U.S. DOT
Pipeline and Hazardous Materials Safety Administration

Pipeline Safety
Inspection Program

Know what's **below.**
Call before you dig.

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

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

Overview
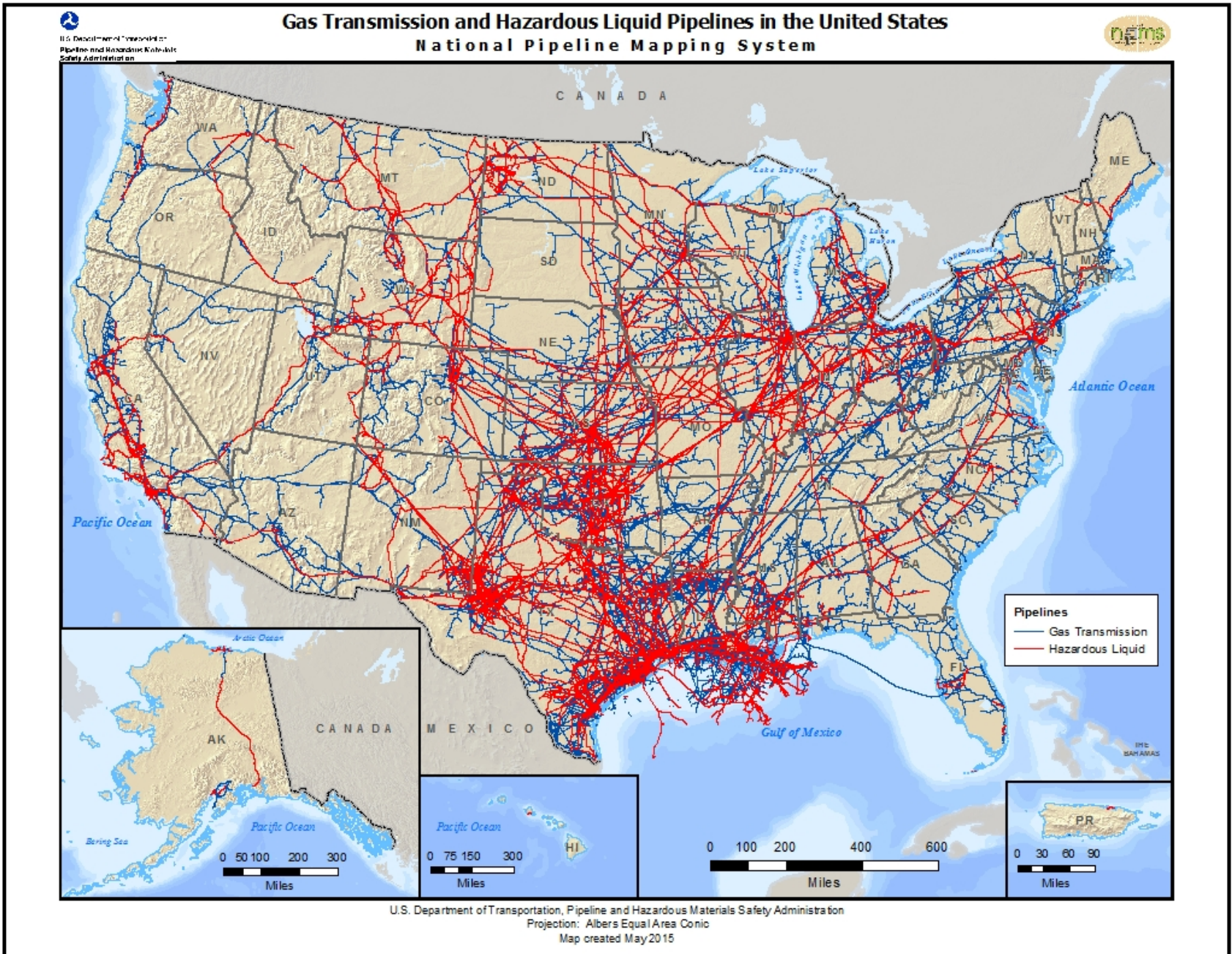
- <u>Who</u> is Inspected?

- <u>How</u> are Inspections Scheduled?

- <u>What</u> is Reviewed?

- Efforts to Increase Efficiency and Effectiveness

Who is inspected?

U.S. Department of Transportation

Pipeline and Hazardous Materials
Safety Administration

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U.S. Pipeline Transportation System

Gas Transmission and Hazardous Liquid Pipelines in the United States
National Pipeline Mapping System

U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration
Projection: Albers Equal Area Conic
Map created May 2015

What We Regulate

| Pipeline Facilities by System Type   data as-of 3/27/2017 ||||
| CY 2016 for Gas and CY 2015 for Liquid ||||
System Type	Miles	% Miles	# Operators
Hazardous Liquid	208,616 7,578 Tanks	< 8%	483
Gas Transmission	299,945	11%	1,009
Gas Gathering	17,478	< 1%	342
Gas Distribution (Mains & Services)	2,204,025	81%	1,263
Total	2,730,064	100%	2,555 unique OpID
Liquefied Natural Gas	153 Plants	228 Tanks	83

Who is Inspected

- PHMSA annually risk ranks 1667 "pipeline units"

  – A pipeline unit is a bite size portion of pipeline, usually 300-400 miles of pipeline + 1-2 compressor or pump stations.

Who is Inspected

- PHMSA risk ranks 744 systems for our inspection planning

    – Each system is comprised of units that are operated together.

    – Some systems contain only one or two units (very small systems)

    – Some systems contain 18-20 units (very large systems)

    – The differences in system size require different size inspection teams.

How are Inspections Scheduled?

PHMSA uses a data-informed, risk driven approach to determining <u>which</u> systems should be inspected and <u>how often</u> they should be inspected.

How are Inspections Scheduled?

- PHMSA uses an algorithm incorporating known risk factors to determine each unit's relative risk score.

- Risk factors include both probability and consequence indicators.

- Risk factors include things like:

  – Pipe materials with known risks, i.e. pre-70 ERW pipe

  – Proximity to People or Unusually Sensitive Areas

  – Enforcement

  – Accident/Incident History

How are Inspections Scheduled?

- Each system is assigned the average of the risk scores for all of the units in that system.

  – The individual units scores are displayed during planning so potential problem areas can be readily identified.

- Additional company level risk measures are then added to the mix, including the system's "time since last inspection".

- The systems are risk ranked and placed in risk tiers.

How are Inspections Scheduled?

- Each Risk Tier has a designated inspection interval:

    – *High* -   Max TSLI = *3* years;

    – *Medium* -   Max TSLI = *5* years;

    – *Low* -   Max TSLI = *7* years.

- Systems may shift between tiers based on relative risk scores

- We are currently considering adjusting the inspection intervals above.

Who is Inspected

- PHMSA develops an annual inspection plan that covers all of the highest risk systems on a National level. Currently, most of the medium risk tier is also being covered.

- Regions may, with justification, bump lower risk systems up for inspection or higher risk systems down.

- During an annual planning meeting, national emphasis areas are identified, local/regional issues considered.

What is Reviewed?

What is Reviewed?

- PHMSA creates a unique inspection profile for each system inspected.

    – Data informed, risk driven

    – Scoping discussions help tailor inspection profile

        • Sale of tanks eliminates need to cover tank protocol

    – Deeper dives into risk areas, light review of high performance areas

    – Review of Advisory Bulletins, emerging safety issues, etc.

Efforts to Increase Efficiency and Effectiveness

- Programmatic Reviews –

  – We are making a concerted effort to reduce redundancy. Programmatic inspections should only occur once.

  – Regions are working together to harmonize inspection scheduling, screening/scoping discussions, etc.

- Created a Division to promote standardization among regions.

- Some companies are very large and will likely be inspected more frequently. However, too frequent inspection (with no time to adjust) may have unintended consequences.

Promoting SMS

- Should PHMSA help incentivize SMS implementation by considering a company commitment to SMS in its inspection planning?

- How would PHMSA differentiate between real commitment/implementation and smoke?

- What level of SMS maturity could be expected to produce safety benefits?