

UTC Incident Investigation Form

Notification ID:	3988	Investigation ID:	8498
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Inspector Name:	Darren Tinnerstet (360) 764-0779 Darren.Tinnerstet@utc.wa.gov
Date Report Submitted to Chief Engineer:	May 18, 2022
Date Report Reviewed & Approved by Chief Engineer:	Reviewed and approved by Scott Rukke on 5/31/2022

Operator:	Avista Utilities
District/Unit:	Spokane
Locations:	3817 N Crestline St. Spokane 99207
Incident Date:	March 3, 2022

Description:	<p>On March 3, 2022, the Spokane City Water Department responded to a leaking water service located at 3817 N Crestline St. in Spokane. When the city water crew arrived onsite they smelled natural gas in the area they were supposed to excavate. Avista Utilities (Avista) was notified by the city water crew and promptly dispatched a first responder to determine where the leak was coming from. The location of the leak was ultimately found to be coming from a crack or small hole inside of a dent on the bottom of Avista’s 12-inch steel main.</p> <p>Avista was initially notified of this incident at approximately 6:08 PM on March 3, 2022, and dispatched their first responder unit to the incident site. Avista arrived onsite at approximately 7:03 PM and determined that a construction crew would be needed to help determine the location of the leak. The construction crew was able to safely excavate the area and locate the source of leak on the bottom of the 12-inch steel gas main. The leak was coming from a crack or small hole inside of a dent. Initial indications were that the leak was possibly due to corrosion, but this was later ruled out once the damaged section was further examined.</p> <p>To repair the damage, the construction crew attempted to reduce the flow of gas from the leak by inserting a temporary plug. This did not stop the leak and ultimately caused the leak rate to increase. Avista determined that the system should be shut down to safely weld on a repair fitting. Ten valves on the system were closed at approximately midnight on March 4, 2022. This outage caused 1169 customers to lose service.</p>
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UTC Incident Investigation Form

The final repairs were completed on the 12-inch steel main at approximately 1 AM on March 4, 2022. All gas meters in the system were shut off, the system was purged of any air, and customer relights started at 2 PM on the same day. Re-lights were completed at 5 PM on March 5, 2022, except for some customers whose residences Avista was unable to gain access to.

Avista initially contacted the UTC via the incident hotline at 1:42 AM on March 4, 2022, to report the incident.¹ Avista also reported the incident to the National Response Center (NRC #1330648) at 4:37 PM on March 9, 2022, due to the determination that the incident cost had exceeded the federal threshold of \$122,000². It was determined that estimated incident costs ultimately reached \$179,000. Avista also provided a 48-hour follow up report to the NRC at 11:43 AM on March 11, 2022 (NRC #1330830)³.

On April 1, 2022, Avista submitted a 30-day report to the UTC indicating they had determined the cause of the dent, and subsequently the source of the leak, was the result of excavation damage from work performed prior to the incident.⁴ UTC Staff researched locate tickets requested for the incident location and was able to identify a locate request submitted by the City of Spokane Wastewater Department on Aug. 11, 2020.⁵ There is no evidence to prove that this job was responsible for the damage that occurred. Staff also located multiple locate tickets that included the incident location within its scope of work over the past several years, but again it was not feasible to determine who could have been responsible for the damage.

The damaged pipeline facility was a 12-inch API 5L steel line with .250" wall thickness and longitudinal ERW. It was originally installed in 1956, with an MAOP of 60 PSIG established on June 15, 1956. The depth of cover at the area where the leak was discovered was reported to be 34-inches. The most recent leak survey was conducted on Aug. 8, 2018.

Facts/Chronology of Events:

March 3, 2022, 6 PM – Spokane City Water Department responded to a leaking water service call located at 3817 N Crestline St. in Spokane. Upon arrival, the crew could smell gas in the area and promptly called Avista Utilities to report the discovery.

March 3, 2022, 6:08 PM – Avista received report of gas odor smell from City of Spokane Water Department. Operator promptly dispatched gas first responder unit to investigate.

¹ Attachment 1 – UTC Incident Notification Notice submitted on March 4, 2022.

² Attachment 2 – NRC #1330648 Incident Notice submitted on March 9, 2022.

³ Attachment 3 – NRC #1330830 Incident Follow Up Notice submitted on March 11, 2022.

⁴ Attachment 4 – 30-day Incident Report submitted on April 1, 2022.

⁵ Attachment 5 – Washington One Call Locate Ticket #20335024 issued on Aug. 11, 2020.

UTC Incident Investigation Form

March 3, 2022, 7:03 PM – Avista gas first responder unit arrived at 3817 N Crestline St. Initial assessment identified the need for a construction crew to be dispatched to assist with locating the source of the gas leak.

March 4, 2022, 12 AM – Avista closed 10 valves to isolate the source of the leak which resulted in 1169 customers losing gas service.

March 4, 2022, 1 AM – Avista completed repairs on 12-inch steel main.

March 4, 2022, 1:42 AM – Avista reported the incident to UTC hotline based on the unscheduled interruption of service to 25 or more distribution customers.

March 9, 2022, 4:37 PM – Avista reported the incident to the National Response Center (NRC #1330648) due to the discovery that the cost of the incident surpassed the federal reporting threshold of \$122,000.⁶

March 11, 2022, 11:43 AM – Avista provided 48-hour follow up report to the NRC (#1330830).

April 1, 2022, 2:54 PM – Avista submitted 30-day report to the UTC.

April 8, 2022, 9:25 AM – Avista submitted Form F-7100.1 to PHMSA and provided a copy to the UTC.⁷

Causes/Contributing Factors:

The cause of the gas leak was initially believed to be corrosion related when it was first discovered. After further examination by the operator, it was found that a crack or small hole that was located inside of a dent on the bottom of the 12-inch steel gas main. The operator concluded that the dent was likely caused by previous excavation damage that was not reported or known at the time it occurred.

Regulatory Analysis/ Violations:

Staff reviewed records pertinent to the operation of the damaged pipeline and found no issues or concerns. Staff reviewed One-Call locate tickets that were within the area of the damage for the last six years and found multiple tickets which could have included the specific address of the incident. One ticket in particular was requested for the exact same address as the damaged area on Aug. 11, 2020, by the City of Spokane Wastewater Department. It is possible that this was time at which the pipeline was damaged by it not feasible to know for sure. The last leak survey was completed in 2018 and the next one is

⁶49 CFR 191.3, Incident definition (1)(ii).

⁷ Attachment 6 - PHMSA Form F-7100.1 submitted on April 8, 2022.

UTC Incident Investigation Form

scheduled to be completed in 2023. There were no reported concerns of gas odors prior to the day the leak was discovered.

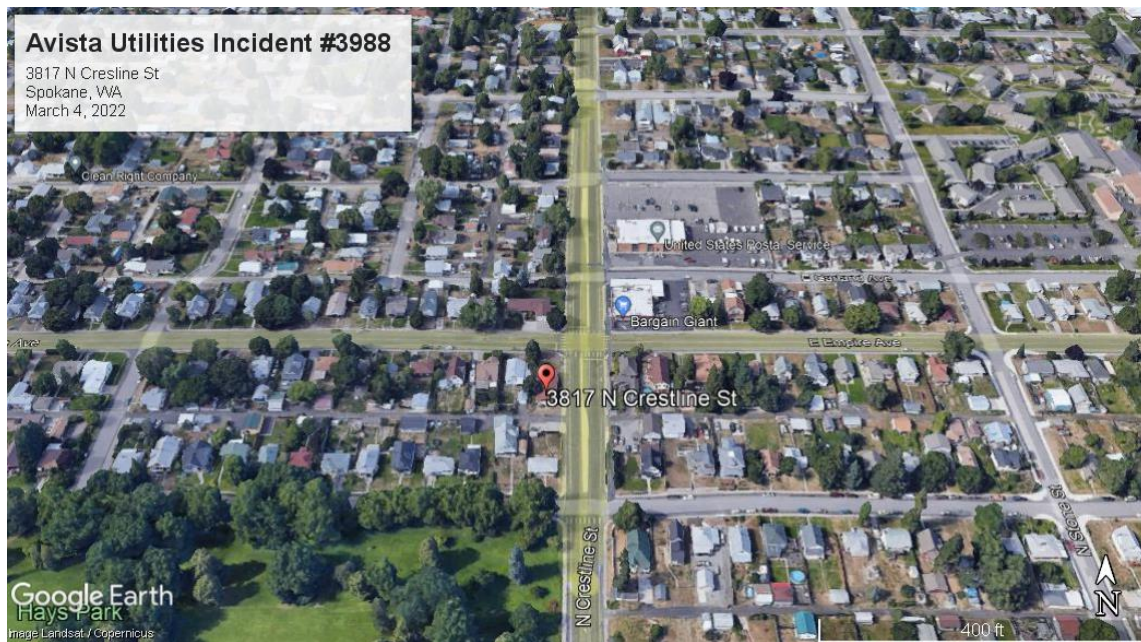
Avista could not have reasonably prevented this incident from occurring. They were unaware that the damage had occurred to their pipeline facility and had no prior knowledge of the existence of gas leaking at the incident location.

Follow up/ Recommendations:

No specific recommendations or follow up.

Photos:

Incident Location



UTC Incident Investigation Form

Damage to 12-Inch Main



Attachments:

1. UTC Incident Notification Notice submitted on March 4, 2022.
2. NRC #1330648 Incident Notice submitted on March 9, 2022.
3. NRC #1330830 Incident Follow Up Notice submitted on March 11, 2022.
4. 30-day Incident Report submitted on April 1, 2022.
5. Washington One Call Locate Ticket #20335024 issued on Aug. 11, 2020.
6. PHMSA Form F-7100.1 submitted on April 8, 2022.