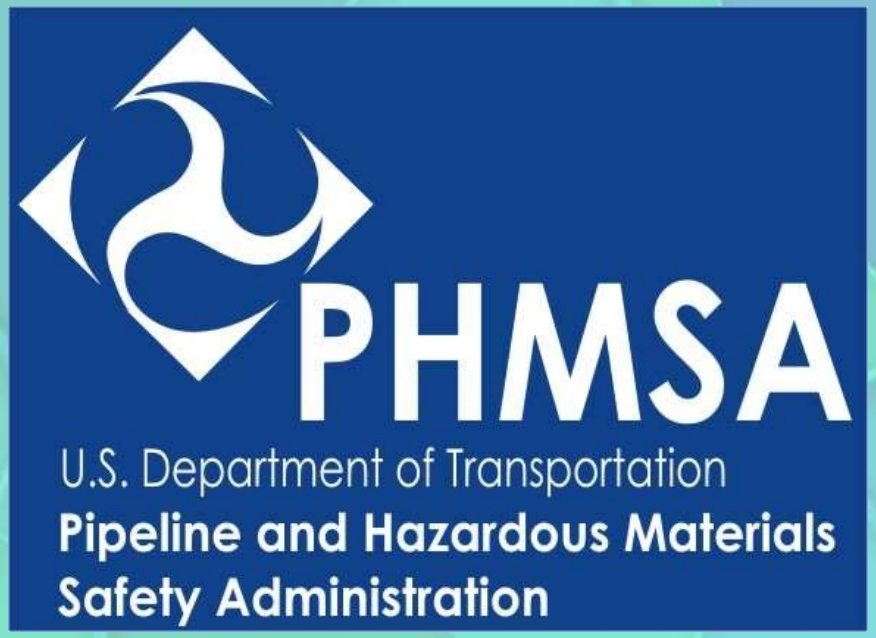


Organization and Regulatory Overview

Contact Information

John West

Transportation Specialist

U.S. Department of Transportation

PHMSA Office of Training and Qualifications

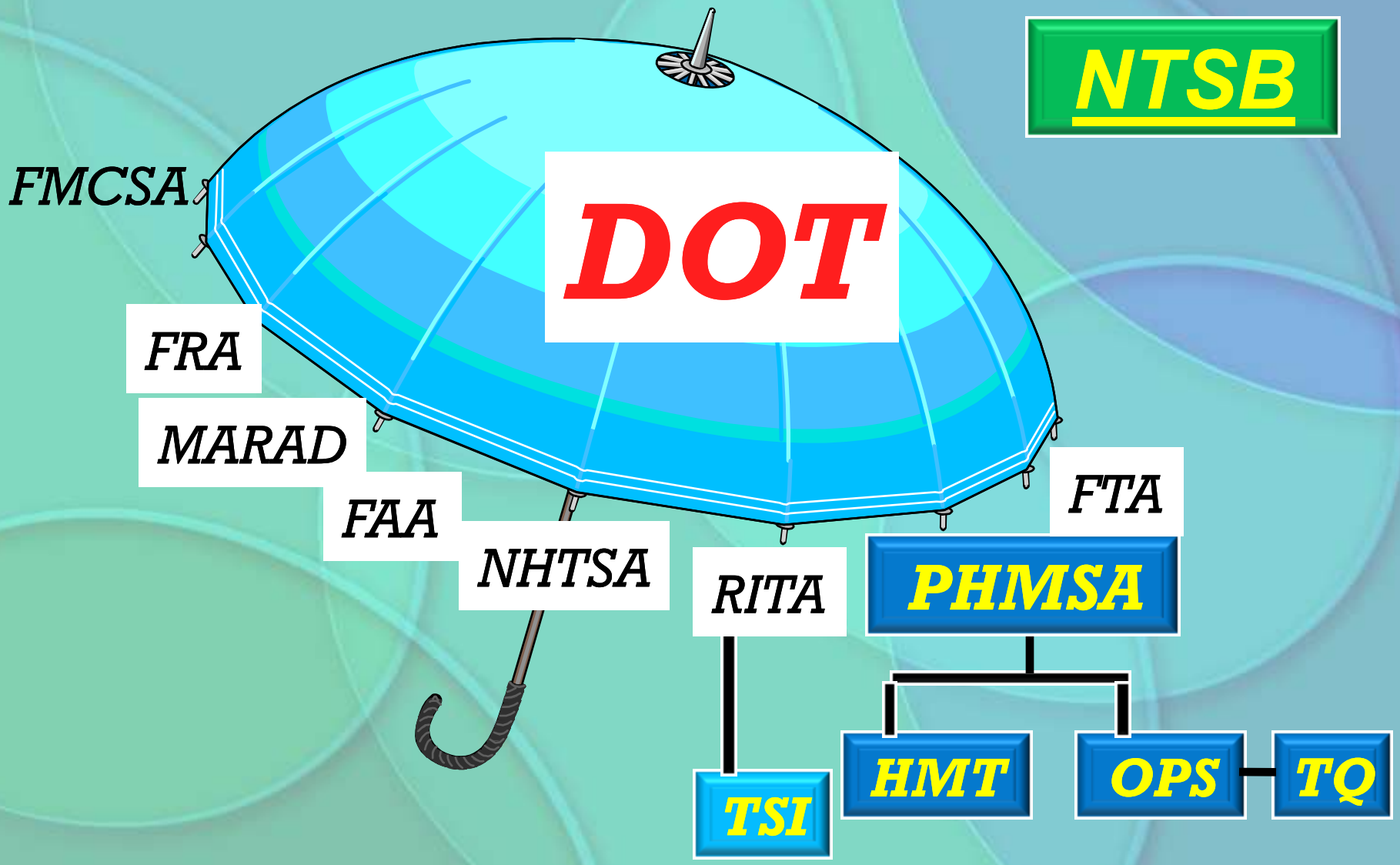
Main: (405) 954-7219

My Office: (405) 954-7220

Email: John.West@dot.gov

Pipeline and Hazardous Materials Safety Administration

DOT Reorganization



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

PHMSA's Mission Statement

To ensure the **safe, reliable, and environmentally sound** operation of the nation's pipeline transportation system.

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

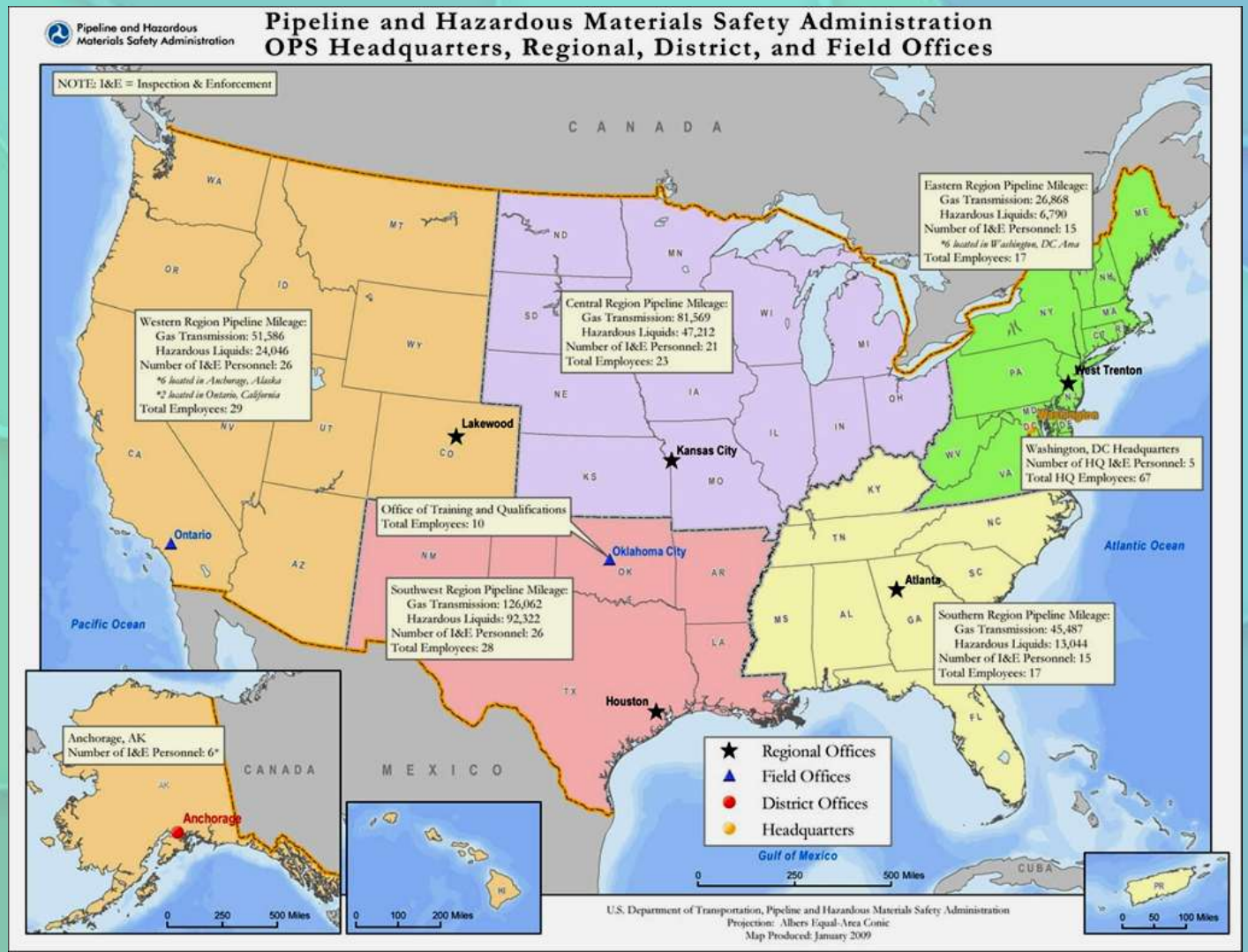
Pipeline Safety What We Do

Our Base Programs:

- Inspection and Enforcement
- State Pipeline Safety Grant Programs
- Regulatory Development and Coordination
- Damage Prevention and Public Education
- Research and Development
- Data Analysis and Trending

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

PHMSA Regions



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

PHMSA Office of Training and Qualifications

Providing Training For:

- State and Federal Pipeline Inspectors (Courses in OKC)
- Industry Personnel via Seminars

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

PHMSA TQ

Oklahoma City, OK

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

PHMSA TQ

Oklahoma City, OK

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

Compliance
Section 60118

- **Operator Shall:**

  - **Comply with Applicable Safety Standards**
  - **Prepare and Follow an O&M Plan**
  - **Maintain Records Required by the Safety Standards**

Pipeline Safety Law

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

State Programs
Section 60105
State Certifications

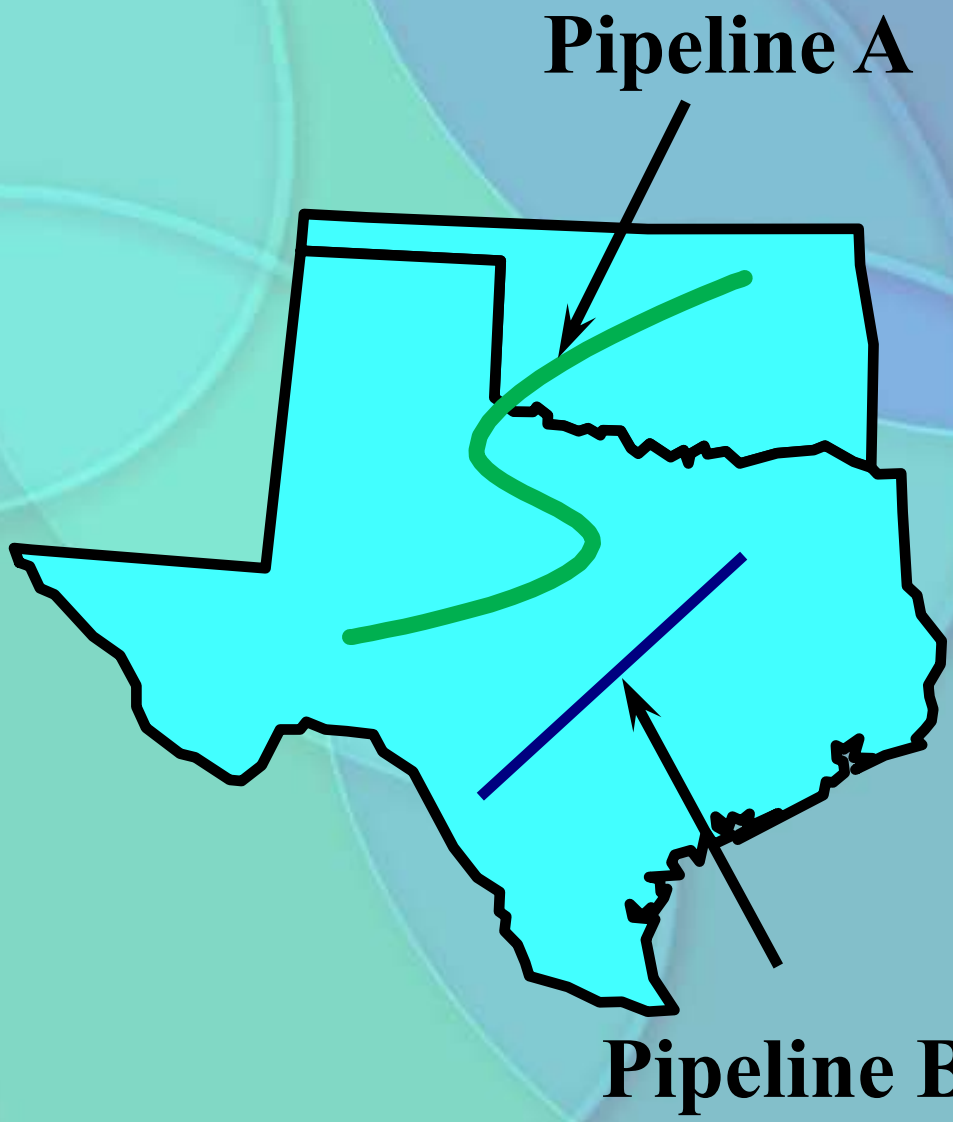
- **Adopted:**
  - **Federal Pipeline Safety Regulations as a <u>Minimum</u>**
  - **Enforcement Authority**

Pipeline Safety Law

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

Pipeline Jurisdictions

- Interstate (Federal)
- Intrastate (State)



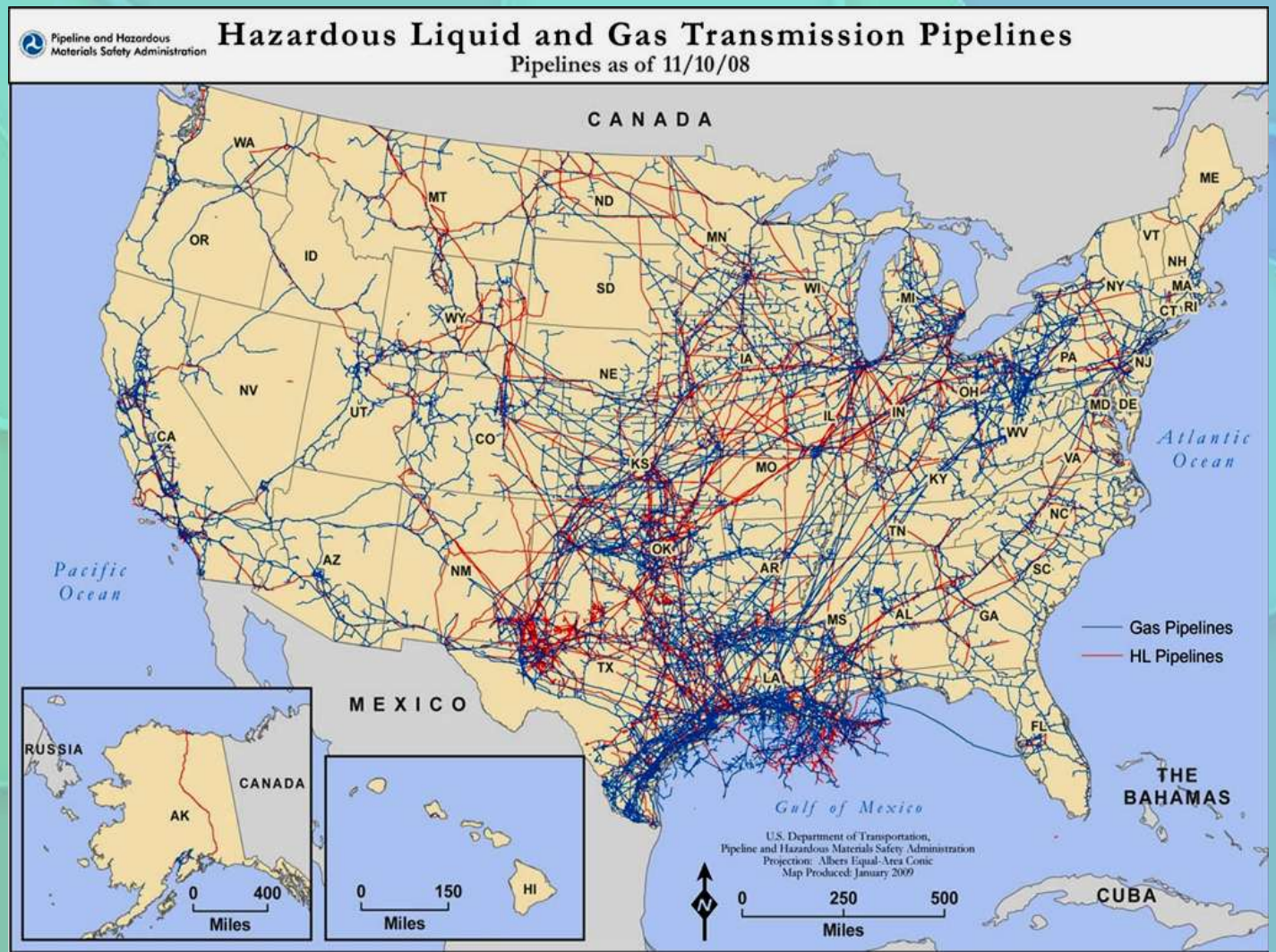
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

Pipeline Mileage

- **Hazardous Liquid Pipelines 173,000 miles**
- **Natural Gas Transmission 324,000 miles**
- **Gas Distribution Pipelines 2,037,000 miles**
- **Liquefied Natural Gas (LNG) 113 Facilities**

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

U.S. Pipeline Transportation System



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

Strategic Focus

- Improve the safety of the Nation's pipelines
  - Reduce the number of serious incidents causing death & injury
  - Reduce the likelihood of incidents in high consequence areas
  - Reduce the potential for hazardous liquids spills into unusually sensitive areas
- Provide the basis for increased public confidence in pipeline safety

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

Pipeline Safety Challenges

- **<u>March 23, 1994 Edison, NJ</u>**
- 30” Natural gas transmission line operating at 970 psig ruptured
- Force of escaping gas excavated area around pipe and gas ignited
- Several apartment buildings burned
- Investigation found “teeth marks” on pipeline
- Crushed Ford Ranger pick-up truck excavated near rupture

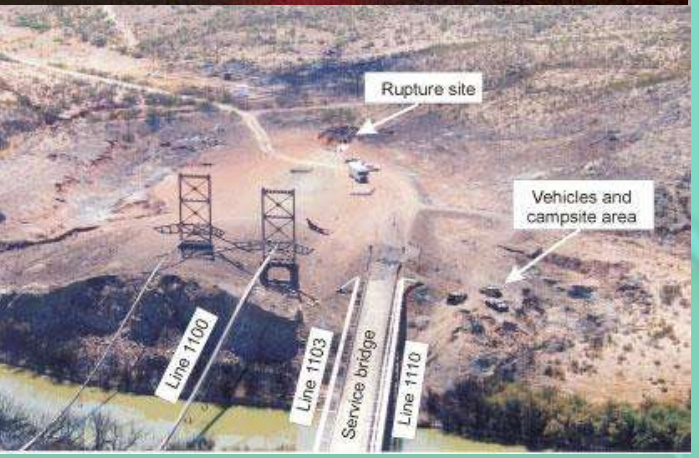
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

Pipeline Safety Challenges

- **<u>June 10, 1999 Bellingham, WA</u>**
- 16” Gasoline pipeline leaked into a creek in a city park and stretched for 1 ½ miles
- 1 ½ hours after leak started, gasoline ignited
- 3 fatalities, 8 injuries
- $45 million in property damage
- Leak caused by damage to pipeline during 1994 water treatment plant construction

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

Pipeline Safety Challenges



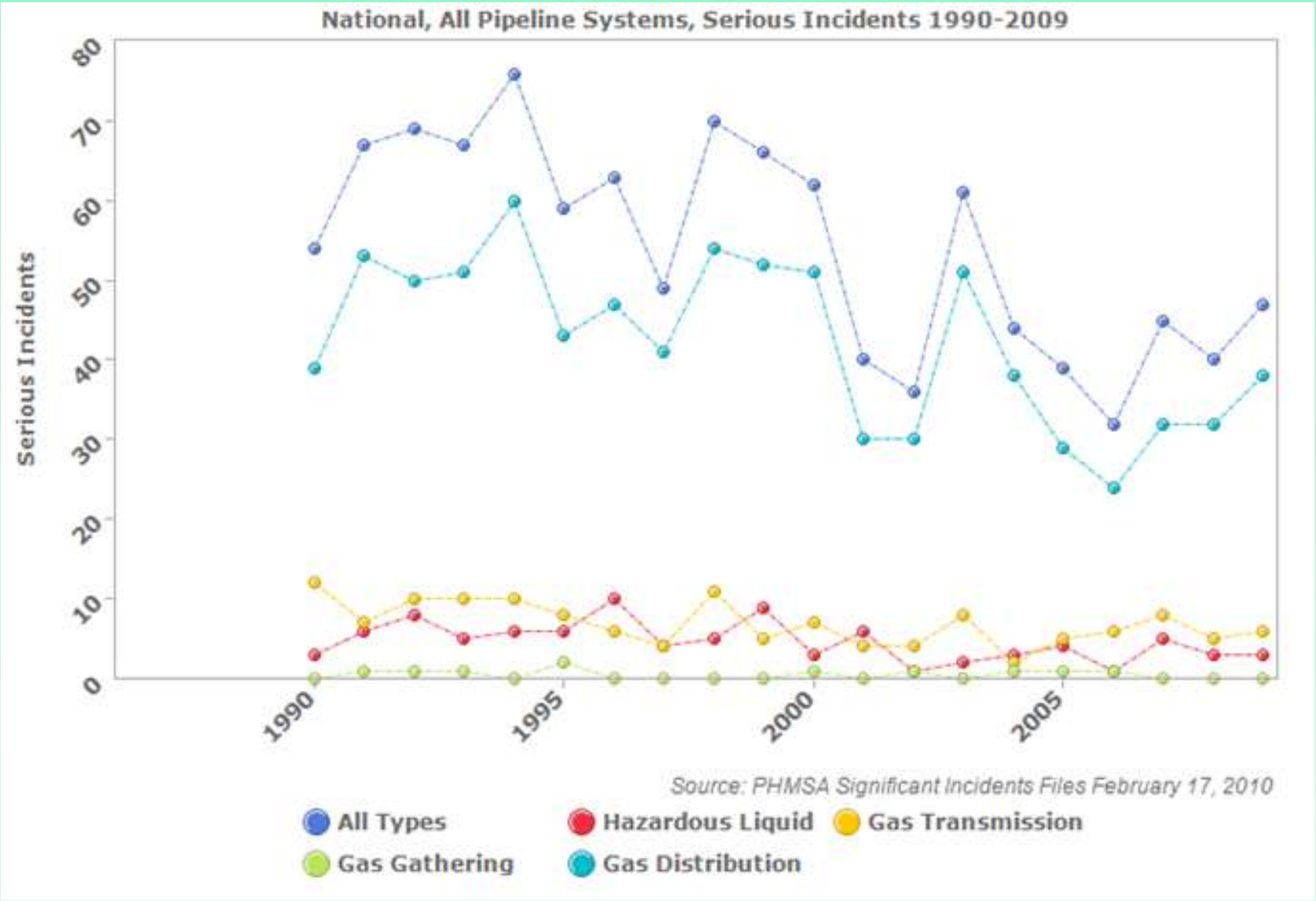
- **<u>August 19, 2000 Carlsbad, New Mexico</u>**
- 30’’ Natural gas transmission line ruptured, ignited, and burned, for 55 minutes
- 12 people who were camping near the pipeline failure site were killed
- Adjacent pipeline equipment was heavily damaged and three vehicles destroyed
- Property and other losses totaled approx. $998,296
- Investigation found significant pipe wall loss due to internal corrosion

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

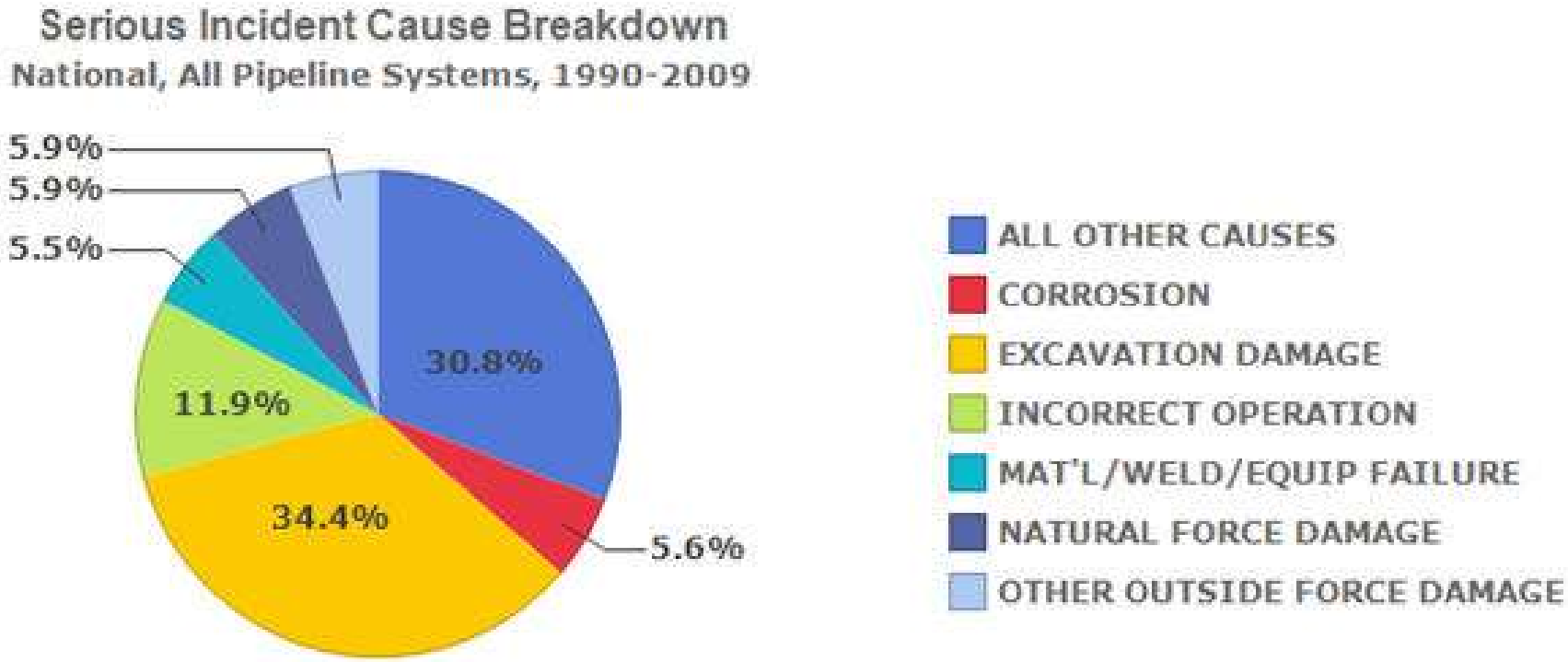
Pipeline Safety Challenges

- **<u>September 14, 2008 Appomattox, VA</u>**
- 30’’ 1955 Vintage Natural gas transmission line ruptured, ignited, and burned, for 45 minutes
- 32’ft section of pipe ripped from the ground at the failure site
- 5 people were injured and 23 families were evacuated.
- 2 homes destroyed and 4 others damaged
- Investigation found 40% pipe wall loss due to external corrosion.
- Property and other losses totaled over $3 million dollars

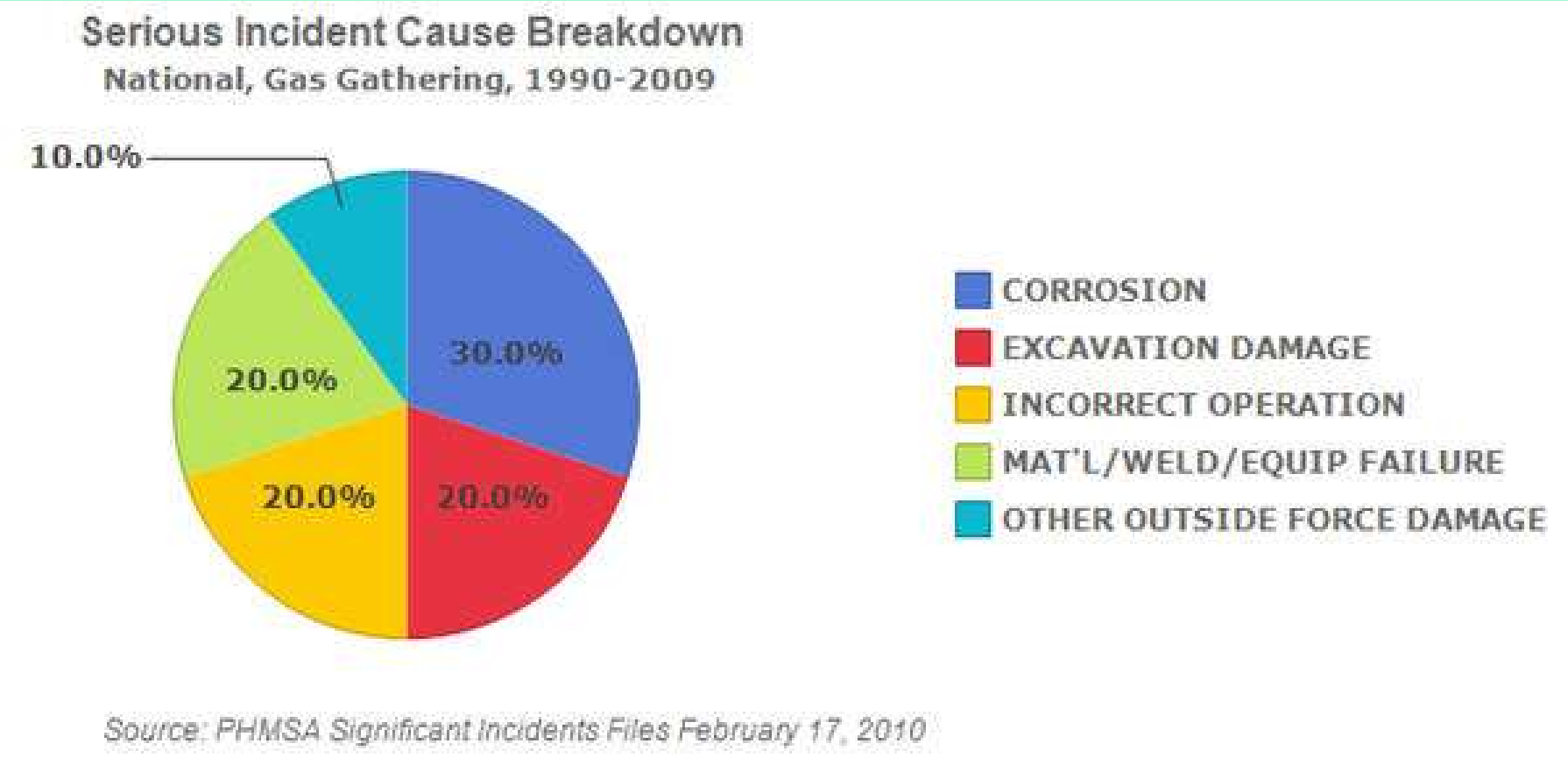
Good News on Serious Incidents



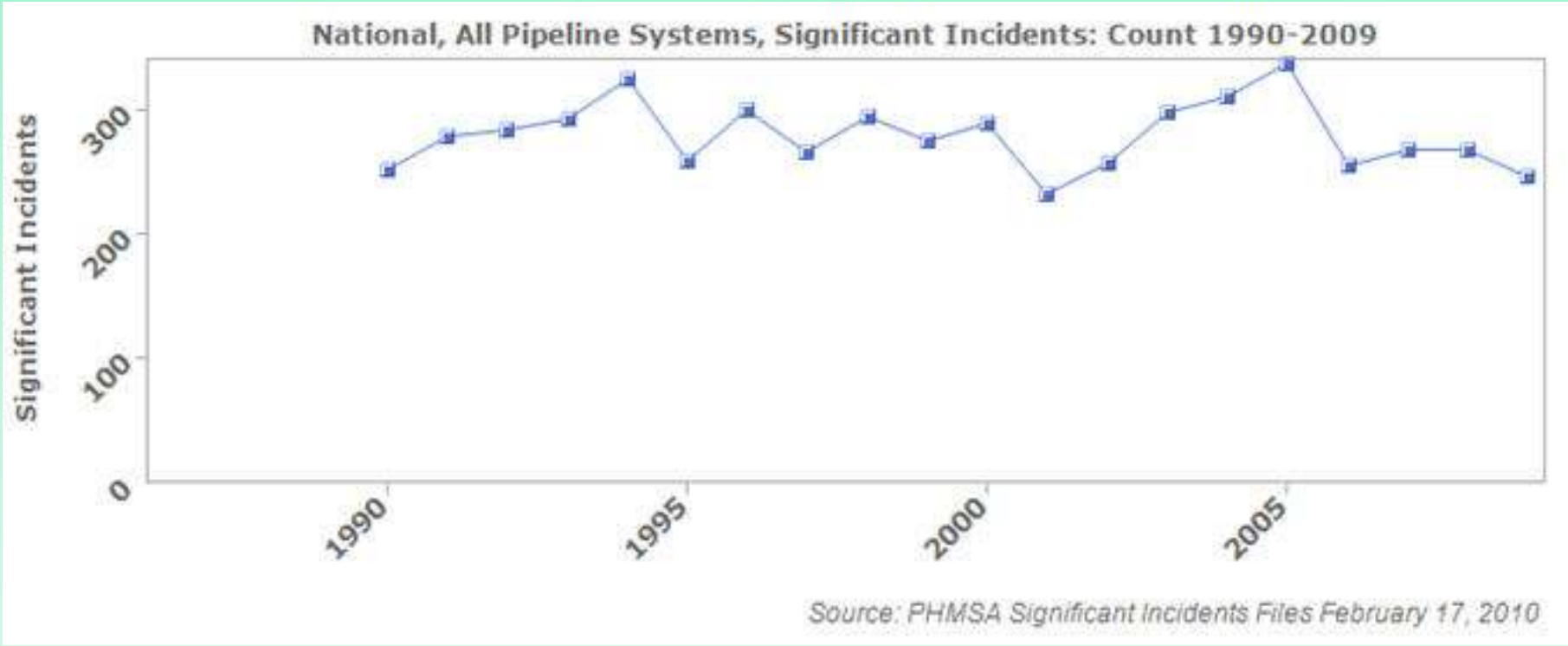
Causes of Serious Incidents



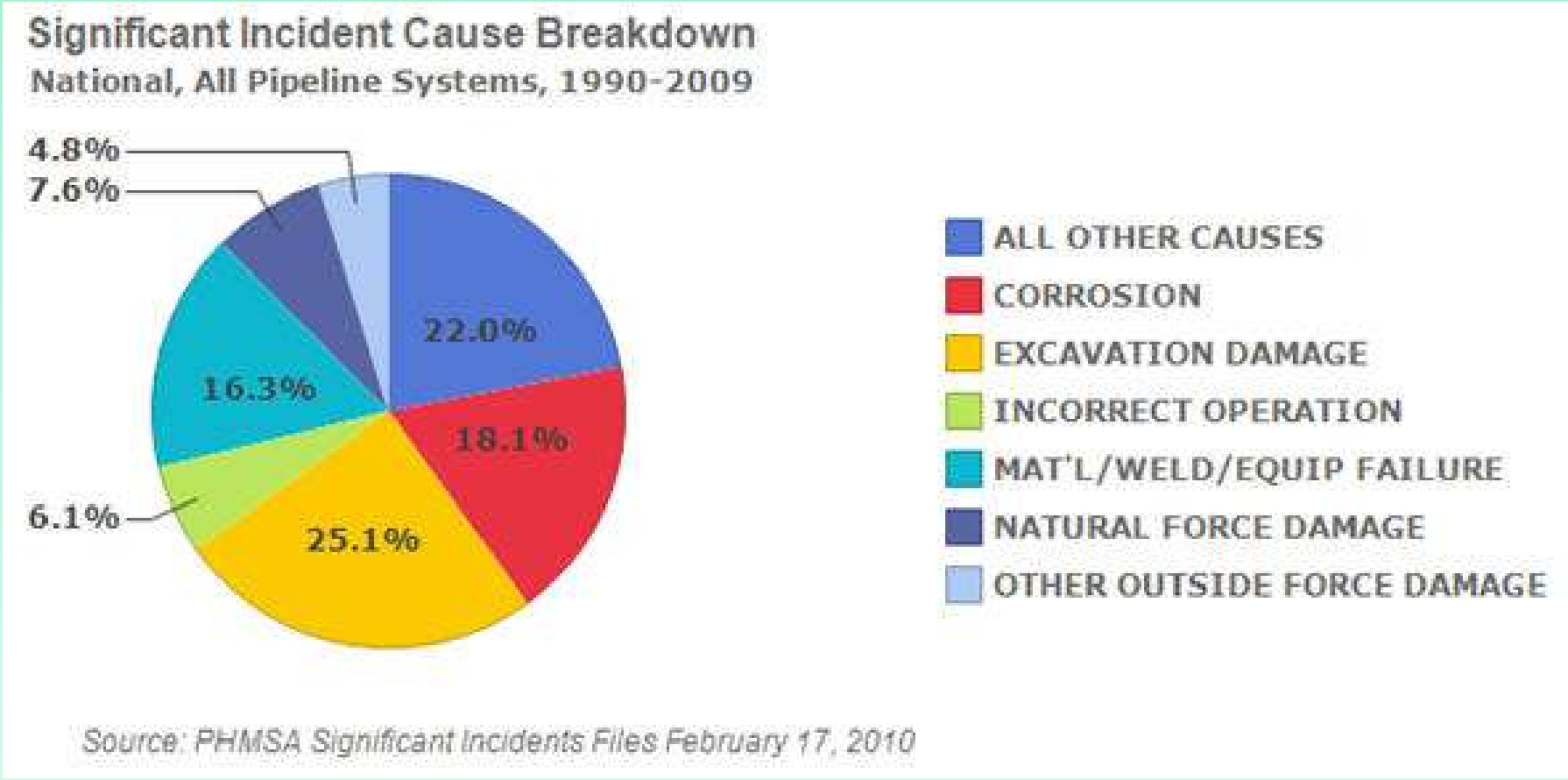
Causes of Serious Incidents (Gas Gathering)



Significant Incidents Rather Flat



Significant Incidents by Cause



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

PIPES Act Themes

- Damage Prevention
- Managing System Risk – Integrity Management
- Infrastructure, People, and Procedures, integrated to attain performance
- Operator Qualification for damage prevention tasks

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Data Driven Organization

- More focus on root cause analysis of incidents
- Integration of inspection findings across regions
- Significantly improve availability of information through OPS web site:

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Pipeline and Hazardous Materials Safety Administration

Enforcement Transparency

- PHMSA Website will display Enforcement data
- Statistical summaries starting in 2002
- Enforcement documents from 2007 onward
  - Initial OPS Letter
  - Operator Response (optional)
  - Final OPS Letter
- Meeting with Stakeholders to review and make adjustments before launching Website

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

PHMSA
Rule Update

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

Advisory Bulletin No. ADB-08-01 Issued May 7, 2008 Pipeline Safety: Natural Gas Transmission Operators

- PHMSA advises operators of gas transmission lines that the Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006 has eliminated the former exception of direct sales natural gas pipelines from the definition of an interstate gas pipeline facility.
- As a result, direct sales gas transmission pipelines subject to FERC jurisdiction (formerly considered to be intrastate pipelines), are now subject to PHMSA regulatory oversight and inspection.

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

Advisory Bulletin No. ADB-09-01 Issued May 21, 2009 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- PHMSA has identified an integrity issue with respect to microalloyed high grade line pipe.
- Tests that have been conducted on line pipe that has been installed in pipeline systems, have shown that some of the pipe material has yield strengths, tensile strengths, and/or chemical compositions, that do not meet the requirements of the American Petroleum Institute, Specification for Line Pipe--5L, (API 5L), for PSL 2 and the specified pipe grade

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

Advisory Bulletin No. ADB-09-01 Issued May 21, 2009 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- PHMSA advises pipeline owners and operators of in service pipelines to review their pipe specifications, pipe steel making and rolling MPS, pipe mill test reports, deformation tool results and all hydrostatic test failure results for both mill and in place hydrostatic tests to ensure that inconsistent mechanical and chemical properties are not inherent in microalloyed line pipe grades **on all API 5L--PSL 2, X70 and X80 line pipe** installed during recent construction projects.

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

Advisory Bulletin No. ADB-09-02 Issued Sept 23, 2009 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- PHMSA advises operators installing or planning to install weldable compression couplings and similar repair devices to follow the manufacturers procedures to ensure correct installation. PHMSA also advises operators to follow the appropriate safety and start-up procedures to ensure the safety of personnel. The failure to install a weldable compression coupling correctly, or implement and follow appropriate safety and start-up procedures, could result in a catastrophic pipeline failure.

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

Advisory Bulletin No. ADB-09-03 Issued Dec 07, 2009 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- PHMSA advises operators about the standardized notification process for operator qualification (OQ) plan transmittal from the operator to PHMSA. This also informs operators about the addition to PHMSA's glossary of definitions of the terms "Observation of on-the-job performance" as applicable to determining employee qualification and "Significant" as applicable to OQ program modifications requiring notification. Finally, it makes other miscellaneous clarifications regarding OQ programs.

Advisory Bulletin No. ADB-09-04 Issued Jan 19, 2010 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- PHMSA advises operators, beginning with MIS reports due by March 15, 2010, OPS will begin collecting annual drug and alcohol testing data for contractor employees. Contractors will be identified both by name and business tax identification number (BTIN) in the MIS report. The inclusion of the BTIN will ensure employees of the same contractor are only counted once when OPS calculates the required random testing rate.

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

Advisory Bulletin No. ADB-09-04 Issued Jan 19, 2010 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- The total number of covered employees is not limited to those who physically worked in a maintenance, operations, or emergency response role during the previous calendar year. **The definition of "performs a covered function" in Part 199.3 includes actually performing, ready to perform, or immediately available to perform a covered function.** Operators need to be aware of this definition when calculating the number of covered employees for both the operator and contractors. Employees who "perform a covered function", are required to be included in the random drug testing pool. The average size of a properly maintained random drug testing pool defines the number of covered employees.

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

Advisory Bulletin No. ADB-2010-01 Issued Feb 03, 2010 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- PHMSA advises owners and operators that the incident/accident report forms for their pipeline systems were recently revised and should be used for all incidents/accidents occurring on or after January 1, 2010. Copies of the new forms and instructions are available at http://phmsa.dot.gov/pipeline/library/forms or http://opsweb.phmsa.dot.gov. Any questions regarding this new requirement can be directed to the Office of Pipeline Safety operator helpline at 202-366-8075.

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

Advisory Bulletin No. ADB-10-03 Issued March 04, 2010 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- Owners and operators of recently constructed large diameter pipelines should evaluate these lines for potential girth weld failures due to misalignment and other issues by reviewing construction and operating records and conducting engineering reviews as necessary. The assessments should cover all 20-inch or greater, high strength line pipe transitions and cut factory bends or induction bends installed during 2008 and 2009.
- Evaluations should include material specifications, field construction procedures, caliper tool results, deformation tool results, welding procedures including back welding, NDT records, failures or leaks during hydrostatic testing, or in-service operations to identify systemic problems with pipe girth weld geometry.

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

Advisory Bulletin No. ADB-10-03 Issued March 04, 2010 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- Even if no girth weld concerns are identified by reviewing construction records, if an operator has any knowledge, findings or operating history that leads them to believe that their line pipe segments contain these type girth weld transitions, the operator should conduct engineering reviews to ensure that material, engineering design, and field construction procedures were in compliance with 49 CFR Parts 192 and 195. Failure to conduct engineering reviews and to remediate findings may compromise the safe operation of the pipeline.

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

Advisory Bulletin No. ADB-10-04 Issued April 22, 2010 Pipeline Safety: Natural Gas and Hazardous Liquid Pipeline Operators

- Advises operators that the new electronic incident/accident reporting system is available online at http://pipelineonlinereporting.phmsa.dot.gov. The new online system can also be accessed through the old system at http://opsweb.phmsa.dot.gov and click on "Incidents on or after Jan 1, 2010". Each operator may use their current operator ID and PIN from the old system to access the new system. **The new online system is for incidents/accidents occurring on or after January 1, 2010.** The old online system is still available for filing supplemental reports for incidents/accidents that occurred prior to January 1, 2010, and is still the system for filing annual reports and Gas Integrity Management Program (IMP) reports.

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

NPRM Issued July 2, 2009
49 CFR Part 191,192, 193, 195
Docket ID: PHMSA-2008-0291
Pipeline Safety: Updates to Pipeline and LNG Reporting Requirements

- Reporting Updates: As part of PHMSA's strategy to become a more risk-based and data-driven organization, PHMSA is proposing the following general data and data management improvements to the pipeline safety regulations:
- Would modify the scope in 49 CFR 191.1 to reflect the changes made in part 192 to the definition of gas gathering lines.

(Comments closed August 31, 2009)

(Also Referred to as One Rule)

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

NPRM Issued July 2, 2009
49 CFR Part 191,192, 193, 195
Docket ID: PHMSA-2008-0291
Pipeline Safety: Updates to Pipeline and LNG Reporting Requirements

- Reporting Updates: Would change the definition of an "incident" in 49 CFR 191.3 to require an operator to report an explosion or fire not intentionally set by the operator. The proposal also establishes a volumetric basis for reporting unexpected or unintentional gas loss.
- Would require operators to report and file data electronically whenever possible. The electronic submission of data will increase the accuracy and quality of data collected, reduce the reporting burden on operators, and improve PHMSA's data integration efforts.

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

NPRM Issued July 2, 2009
49 CFR Part 191,192, 193, 195
Docket ID: PHMSA-2008-0291
Pipeline Safety: Updates to Pipeline and LNG Reporting Requirements

- Reporting Updates: Would require operators of LNG facilities to submit incident and annual reports to provide valuable infrastructure and safety performance information to PHMSA.
- Would create and require participation in a National Registry of Pipeline and LNG Operators to provide PHMSA with timely updates on safety-impacting changes, and better monitoring of operator performance.
- Would require operators to use a standard form in electronically submitting Safety-Related Condition Reports and Offshore Pipeline Condition Reports.

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

NPRM Issued July 2, 2009
49 CFR Part 191,192, 193, 195
Docket ID: PHMSA-2008-0291
Pipeline Safety: Updates to Pipeline and LNG Reporting Requirements

- Reporting Updates: Would merge the natural gas transmission integrity management Semi-Annual Performance Measures Report with the annual reports and revise the leak cause categories listed in the annual report to include those nine categories listed in ASME B31.8S.
- Expand information on the natural gas transmission annual report to add information for miles of gathering lines by Type A and Type B gathering; class location information by SMYS, volume of commodity transported, and type of commodity transported.

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

NPRM Issued July 22, 2009
49 CFR Part 192, 193, 195
Docket ID: PHMSA-2008-0301
Pipeline Safety: Updates to References to Technical Std's and Misc. Edits.

- Referenced Std. Updates: Incorporate by reference (IBR) all or parts of new editions of voluntary consensus standards to allow pipeline operators to use current technology, new materials, and other industry and management practices. Also proposes to make non-substantive edits and clarify regulatory language in certain provisions.

(Comments closed September 21, 2009)

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

NPRM Issued July 22, 2009
49 CFR Part 192, 193, 195
Docket ID: PHMSA-2008-0301
Pipeline Safety: Updates to References to Technical Std's and Misc. Edits.

- Part 192 Updates: PHMSA **will not** propose to incorporate by reference the following updated ASTM International standards:
- ASTM D638; Standard Test Method for Tensile Properties of Plastics (2008 edition)
- ASTM D2513; Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing and Fittings (2007 edition)
- ASTM D2517; Standard Specification for Reinforced Epoxy Resin Gas Pressure Pipe and Fittings (2006)
- ASTM F1055; Standard Specification for Electrofusion-Type Polyethylene Fittings for Outside Diameter Controller Polyethylene Pipe and Tubing (2006)

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

NPRM Issued July 22, 2009
49 CFR Part 192, 193, 195
Docket ID: PHMSA-2008-0301
Pipeline Safety: Updates to References to Technical Std's and Misc. Edits.

- Part 192 Updates: PHMSA has determined that the following updated National Fire Protection Association (NFPA) standards **will not** be incorporated by reference at this time.
- NFPA 58; Liquefied Petroleum Gas Code (LP-Gas Code) (2008 edition)
- NFPA 59; Utility LP-Gas Plant Code (2008 edition)

- PHMSA is proposing to revise the regulation to require that **Part 192 will prevail** if there is a conflict between Part 192 and NFPA 58 or NFPA 59.

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

NPRM Issued July 22, 2009
49 CFR Part 192, 193, 195
Docket ID: PHMSA-2008-0301
Pipeline Safety: Updates to References to Technical Std's and Misc. Edits.

- Part 192 Updates: In §192.3, add definitions for "Active corrosion", "Electrical survey", and "Pipeline environment". (Moved from 192.465 (e))
- On April 14, 2009 (74 FR 17099), PHMSA published a Direct Final Rule that incorporated by reference the 2007 editions of API Specification 5L "Specification for Line Pipe" and API 1104 "Welding of Pipelines and Related Facilities." PHMSA is proposing to eliminate the use of the previous editions of these standards.

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

NPRM Issued July 22, 2009
49 CFR Part 192, 193, 195
Docket ID: PHMSA-2008-0301
Pipeline Safety: Updates to References to Technical Std's and Misc. Edits.

- Part 192 Updates: Revise 192.711 to make clear that repair time conditions for Pipeline Integrity Management in High Consequence Areas (HCA), for pipelines covered by §192.711 pertain only to non-integrity management repairs.
- Subpart K does not require a new pressure test be conducted at the time of uprating unless the old pressure test cannot justify the uprated pressure. 192.555(c) explicitly allows the use of a previous pressure test as the basis for establishing a higher MAOP in higher stress pipelines. Since §192.555(c) allows a previous pressure test, we intended to allow it at a lower hoop stress in 192.557 for steel pipelines and in plastic, cast iron, and ductile iron pipelines.

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

Final Rule: Issued October 17, 2008
49 CFR Part 192
Docket ID: PHMSA-2005-23447
Pipeline Safety: Standards for Increasing the Maximum Allowable Operating Pressure for Gas Transmission Pipelines

- Increase Maximum Allowable Operating Pressure for Natural Gas Transmission Pipelines: Allows an operator to increase the MAOP design limitation (with certain additional design and operational requirements) for pipelines in class 1 locations to 80%, class 2 to 67%, and class 3 to 57% of SMYS.

(Effective Date: December 22, 2008)

- FAQ's for Higher Alternative MAOP Rule: Currently there are 31 FAQ's with the latest revision on September 11, 2009.

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

Final Rule: Issued January 23, 2009
49 CFR Part 192
Docket ID: PHMSA-2005-21305
Pipeline Safety: Polyamide 11 (PA-11) Plastic Pipe Design Pressures

- Polyamide PA-11: Allows certain thermoplastic pipelines made from new Polyamide-11 (PA-11) pipe, to operate at a higher design pressure limit.
- This final rule amends our existing plastic pipe design formula in §192.121 to cover pipelines made from new 4-inch IPS (or CTS) or less, SDR-11 or greater PA-11 pipe with a design factor of up to 0.40 and increases the design pressure limitation in §192.123 to 200 psig (1379 kPa) for these same pipelines.
- **The design factor for all other plastic pipes remains as prescribed in the existing regulations.**

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

Final Rule: Issued April 14, 2009
49 CFR Part 192, 195
Docket ID: PHMSA-2008-0334
Pipeline Safety: Incorporation by Reference (API) 5L and 1104 Std.

- Incorporates by reference the most recent editions of API Specification 5L "Specification for Line Pipe" and API 1104 "Welding of Pipelines and Related Facilities." The purpose of this update is to enable pipeline operators to utilize current technology, materials, and practices to help maintain a high level of safety relative to their pipeline operations. PHMSA is not eliminating the use of the current referenced standards but simply allowing the additional use of these new standards. PHMSA may in the future propose to eliminate the incorporation of the existing referenced standards.

(Effective Date: April 14, 2009)

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

Final Rule Issued Dec 03, 2009
49 CFR Part 192, 193, 195
Docket ID: PHMSA-2007-27954
Pipeline Safety: Control Room Management/Human Factors

- Control Room Management: Requires operators of natural gas pipelines, LNG facilities, and hazardous liquids pipelines to amend their existing written operation and maintenance procedures, OQ programs, and emergency plans to assure controllers and control room management practices and procedures are used to maintain pipeline safety and integrity.

(PHMSA Will Conduct a Public Meeting on CRM the last qtr. of 2010)

(Effective Date: February 1, 2010)

(Compliance Date: Aug 1, 2011 – Implement Date: Feb 1, 2012)

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

Final Rule Issued Dec 04, 2009
49 CFR Part 192
Docket ID: PHMSA-2004-19854
Pipeline Safety: Integrity Management Program for Gas Distribution Pipelines

- Distribution Integrity Management: The final rule revises 49 CFR Part 192 to add a new "Subpart P", and adds new integrity management requirements applicable to distribution pipelines.
- This addresses statutory mandates and builds on previous similar requirements established for gas transmission pipelines. The final rule also adds a requirement that operators install excess flow valves (EFV) on all new and replaced residential service lines serving single residences, as required by the 2002 PIPES Act.
- Rule is applicable to master meter and LPG operators as well, with fewer requirements.

(Effective Date: February 12, 2010)

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

Information Available from PHMSA

- Latest News
- Training Calendar
- Joint Industry Training
- Operator Qualification
- Resource Links
- Regulatory Information
- Codes
- Pipeline Safety Laws
- Federal Regulatory Information

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

PHMSA Information Websites

PHMSA Training and Qualification

http://www.phmsa.dot.gov/pipeline/tq

PHMSA Pipeline Safety Regulations

http://www.phmsa.dot.gov/pipeline/tq/regs

PHMSA Rulemaking

http://www.phmsa.dot.gov/pipeline/regs/rulemaking

When Do You Know You're in too Deep?

Getting Closer

Yep, There it is!

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

PHMSA Training and Qualifications

Remember,

We're with the Government and We're Here to Help!