Pipeline Safety Trust Annual Conference
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PHMSA Pipeline Safety Program Updates
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Who is PHMSA - DOT/PHMSA?

Pipeline and Hazardous Materials Safety Administration (PHMSA)

FAA

FMCSA

PHMSA

FRA

MARAD

RITA

FHWA

NHTSA

STB
Pipeline Program 101

- Established in 1970
  - States regulated beforehand
  - Statute directed PHMSA to work with States
  - Currently have 52 State partners
- Code Based on Existing Consensus Standards
  - Supplemented by initiative, mandate, or recommendations
  - Overseen by roughly 200 (going to 250) Federal and 330 State Inspection and Enforcement Staff
## What We Regulate

### Pipeline Facilities by System Type – CY 2015

<table>
<thead>
<tr>
<th>System Type</th>
<th>Miles</th>
<th>% Miles</th>
<th># Operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous Liquid</td>
<td>207,981</td>
<td>8%</td>
<td>482</td>
</tr>
<tr>
<td></td>
<td>7,571 Tanks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas Transmission</td>
<td>301,257</td>
<td>11%</td>
<td>1,026</td>
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<tr>
<td>Gas Gathering</td>
<td>17,711</td>
<td>1%</td>
<td>369</td>
</tr>
<tr>
<td>Gas Distribution (Mains &amp; Services)</td>
<td>2,168,599</td>
<td>80%</td>
<td>1,343</td>
</tr>
<tr>
<td>Total</td>
<td>2,717,634</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Some Operators have multiple System Types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquefied Natural Gas</td>
<td>148 Plants</td>
<td></td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>228 Tanks</td>
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</tbody>
</table>
Observations

- Through 1990’s, pipeline safety regulations were primarily prescriptive (e.g., check CP periodically)
- Major accidents always result in demands for broader and more prescriptive regulations to address the cause of that accident
- Preventing the most recent accident is not optimal strategy
- We need to prevent the next accident
- “One-size fits all” totally prescriptive regulations not effective for such a diverse industry
The Right Mix

• PHMSA continues to seek the right mix of prescriptive and performance based standards

• Initial Integrity Management Program (IMP) rules were a major improvement, but ...

• IMP is still evolving.

• PHMSA has proposed significant new changes to IMP in response to San Bruno and Marshall, MI
  - Hazardous Liquid NPRM (Nov 2015) 80 FR 61610
  - Gas NPRM (Mar 2016) 81 FR 20722
Dynamic Operating Environment

The Pipeline and Hazardous Materials Safety Administration (PHMSA) operates in a dynamic and challenging environment. Changes in technology, manufacturing, and energy production have impacted transportation safety. Recent incidents and increased public awareness of, and sensitivity to safety hazards and environmental consequences.

PHMSA anticipates that the scope and complexity of our safety mission will continue to grow, requiring the agency to fundamentally rethink how it uses data, information, and technology to achieve our safety goals.

Oil Prices Tumble Below $30 a Barrel
U.S. crude posts lowest settlement since 2003

TOP MANAGEMENT CHALLENGES
FOR FISCAL YEAR 2016

Energy Storage Industry Gaining Momentum
Hoverboard Safety Fears Grow as Problems Mount

New EIA monthly data track crude oil movements by rail

U.S. natural gas boom
U.S. natural gas marketed production (in millions of cubic feet)

Source: U.S. Energy Information Administration based on data from the Surface Transportation Board and other information. Note: Crude-by-rail movements greater than 1,000 barrels per day are represented on the map; short-distance movements between rail yards within a region are excluded. PADD denotes Petroleum Administration for Defense District.
PHMSA2021—Strategic Framework

PHMSA: THE MOST INNOVATIVE TRANSPORTATION SAFETY ORGANIZATION IN THE WORLD

MISSION
PROTECT PEOPLE AND THE ENVIRONMENT BY ADVANCING THE SAFE TRANSPORTATION OF ENERGY AND OTHER HAZARDOUS MATERIALS THAT ARE ESSENTIAL TO OUR DAILY LIVES

VISION

GOALS

VALUES

TRUST  HONESTY  RESPECT  INTEGRITY  VALUING PEOPLE  EFFECTIVE COMMUNICATION

Cultivate organizational excellence and safety culture

Pursue excellence in our operations

Promote continuous improvement in safety performance

Invest in safety innovations and partnerships

Build greater public and stakeholder trust

To Protect People and the Environment From the Risks of Hazardous Materials Transportation
# Four Key Initiatives to Enable PHMSA 2021

**PHMSA – The most innovative transportation safety organization in the world**

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

<table>
<thead>
<tr>
<th>Organizational assessment</th>
<th>Data assessment and strategy</th>
<th>Agency Safety Action Plan (ASAP)</th>
<th>SMS Framework</th>
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<tbody>
<tr>
<td>Assess PHMSA’s operating model, org structure, capabilities, processes, and culture</td>
<td>Understand how PHMSA can better collect, analyze, and communicate data to support its mission</td>
<td>Anticipate safety challenges, invest in innovative solutions, and address emerging safety concerns</td>
<td>Establish framework for implementation of SMS in PHMSA and within our regulated communities</td>
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Reauthorization

• Protecting our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2016
• Signed by the President on June 22
• 19 new mandates
• Of note:
  – Emergency Order Authority
  – Underground Gas Storage
Reauthorization Update (continued)

- Other issues addressed include:
  - Small Scale LNG
  - State participation in federal inspections
  - Pipeline Advisory Committee Make-up
  - Nationwide integrated database study
  - Information sharing system working group
  - State pipeline safety agreements GAO study
  - Odorization study
  - Natural gas leak reporting
  - State policies relating to natural gas leaks
  - Unusually Sensitive areas as HCAs
  - Report on improving damage prevention technology
  - Providing regulatory updates to the public
Regulatory

- Final Rules Issued
  - Excavation Damage Prevention Enforcement
  - Excess Flow Valves
  - Emergency Order (Interim)

- Final Rules, Next
  - Hazardous Liquid Pipelines
  - Underground natural gas storage (Interim)
• **Current Proposals**
  - Plastic Pipe
  - OQ, Cost Recovery, Incident Notification, and Other Updates
  - Natural Gas Transmission and Gathering Pipelines

• **Rules Under Development**
  - Valves and Rupture Detection
Regulatory (continued)

Safety of On-Shore Hazardous Liquid Pipelines

(Final Rule stage)

- NPRM published 10/13/2015
- LPAC meeting 2/1/2016
- Major topics under consideration:
  - Assessments beyond High Consequence Areas (HCAs)
  - Leak detection beyond HCAs
  - Repair criteria in HCA and non-HCA areas
  - Piggability of lines in HCAs
  - Reporting requirements for gathering lines
  - Reporting requirement for gravity lines
Safety of Gas Transmission and Gathering Lines
(NPRM stage)

- NPRM published 4/8/2016
  - Comment period extended until 7/7/2016
  - Over 400 comments
- Major topics under consideration:
  - Expansion of assessments beyond HCAs – MCAs
  - Repair criteria for both HCA and non-HCA areas
  - Assessment methods
  - Corrosion control
  - Gas gathering; additional reporting and regulations
  - Grandfathered pipe/pipeline records/legacy - IVP
Pipeline Safety Management Systems

- PSMS is centered around Safety Leadership at ALL levels and Management Commitment.
- PSMS fosters and requires continual improvement.
- Learn from other industries:
  - https://www.youtube.com/playlist?list=PL4wHDsuQ-uKm7Mz20uvkeagVu2u_Cro6o
  - Search PHMSA + SMS