system.

On 06/07/2016, SWG responded in its post-inspection note stating:

“Southwest Gas agrees with Staff’s recommendation and has implemented automated notifications through its LMS system.”

SED agrees with the corrective plan. This note serves only for the purpose of record and SWG need not to respond. SED will check the update in future inspections.