Integrity Management Review

2019 Pipeline Safety Trust Conference

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“To protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives.”
Gas Distribution Integrity Management

- GD Serious Incident, Fatality, and Injury trend lines are roller coasters and are predominantly caused by 3rd party excavation and vehicular damage

- Slight rise in GD Hazardous Leak repairs
Gas Distribution Integrity Management

Serious Incidents

GD frequencies per mile in 2018:
15 per million miles

“Protecting people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives.”
Gas Transmission Integrity Management

• Serious Incident trend is down and the predominant cause is excavation damage

• Significant Incident trend is flat, with only 4 significant incidents in HCAs during 2018
  o Predominant causes in HCA are Excavation Damage and Equipment
  o Predominant causes outside of HCAs are Failure of Pipe/Weld and Equipment

• Since 2004, integrity assessments found 2,700 immediate repair conditions in HCAs
Gas Transmission Integrity Management

Significant Incidents

Incident Rate


"To protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives."
Hazardous Liquid Integrity Management

- Serious Incident trend is down and the predominant cause is Incorrect Operation. Average one per year for the past five years

- Significant Incident trend is slightly up
  - Predominant causes in HCAs are Equipment, Corrosion, and Incorrect Operations

- Since 2004, integrity assessments found 12,800 immediate repair conditions in HCAs
Hazardous Liquid Integrity Management

Significant Incidents on Onshore Pipelines Could Affect HCAs by Cause

Top Three Causes: 2002-2009
- Corrosion
- Material Weld Failure
- Equipment

Top Three Causes: 2010-2018
- Equipment
- Corrosion
- Incorrect Operation

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Summary

• PHMSA recently finalized two major updates to Gas Transmission and Hazardous Liquids regulations and more will follow

• Integrity management is built upon the premise of continuous improvement

• PHMSA, industry and technology providers must focus on improving technology to find defects

• Pipeline Safety Management Systems underpinned by a strong safety culture are a pathway to sustained improvement