

Railroad Commission of Texas Party Submittal
NTSB PLD18FR002

Executive Summary

On March 27, 2018, Railroad Commission of Texas (“Commission”) Oversight and Safety Division inspectors Joey Bass and Michael Parker began an evaluation of Atmos Energy Corporation, Mid-Tex Division (“Atmos”). The evaluation concerned a reportable incident which occurred on February 23, 2018 at 3534 Espanola Drive, Dallas, Texas.

The evaluation conducted was to determine compliance with federal and state pipeline safety regulations (49 Code of Federal Regulations, Part 192 and 16 Texas Administrative Code, Chapter 8). The National Transportation Safety Board (“NTSB”) was also investigating.

The Commission was in contact with Atmos on several occasions to collect information for the investigation which ended with similar results due to Atmos stating most of the requested information was confidential due to the NTSB investigation. The dates Commission Staff met with Atmos were March 27-29, 2018, April 24-27, 2018, May 21-25, 2018, and June 28, 2018.

System Details

The failed section of main is 2-inch steel as reported by Atmos. The Maximum Allowable Operating Pressure (“MAOP”) of the section, according to Atmos’ records, was 55 psig, which is the MAOP of the entire distribution system. At the time of the incident, the Dallas distribution system was approximately 3,403 miles of various pipe materials and sizes. Atmos’ records reflected 48.6 miles of unprotected bare steel, 1,845.8 miles of protected steel, 408.3 miles of cast iron, and 1,046.7 miles of polyethylene pipe. The system serves the Dallas area, but the smaller communities, like Plano or McKinney, are considered their own systems. Other information regarding the particular section of main in question could not be collected from Atmos. Atmos representatives stated that the information was pertinent to the NTSB investigation and therefore confidential.

Events Leading up to the Failure

The failed section of pipe occurred in the alleyway between Espanola and Durango avenue in Dallas, Texas. The failure was found to be on a 2-inch main in the alleyway, and a portion of the main had a crack between the three and nine o’clock positions. The NTSB removed the failed section and moved it off site for future testing.

Initially, the Commission did not have information regarding the events leading up to the failure. At the time of the March 27, 2018 inspection, Atmos did not provide any known factual events that may have contributed to the failure. Atmos explained that it could not provide more factual events due to the NTSB investigation that was ongoing at the time.

However, the Commission notes that after joining NTSB on a second round of interviews, more information was collected about the failure. The questions asked by the Commission during the NTSB interviews focused on the weather conditions the night before the failure, training available to Atmos for the job, the leak survey equipment used, and the leak survey equipment’s strengths and weaknesses.

Emergency Response

On February 22, 2018 Atmos began special leak surveys based on other calls that had occurred in the area. After the failure on February 23, 2018, Atmos expanded those activities to locating valves to isolate the system and determining if other structures were safe. Atmos also evacuated approximately 300 residents from the area.

Summary of Return-to-Service

As a result of its emergency response efforts, Atmos ultimately replaced 23.7 miles of the Dallas distribution system as shown through documentation. The Railroad Commission of Texas conducted a new construction evaluation on Atmos for the replacement project under Package #117411.

Investigation Details

Railroad Commission Oversight and Safety Inspectors Joey Bass and Michael Parker began an evaluation of Atmos on March 27, 2018.

During the evaluation, the PHMSA Form 11 was used to collect information from Atmos to determine what occurred. The Commission conducted the evaluation on compliance records for 49 CFR Part 192 and TAC Title 16 Chapter 8 for the previous five years.

Portions of the PHMSA Form 11 were unable to be filled out due to the NTSB investigation. All portions of the PHMSA Form 11 stating "Under NTSB investigation" were listed due to inability to collect the information from Atmos. Four attempts were made to collect the information needed to fill out the PHMSA Form 11 and those dates include March 27-29, 2018, April 24-27, 2018, May 21-25, 2018, and June 28, 2018. The information not provided by Atmos included the following: Quantity of gas released unintentionally; total cost of damages; apparent cause of failure; estimated property damage; associated damages; description of property damage; name of person injured in the failure; length of the failure; relative position of the failure; description of the failure; manufacturer of failed section; wall thickness of pipe; longitudinal seam; flow rate of the failed portion of the system; type of backfill being used for previous repairs; cathodic protection readings for the site; internal pipe examination results; whether any known pre-failure conditions existed for the failed section; and whether any issues were found to include operator error prior to or including the time of failure.

Records prior to the failure were collected and reviewed. The requested information was intended to answer as many questions from the PHMSA Form 11 as possible. Records included odorization information and testing, odor complaint calls, leak surveys, meter readings, gas flow analysis, maps, procedure for leak surveys, training documents for leak surveys, meter turn ons and turn offs, Lost and Unaccounted for Gas, leak repair reports, procedure for meter reading, continuing surveillance records, weather conditions for leak surveys, MAOP, estimated pressure the morning of the failure, and local soil conditions. After reviewing the records, the following items were noted:

1. Atmos procedures and information from the manufacturer state the Remote Methane Leak Detection (RMLD) equipment is not to be used in sustained wind or wind gusts above 15mph. The RMLD is not capable of registering a reading above those wind speeds due to lack of an adequate gas plume to measure.
2. Atmos procedures and information from the manufacturer state the RMLD equipment is not to be used in wet conditions. Water present in the area will refract the laser signal and cause the RMLD to not work.
3. Atmos procedures state that when needing to bar hole to find underground leaks that the bar holes will be placed as close as practicable to the main.
4. Atmos personnel stated during the records review that with a few exceptions all leak survey technicians use the RMLD during leak surveys.
5. Atmos did not provide a method or tool to measure wind speeds for the last scheduled leak survey in the area of the failed section on March 7, 2017. Local weather conditions of that day gathered at the nearby Love Field airport showed wind gusts in excess of 15mph.
6. Leak surveys using the RMLD conducted on February 22, 2018 in the alleyway of Espanola and Durango were conducted in wet conditions. Based on available local weather reports and interviews there was sitting water in the alleyway due to recent high rainfall.
7. Interviews revealed that bar holes created in the alleyway of Espanola and Durango during leak surveys on February 22, 2018 were made without locating the main.
8. Records showed that the main in the alleyway of Espanola and Durango had a depth of four feet. All available bar holes to personnel were three feet in length and could not reach the depth of the main.

Interviews were also conducted on six Atmos Energy Corp., Mid-Tex Division employees whose job titles were Operations Supervisor (2), Survey Specialist (2), Service Technician II, and Distribution Operator. These interviews were sanctioned and conducted alongside the NTSB for the two separate evaluations. The questions asked of the interviewees were focused on the evening prior to the failure and training available employees for their specific job requirements, the equipment being used for leak surveys, and the leak survey equipment's strengths and weaknesses. Answers collected from the interviewees and records were cross referenced and found to be stating the same information.