



U.S. Department
of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**



Western Regional Gas Conference (WRGC)

PHMSA Updates

Tom Finch



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

PHMSA: Your Safety is Our Mission

Who is PHMSA?

U.S. Department of Transportation

OST

Office of the Secretary of Transportation

OIG

Office of the Inspector General



Federal Aviation Administration



Federal Highway Administration



Federal Motor Carrier Safety Administration



Federal Railroad Administration



Federal Transit Administration



Maritime Administration



National Highway Traffic Safety Administration



Saint Lawrence Seaway Development Corporation



Surface Transportation Board



Pipeline and Hazardous Safety Administration

Office of Pipeline Safety
Office of Hazardous Materials Safety



The CL Team

Karen Lynch, Program Manager	
EASTERN REGION	
Karen Gentile <i>Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont</i>	Nita Raju <i>Delaware, Maryland, Ohio, Pennsylvania, Virginia, Washington DC, West Virginia</i>
SOUTHWEST REGION	
James 'Jay' Prothro <i>Arkansas, Oklahoma, Texas (North)</i>	Bill Lowry <i>Louisiana, New Mexico, Texas (South)</i>
SOUTHERN REGION	
Artie Buff <i>Georgia, North Carolina, South Carolina, Tennessee, Puerto Rico</i>	James Kelly <i>Alabama, Florida, Kentucky, Mississippi</i>
CENTRAL REGION	
Angela Pickett <i>Kansas, Missouri, Iowa, Illinois, Michigan, Minnesota</i>	Sean Quinlan <i>North Dakota, South Dakota, Indiana, Nebraska, Wisconsin</i>
WESTERN REGION	
Tom Finch <i>Arizona, California, Colorado, Hawaii, Nevada, Utah</i>	Dave Mulligan <i>Alaska, Idaho, Montana, Oregon, Washington, Wyoming</i>



PHMSA Regulated Pipeline Facilities OPS and States

Pipeline Facilities by System Type from CY 2020 Annual Reports			
System Type	Miles	% Miles	# Operators
Hazardous Liquid (CY 2019)	224,928 8,412 Tanks	8%	550
Gas Transmission	301,633	11%	1,084
Gas Gathering	17,160	< 1%	367
Gas Distribution	2,281,244	81%	1,280

Total Miles	2,824,965
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Liquefied Natural Gas	163 Plants, 236 Tanks, 85 Operators Plants - 26 Interstate and 137 Intrastate
Underground Natural Gas Storage	400 Facilities, 452 Reservoirs 17,025 Wells, 124 Operators Facilities - 221 Interstate and 179 Intrastate

Data as-of 03-31-2021



Who Regulates Pipeline Safety?

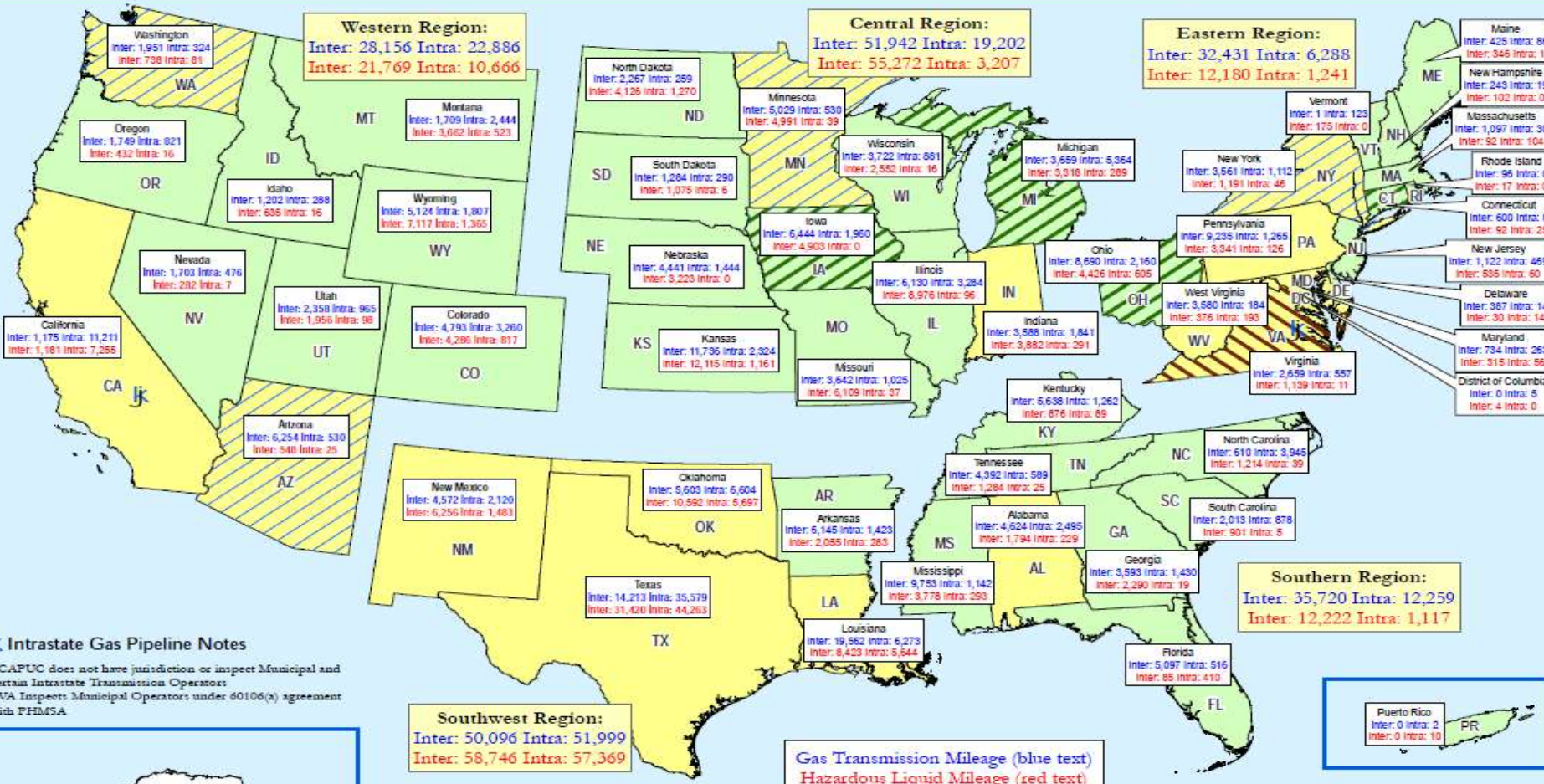
- Individual state
- U.S. DOT , PHMSA

In California:

- Natural Gas Pipelines:
 - CA PUC regulates **Intrastate** pipelines
 - PHMSA regulates **Interstate** pipelines
- Hazardous Liquid Pipelines
 - CSFM/OSFM regulates **Intrastate** pipelines
 - PHMSA regulates **Interstate** pipelines

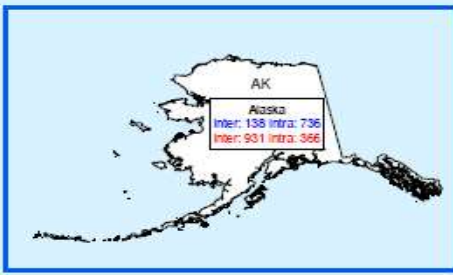


Gas Transmission and Hazardous Liquid Pipeline Safety Programs Participating States in the Federal/State Cooperative Partnership



jk Intrastate Gas Pipeline Notes

- CAPUC does not have jurisdiction to inspect Municipal and certain Intrastate Transmission Operators
- VA Inspects Municipal Operators under 60106(a) agreement with PHMSA



Gas Transmission Mileage (blue text)
 Hazardous Liquid Mileage (red text)

Mileages depicted reflect all onshore data that has been incorporated into the National Pipeline Mapping System (NPMS) as of February 2021.

U.S. Department of Transportation
 Pipeline and Hazardous Materials Safety Administration
 Projection: Albers Equal-Area Conic
 Map Produced: February 2021

STATE JURISDICTION: INTERSTATE AGENTS

- Gas and Hazardous Liquid Pipelines
- Hazardous Liquid Pipelines Only
- Gas Pipelines Only

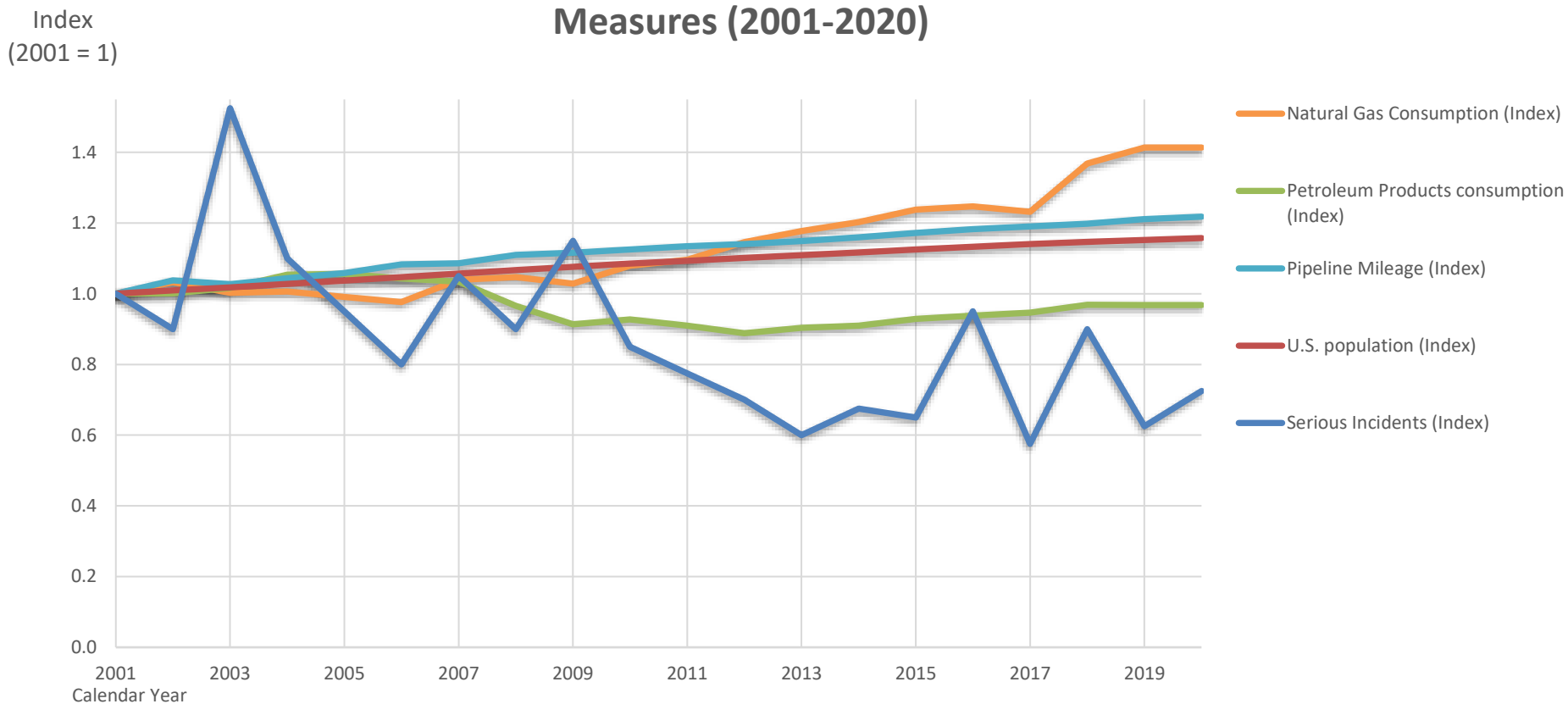
STATE JURISDICTION: INTRASTATE AGENTS

- Gas and Hazardous Liquid Pipelines: 60106(a) Certification
- Gas Pipelines Only: 60105(a) Certification
- Not Participating



Pipeline Serious Incidents with Context Measures (2001-2020)

Pipeline Serious Incidents with Context Measures (2001-2020)



Data Sources: Energy Information Administration, Census Bureau, PHMSA 2019 Annual for Hazardous Liquid, 2020 Annuals for Gas Report Data, PHMSA Incident Data - as of 03-28-2021
 Energy consumptions have been used as a proxy for 2020



PHMSA Western Region Updates



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PHMSA Western Region

Western Region Staff:

- Regional Director - Dustin Hubbard
- Denver, Ontario, Anchorage offices
- 40 total staff, 26 inspectors (8 AK, 3 Vacant)
- Challenges:
 - Staff Churn
 - Retirement
 - New hire training



PHMSA Field Updates

- No inspection forms sent to operators before inspections
 - All inspection question forms available for download at: <https://www.phmsa.dot.gov/forms/pipeline-forms>.
(subjects organized alphabetically)
- Expect ALL regulated operators will get inspected for Section 114 criteria during CY22 (State & Federal)
- Expect 2-3 PHMSA inspectors per each inspection (cross training/new hires)
- Control Room Management inspections for all operators (next 3 years)



PHMSA Field Updates

- Drug/Alcohol inspections performed centrally (Wayne Lemoi)
- LNG focused inspection team being formed (TBD)
- Drug random testing remains at 50%
- Tribal notification letters required for on-site inspections
- 30-day exit interview (last day of each week)
- 90-day email preliminary written findings report
- Expediting enforcement cases
 - No response within 30 days – automatic final order issued.



PHMSA is Team Based for Specific Duty Areas

- Breakout Tank Team
- Construction Team
- Control Room Management Team
- Corrosion Control Team
- Distribution Team
- Gas Rule Implementation Team (GRIT)
GT Integrity Management Team
- HL Integrity Management Team
- Incident Report Data Quality Team
Inspection Assistant (IA) Team
- LNG Team
- LPG Team
- O&M and Emergencies Procedures Team
- Operator Qualification (OQ) Team
- Pipeline Asset Manager (PAM) Team
- PHMSA Data Mart (PDM) – Pipeline Team
- Pipeline Inspection & Enforcement (PIE) Team
- Plastics Team
- Public Awareness and Damage Prevention Team
- Risk Ranking Index Model (RRIM) Team
- Underground Natural Gas Storage Facility Team



Important Dates/Time Frames

- March 21, 2021 - \$122k incident reporting
- 12/27/2021 – Update O&M plans to address the elimination of hazardous leaks and minimization of releases of natural gas
- March 15 – New Annual Reports Due
 - Annual Report Due (Form PHMSA F 7100.2-1)
 - Report on all MCAs and MAOP reconfirmation
- Gas Gathering:
 - 5/16/2022 – Incident reports
 - 11/16/2022 – Type C lines identified
 - 2022 annual reports due March 2023



Miscellaneous Updates



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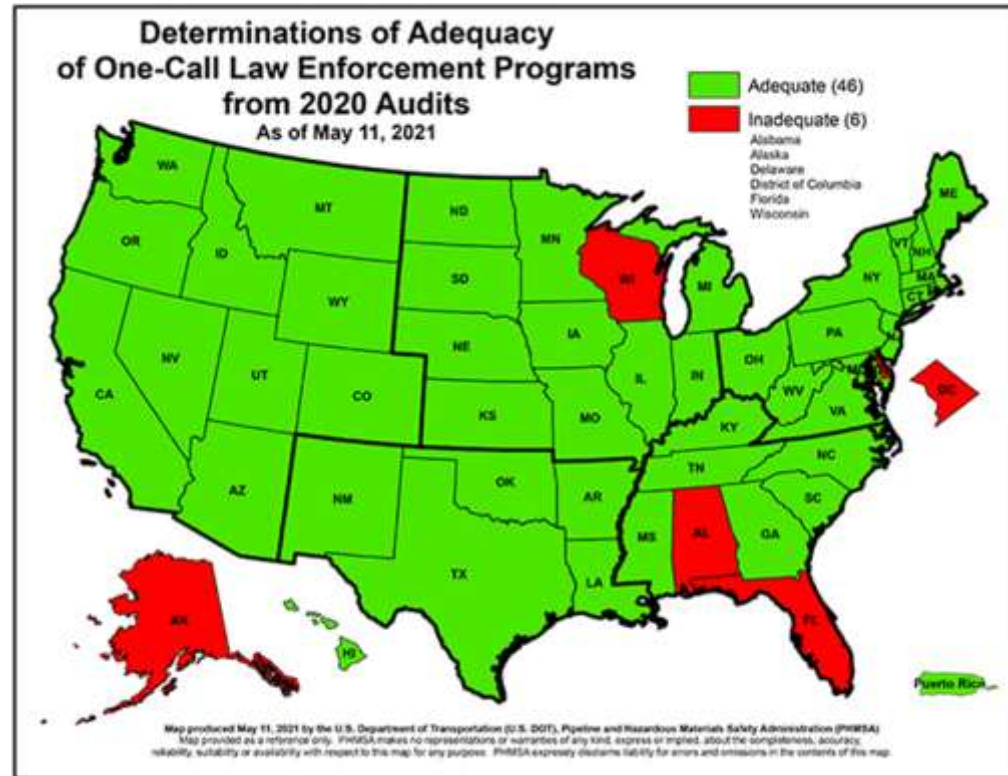
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Excavator Enforcement



2017



2021



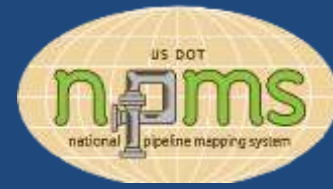


NPMS Updates

- [Operator Webinar](#) is available to assist operators in making submission
(YouTube – Search “NPMS Operator Webinar”)
- Tribal Government Applications and Map Layer
- Offshore Pipelines Available on the Public Map Viewer
- Ecological Unusually Sensitive Area (USA) data updated (hazardous liquid pipeline operators)
- Commercially Navigable Waterway Data Updated
- Great Lakes USA Data



NPMS Common Errors



- Annual Report mileage does not match NPMS mileage. Discrepancies should be resolved before submitting to PHMSA.
- Missing pipelines unintentionally/missing the requested information to explain why a pipeline should be removed.
- Duplicate or additional pipelines either unintentionally or without the requested explanation.
- Did not complete the Revision Code attribute correctly.
- Operators need to be more responsive when PHMSA finds errors in their submissions, and they need to put procedures in place to stop repeating the same errors every year.
- NPMS Submission status table open to public - <https://portal.phmsa.dot.gov/analytics/saw.dll?Portalpages>.



Hydrogen Pipelines

Current Regulations, Mileage, Incident History

- **Regulations:**

- Regulated in Part 192 since 1970
- Little difference from requirements for natural gas

- § 192.625(b), when hydrogen gas is intended to be used as feedstock for a manufacturing process, it does not have the requirement to be odorized in Class 3 and 4 locations.
- §192.53 General: “Materials for pipe and components must be:” (...) “(b) Chemically compatible with any gas that they transport and with any other material in the pipeline with which they are in contact”

- **Mileage:**

	Calendar Year	Interstate Miles	Intrastate Miles	Total Miles
HYDROGEN GAS	2019	778.9	758.7	1,537.6

- **Incidents:** Between 2010 and today, only three reported incidents involved hydrogen gas pipelines.



Hydrogen Pipelines

Natural Gas Vs. Hydrogen:

- Differences in blended gas compositions and hydrogen ratios, versus pure hydrogen gas, and if use involves GT or GD, will all affect risk and consequence. Important to understand how it will be used.
- PIR, flammability, energetics of rupture, dissipation difference for pure or blended hydrogens
 - Hydrogen gas blended in small amounts may not change these particular issues greatly, but pure hydrogen gas will ignite in a broader range than natural gas alone, which could affect gas distribution systems, where leakage is more likely.
- Differences in Class Location effectiveness
- Gas interchangeability/compatibility for distribution to services and customers with legacy natural gas pipelines/components/appliances
- A comprehensive study of existing research needed to better understand unique consequences for failure of hydrogen and hydrogen blended pipelines. Support with R&D efforts.



PHMSA Transparency

- Publicly Available:
 - All PHMSA issued enforcement cases
 - Operator Annual Report
 - NPMS general location (county)
- NOT Publicly Available (FOIAble):
 - Operator enforcement case responses
 - NPMS detailed data



Safety Management Systems (SMS)

01 REACTIVE

Develops strategies that respond to past incidents and accidents.



PAST

02 PROACTIVE

Actively collects data to identify and address current hazardous conditions



PRESENT

03 PREDICTIVE

Systematically analyzes safety risk data and performs forward-looking data analytics to identify potential/future problems



FUTURE



Top Stakeholder Concerns



Pipeline Markers



Exposed Pipelines



Oil Spill Response Plans



Abandoned Pipelines



Compressor and Pump Station Noise



New Construction



Pipeline Right-of-Way Issues



Proposed Pipelines



Pipeline Data Mart (PDM)

- Update your contacts in PHMSA Portal
- www.portal.phmsa.dot.gov
- View your data
- Check for updates on cases
- Ask for volunteer to see what we see (dashboard):
<https://portal.phmsa.dot.gov/PHMSAPortal2/faces/UIShellPortalHome>.



Important Links

- PHMSA, Office of Pipeline Safety
 - www.phmsa.dot.gov/pipeline

Pipeline Emergency Responders Initiative

- <https://www.phmsa.dot.gov/pipeline/peri/pipeline-emergency-responders-initiative-peri-overview>

- Standards & Rulemaking
 - <http://www.phmsa.dot.gov/pipeline/regs>
- National Pipeline Mapping System
 - www.npms.phmsa.dot.gov
- PHMSA's Stakeholder Communications Site
 - <http://primis.phmsa.dot.gov/comm>
- Access to PHMSA Regulations (Easy to read/print 49 CFR Part 190-199)
 - www.phmsa.dot.gov/pipeline
 - Click on "Training and Qualifications"
 - Click on "Regulatory Information"
 - Click on the Part you want
- For Federal Regulations (Official Version)
 - www.regulations.gov

PERI
Pipeline Emergency
Responders Initiative



Reflection

Congress and the Public DO NOT usually distinguish between different types of pipeline systems (Gas, Liquid, Distribution, Gathering, Transmission)

If one liquid or gas system fails, all have failed. Pipeline companies are judged as an industry – the oil and gas industry.



Questions?

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