STATE OF CALIFORNIA Edmund G. Brown Jr., *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

March 22, 2018

GI-2017-Special Inspection
SCG-Aliso Canyon Storage Field
New Compressor Units

Jimmie Cho, Senior Vice President
Gas Operations and System Integrity
Southern California Gas Company
555 West 5th Street, GT21C3
Los Angeles, CA 90013

SUBJECT: **Closure letter for General Order (G.O.) 112-F Gas Pipeline & Compressor Station Construction Inspection of Southern California Gas Company's Aliso Canyon Storage Field Facility-New Compressor Units**

Dear Mr. Cho:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission reviewed Southern California Gas Company (SCG) response letter dated March 1, 2018 that addressed eight recommendations identified during the GO 112-F inspection of SCG's Aliso Canyon Storage Field Facility-New Compressor Units on November 27 & December 5, 2017.

Attached is a summary of SED's inspection findings, SCG's response to SED's findings, and SED's evaluation of SCG's response to the recommendations.

This letter serves as an official closure of the 2017 Gas Pipeline & Compressor Station Construction Inspection of SCG's Aliso Canyon Storage Field Facility-New Compressor Units.

If you have any questions, please contact Mahmoud (Steve) Intably, at (213) 576-7016.

Sincerely,

Dennis Lee

Dennis Lee, P.E.
Program and Project Supervisor - GSRB
Safety and Enforcement Division

CC: Mahmoud (Steve) Intably, SED/GSRB, Matthewson Epuna, SED/GSRB, Kan Wai Tong, SED/GSRB, Kenneth Bruno, SED/GSRB, Kelly Dolcini, SED/GSRB, and Troy Bauer, Sempra Energy Utilities

Summary of Inspection Findings
2017 SCG's Aliso Canyon Storage Field
Gas Pipeline & Compressor station Construction Inspection
November 27 & December 5, 2017

I. Concerns and Recommendations

1. **SCG's Gas Standard 187.0055 General welding requirements, Section 1.3 states:**

   "ASME Boiler and Pressure Vessel Code Section IX maybe used to qualify welders and welding procedures where piping is exposed to significant thermal, cyclic, or other stresses maybe found in Storage or Compression facilities"

   SCG's Gas Standard 187.0180 Qualification and Re-qualification of Welders, Section 4 procedure Welder qualification and re-qualification requirements for welding high stress piping (operating at equal or greater than 20% of SMYS), Section 4.1 states:

   "Successful completion of tests1 through 4 shown in appendix A qualifies Company and contract welders to perform but welds, branch connections and fillet welds on grades of pipe on any diameter having any wall thickness within the parameters qualified in the corresponding welding procedure"

   SCG's Gas Standard 197.0180 Qualification and re-qualification of welders did not reference SCG's Gas Standard 187.0055 General Welding Requirements, Section 1.3 as an alternative method to qualify/re-qualify SCG and contractors' employees. SED recommends that SCG review/revise its procedure to reference/include SCG's Gas Standard 187.0055 in SCG's Gas Standard 187.0180 since the contractor did qualify the welders as per ASME Section IX instead of API 1104.

   SCG's Response:

   SoCalGas disagrees with SED's recommendation and does not believe it is necessary to reference 187.0055 in the welder qualification standard 187.0180. Section 1.1 of 187.0180 states "The Company shall qualify and re-qualify Company and Contractor welders in accordance with Title 49 of the Code of Federal Regulations (CFR), Part 192, 192.227 Qualification of welders, and 192.229 Limitations of welders." This specifically allows qualification of welders to either API1104 or ASME Section IX.

   SED's Conclusion:

   SED has reviewed SCG's response and accepts SCG's explanation.

2. During the field inspection, SED observed that the outlet pipe past XV-4104 did not have flow arrows showing the direction of the gas flow inside the pie. SED recommends that SCG install the flow arrows to be consistent with the rest of the facility.

   SCG's Response:

SoCalGas agrees with SED's recommendation and flow arrows have been affixed to the pipe as recommended.

SED's Conclusion:

SED has reviewed SCG's response and accepts the corrective actions that it has articulated and implemented. However, SED may review the records of the corrective action during future inspections.

3. During the field inspection, SED observed that the hand rail on the upper level near Unit K-1110 was in contact with pipe. SED recommends that SCG install a Micarta as a barrier to prevent damage to the pipe.

SCG's Response:

SoCalGas has adjusted the handrail location and installed micarta as a barrier between the pipe and hand rail. The piping is aboveground piping and it is electrically isolated from all other buried piping that is under cathodic protection; therefore, Micarta is not required to function as an insulator in this application.

SED's Conclusion:

SED has reviewed SCG's response and accepts the corrective actions that it has articulated and implemented. However, SED may review the records of the corrective action during future inspections.

4. SED the field inspection, SED observed that oil line insulation on Unit K-1130 was in contact with one of the steel support plates. SED recommends that SCG take the necessary steps to ensure proper separation between the oil line insulation and the steel support plate.

SCG's Response:

SoCalGas agrees with SED's recommendation and cut the corner of the bracket to create a larger gap between the insulation of the oil line.

SED's Conclusion:

SED has reviewed SCG's response and accepts the corrective actions that it has articulated and implemented. However, SED may review the records of the corrective action during future inspections.

5. During the field inspection, SED observed that the lube oil return line was in contact with the coupling on K-1120. SED recommends that SCG take the necessary steps to ensure proper separation between the oil return line and the coupling on K-1120.

SCG's Response:

SoCalGas agrees with SED's recommendation and inspected all three units. The issue has been corrected where observed.

SED's Conclusion:

SED has reviewed SCG's response and accepts the corrective actions that it has articulated and implemented. However, SED may review the records of the corrective action during future inspections.

6. During the field inspection, SED observed that one of the exit signs (North exist) in the compressor building was not working properly (blinking). SED recommends that SCG take the necessary steps to ensure that the sign is working as intended.

SCG's Response:

SoCalGas agrees with SED's recommendation and corrected the issue.

SED's Conclusion:

SED has reviewed SCG's response and accepts the corrective actions that it has articulated and implemented. However, SED may review the records of the corrective action during future inspections.

7. **Title 49 CFR, Part 192, Section 192.13 What general requirements apply to pipelines regulated under this part?**

§192. 13(c) What general requirements apply to pipelines regulated under this part states:

> *"(c) Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part."*

SCG's Gas Standard 184.0275, Section 4.10.1 states:

> *"Operate and check all regulator settings using approved pressure standards that are in good working condition and possess a current calibration date."*

During the field inspection, SED observed that pressure gauges installed on P1-4722C-B, P1-4721C-B, and P1-4720C-B in the compressor room were not calibrated or the calibration date was expired. SED recommends that SCG review the manufacture's recommendation to determine the frequency of calibration to ensure that the gauges are in good working condition and possess a current calibration date.

SCG's Response:

SoCalGas disagrees with SED's recommendation. Each of the installed pressure gauges are adjacent to an electronic pressure transmitter within the seal gas piping. The pressure transmitters display the pressure being read and they send the pressure data back to the Station Control Panel (SCP). The SCP utilizes the data for unit control, alarming, and remote observation within the Operations Room which is

staffed 24/7/365. The transmitters are calibrated on a maintenance schedule as required by the vendor and SoCalGas standards. The pressure gauges are in place for the convenience of the operator on duty to more easily observe pressures of the seal gas when adjacent to the compressors. The pressure gauges are in no way utilized for control or process alarming and calibration is not required by SoCalGas standards.

SED's Conclusion:

SED has reviewed SCG's explanation. If these pressure gauges are required by the manufacturer to be installed on the units, then SCG has the obligation to maintain them in a good working condition.

8. Title 29 CFR, Subpart E - Means of Egress, Design and Construction requirement for exit routes

§**1910.36(d)(1)** states:

> *"Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors."*

During the field inspection, SED observed that the exit doors in the compressor building were not equipped with devices such as "*a panic bar*" that locks only from the outside. SED recommends that SCG take the necessary steps to ensure compliance with
§1910.36(d)(1).

SCG's Response:

SoCalGas evaluated the exit doors for compliance with Title 29 CFR Subpart E - 1910.36(d)(1) and 49 CFR Part 192 - §192.163 "Compressor stations: Design and construction for exit routes" and determined the exit doors are in compliance. The doors are lockable only from the outside and can be opened from the inside without a tool, key or any special knowledge. Pressing down on the door handle opens the door. The handle is not a "panic bar"; however, it is in compliance with 1910.36(d)(1) and §192.163.

SED's Conclusion:

SED has reviewed SCG's response and accepts their explanation as long as the door latch for the exit doors can be readily open from the inside without key (consistent with 1910.36(d)(1) and CFR Part 192, §192.163).