

Failure Investigation Report – Columbia Transmission Files Creek Venting Incident – Activity ID 128517

Principal Investigator Dave Hippchen WV PSC
Regional Director Byron Coy
Date of Report 02/19/2011
Subject Failure Investigation Report – CGT Files Creek Venting Incident

Summary:

This event was downgraded from a reportable *incident* to an *abnormal operation*, since the cost of lost gas did not exceed \$50,000.

While unmanned on Sunday April 19, at 3:42 AM, Gas Control took the main Unit #5 off line. In the process of shutting down, the suction valve did not respond to the "close" signal during the control sequence and remained open. The blow down valve opened as part of the control sequence allowing gas to vent to atmosphere outside of the GMV compressor building. On Monday April 20 at approximately 7:00 AM, The Operator arrived at the station and found gas blowing from the compressor blow down vent. The operator proceeded with the necessary actions to close the suction valve. Gas vented to the atmosphere outside the GMV compressor building from the Unit #5 compressor blow down vent for 27 hours and 20 minutes.

Operator, Location, & Consequences

Date & Time of Failure: 4/19/2009 at 3:42 AM
Commodity Released: Natural Gas
City/County & State: Beverly District, Randolph County, West Virginia
OpID & Operator Name 2616 Columbia Transmission
Unit # & Unit Name 67781 Files Creek Compressor Station
SMART Activity #: 128517
Milepost / Location Files Creek Compressor Station
Type of Failure: Compressor Station valve controller failure
Fatalities: 0
Injuries 0
Description of area impacted Rural
Property damage None

Events Leading up to the Failure

While unmanned on Sunday April 19, at 3:42 AM, Gas Control took the main Unit #5 off line. In the process of shutting down, the suction valve did not respond to the "close" signal during the control sequence and remained open. The blow down valve opened as part of the control sequence allowing gas to vent to atmosphere outside of the GMV compressor building.

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Emergency Response

On Monday April 20 at approximately 7:00 AM, the Operator arrived at the station and found gas blowing from the compressor blow down vent. The operator proceeded with the necessary actions to close the suction valve. Gas vented to the atmosphere outside the GMV compressor building from the Unit #5 compressor blow down vent for 27 hours and 20 minutes.

The Operator arrived at the plant and found gas venting, he checked to see if possibly the unit had just been shut down. When the operator saw the unit had been down for hours, he checked and found the suction valve had not closed. He greased the suction valve to see if this would help make it close, but this did not get the valve to operate. He manually closed the blow down valve to stop gas from venting. The operator then notified the other station personnel and the Monitoring Center. The Operations Team Leader was then notified by other station personnel.

Summary of initial start-up plan and return-to-service, including preliminary safety measures

The station personnel proceeded to troubleshoot and pinpoint the problem and take corrective actions. The VERSA valve was replaced and the system checked for proper operation.

Investigation Findings & Contributing Factors

The main causal factor for this incident is a **single component failure**, the VERSA valve. The root cause for the failure of the valve could not be determined in this investigation. The causal factor for the **near** DOT recordable level of damages, (lost gas) is that **management had accepted a risk** in setting up the unit for remote shutdown. The unit was set up for remote shutdown without the level of automation to provide feedback that the desired operation has successfully been carried out. When using the fault system to shut down the unit, there is no feedback to gas control to give indication of a problem with the process due to the use of the fault system to shut down the unit.

Appendices

- 1 NRC 903208
- 2 Retraction Letter - NRC Report 903208
- 3 Root Cause Analysis_Files Creek

128517 Appendix 1 - NRC Report#903208

EVACUATIONS: NO Who Evacuated: Radius/Area:
 Damages: NO

<u>Closure Type</u>	<u>Description of Closure</u>	<u>Length of Closure</u>	<u>Direction of Closure</u>
Air:	N		
Road:	N		M: Ar
Waterway:	N		
Track:	N		

Passengers Transferred: NO

Environmental Impact: NO

Media Interest: NONE Community Impact due to Material:

REMEDIAL ACTIONS

ISOLATED THE GAS LINE.

Release Secured: YES

Release Rate:

Estimated Release Duration: 27 HOUR

WEATHER

Weather: RAINY, °F

ADDITIONAL AGENCIES NOTIFIED

Federal: NONE

State/Local: NONE

State/Local On Scene: NONE

State Agency Number: N/A

NOTIFICATIONS BY NRC

ATLANTIC STRIKE TEAM (MAIN OFFICE)

20-APR-09 08:33

CG INVESTIGATIVE SERVICE BALTIMORE (MAIN OFFICE)

20-APR-09 08:33

INFO FOR CRITICAL MFG SECTOR (MAIN OFFICE)

20-APR-09 08:33

DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)

20-APR-09 08:33

U.S. EPA III (MAIN OFFICE)

20-APR-09 08:35

NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)

20-APR-09 08:33

NOAA RPTS FOR WV (MAIN OFFICE)

20-APR-09 08:33

SECTOR OHIO VALLEY (COMMAND CENTER)

20-APR-09 08:33

WEST VIRGINIA DEP (MAIN OFFICE)

20-APR-09 08:33

WV DEP ATTN: DUTY OFFICER (MAIN OFFICE)

128517 Appendix 1 - NRC Report#903208

20-APR-09 08:33
WV DEP SPILL LINE (MAIN OFFICE)
20-APR-09 08:33

ADDITIONAL INFORMATION

*** END INCIDENT REPORT # 903208 ***



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April 21, 2009

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VIA FAX and EMAIL

RE: NRC Report Number 903208 - Incident Retraction

On April 20, 2009, Columbia Gas Transmission (Columbia) reported to the NRC an event that occurred at Columbia's Files Creek Compressor Station, located in Randolph County, Beverly District, in the state of West Virginia. The station is located approximately 3 miles south of the town of Beverly, WV.

A 1" versa valve, valve number C38-13 on the suction side of Unit #5 failed to close properly which resulted in a release of natural gas to the atmosphere. Although the initial report was based on the estimated dollar amount of the lost gas exceeding \$50,000, upon further investigation it was discovered that the volume of gas decreased from 16,509.1 mcf to 3,544.2 mcf which equates to approximately \$27,273 in lost gas. The valve was manufactured by Kimray, Inc. which has restricted opening, and thus the explanation for the reduction in gas volume. There were no additional costs associated with this event. Since the event did not meet criterion in Part 191, Columbia is retracting its initial report.

This retraction is submitted in accordance with the reporting requirements of 49 CFR Part 191. If you have any questions, please do not hesitate to call me.

Sincerely,

A handwritten signature in blue ink that reads "Mark Newman".

Mark Newman
Senior Engineer, Compliance
Columbia Gas Transmisión
(304) 722-8475
mnewman@nisource.com

CC (email): Michael Yazemboski, Eastern Region
David Hipchen, WV PSC

Appendix 3 Root Cause Analysis_Files Creek

Columbia Gas Transmission Root Cause Investigation

This document is on file at PHMSA