

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

April 3, 2017

GI-2017-01-SWG30-03

Jerry Schmitz (jerry.schmitz@swgas.com)Vice President/Engineering
Southwest Gas Corporation
P. O. Box 98510, LVA-581
Las Vegas, NV 89193-8510

SUBJECT: General Order 112-F Gas Inspection of Southwest Gas Corporation's Operations and Maintenance Plan

Dear Mr. Schmitz:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-F inspection of Southwest Gas Corporation's (SWG) Operations and Maintenance Plan from January 23 through 27, 2017. 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.

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

Sincerely,

Kenneth Bruno
Program Manager
Safety and Enforcement Division, CPUC

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

Enclosures: Summary of Inspection Findings
2016 SWG O&M Plan Inspection Closure Letter

cc:

Erich Trombley, SouthWest Gas
Laurie Brown, SouthWest Gas
Dennis Lee, SED
Terence Eng, SED

SUMMARY OF INSPECTION FINDINGS

A. SED Findings

SED found no violations.

B. Areas of Concern / Observations / Recommendations

1. Investigation of failures: Title 49 CFR §192.617 states:

“Each operator shall establish procedures for analyzing accidents and failures, including the selection of sample of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of recurrence.”

SWG DS-Material Investigation (MI) Procedure, Section 1.1.4.1 states:

“1.1.4.1 When a sample cannot be removed, due to operational or municipality constraints, the sample does not need to be submitted. However, an MI Data Sheet must to be completed and submitted. In addition, Laboratory Services must be notified through e-mail to laboratoryservices@swgas.com.”

However, the procedure does not provide guidance on what kind of information SWG needs to capture on the MI Data Sheet for full analysis. SWG Customer Service manual for “Material Investigation Program” provides details of information on how to complete the MI Data Sheet. SED recommends the SWG DS-Material Investigation (MI) Procedure to have similar guidance.

2. The following are follow up requests for the concerns raised during the 2016 inspection of SWG’s O&M plan inspection.

2.1. Title 49 CFR §192.463(c) External corrosion control: Cathodic protection states:

“The amount of cathodic protection must be controlled so as not to damage the protective coating or the pipe.”

SWG CC-Corrosion Control Policy, Section 2.2.7 states:

“The amount of cathodic protection must be controlled so as not to damage the protective coating or the pipe. This is accomplished by limiting the maximum “on” pipe-to-soil potential to -2.500 volts.”

SED recommends SWG to consider Pipeline and Hazardous Materials Safety Administration (PHMSA) Corrosion Enforcement Guidance for 192.463(c) which discusses, as shown

below, the need for controlling excessive polarized potentials to prevent coating disbondment and hydrogen embrittlement.

PHMSA Corrosion Enforcement Guidance for 192.463(c) states under guidance information:

“1. The use of excessive polarized potentials, more negative than approximately -1200mV, on some coated pipelines may lead to disbondment of the coating. (The amount of CP current required is directly proportional to the quality and integrity of the coating).

2. Excessive impressed CP may result in the generation of hydrogen which may cause (hydrogen) embrittlement of steel structures. (Particularly in higher strength steel as specified for API-5L grade X70 and higher pipe and in older steel pipe with hard spots).”

If available, please provide any engineering justification conducted or base line assessment in order to substantiate the -2.500 volts value.

Please also provide several examples showing the ON and Instant OFF reads where SWG found ON Potential reads more negative than -2.5V, including SWG’s actions taken afterwards.

2.2. Title 49 CFR §192.727(g) Abandonment or deactivation of facilities states:

“Each pipeline abandoned in place must be disconnected from all sources and supplies of gas; purged of gas; in the case of offshore pipelines, filled with water or inert materials; and sealed at the ends. However, the pipeline need not be purged when the volume of gas is so small that there is no potential hazard.”

SWG OPS-Abandonment Procedure, Section 1.1.2.3 states:

“Lines do not need to be purged when the volume of gas is so small that no potential hazard exists.”

SWG does not have a cutoff value or criteria for when a volume of gas is so small that there is no potential hazard. For consistent application throughout its system, SED recommends setting a cutoff value or other clear criteria for when purging is not required.

SWG responded, *“Southwest Gas appreciates the SED’s recommendation and will further research this issue.”*

Please provide SWG’s research result to address the concern.

3. In response to some concerns/recommendations from the 2016 O&M plan inspection letter, SWG accepted the recommendations and stated it would revise the procedures accordingly for Areas of Concern (AOCs #14, #15, and #17). However, SWG stated during this

inspection that the revised procedures were recently published on 01/27/2017 and will be effective on 02/28/2017.

Please provide copies of the applicable revised procedures. SED has included the Closure Letter from SED for 2016 SWG's O&M Plan Inspection.