



PRELIMINARY REPORT

PIPELINE

Kinder Morgan, Inc. Natural Gas-Fueled Explosion and Fire

Coolidge, Arizona
August 15, 2021
PLD21FR003

The information in this report is preliminary and will be either supplemented or corrected during the course of the investigation.

On August 15, 2021, about 5:29 a.m. local time, pipeline (line) 2000, a 30-inch diameter natural gas transmission pipeline owned and operated by Kinder Morgan, Inc. (Kinder Morgan) ruptured in a rural area in Coolidge, Arizona.¹ The failure resulted in an explosion, fire, and ejection of a 46-foot section of the pipeline.² A home near the intersection of E Randolph Road and N Vail Road was destroyed by the explosion and subsequent fire, resulting in two fatalities and one injury. (See figure.)



Figure. Aerial image of accident scene following the explosion. (Courtesy of the Pinal County Fire Investigation Task Force)

¹ All times in this document are local time unless otherwise noted.

² The ejected pipeline section was found about 130 feet from its original position.

Shortly after the rupture, the Kinder Morgan's Colorado Springs Control Center observed a pressure decrease through its supervisory control and data acquisition system and contacted field personnel to isolate the affected pipeline segment. About the same time, the control center received a report of the fire from a nearby power plant.

Isolation of the affected segment required closing two manually operated valves, one upstream and one downstream of the rupture. Kinder Morgan field personnel manually isolated the nearest downstream valve about 1 hour after the rupture but had difficulty accessing the nearest upstream valve. The nearest upstream was isolated about 2 1/2 hours after the rupture, and the fire was extinguished at 8:08 a.m.

Line 2000 was installed in 1985 and previously transported crude oil. It was converted to natural gas service about 20 years ago and acquired by Kinder Morgan in 2012. The gas pressure immediately prior to the rupture was about 863 psig, which was under the maximum allowable operating pressure of 944 psig.

NTSB Investigators examined the site where the explosion occurred, gathered preliminary information, and conducted interviews. Visual examination shows that the ejected section of line 2000 fractured along its length in areas adjacent to the longitudinal weld. NTSB retained the ejected section and a portion of the unaffected pipe as evidence for further evaluation. Sections of the failed and unaffected pipeline will be subject to metallurgical analysis and testing.

The NTSB investigation is ongoing. Future investigative activity will focus on causal factors and pipeline safety.

Parties to the investigation include the Pipeline and Hazardous Materials Safety Administration, the Arizona Corporation Commission, the Pinal County Fire Investigation Task Force, the Coolidge Police Department, and Kinder Morgan, Inc.