

Public Service Commission of West Virginia

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April 24, 2024

Electronic Service Only

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RE: Case No. 24-0043-G-GI
Mountaineer Gas Company

Ladies/Gentlemen:

Staff Memorandum issued today was served via email on the above-listed parties. If you wish to respond to Staff Memorandum, you may do so in writing, within 10 days, unless directed otherwise, of this date. You will not receive a copy of the Staff Memorandum by regular mail.

Your failure to respond in writing to the utility's answer, Staff's recommendations, or other documents may result in a decision in your case based on your original filing and the other documents in the case file, without further hearing or notice.

Documents submitted to the Public Service Commission of West Virginia may be 1) uploaded to its public website, 2) subject to public disclosure under the West Virginia Freedom of Information Act, and/or 3) subject to disclosure under the West Virginia Open Governmental Proceedings Act. Do not submit personal information with your filings. The Commission is not responsible for confidential or personal information included with your submission. A list of personal information is available here: <http://www.psc.state.wv.us/Privacy Policy/WhatisPII.htm>

If you have provided an email address you will automatically receive notifications as documents are filed in this proceeding. The email notifications allow recipients to view a document within an hour from the time the filing is processed. The Commission will serve all Orders electronically on those parties that provide an email address. If you have not provided your email address, please send an email to caseinfo@psc.state.wv.us and state the case number in the email subject field.

Sincerely,


Karen Buckley
Executive Secretary

KB/jt

FINAL JOINT STAFF MEMORANDUM

TO: KAREN BUCKLEY
Executive Secretary

DATE: APRIL 24, 2024

FROM: CHRIS HOWARD
Staff Attorney

APR 24 2024 02:09 PM EXEC SEC DIV

RE: CASE NO. 24-0043-G-GI
MOUNTAINEER GAS COMPANY

Staff determines Mountaineer's maintenance and response were very appropriate and reasonable given the size of the event, and they diligently worked to safely restore gas service. Mountaineer acted according to their written emergency procedures, other written procedures, as well as Federal pipeline safety regulations, to promptly address the gas outage and safely restore service while protecting the safety of customers, their employees, and the public. Staff recommends this matter be closed.

On or about November 10, 2023, a widespread natural gas outage occurred in the City of Charleston (City) affecting hundreds of customers of Mountaineer Gas Company (MGC) on the west side of Charleston. Also, on or about November 10, 2023, there were several water main breaks on West Virginia-American Water Company (WVAWC) lines in the same area. The water main breaks caused outages for a relatively large number of customers and boil water advisories.

On January 26, 2024, the Commission opened a general investigation into the actions taken by MGC during and in the aftermath of the events of November 10, 2023.

On February 29, 2024, Staff, issued an Initial Joint Staff Memorandum. Staff states the November 10 outage was not a typical "gas emergency" in that there was no release of gas. Mountaineer had to visit each customer to turn off the gas service, and revisited each customer to restore service and make sure that the customers gas equipment and appliances were functional. Mountaineer had to unearth gas pipelines at over 300 locations to remove water, and then repair those locations according to pipeline safety regulations. They brought company crews from many of their other service centers, as well as numerous contractor crews to assist in the recovery, and worked 10 to 12-hour days (limited by daylight hours) during the recovery. Because of the Part 192 Subpart N operator qualification requirements, non-qualified persons were limited in their ability to assist. Mountaineer's response was very appropriate given the event, and they diligently worked to restore gas service. Since the return to service at the end of November

2023, Mountaineer has been continuously performing leak patrols on the outage area to continue to monitor the integrity of their pipelines for potential damage from the water incursion. The leak patrols have identified several areas of increased leakage that are currently being evaluated for repair in the near future.

Final Recommendation of the Commission's Gas Pipeline Safety Division

On April 19, 2024, Mary S. Friend, Director of the Commission's Gas Pipeline Safety Division (Technical Staff), issued a Final Memorandum. Technical Staff states the events of November 10, 2023, created an unfortunate chain of events that resulted in a major gas outage of the Mountaineer low pressure distribution system on the West side of Charleston. Mountaineer's maintenance and response were very appropriate and reasonable given the size of the event, and they diligently worked to safely restore gas service. Mountaineer acted according to their written emergency procedures, other written procedures, as well as Federal pipeline safety regulations, to promptly address the gas outage and safely restore service while protecting the safety of customers, their employees, and the public.

Final Recommendation of the Commission's Legal Division

Legal Staff has reviewed the documents, including the January 26, 2024 Commission Order, and the Initial Memorandums of Technical Staff. Legal Staff notes the Commission's Utilities Division is assigned to this matter but will not be filing a final recommendation. Legal Staff agrees with the findings and recommendations of Technical Staff. Legal Staff states Mountaineer's maintenance and response were very appropriate and reasonable given the size of the event, and they diligently worked to safely restore gas service. Mountaineer acted according to their written emergency procedures, other written procedures as well as Federal pipeline safety regulations to promptly address the gas outage and safely restore service while protecting the safety of customers, their employees, and the public.

Legal Staff notes the Commission established Case No. 24-0338-G-W-E-CTV-GI as a general investigation of how customers are notified of outages. Any issues with customer notification are better suited for resolution in that case.

Legal Staff recommends this matter be closed.

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CLH/jt
Attachment

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PUBLIC SERVICE COMMISSION OF WEST VIRGINIA**INTERNAL MEMORANDUM**

To: Chris Howard
Legal Division

From: Mary S. Friend, Director
Gas Pipeline Safety Division

Date: April 19, 2024

Subject: **Case 24-0043-G-GI**

The Federal Pipeline Safety Regulations in 49 CFR 192 provide minimum safety standards for all regulated pipeline operators to follow. These standards have been developed to address a number of safety issues including design, construction, operations, maintenance, emergency response, public awareness, operator qualification and integrity management. All the pipeline safety regulations have been promulgated to address and protect public safety and property, and more recently, reduce emissions and protect the environment. The Pipeline and Hazardous Material Safety Administration (PHMSA) is responsible for the inspection and enforcement of these regulations, and annually certifies the Public Service Commission Gas Pipeline Safety Division to oversee these functions for intrastate gas operators.

As noted in the initial staff memo filed on March 1, 2024, Mountaineer Gas is routinely inspected to ensure compliance with the Federal Pipeline Safety Regulations as outlined in 49 CFR 192. The initial memo outlines the most recent dates of inspection, as well as additional inspections that were done as part of the investigation of the outage.

Federal regulations address emergency response in §192.615, and require the operator to establish written procedures for minimizing the hazards from gas pipeline emergencies. However, the emergencies currently described in regulations are to address a release of gas. The operator is required to have a prompt and effective response to address gas migration, gas in a building, fire or explosion involving a pipeline facility and making the area safe by taking all the necessary actions to minimize the hazards of released gas.

The event that occurred on November 10, 2023 was not a typical gas emergency because there was no release of gas, but rather a loss of gas service due to a water incursion into the Mountaineer low pressure distribution system. While small scale and localized outages caused by water in a distribution system are not uncommon, it is rare to have such a wide spread outage caused by a water incursion. Although the

operators written emergency plan must include actions to safely restore service outages, the emergency plan regulation addresses a gas release. Mountaineer acted according to their written emergency procedures to promptly address the gas outage and safely restore service.

Notification

The initial telephonic report was made to the Gas Pipeline Safety Division (GPS) emergency number around 5:40 PM. The call was to report a water leak filling the low-pressure main causing an outage on the West Side of Charleston that could affect about 500 customers. An update to GPS later in the evening about 9:00 PM indicated that this would be a much larger outage. The next update on Saturday morning at 11:15 am provided the information that at least 750 customers were affected. The update also stated that public service announcements will go out on social media and in the news regarding the situation. During the Saturday morning update, it was stated the outage was approximately from Patrick Street to Tennessee Ave, and Kanawha Boulevard to Virginia Street.

The first contact with public officials occurred later afternoon on Saturday, November 11, 2023 when Mountaineer spoke to the Fire Department about coordinating assistance. On Monday morning, November 13, 2023 Mountaineer officials met with the Charleston mayor.

Response During Event

Mountaineer created a timeline for the outage (See document filed by Mountaineer Gas on December 21, 2023 in previous Case No 23-0882-G-W-GI). According to the Mountaineer time line, the initial "no gas" calls started midafternoon on November 10, 2023. While investigating the calls, Mountaineer determined that there was water in the gas system, and found a location where water was leaking in the street. Mountaineer started relieving water pressure by removing some gas meters near the site of the water leak. Mountaineer notified West Virginia American Water (WVAW) of the leak, and continued to monitor both the leak site and their system. Due to the water leak, Mountaineer was unable safely access and repair the gas line for over 14 hours after discovery of water in their line. During the wait for the water shut off, water entered the Mountaineer low pressure distribution system unimpeded by gas pressure.

Until the repairs of both the water and gas pipelines could be completed, Mountaineer performed a number of temporary mitigative activities. Mitigative actions included removing meters, creating locations to allow water flow out of the system, increasing the gas pressure and supply at four delivery points into this system in an attempt to slow down the water incursion, canvassing the area to determine the extent of water incursion, and shutting off affected services. During the night of November 10, Mountaineer called in crews from all over the state to assist in recovery. Crews worked through the night and into the morning shutting off services, and digging out and installing locations to remove the water. Upon repair of the gas line with a leak clamp at approximately 5:30 am on November 11, 2023, Mountaineer began restoration activities to their mains and customers.

Service Restoration

The full extent of the outage was later determined that the outage covered from Iowa Street to Pennsylvania Avenue to the East, and Kanawha Boulevard to Washington Street to the north. Over the course of the next two weeks, Mountaineer excavated and drained water from approximately 50 miles of low-pressure distribution main through more than 300 bell holes located throughout the area of lost service. Water removal included simple gravity flow, as well as pigging operations and vacuum trucks to help remove the accumulated water. All work was performed according to the regulations and specifications as found in 49 CFR 192 and Mountaineer's written procedures. Because of the operator qualification (OQ) regulations in 49 CFR 192, Subpart N, during the recovery phase Mountaineer could only utilize employees and contractors that were qualified under the Mountaineer OQ Plan.

As water removal activities progressed, gas was reloaded into the mains through the time-consuming purging of the pipelines to remove air. Once gas was reloaded, Mountaineer began the task of relighting customers and determining damage to their meters and to customer appliances or systems. For every customer, Mountaineer had to disconnect meters, remove water from service lines, check for water in the house lines, and determine the condition of gas appliances before they could safely relight the customers. Isolated water pockets sometimes caused additional localized outages as the water migrated through the gas system, sometimes necessitating additional relights. Mountaineer contracted plumbers to assist with repair or replacement of gas appliances that had been damaged by the water. Some customers' appliances only needed repair, while other customers required replacement of all gas appliances such as water heaters, furnaces, or gas stoves.

Approximately 1,760 customers were affected by the outage, with full service restoration completed by November 27, 2023.

Continuing Surveillance

Post outage, there were no major operational issues this winter due to any remaining water in the system. As a mitigative measure, Mountaineer continues to monitor the outage area through ongoing leakage surveys. These instrumented gas leakage surveys are conducted according to Mountaineer procedures. Originally conducted daily, they have since been changed to a three-month frequency which far exceeds the leakage survey requirements as found in §192.723. These surveys are being used to aid in discovery of locations where the gas pipeline could have been damaged by the water incursion.

From the information obtained from the leakage surveys and other observations, Mountaineer has accelerated some bare pipe replacement in the area of the water incursion. It appears that the water incursion aggravated certain conditions which prompted Mountaineer to address those mains sooner than their normal replacement plans.

Potential Preventative or Mitigative Measures

Pipeline safety regulations define the methods by which an operator must ensure the integrity of its gas distribution system (§192.1001). Integrity management program regulations require an operator to develop written procedures to identify the threats, evaluate and rank risk to their pipelines. Once the risk is evaluated, an operator must identify and implement, as necessary, preventative or mitigative (P&M) measures to reduce risk.

Some commonly used P&M measures considered after this outage include:

Emergency valves – An operator is already required to install (§192.181) and annually inspect emergency valves (§192.747). However, emergency valves are installed to isolate segments of pipelines, and cannot isolate interconnected pipeline systems with multiple feeds. Additional valves would not have prevented or reduced the severity of this event.

Pressure monitoring locations – The four delivery points into the West Side have regulator stations that reduce the gas pressure to less than 1 psi for the system. While the stations must be equipped with telemetering or recording gauges to indicate the pressure, the biggest safety concern is the overpressure of the system, not the loss of pressure. Given the low pressure of the system, additional pressure monitoring locations in this system would not have prevented the outage.

Customer Notification – As noted, during the outage, Mountaineer had to visit each customer to turn off their gas meter, and revisited the customer to turn on the gas meter when service was restored. There have been suggestions that additional communication may be needed as evidenced by a bill proposed during the 2024 WV legislature and Case No. 24-0338-G-W-E-CTV-GI. On September 7, 2023, the Pipeline and Hazardous Material Safety Administration (PHMSA) published a notice of proposed rulemaking (NPRM) concerning the safety of Gas Distribution Pipelines (Federal Register Volume 88, Number 172, pages 61746 – 61804). The NPRM proposes the implementation of the provisions of the Leonel Rondon Pipeline Safety Act that was part of the PIPES Act of 2020. (Docket No. PHMSA-2021-0046, RIN 2137-AF53). The proposed rule would add requirements to §192.615 for establishing and maintaining communication, including updates, with the general public in the operator's service area during gas pipeline emergencies on distribution lines. According to the proposed rules, an operator must develop written procedures to address a number of key elements for communications during gas pipeline emergencies. Given that Mountaineer operates under the Federal Pipeline Safety regulations, any proposed state regulations should not contradict final Federal Regulations.

Materials and Construction Methods – In 49 CFR Part 192, Subparts B, C and D outline requirements for design and material specifications used in pipelines. Part 192 Subparts E, F, G, and H outline construction requirements. Construction

regulations include depth of burial, cover, and underground clearance from other utilities or structures. These seven subparts of code only apply at the time of construction or repair, and do not apply to existing pipelines constructed prior to the implementation of pipeline safety regulations. The current construction standards do not apply to pipelines installed prior to 1970. These specifications only apply to gas pipelines, and do not prevent other buried facilities from encroaching on the gas pipeline. City or county ordinances may require burial in a common ditch.

In the case of this outage, the lack of separation between the two utilities surely contributed to the cause and severity of the event, particularly since Mountaineer could not safely initiate repairs until the flow of water ceased. While modern construction methods can address repairs and replacements, it is impractical to employ these measures with existing pipelines constructed before the code requirements were enacted.

Additional Information

The Pipeline and Hazardous Material Safety Administration (PHMSA) issued a NPRM concerning the safety of Gas Distribution Pipelines (Federal Register Volume 88, Number 172, pages 61746 – 61804) on September 7, 2023. The NPRM proposes implementation of the provisions of the Leonel Rondon Pipeline Safety Act that was part of the PIPES Act of 2020 (Docket No. PHMSA-2021-0046, RIN 2137-AF53), and outlines a number of proposed regulatory updates that affect distribution operators.

These proposed distribution regulation changes include:

1. Notification to PHMSA and of the unintended release of gas and shutdown of gas service to 50 or more customers;
2. Customer notification of such outages;
3. Development of a public communication process, including periodic tests of those systems;
4. Development of a management of change process;
5. Record retention requirements for regulator stations, particularly in regards to low-pressure systems; and
6. Use of pressure monitoring or other redundant safety systems on low pressure distribution systems.

However, these proposed regulatory updates would have not have altered or affected the outcome of the November 10 event.

Conclusion:

The events of November 10, 2023 created an unfortunate chain of events that resulted in a major gas outage of the Mountaineer low pressure distribution system on the West side of Charleston. Mountaineer's maintenance and response were very appropriate and reasonable given the size of the event, and they diligently worked to safely restore gas service. Mountaineer acted according to their written emergency procedures, other written procedures as well as Federal pipeline safety regulations to promptly address the gas outage and safely restore service while protecting the safety of customers, their employees, and the public.