“To protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives.”
Who Is PHMSA?

➢ Under the U.S. Department of Transportation
✓ Pipeline Safety Office
✓ Hazardous Materials Safety Office
➢ Natural Gas Pipeline Safety Act of 1968 provided the federal government the safety authority over pipelines and gas underground storage
➢ Hazardous Liquids

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Who Is PHMSA?

• PHMSA’s Office of Pipeline Safety (OPS)

➢ Provides Safety Oversight for the Nation’s 2.6 Million Miles of Pipeline Infrastructure
  ✓ Natural Gas
  ✓ Hazardous Liquids
  ✓ Liquefied Natural Gas (LNG)
  ✓ Underground Natural Gas Storage Facilities

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Hazardous Liquid & Natural Gas Transmission Pipelines
States Partnership

• PHMSA has been working with, and funding States Programs since 1968
• PHMSA Certifications and Agreements with States provide oversight for 80% of the Pipeline Infrastructure
• All States except Alaska and Hawaii participate in PHMSA’s Topside Pipeline Safety Program

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Pipes Act of 2016

- Establish regulations and inspection program for Underground Natural Gas Storage
- Interim Final Rule published on December 19, 2016, which incorporated industry-established recommended practices
- Develop inspection criteria and related training for both federal and state inspectors
- Inspection in this new area of responsibility begins in 2018

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Underground Natural Gas Storage

• Critical role in our ability to have Energy Independence
• Buffers seasonal variations in supply & demand
• Significant growth in domestic shale gas has prompted renewed interest and investment
• NG Storage increased 16% over the past 10 years
• In 2016, the value of natural gas in storage was $15+ billion

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General Statistics

- 128 Operators
- 4800 BCF Working Capacity
- 406 Storage Fields, 50/50 Intra/Inter
- 85% Reservoir-Aquifer, 15% Salt Domes
- 17000 Wells
- Tally based on EIA Information
- First Annual Reports will clarify Data
States Statistics

- UGS facilities in 31 States
- Top 10 States with largest number of Storage Facilities:
  - PA, MI, TX, IL, WV, NY, KY, OH, IN, LA
- Top 10 States with largest Working Gas Capacity:
  - MI, TX, LA, PA, CA, IL, WV, OH, MS, MT
States Certification

• State Regulator for UGS mostly not the agency responsible for topside horizontal pipelines

• Similar, but separate Program, to the established State Reimbursement Program for topside pipelines

• Accepting requests for State Certifications in Sep-2017, for CY2018 inspections

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2017 Major Activities

• Expand & Refine FAQs
• Industry Safety Assessments
• State Certification Program
• Development of Final Rule
• Inspection Criteria
• Build Inspector Training Program
• UGS Goals for PHMSA Strategic & Annual Plans

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# Industry Safety Assessments

<table>
<thead>
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<th>Month</th>
<th>Week of</th>
<th>Operator/Facility</th>
<th>State</th>
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<tbody>
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<td>Kinder Morgan, Totem</td>
<td>CO</td>
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<tr>
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<td>12</td>
<td>Boardwalk, Petal</td>
<td>MS</td>
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<td>June</td>
<td>19</td>
<td>Spectra, Moss Bluff</td>
<td>TX</td>
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<tr>
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<td>26</td>
<td>TransCanada, Muttonville</td>
<td>MI</td>
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<tr>
<td>July</td>
<td>10</td>
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<td>LA</td>
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<tr>
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</tr>
</tbody>
</table>

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Industry UGS Safety Assessments
Purpose & Outcomes

- Operators’ ability to explain the nature and complexity of UGS operations
- Discuss Logistics & Complications with new Regulations
- Help to shape the eventual Inspection Process
- No specific site visit reports about compliance or adherence to the RPs
2018 Major Activities

- IFR Effective Date: January 18, 2018
- Final Rule Forecast
- Public Workshop
- Launch Training for Federal & State Inspectors
- Prioritize Storage Fields for inspection
- Initial Federal & State inspections

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Do the new Regulations supersede Permits and Licenses?

- UGS Operators interact with local, state and other federal agencies
- The new regulations do not supersede permits, certifications or licenses for UGS facilities

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Will Inspection Questions be available to UGS Operators?

- Inspection Questions will be established and published prior to the start of regulatory inspections.
- Inspection Questions will be sorted into topical areas.
- An inspection:
  - Would include those questions appropriate for the type and characteristics of the specific facility.
  - May be a specialized, focusing on only certain topical areas of the Regulations.
How will Operators be expected to demonstrate compliance?

- Question set is being created to guide inspection thoroughness in each topical area
- Inspections will be a blend of traditional standard and integrity inspections
- Discussion between Inspectors and Operator personnel is expected, but those discussions need to be supported by procedures, documented analysis and records
- Some time will be spent on field observations
How will PHMSA handle the wide variability of operating practices in the storage industry?

- Regulations are objectives to be achieved by the Operator for their Storage Facility
- These regulations are generally performance-based requirements
- Operators are expected to “personalize” their programs to site-specific equipment, history, operating and environmental conditions
Must UGS Operators have a Drug and Alcohol Testing Program?

- Yes. Must follow Part 199 and Part 40
- Covered Employees include:
  - Persons employed by Operators
  - Contractors engaged by Operators
  - Persons employed by such Contractors
- Covered functions include operations, maintenance, and emergency-response functions
What is the Potential for additional Regulatory Requirements?

- PHMSA periodically reviews the impact of all Regulations
- These factors could affect additional UGS regulatory requirements
  - Incidents and Safety-Related Conditions
  - Data from various reporting requirements
  - Inspection outcomes
  - Content of compliance actions
  - Changes to the Recommended Practices
PHMSA : Web Links

  - Operator Notifications
  - Event Reporting
  - Major Incidents
  - Key Documents
  - FAQs
  - Pictures
  - Locations Map

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Underground Natural Gas Storage

National Conference of State Legislatures

August 05, 2017

Byron Coy PE
Senior Technical Advisor
USDOT / PHMSA

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