

From: [Mayo, Sean \(UTC\)](#)
To: ["chris.ruhl@dot.gov"](mailto:chris.ruhl@dot.gov)
Cc: [Hubbard, Dustin \(PHMSA\)](#)
Subject: WA UTC Investigation Report NRC 1294705 (Williams Northwest Pipeline, White Salmon WA/Hood River OR 12-20-2020)
Date: Friday, June 4, 2021 8:37:25 AM
Attachments: [8329 Investigation Report Williams NWP White Salmon WA 12-20-2020.pdf](#)
[Photos and Descriptions \(1\).pdf](#)

Good morning, Chris.

Passing along our completed investigation report related to NRC 1294705, Williams Northwest Pipeline LLC Outside Force Damage that occurred 12-2-2020, in case this was not already shared with you.

Please let me know if we can answer any questions.

Thanks, and have a great weekend.

Sean

Sean Mayo

Director, Pipeline Safety Division

Washington Utilities and Transportation Commission

(360) 664-

1219

Respect, Professionalism, Integrity, and Accountability

Northwest Pipeline LLC, White Salmon Damage, 12-20-2020 11:28 PM

UTC R H
Incident / Failure / Investigation Report

Incident Title Northwest Pipeline LLC, White Salmon Damage, 12-20-2020 11:28 PM	3 Word Summary White Salmon Damage
Incident No. 3802	Investigation ID: 8329
Lead Inspector Name: Derek Norwood	Assistant Inspector Name: Additional Inspector:

Incident Information

Incident Date and Time 12-20-2020 11:28 PM	Operator: Northwest Pipeline LLC	OPID	NRC # 1294705
Unit: Williams Gas Pipeline- Battle Ground	Commodity Gas	Product Discharged Natural Gas	

Initial Response to Control the Discharge

Williams received a "low low" alarm at 280 psig from 372psig and gas flow went from a range of 1800-8500mcf jumping to 10500mcf between scans. Local operations personnel were initially contacted at 11:35pm. Williams contacted Northwest Natural (NWN) at 11:45pm local time. NWN reported seeing abnormal fluctuations as well. Soon afterwards a NWN representative called Williams to report that a car had crashed into the meter station and that the Klickitat Fire Department was closing the Hood River Bridge at HWY 14. At 12:08pm Klickitat Emergency Dispatch called Williams to report the incident which included a strong odor of gas and loud noise. At 12:17 AM Williams' local district manager was informed of the situation, and additional local personnel were dispatched. At 12:36 AM the incident was reported to Williams Safety Operations Center. At about 1:00 AM technicians from Northwest Natural and Williams arrived on site. At 1:35 AM it was determined that the lateral feeding the station would need to be completely shut-in to isolate the incident. At 2:20 AM valves 75-0 and 75-0x were closed to isolate the lateral, and by 3:15 AM the flow and pressure had reached 0.

Estimated Volume Discharged

1068 MMCF

Type of Failure

Outside Force Damage resulting in uncontrolled release

Executive Summary

Executive Summary

On December 20, 2020, a driver was crossing the Hood River Bridge going from Hood River, Oregon to White Salmon, Washington. The driver lost control of the vehicle and collided with the Hood River Meter station due to a high rate of speed and alleged alcohol impairment. Williams control room operator received a "low low" pressure alarm of 280 psig and saw that gas flow had increased to 10,500 mcf at the Hood River Meter Station. Williams personnel contacted NW Natural at approximately 23:45 who confirmed that they had seen abnormal fluctuations as well. At approximately 1:00 AM on December 21, 2020, Williams and NW Natural personnel arrived on site. At 2:20 AM valves 75-0 and 75-0x were closed to isolate the lateral and by 3:15 AM the flow and pressure had reached zero.

Once control of the incident had been established, Williams and NW Natural began assessing the damage to determine the extent and possible repair options. It was determined that the release of gas had come from the portion of the meter station feeding Hood River and other cities in Oregon. The feed to White Salmon and Bingen had very minimal damage and could be safely returned to service. Although damage to the Washington supply was minimal, the closure of valves resulted in gas shut off to both Washington and Oregon customers. In order to return service to customers in Washington, NW Natural shut in all gas meters, packed the system with gas and performed re-lights for all services. Shutting in the gas system occurred on December 21st and was completed around 2 PM on December 22 at which point gas supply was restored to NW Natural assets in Washington. Re-lights began on December 22 and the first pass was completed on December 24. In order to return service to Oregon, Williams installed a mobile metering and regulating station. The mobile meter station is still in place and Williams is working on plans to do a full station rebuild during summer 2021.

Injuries and Fatalities Information

of Injuries **Injuries Information**

0 No injuries due to gas company operations.

of Fatalities Fatalities Information

0 No fatalities due to gas company operations.

30 Day Rep (Optional)

30-Day Report	Incident Report	Final Estimated Cost	UTC Final PHMSA Cause Code
3802	3802	\$1,302,670.00	D - Other Outside Force Damage
30-day Operator Estimated Cost	30-Day Operator PHMSA Cause Code	30-Day Operator PHMSA Cause Code optional	
\$1,302,670.00	D - Other Outside Force Damage	D - Other Outside Force Damage	

Location Information

County

Klickitat

Location:

65177 Lewis and Clark Highway, White Salmon, Washington 98672

Milepost Information

Milepost 4.6

Location Description (if not specific address). Include HCA description.

Hood River Meter Station

Incident Description

Events Leading Up To The Failure

The incident was caused by vehicular damage and events that led up to the incident can be attributed to the vehicle and the driver. Hood River Meter station was struck by a vehicle crossing the Hood River Bridge from Hood River, OR to White Salmon, WA. Washington State Patrol determined that the driver was going at least twice the posted speed limit of 25 mph and was under the influence of alcohol. These two factors resulted in the vehicle leaving the roadway and colliding with Williams' meter station. The collision resulted in damage to Hood River Meter station forcing Williams to close two valves which resulted in approximately 5,500 customers losing gas service.

Emergency Response

Williams received a "low low" alarm of 280 psig on December 20, 2020 and notified local operations personnel at 11:35 pm. At 11:45 PM, Williams contacted NW Natural who also reported seeing abnormal pressures and flows. Shortly after, NW Natural reported to Williams that a car had hit the meter station. At 12:17 AM on December 21, 2020, Williams notified the Battle Ground District Manager and additional personnel were dispatched to the scene. At approximately 1:00 AM Williams personnel arrived on-site and at 1:35 AM Williams determined that the lateral feeding the meter station would need to be shut-in to isolate the incident. At 2:20 AM valves 75-0 and 75-0x were closed to isolate the lateral, and by 3:15 AM the flow and pressure reached zero. NW Natural began shutting in the gas system in Bingen and White Salmon on December 21 and completed the shut in on December 22 around 2 PM at which point gas supply was returned.

Summary of Return-to-Service

Closing valves 75-0 and 75-0x resulted in Hood River meter station and all the customers it serves to lose gas service. Approximately 5,500 customers on NW Natural's distribution system lost gas service of which 1,482 were in Washington. By 2 PM on December 22nd, NW Natural had shut-in the gas system in Bingen and White Salmon at which point gas supply was restored. Once gas supply had been restored, NW Natural began relighting customer gas service. The first pass of relights began on December 22nd and was completed on December 24th. Due to the extensive damage to the metering station feeding Oregon, it was necessary to bring in a mobile metering and regulating station to restore gas supply to Oregon. The mobile metering station will be in place until Williams can complete a station rebuild. The rebuild is tentatively scheduled for Summer 2021.

System Details

System Details

The damaged facility is the Hood River Meter Station. It provides gas supply to White Salmon and Bingen in Washington along with the communities of Hood River and Odell in Oregon. The total number of customers served from this meter station is approximately 5,500. Due to the single source feed, all customers temporarily lost gas service.

▼ Pipe Details

Failed Pipe Details

The damaged pipeline was above ground and was 6" outside diameter pipe. The leak occurred at two above ground fittings that were sheared off due to the collision. The approximate size of each leak was 1" in diameter

Operator's Name for the Pipeline	Failed Pipeline	Pipeline Name	Product Transported
Hood River Lateral			Natural Gas
Year Constructed	Nominal Diameter	Wall Thickness	Grade
1972			
Coating	Seam Type	Manufacturer	Year Manufactured

Investigation Details

Describe details of the investigation

At 3:35 AM on December 21, 2020, pipeline safety staff were notified of the incident via the telephonic notification line. First notice was made by NW Natural who informed staff that a vehicle collision had occurred at the meter station in White Salmon and pressure in their line was at 24 psig. At the time of the call customers had not lost gas service but since the systems in White Salmon and Bingen are fed from a single meter station, NW Natural expected that customers would lose service. Due to the likelihood that this event would surpass the \$50,000 in damage reporting threshold, pipeline staff deployed to the scene to conduct an investigation of the damage and events leading up to the incident.

Commission staff arrived onsite at approximately 7:15 AM and checked in with NW Natural and Williams personnel to get a description of the incident and their plans going forward. Valves had been closed and gas flow had ceased when Staff arrived and the investigation could proceed. Staff spoke with several NW Natural and Williams personnel and took pictures to document the current state of the meter station.

According to personnel on site, a vehicle had collided with the meter station when coming across the Hood River Bridge. Washington State Patrol had determined exceeded the speed limit and was under the influence of alcohol. Based on Williams' NRC report, the shortest distance from the roadway to the meter station was 70 feet and no protections were in place to limit damage from vehicles.

▼ Findings and Contributing Factors

Investigation Findings and Contributing Factors, including Root Cause

The cause of the incident is outside force from a motor vehicle. Protections against vehicular damage such as bollards, barricades or guard rails may have prevented the incident or limited the extent of damage. Although no physical barriers were in place, the likelihood of damage from a motor vehicle was low. Vehicles traveling toward the station had a posted speed limit of 25 mph, the station is approximately 70 feet from the roadway and there is a slight elevation difference between the roadway and the station. These three factors help to reduce but not eliminate the likelihood of damage from motor vehicles.

▼ Regulatory Analysis / Violations

Regulatory Analysis/Violations:

49 CFR 192.317(b)

Each above ground transmission line or main, not located offshore or in inland navigable water areas, must be protected from accidental damage by vehicular traffic or other similar causes, either by being placed at a safe distance from the traffic or by installing barricades.

To address the risk of vehicular damage Williams is working with the Washington DOT for approval of a long term solution to prevent potential future impacts from vehicular incidents. A final plan is yet to be approved by all parties. Williams anticipates that once a final plan is developed and approved, that construction will begin around July or August 2021.

▼ Recommendations / Follow Up

Follow up/Recommendations:

Recommend that Commission Staff follow-up with Williams to review proposed vehicular protections and conduct on site inspections once the station re-build begins.

▼ Cause

Construction Error	Corrosion	Equipment Failure/Damage	Excavation Damage
Human Error	Improper Operations	Inadequate Design	Material Failure
Natural Forces	Organizational Failure	Outside Force Vehicular damage	Causes D - Other Outside Force Damage , , , , , Vehicular damage

Appendices

- Appendices - 1**
Photos and Descriptions.docx
- Appendices - 2**
IMG_0137.JPG
- Appendices - 3**
IMG_0138.JPG
- Appendices - 4**
IMG_0139.JPG
- Appendices - 5**
IMG_0156.JPG
- Appendices - 6**
IMG_0157.JPG
- Appendices - 7**
IMG_0160.JPG
- Appendices - 8**
- Appendices - 9**
- Appendices - 10**
- Appendices - 11**
- Appendices - 12**
- Appendices - 13**
- Appendices - 14**

 **Workflow**

Investigation Start Date 12-21-2020 **Submit to Chief Engineer?** **Submit to Chief Date** 05-17-2021

Figure 1: Aerial View of Hood River Meter Station



Figure 2: Street View of Hood River Meter Station Before Damage



Figure 3: Photo taken at Hood River Meter Station on December 21, 2021 showing damage from the vehicle collision.



Figure 4: Diagram showing direction of travel and approximate distance to the meter station.

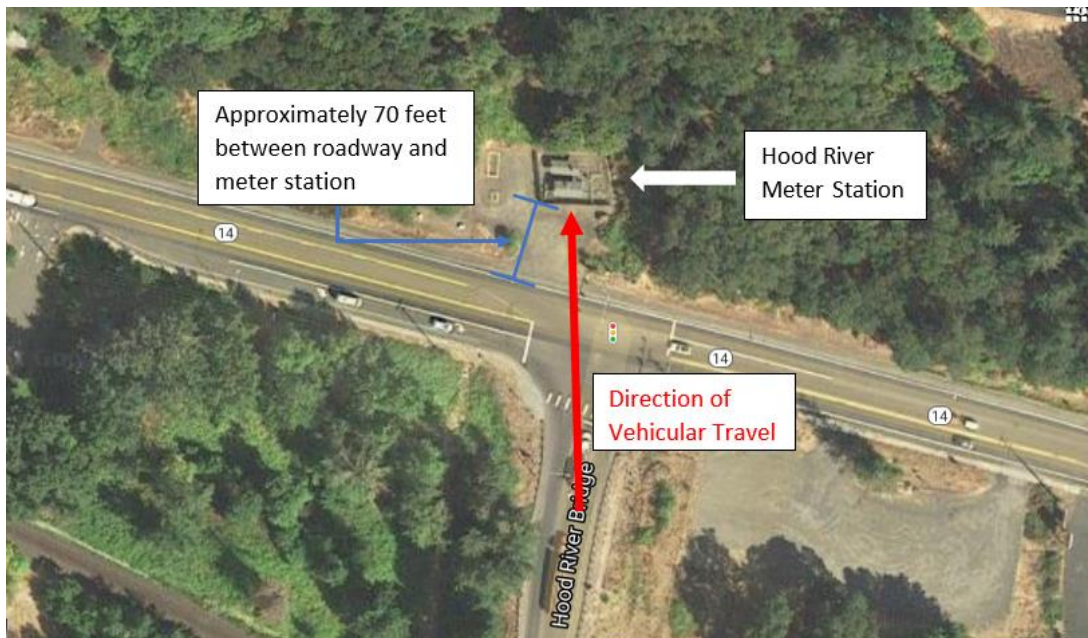


Figure 5: Photo showing location of gas release.

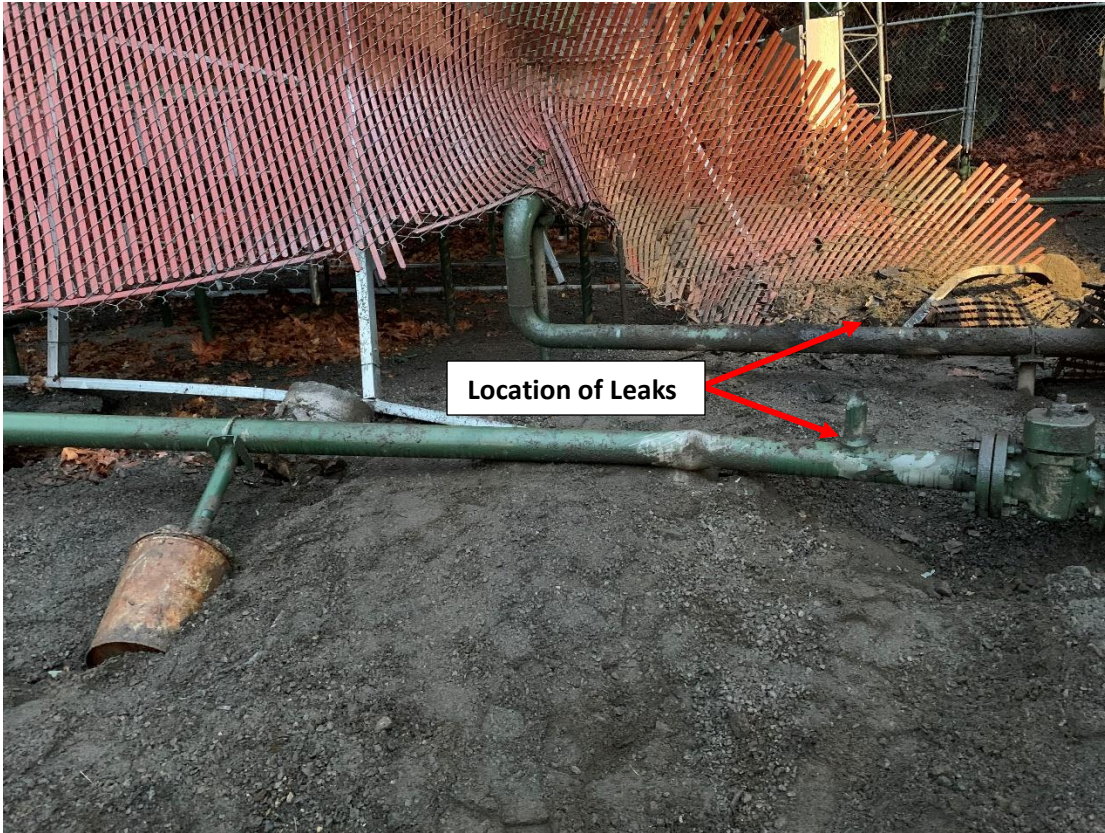


Figure 6: Close up photo of leak locations.

