

Bridgeport NAPA Auto Parts Store Explosion 2023 Investigation Report

SAFETY AND ENFORCEMENT DIVISION
GAS SAFETY AND RELIABILITY BRANCH

April 2, 2024 Final Report

Report Date:	January 17, 2025
Investigators:	Mohammad Nouredine
Date incident reported to CPUC	March-02, 2023
Utility:	AmeriGas
Date and Time of the Incident:	March 01, 2023 at 2230 hours
Location of the Incident:	■ Hays St. Bridgeport, CA 93517



California Public
Utilities Commission

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Executive Summary

Summary of Incident

On March 1, 2023, at approximately 1030 hours, an explosion and fire were reported at the NAPA auto parts store located at [REDACTED] Hays Street in Bridgeport, California.

Witnesses say there was a fireball that came from the front of the building that was the equivalent of the length of the building. At the time of the incident there was no power in the lines for the town due to a power outage that started days prior. The fire was found to be fueled by a propane gas line going into the building belonging to AmeriGas. The initial report stated that the building did not have active gas service at that time and hadn't had any for more than 10 years, yet the owner had been paying the premium to keep the service which is why it wasn't closed and capped. Local AmeriGas personnel were unable to respond to the incident due to an avalanche covering access to the area with the roads leading up to Bridgeport all having been closed due to the severe weather.

After it was determined that the cause of the fire was in-fact propane, the fire department and Sheriff personnel (Sgt. [REDACTED]) got into contact with [REDACTED] of AmeriGas who walked them through where to find the meter based off mapping in order to shut it down. Once the line was found, they were able to shut off the gas valve feeding propane to the structure at 11:15pm. The valve was under about 3 feet of snow and ice from the recent storm and had yet to be cleared. At 1:00am on 3/2/2023, the Fire Department was finally able to fully extinguish the fire to the building. Mono County Sherriff Department and Bridgeport volunteer Firefighter personnel then proceeded to place a lock in the shut off valve on the riser to the meter fully securing it. During an overhaul it was found that the regulator just above the valve had been compromised and the spring was hanging out of it.

When AmeriGas personnel were finally able to reach the location of the incident (a few weeks after the accident), the owner of the facility had already demolished what was left of the building and removed all remnants of it. The meter and regulator were removed and the existing riser on property was capped off and marked with yellow paint for visibility. AmeriGas conducted a Root Cause Analysis of the incident but was unable to reach a conclusion of what led to the accident other than it was caused by a propane leak.

This incident was DOT reportable. SED investigated the incident and concluded that AmeriGas committed probable violations of General Order (G.O.) 112-F, Reference Title 49 Code of Federal Regulations (CFR), Part 192, Sections 192.13(c), 192.605(a), 192.613 (c), 192.617, and 192.355 (b).

Incident Investigation

Summary of Incident and Investigation

On March 1, 2023, at approximately 1030 hours, an explosion and fire were reported at the NAPA auto parts store located at [REDACTED] Hays Street in Bridgeport CA.

Local fire department crews were deployed to the location in order to fight and extinguish the fire.

A few days prior to the accident, a snowstorm in the Bridgeport area brought 11 feet of snow build-up, which led to access to the area being closed off. The initial report stated that the building did not have active gas service at that time, and hadn't had any service for more than 10 years.

Local Fire Department crews were deployed to the location in order to fight and extinguish the fire. When the fire department arrived, the metal structure was fully involved with fire and had self-vented from the explosion from the front and rear of the building. Medic-7 was paged out and MCSO and CHP were on scene as well. Assistance was also asked from the MWTC Fire department. The building in question was unoccupied and had been for several days prior to the incident, for at the time of the event there was 4 feet of snow surrounding the building on 3 sides with the front being the only side clear of snow.

According to the fire department, "it soon became clear to firefighting crews that the fire was fueled and started by the propane gas line going into the building." It took them approximately 2 hours and 18 minutes to extinguish the fire and find the outside shut off valve for the propane due to the snowpack around the building. Once it was found, they were able to shut off the gas valve. The valve was under about 3 feet of snow and ice from the recent storm and had yet to be cleared. During an overhaul of the pipeline by AmeriGas it was found that the regulator located just above the valve had been damaged and the spring was hanging out of it.

Fatalities / Injuries

Zero fatalities and zero injuries were reported.

Property Damage

The entire NAPA Auto Parts facility was lost, the owner of the structure bulldozed what was left of the building 2 weeks after the incident and no estimate of damages was given by either the owner nor their insurance company.

Utility Facilities Involved

¾ inch steel service pipeline connected to a Fisher R642 regulator and meter

Investigators

	Name	Title	Email
1.	Mohammad	SED, Utilities Engineer	

Documents Reviewed

See Appendix B.

SED Investigation Process

Reporting Requirements

General Order (G.O.) 112-F, section 122.2 states, in part:

“Each Operator shall report incidents to the CPUC that meet the following criteria...An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in one or more of the following consequences: Estimated property damage of \$50,000 or more, including loss to the Operator and others, or both, but excluding cost of gas lost...”

Title 49 Code of Federal Regulations (CFR), Part 191, Section 191.5 requires that each operator give notice to the National Response Center of any pipeline incident, which is defined in section 191.3, as *“An event that involves a release of gas from a pipeline and that results in one or more of the following consequences:... Estimated property damage of \$122,000 or more, including loss to the operator and others, or both, but excluding the cost of gas lost. For adjustments for inflation observed in calendar year 2021 onwards, changes to the reporting threshold will be posted on PHMSA's website. These changes will be determined in accordance with the procedures in appendix A to part 191”* or *“An event that is significant in the judgment of the operator, even though it did not meet the criteria” of an incident as defined.* This incident involved the release of gas coupled with damages which would possibly exceed the limit in CFR 191, hence AmeriGas classified this incident as DOT reportable, and reported it to DOT and CPUC.

SED Investigation

The Gas Safety and Reliability Branch (GSRB) of SED began the investigation of this pipeline incident on March 2, 2023. SED was unable to visit the site of the incident due to a snowstorm in Bridgeport CA resulting in more than 11ft of snow build-up as well as a power outage. The roads leading to the site had all been closed making it impossible to get to the location of the incident at that time. SED submitted several data requests to AmeriGas, some of which took months to receive.

SED interviewed AmeriGas employee [REDACTED], Regulatory Compliance Manager at AmeriGas. SED garnered information regarding the gas utilities involved in the incident as well as what AmeriGas employees witnessed after getting to the site. Also SED was told that neither the owner of the facility nor their insurance company got in touch with AmeriGas regarding the incident and the amount of damages done.

SED reviewed AmeriGas's investigation report regarding the incident, their O&M - Damage Prevention 1-31-2021, their O&M - Emergency Plan - 1-31-2023, their O&M - Meter-Regulator-Service Line 7-31-2021, the Bridgeport Volunteer Fire Department Incident Report, and the failed regulator's (Fisher R642 HSRL Series) Instruction Manual (published in October 2015).

SED reviewed AmeriGas’s report, titled “NAPA AP 1.3 SIR Form – KM” which AmeriGas submitted as their incident investigation report. The report identified that the cause of the fire was a propane leak, but did not specify what caused the leak.

The report identified the following root causes:

“Causes:

1. Root Cause -1: Initial root cause identified by Bridgeport FD was a propane leak, causing explosion/fire.
 - Contributing Cause -1: Flammable materials stored inside of building. (ie: Gasoline, Oil Heaters, Car Batteries, Kerosine)

Incident Description

Chronology of Incident Investigation Activities

This section provides a chronology of the investigative activities undertaken after the incident occurred on 3/01/2023 and reported to CPUC on 03/02/2023.

March 1, 2023

On 3/1/2023 at 10:30pm a fire broke out at a NAPA auto parts store in Bridgeport leading to an explosion and according to AmeriGas, a total loss of the facility.

March 3, 2023

On March 3, 2023 in response to SED’s request, AmeriGas sent SED the CPUC 420 Incident Report for the Bridgeport system / NAPA Auto Parts fire. AmeriGas also reported that they were unable to respond to the Bridgeport incident due to a snowstorm, and that they were waiting on the report from the fire department in order to determine the cause of the fire.

May 31, 2023

On 05/31/2023, SED received the report from the fire department which concluded that the cause of the fire was a compromised regulator on AmeriGas’s distribution system.

June 8, 2023

On 6/08/2023 SED requested AmeriGas’s procedures, reports, and maintenance records of the regulator and system.

July 6, 2023

SED received an email From AmeriGas stating they were currently gathering the requested documents but that it would take some time because the required personal that had the required information were out due to medical reasons.

August 21, 2023

SED received an email from AmeriGas stating they were still gathering the information for the data request. Soon after AmeriGas stopped responding to emails and calls regarding this incident. SED attempted to contact other AmeriGas employees unsuccessfully.

June 5-11, 2024

SED received responses from AmeriGas to the data request.

Findings and Corrective Actions

AmeriGas's Incident Investigation Report

AmeriGas initiated an investigation of the incident in order to complete a Root Cause Evaluation (RCE) of the incident and reach a conclusion on what led to the accident.

- AmeriGas's report titled "NAPA AP 1.3 SIR Form – KM" simply identified that the cause of the fire was a propane leak without giving any details regarding what led to the leak.

The report identified the following root causes:

Causes:

1. Root Cause -1: Initial root cause identified by Bridgeport FD was a propane leak, causing explosion/fire.
 - Contributing Cause -1: Flammable materials stored inside of building. (ie: Gasoline, Oil Heaters, Car Batteries, Kerosine)

SED's Findings

SED's investigation noted the following findings:

1). G.O. 112-F Referenced Title 49 CFR, Part 192, Section 192.11 Petroleum Gas Systems.

§192.11(b) states:

Each pipeline system subject to this part that transports only petroleum gas or petroleum gas/air mixtures must meet the requirements of this part and of ANSI/NFPA 58 and 59 [2004 edition at the time of the incident]

NFPA 58 (2004) section 6.7.4.4 states:

All regulators for outdoor installations shall be designed, installed, or protected so their operation will not be affected by the elements (freezing rain, sleet, snow, ice, mud, or debris).

AmeriGas failed to protect the regulator ventilation from getting blocked due to snow buildup leading to the failure of the regulator.

2). G.O. 112-F Referenced Title 49 CFR, Part 192, Section 192.617 Investigation of Failures

§192.617(a) states:

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 factors(s) of the failure or incident and minimizing the possibility of a recurrence.

AmeriGas’s investigation procedure (AP 1.3 Incident Reporting and Investigation Procedure - Final 2-1-22 with attachments) Section 3.11 requires that the manager is Responsible to ensure that their team conducts a “thorough investigation” that identifies the appropriate corrective actions and is completed in a timely manner.

SED reviewed the AmeriGas investigation and finds that it does not constitute a “thorough investigation.” It did not identify the root cause of the incident, nor did it include any appropriate corrective actions as is required by their investigation procedure.

Additionally, SED also finds that AmeriGas did not complete the investigation in a timely manner. It took them 16 months from the time of the incident to send SED their investigation report.

SED’s Observations

This section details observations SED made over the course of the investigation. SED will follow-up and monitor the progress of AmeriGas’s proposed corrective actions.



Photograph 1: Fire damage to Bridgeport NAPA Auto Parts Store (photo provided by Bridgeport Fire Department)



Photograph 2: Locked service valve and damaged regulator on Bridgeport NAPA Auto Parts Store gas riser (photo provided by the Bridgeport fire department)

Page 5 of the manufacturer’s instruction manual for the regulator (**Fisher R642 HSRL Series Instruction Manual (October 2015)**) states

Regulators Subjected to Heavy Snow Conditions

Some installations, such as in areas with heavy snowfall, may require a hood or enclosure to protect the regulator from snow load and vent freeze over.

Horizontally Installed Regulators

Horizontally mounted regulators, such as found in single cylinder installations and ASME tanks, must be installed beneath a protective cover or under the ASME tank dome, refer to Figure 3. If possible, slope or turn the vent down sufficiently to allow any condensation to drain out of the spring case. Be careful that the slot in the tank dome or protective cover for the regulator’s outlet piping does not expose the vent to the elements. The first stage vent on the Types R632A and R632E should be pointed down.

Meter and Type R642 with Vent over the Regulator Outlet and Installed over the Top of the Meter:

This installation orientation will put the Type R642 regulator vent in a vertical down position, but very close to the top of the gas meter. The regulator vent may become blocked during a freezing rainstorm or heavy snow. Therefore, some type of protective cover should be installed over the regulator and meter, or vent piping should be installed so that the vent remains open.

Page 8 of the manufacturer’s instruction manual for the regulator (**Fisher R642 HSRL Series Instruction Manual (October 2015)**) states

Vent Opening

Make sure the regulator vent, vent assembly or vent tube does not become plugged by mud, insects, ice, snow, paint, etc. The vent screen aids in keeping the vent from becoming plugged and the screen should be clean and properly installed. Make sure any irrigation system operated near a regulator or vent line does not spray water into the vent opening of the regulator or vent assembly.

The fire department’s report (Bridgeport Volunteer Fire Department Incident Report) states

“It is my opinion that the fire was fueled and started by the propane gas line going into the building. It took some time to find the outside shut off for the propane due to the snowpack around the building, once we found the line we were able to shut off the gas valve. The valve was under about 3 feet of snow and ice from the recent storm and had yet to be cleared. During overhaul we found that the regulator just above the valve had been compromised and the spring was hanging out of it. In my opinion the cause of the fire was the failed/compromised regulator, with the snow around it the gas had nowhere else to go but into the building filling it with propane. While there was no power at the time the ignition source to ignite the propane and cause the explosion is unknown.”

Hence according to the totality of the evidence presented, including photos of the fire damage (Photograph 1), failed regulator damage (Photograph 2), the failed regulator’s instructions manual (Fisher R642 HSRL Series Instruction Manual (October 2015)), and the fire departments report (Bridgeport Volunteer Fire Department Incident Report), AmeriGas failed to follow manufacturer’s

instructions regarding regulator venting which ultimately led to the accident. Based on this evidence, failure to vent the regulator or protect the regulator correctly led to snow building up and covering the entire regulator blocking its vent. This in turn led to pressure building up in the regulator until it failed. Then with nowhere else to go (because of all the snow buildup), the propane found its way into the building and found an ignition source.

SED's Recommendations

1. AmeriGas should take the appropriate steps to address SED Finding #1
2. AmeriGas should take the appropriate steps to address SED Finding #2
3. AmeriGas should take the appropriate steps to address SED Finding #3

Conclusion

Based on the records, interviews, documentation, and photo evidence SED reviewed during this investigation, SED concluded that AmeriGas committed probable violations of General Order (G.O.) 112-F, Reference Title 49 Code of Federal Regulations (CFR), Part 192, Sections 192.11 and 192.617(a).

AmeriGas failed to follow (G.O.) 112-F, Reference Title 49 Code of Federal Regulations (CFR), Part 192, Section 192.11 and the regulator's manufacturer's manual by not properly venting or protecting the regulator.

They failed to follow (G.O.) 112-F, Reference Title 49 Code of Federal Regulations (CFR), Part 192, Sections 192.617 (a) and (b), by not performing a timely and thorough investigation, and by not providing a list of corrective actions which would prevent a similar failure in the future.

Appendices

Appendix A: Glossary of Terms

ACRONYM/ABBREVIATION	DEFINITION
CFR	Code of Federal Regulations
CPUC	California Public Utilities Commission
DOT	United States Department of Transportation
GO	General Order
FD	Fire Department
GSRB	Gas Safety and Reliability Branch
LNG	Liquefied Natural Gas
O&M	Operation and Maintenance
RCE	Root Cause Evaluation
SED	Safety and Enforcement Division
UE	Utilities Engineer
UNGSF	Underground Natural Gas Storage Facility

Appendix B: Documents Reviewed

1.	AP 1.3 Incident Reporting and Investigation Procedure - Final 2-1-22 with attachments 2/1/2022
2.	Fisher R642 HSRL Series Instruction Manual (October 2015)
3.	NAPA AP 1.3 SIR Form - KM
4.	O + M - Damage Prevention 1-31-2021
5.	O + M - Emergency Plan - 1-31-2023

6.	O + M - Meter-Regulator-Service Line 7-31-2021
7.	Bridgeport Volunteer Fire Department Incident Report
8.	NAPA Bridgeport Map (Photo)
9.	Bridgeport Map (Photo)
10.	Bridgeport – NAPA service valve locked (Photo)
11.	Meter Lock 1 (Photo)
12.	Meter Lock 2 (Photo)
13.	Fire damage (Photo)