

Railroad Commission of Texas Pipeline
Evaluation System Investigation Report
Inspection Package ID = 105010

Incident ID: 698

Contacts

Company ID: 6776 Company Name: ATMOS ENERGY CORP., MID-TEX DIVISION

Alternate Company Name:

Contact Type	Name	Company / Affiliation	Phone Number
Pipeline Operator	Gregg Elmore	ATMOS ENERGY CORP., MID-TEX DIVISION	903-456-1110

Incident Detail

Investigation Status: Closed

Date of Incident: 10/22/11 1:58 PM

Drill? No

Date Reported: 10/22/11 4:24 PM

Inspector Notified Date: 10/22/11 4:33 PM

Assigned Inspector: Goodluck Onukwufor

Incident Location

Nearest City: Farmersville

Location/Street Address: 205 Abbey Lane

Region: Fort Worth

County: COLLIN

Railroad Commission of Texas Pipeline
Evaluation System Investigation Report
Inspection Package ID = 105010

Incident ID: 698

Notes

Synopsis

On Saturday, October 22, 2011 at approximately 1:58 pm, an explosion and fire occurred at 205 Abbey Lane, Farmersville, Collin County, Texas. The Farmersville Fire Department isolated the hot water heater as point of origin of the fire. It was, however, discovered in the course of investigation, that the incident probably occurred on October 19,2011, but because the home was unoccupied at the time, it was not discovered until October 22, 2011. As a result of the investigation, it was found that no pressure regulator was installed on the customer meter prior to Atmos uprating the system on October 19, 2011. When the system was uprated, customer piping at the residence was exposed to the elevated pressures and the incident occurred. There were no injuries or fatalities as a result of the incident. Structural damages were found inside the house. The natural gas distribution system is owned and operated by Atmos Energy.

Investigation
(Include a probable cause statement for incident/accident investigation)

The Farmersville Fire Department, the first to arrive on the scene, reported that a strong "smoke" odor was detected from inside of the house when the front door was opened.

The residence is a one-story single family residential home that was vacant at the time. On Saturday, October 22, 2011, a family member discovered what he reported to the fire department as a "suspicious circumstance". The Farmersville Fire Department in their report (#:1189240) determined that the reported "suspicious circumstance" had been a house explosion and a fire that subdued itself, without external help. The report stated that the hot water heater, was the point of origin of the fire. Atmos Energy, the operator of the natural gas distribution system in the area, was called to the scene by the Fire Department. Upon arrival, Atmos personnel shutoff the gas to the residence by turning off the stop valve at the customer gas meter and conducted a post incident leak survey on the service line to the property and on the main in the street, but found no leak.

Railroad Commission (RRC) investigator Goodluck Onukwufor arrived on the scene on Monday, October 24, 2011 to conduct an onsite investigation. A leak survey was conducted by Atmos, under RRC guidance on the main and services on Abbey lane and on a section of main from district regulator station (ID #: DRS03) at 499 North Hwy 78 using a Heath Remote Methane Leak Detector (RMLD) (S/N: 8000511002). There were no leaks found during this survey. An odorant concentration test was taken at a district regulator station (DRS -03) using a Bacharach Odorometer (S/N: NE0515). The result of the test yielded a strong odor concentration at 1% readily detectable level. Also the customer piping at the scene, from service meter outlet port was pressure tested with CCI pressure gauge to determine the integrity of the piping, however, a pressure drop of one psig occurred in five minutes.

After the incident, selected records, maps and procedures were reviewed.

The distribution system is part of Atmos McKinney Unit (Map Sheet #: AG346542). The map sheet covers a total of 9956-ft of main and 125 services. The main was installed in approximately 1980 and consist of: 4050-ft Bare Steel (2-inch), 1856-ft Coated Steel (3-inch and 4-inch), and 4050-ft Polyethylene (2-inch and 3-inch) piping. The source of natural gas supply to the area is the district regulator station (ID #: DRS03), located on Hwy 380, E Main Street. The regulator & relief valve report for the station dated 10/01/11 showed that the system inlet maximum allowable operating pressure (MAOP) as 45 psig and the outlet MAOP as 12 osig. The main supplying Abbey Lane is a 4-inch polyethylene pipeline that was installed in 1980 (ER#: 80-7028). There were no records available on the service line at 205 Abbey

Railroad Commission of Texas Pipeline
Evaluation System Investigation Report
Inspection Package ID = 105010

Incident ID: 698

Lane.

Atmos Energy decided to uprate some of the pipeline system in Farmersville, as a result of a TXDOT US Highway 380 expansion project. The Atmos uprating project involved the conversion of low-pressure systems in the area to high pressure with a MAOP of 60 psig. This area of the project involved was south of US-380 from Walnut Street to Beene Street. Abbey Lane is within this project area covers.

In preparation for the pressure uprate, Atmos procedures required pressure regulators to be installed on each natural gas customer riser in the affected areas. The installation of these regulators took place between August 1, 2011 and September 30, 2011. However, during the investigation, it was discovered that, no pressure regulator had been installed at 205 Abbey Lane. In reviewing the system map used by Atmos for the area, it was also found that, the service line to Abbey Lane was missing from the map.

As a result during the uprate, the system pressure was increased from 1 psig to 15 psig. The customer piping located at 205 Abbey Lane was subjected to elevated pressures that exceeded the operating capability of the piping.

<p>Emergency Response (Complete for incident/accident investigations)</p>

The incident is believed to have occurred on Wednesday, October 19, 2011 however, due to the fact that this was a vacant house, the incident was not discovered until Saturday, October 22, 2011.

The Farmersville Fire Department was notified on Saturday, October 22, 2011 of the incident at approximately 1:15p.m.. The Fire Department notified Atmos Energy of the incident on Saturday, October 22, 2011 and Atmos Energy personnel arrived on the scene at 2:46pm. At that time, Atmos shut off the gas supply downstream to customer piping by turning off the gas at the stop valve on the riser. After that time, a post incident leak survey of the customer service line and mainline on the street with a Heath RMLD (S/N: 8000511002). Atmos Energy notified the Railroad Commission emergency number on Saturday, October 22, 2011 at 6:51p.m.

It appears that Atmos followed their emergency procedures after the incident.

Railroad Commission of Texas Pipeline
Evaluation System Investigation Report
Inspection Package ID = 105010

Incident ID: 698

Operator - 30 Day Report

Part A-Key Report Information by operator

Report is final? No

OPS Operator Identification Number:

NRC Number (from Incident Detail): 993315

Volume of commodity released unintentionally: 0

Volume of commodity released intentionally: 0

Volume of commodity recovered: 0

Fatalities? No

Injuries requiring inpatient hospitalization? No

Operator employees: 0

Operator employees: 0

Contractor employees working for the Operator: 0

Contractor employees working for the Operator: 0

Non-Operator emergency responders: 0

Non-Operator emergency responders: 0

Workers working on the right-of-way,
but NOT associated with this Operator: 0

Workers working on the right-of-way,
but NOT associated with this Operator: 0

General Public: 0

General Public: 0

Total Fatalities: 0

Total Injuries: 0

Part C-Additional Facility Information by operator

Incident Occured On:

Failure Occured On:

Material Involved:

Install Year:

Part D-Additional Consequence Information by operator

HCA or USA? No

Public and non-operator costs:

Cost of commodity unintentionally released:

Cost of commodity intentionally released:

Cost of property damage and repair:

Cost of emergency response:

Cost of environmental remediation:

Other costs:

Total costs:

Part G-Apparent Cause from operator

Incident Cause (Confirmed):

Sub-cause:

Part H-Operator Incident Summary