CALIFORNIA PUBLIC UTILITIES COMMISSION
Safety and Enforcement Division
Gas Safety and Reliability Branch
Gas Engineering and Compliance Section

Incident Investigation Report

Report Date: 07/11/2024

Incident Number: G 20231216-3638

Utility: Southern California Gas SoCalGas

Date and Time of the Incident: 12/16/2023, 3:25:00 PM

Location of the Incident: [redacted] W Empire Ave Burbank, Los Angeles
Burbank ,CA
County: Los Angeles

Summary of Incident:

On December 15, 2023, at approximately 1526 hours, SoCalGas was notified of natural gas odor at [redacted] W Empire Ave, Burbank CA. The crew responded, conducted a leakage investigation and found a gas leak on a non-critical valve on SoCalGas 6-inch steel High Pressure Distribution Main. SED investigation found that the leak was caused by heavy vehicular traffic over the road over a period of 50 years. In addition, SED finds, SoCalGas in violation of General Order (GO) 112-F, Reference Title 49 Code of Federal Regulation (CFR), Part 192, Section 192.617(a) for failure to send the non-critical valve for laboratory testing or examination, where appropriate, for the purpose of determining the causes and contributing factor(s) of the failure or incident and minimizing the possibility of a recurrence.

Casualties: ***Fatalities:*** 0 ***Injuries:*** 0

Property Damage: $371,168.00

Utility Facilities involved:

Pipe Material = Steel, Pipe Size = 6 (inches), MAOP = 125 (psi), Operating Pressure = 116 (psi)

Witnesses:

	Name	*Title*	*Phone*
1	Gordon Kuo	CPUC Investigator	N/A
2	[redacted]	Pipeline Safety and Complia	(213) 264-6814
3	[redacted]	Pipeline Safety and Complia	(978) 719-3485

Evidence:

	Source	*Description*
1	[redacted]	Final Form 7100 Supplemental on 4-3-24
2	[redacted]	Data Response on 12-29-23
3	[redacted]	Data Response on 2-27-24
4	[redacted]	Data Response Sharepoint on 4-15-24
5	[redacted]	Data Response Sharepoint on 4-17-24
6	[redacted]	Data Response on 5-30-24
7	[redacted]	Data Response on 6-12-24
8	[redacted]	Data Response Sharepoint on 4-29-24
9	[redacted]	Data Response Sharepoint on 5-3-24

Observations and Findings:

On December 15, 2023, at approximately 1526 hours, SoCalGas was notified of natural gas odor at [redacted] W Empire Ave, Burbank CA. SoCalGas' crew responded, conducted a leakage investigation and found a gas leak on a non-critical valve on SoCalGas 6-inch steel High Pressure Distribution Main. SoCalGas' crews excavated three different locations to install pressure control fittings to isolate the leaking valve. There were no injuries, fatalities, fire, service interruption or third-party property damage. The incident became CPUC and DOT reportable due to the estimated cost that may exceed the $139,700 dollars amount for repairs.

On December 17, 2023, at approximately 9:00 am, CPUC's investigator, Gordon Kuo, arrived at the scene, met with SoCalGas representative, went over the scope of work, and took photos of the leaking valve. SoCalGas' representative stated that SoCalGas' Engineering Department decided to remove the leaking valve and install a straight 6-inch steel section of pipe.

On December 18, 2023, SoCalGas' crews installed two stoppers; one north of the excavation site and one west of the excavation site and at 2:40 pm they were able to stop the flow of gas in the leaking valve. In addition, SoCalGas' crew installed a

pressure control fitting south of the excavation site and a bypass to ensure continuous gas supply to SoCalGas' customers while removing/cutting out the leaking valve and installing a new section of the 6-inch steel pipe.

On December 19, 2023, at 3:30 am, SoCalGas completed the repair and at 4:16 am gas started flowing in the newly installed section of the 6-inch steel gas pipe.

On April 17, 2024, SED reviewed SoCalGas employees' qualifications, Welder's qualification, Cathodic protection records, leaks survey records for the past few years, and found them to be in compliance with applicable rules and regulations.

SoCalGas conducted a visual inspection/analysis on the leaking valve and found no issues with the valve mechanism. In addition, the analysis revealed that heavy vehicular traffic may have contributed to material failure/mechanical stress causing the non-critical valve to crack and resulting in gas escaping through the cracks. SoCalGas had sent the valve to Pico Rivera, but the valve did not undergo lab analysis due to the asset owner determining it did not warrant failure analysis.

General Order 12-F, Reference Title 49 Code of Federal Regulations, Part 192, Section 192.617(a) Investigation of Failures and incidents states:

"Post-failure and incident procedures. Each operator must establish and follow procedures for investigating and analyzing failures and incidents as defined in § 191.3, including sending the failed pipe, component, or equipment for laboratory testing or examination, where appropriate, for the purpose of determining the causes and contributing factor(s) of the failure or incident and minimizing the possibility of a recurrence."

SoCalGas Gas Standard 223.0030 - Failure Analysis Process for Gas Systems, Section 4.2.2 Manual Valves, EFVs, and Pressure Regulating and Limiting Equipment states in part:

4.2.2.1.3 states:

"The structural integrity of the equipment caused an uncontrolled high-pressure leak that required replacement (soft parts replacement no applicable)"

4.2.2.1.4 States:

"The failure is suspected to have been caused by faulty material, construction, design, or operational issues."

4.2.2.2 states:

"If any of the criteria is Section 4.2.2.1is met, Gas Measurement and Regulation (M&R) Standards and Design group shall be notified via email

[redacted]@socalgas.com. Gas M&R Standards and Design will advise on removal and disposition. Once instructed ship equipment to Mail Location SC723A for further evaluation. Information relevant to the event as detailed in Appendix A of this standard shall be gathered by the Asset Owner and provided upon request."

According to SoCalGas, Engineering and Analysis Group concluded that the most likely scenario for the valve failure was force exerted from the ground above applied a directional load, causing stress concentration on a weak area of the valve causing it to crack.

SED investigation found that the procedure did not have adequate detail to clearly describe the requirement set forth in 192.617(a) to send the non-critical valve for laboratory testing or examination, where appropriate, for the purpose of determining the causes and contributing factor(s) of the failure or incident and minimizing the possibility of a recurrence. Therefore, SED finds SoCalGas in violation of General Order (GO) 112-F, Reference Title 49 Code of Federal Regulation (CFR), Part 192, Section 192.617(a) for failure to send the non-critical valve for laboratory testing or examination to determine the cause and to minimize the possibility of a recurrence. In addition, SED recommends SoCalGas to revise its Gas Standard to incorporate at minimum the requirement set forth in 192.617(a).

Preliminary Statement of Pertinent General Order, Public Utilities Code Requirements, and/or Federal Requirements:

	General Order	*GO Rule*
1	GO112F	CFR Part 192 Section 192.617(a)

Conclusion:

SED investigation found that the procedure did not have adequate detail to clearly describe the requirement set forth in 192.617(a) to send the non-critical valve for laboratory testing or examination, where appropriate, for the purpose of determining the causes and contributing factor(s) of the failure or incident and minimizing the possibility of a recurrence. Therefore, SED finds SoCalGas in violation of General Order (GO) 112-F, Reference Title 49 Code of Federal Regulation (CFR), Part 192, Section 192.617(a) for failure to send the non-critical valve for laboratory testing or examination to determine the cause and to minimize the possibility of a recurrence. In addition, SED recommends SoCalGas to revise its Gas Standard to incorporate at minimum the requirement set forth in 192.617(a).