

# **PHMSA and Western Region Updates**

## **Pipelines and Hazardous Materials Safety Administration**

**Tom Finch  
Community Liaison**



# PHMSA Organizational Updates

- **Elaine Chao** – US DOT Secretary
- **Skip Elliot** – Administrator
- **Drue Pearce** – Deputy Administrator
- **Howard (Mac) McMillan** – Executive Director
- **Alan Mayberry** - Associate Administrator (OPS)
- **Vacant** – Deputy Associate Administrator for Policy and Programs (OPS)



# PHMSA Western Region Update

- Kim West is the new Western Region Director.
- 30/90 day Inspection Briefing Report (Exit Interview)
- Inspection Scoping Forms continue to be completed for each PHMSA unit during inspections
- O&M Procedures team inspections taking place across regions (similar to before)
- All Operators **MUST** be members of one-call programs
- Integrated Inspections continue



# Who Regulates Pipelines

- Individual state
- U.S. DOT, PHMSA

## **In Arizona:**

- **PHMSA Regulates:**

- **Interstate Gas Transmission Pipelines** with the ACC inspecting as PHMSA's Interstate Agent. The ACC Inspects and PHMSA Enforces
- **Interstate Hazardous Liquids (HL) Pipelines** with the ACC inspecting as PHMSA's Interstate Agent. The ACC Inspects and PHMSA Enforces
- **The Arizona Corporation Commission Inspects all Pipelines in Arizona.**



# Jurisdictional Vs. Regulated?

- Jurisdictional: Transportation of gas or hazardous liquid by pipeline under Part 192 & 195
- Regulated: Pipeline facilities and the transportation of gas or hazardous liquid that are not exempted:
  - Offshore gathering
  - Producing Operator pipeline in the OCS
  - Unregulated onshore gathering
  - In plant
  - Gravity
  - Other modes of transportation



# Common Questions from Public

- **Who is responsible for approving pipeline routes?**
  - Gas – FERC/State
  - **Liquid – local County/City and County Commissioners**
- **Who enforces Encroachment on ROW?**
  - Legal agreement between operator and landowner
  - Local county planning departments
- **Does PHMSA require operators to clear cut and remove vegetation on the pipeline rights-of-way?**
  - Only if an integrity threat
  - PHMSA requires Operators to perform surveillance and leak surveys **by any means necessary**
- **Who handles noise complaints regarding pipeline facilities?**
  - PHMSA if noise is related to system integrity
  - Local noise ordinances
  - FERC permit requirements - Gas



# PHMSA Accident Investigation Division (AID)

- Screens & Evaluates all NRC reports of incidents/accidents
- Conducts Accident Investigations
- Conducts Root Cause Determinations
- Captures and actively shares lessons learned safety finding with internal and external stakeholders.
- Conducts education and outreach to help advance pipeline safety
- Evaluates and identifies emerging safety trends





# Recent Major Pipeline Events

- Cook Inlet, AK (Dec/2016)
  - Natural gas long term leak into Cook Inlet
  - Continued gas flow for water intrusion mitigation
  - Abrasion to pipe due to tidal currents
- Amherst, South Dakota (Nov/2017)
  - Crude oil spill ~ 5000 bbl.
  - Material – Original Construction related (weights)
  - Rapid response shutdown (~ 10 minutes)





# 2017 Data Update

Measures counting incidents are updated through CY 2017

Gas measures using miles updated through CY 2017

Liquid measures using miles updated through CY 2016



# PHMSA Regulated Pipeline Facilities

## OPS and State Partners

### Gas CY 2017   Liquid CY 2016

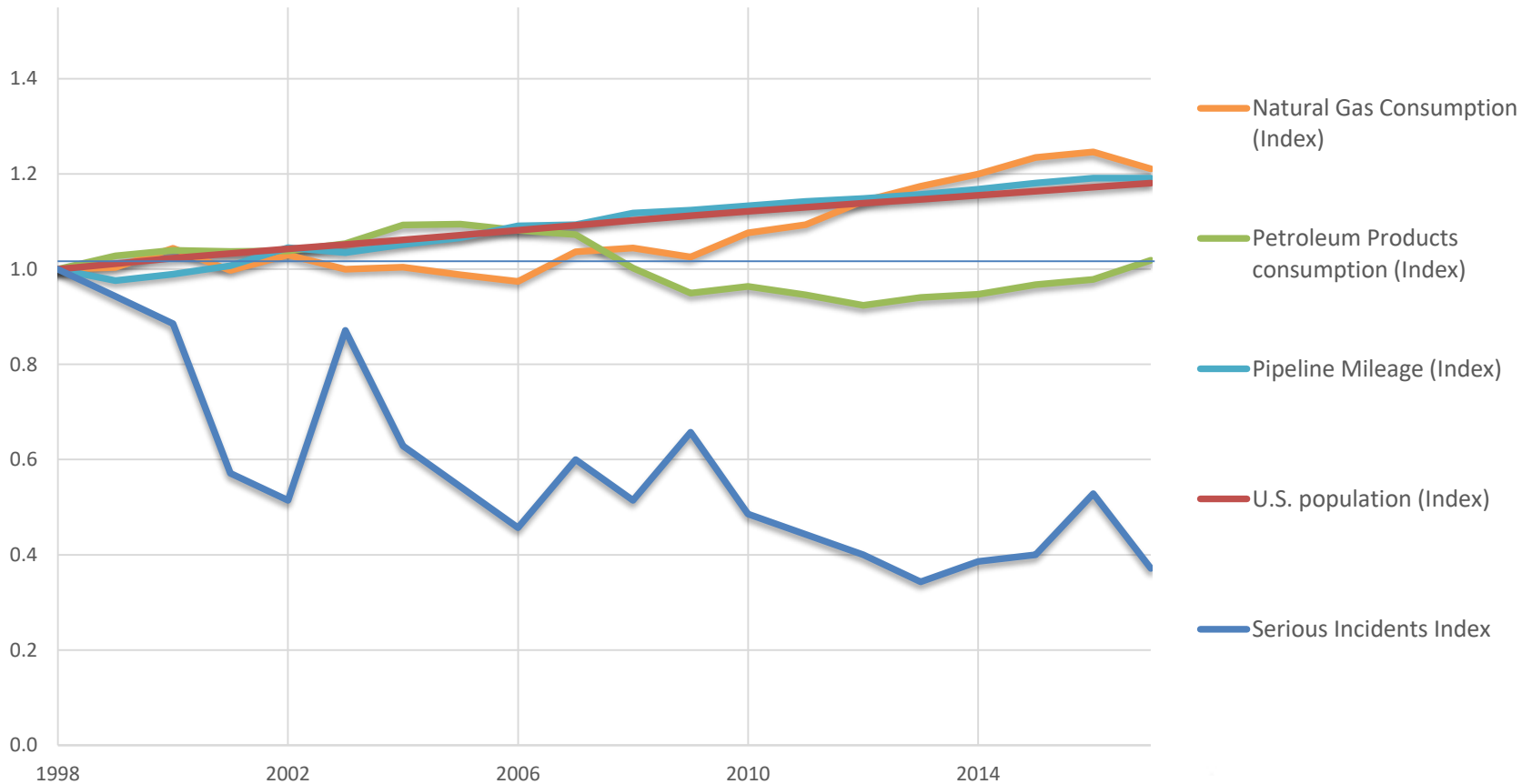
<b>Pipeline Facilities by System Type</b> data as-of 3-28-2018			
<b>System Type</b>	<b>Miles</b>	<b>% Miles</b>	<b># Operators</b>
<b>Hazardous Liquid</b>	<b>212,189</b> <b>7,920 Tanks</b>	<b>8%</b>	<b>517</b>
<b>Gas Transmission</b>	<b>300,390</b>	<b>11%</b>	<b>1,032</b>
<b>Gas Gathering</b>	<b>18,186</b>	<b>1%</b>	<b>351</b>
<b>Gas Distribution (Mains &amp; Services )</b>	<b>2,230,727</b>	<b>80%</b>	<b>1,295</b>
<b>Liquefied Natural Gas</b>	<b>151 Plants, 226 Tanks, 83 Operators</b>		
<b>Underground Natural Gas Storage</b>	<b>397 Facilities, 444 Reservoirs</b> <b>17,458 Wells, 124 Operators</b>		

<b>Total Miles 2,761,492</b>	<b>Unique OpID 2,644</b>
------------------------------	--------------------------



# Pipeline Serious Incidents with Context Measures (1998-2017)

Index  
(1998 = 1)



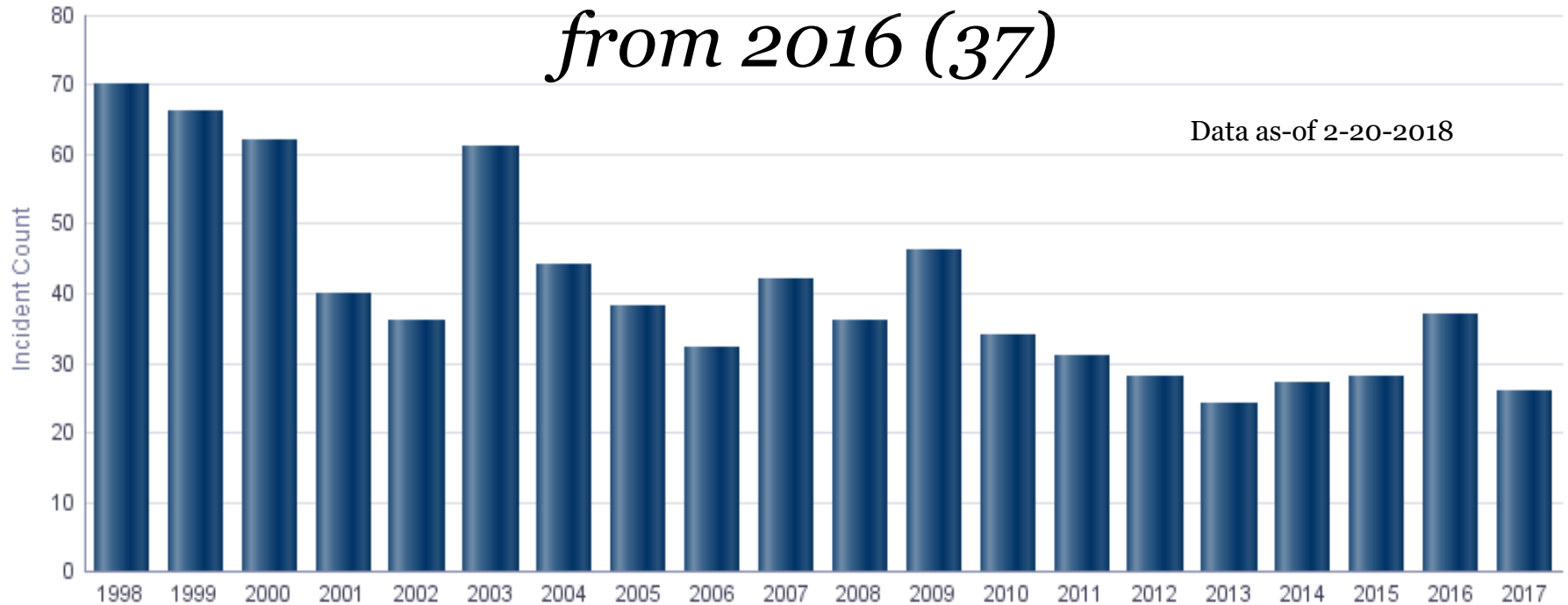
Data Sources: Energy Information Administration, Census Bureau, PHMSA Annual Report Data, PHMSA Incident Data - as of 2/20/2018

1



# Serious Incidents

*Serious incidents in 2017 (26) declined 30% from 2016 (37)*



## 26 in CY 2017

85% Gas Distribution

12% Gas Transmission

4% Hazardous Liquid

0% LNG, Gas Gathering,

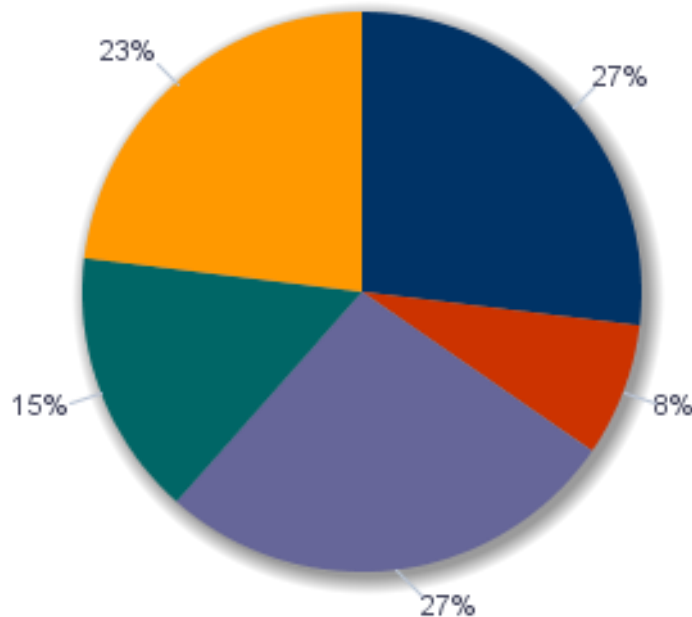
Underground Natural Gas Storage



# 2017 Serious Incidents by Cause

CY 2017 Leading Causes:  
Incorrect Operation  
Other  
Other Outside Force Damage

**Excavation  
Damage  
only 8%**



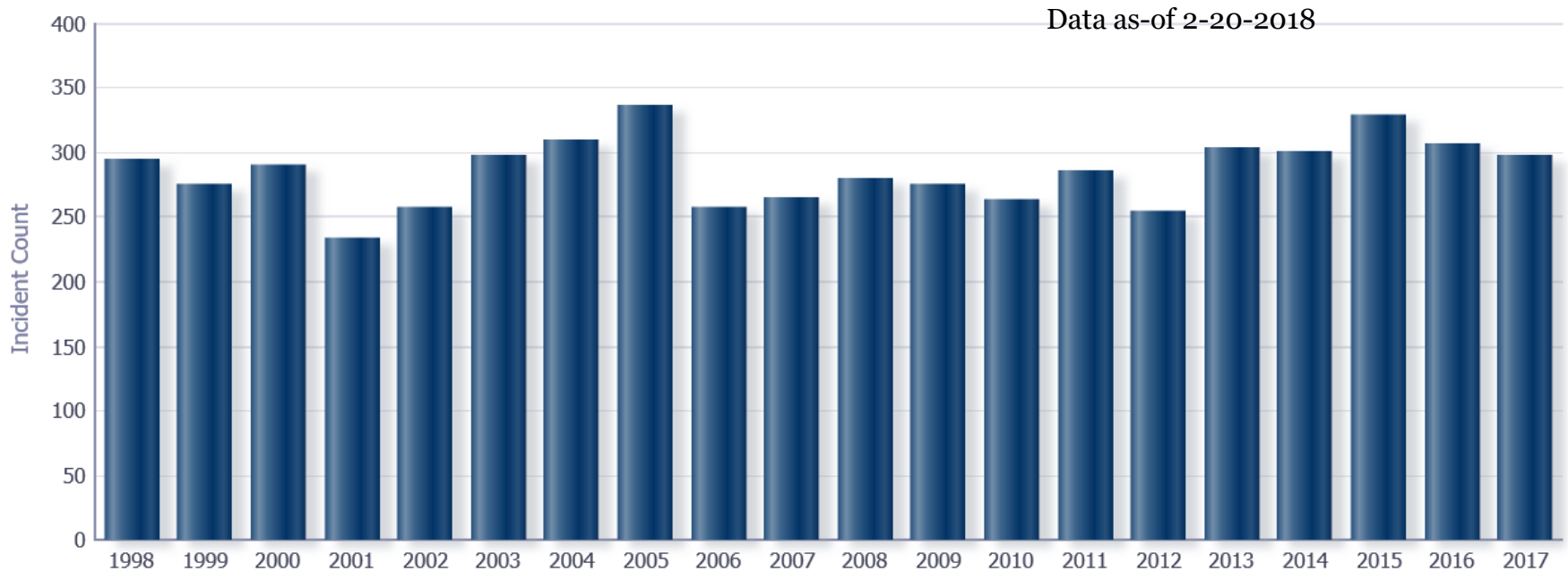
- ALL OTHER CAUSES
- EXCAVATION DAMAGE
- INCORRECT OPERATION
- MATERIAL/WELD/EQUIP FAILURE
- OTHER OUTSIDE FORCE DAMAGE

data as-of 2-20-2018



# Significant Incidents

## *Significant Incidents in 2017 (297) declined 3%*



### **297 in CY 2017**

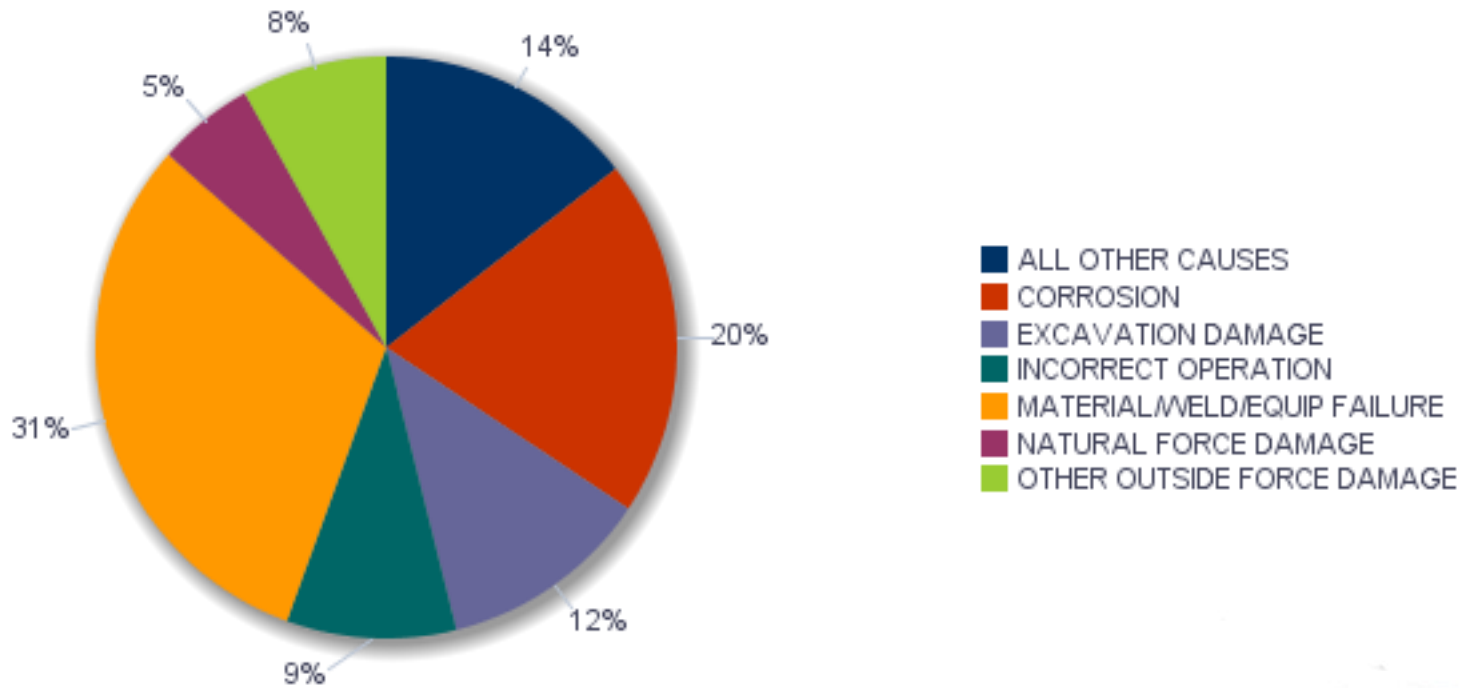
21% Gas Distribution	2% Gas Gathering
23% Gas Transmission	53% Hazardous Liquid
0% LNG	1% Underground NG Storage



# 2017 Significant Incidents by Cause

CY 2017 Leading Causes:  
Material/Weld/Equip Failure  
Corrosion  
Other

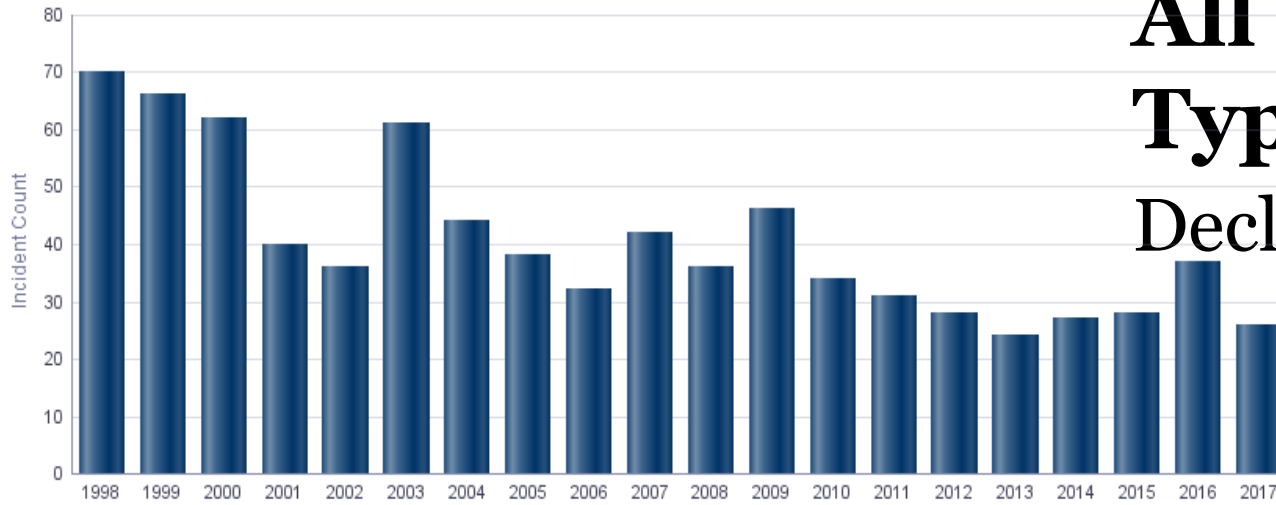
data as-of 2-20-2018



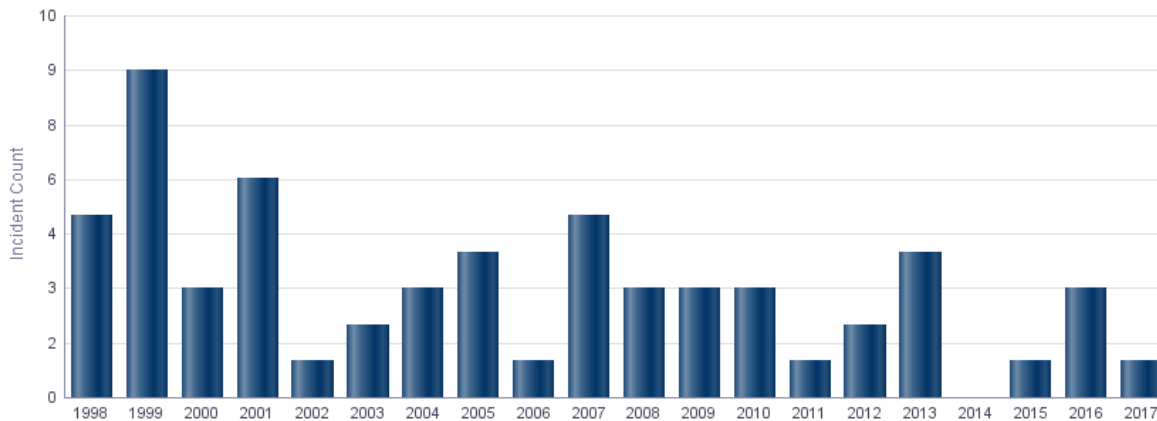


# Serious Incidents

data as-of 2-20-2018



**All System  
Types  
Declined in 2017**



**Hazardous Liquid  
Declined in 2017**

data as-of 2/20/2018

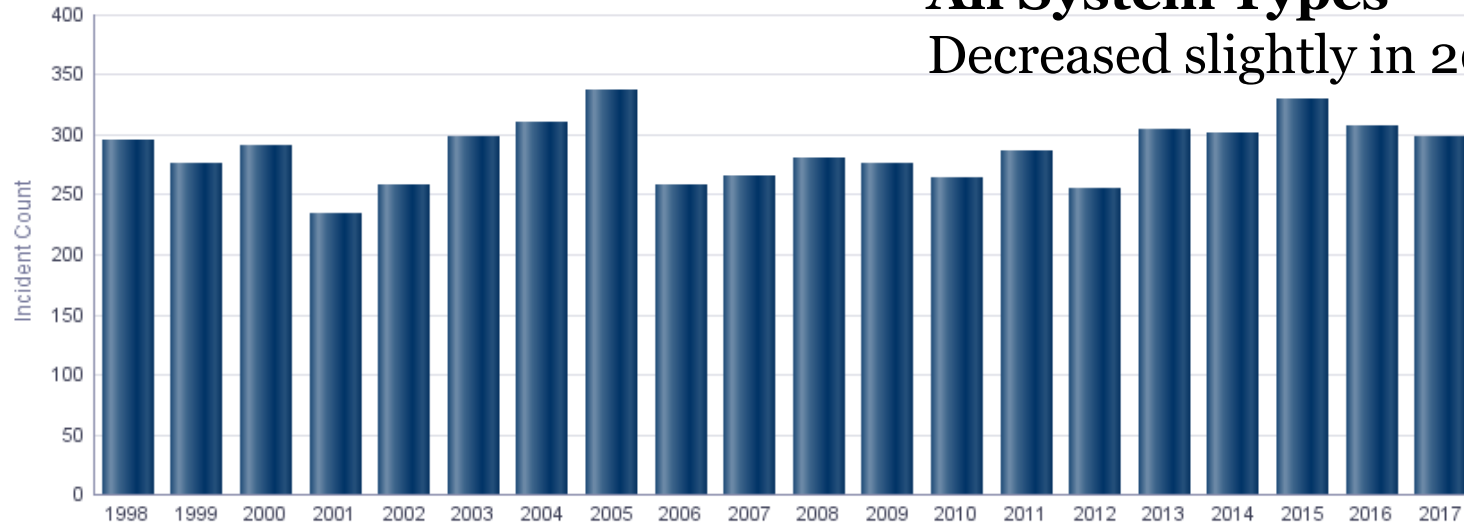


data as-of 2-20-2018

# Significant Incidents

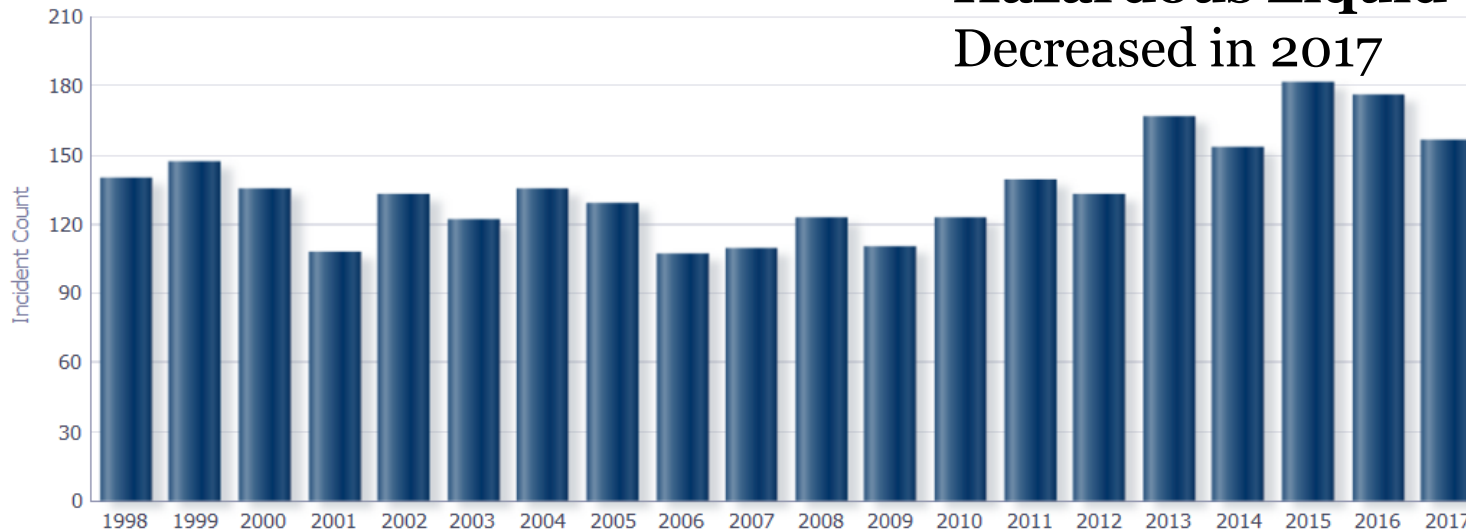
## All System Types

Decreased slightly in 2017



## Hazardous Liquid

Decreased in 2017



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."



# Hazardous Liquid Significant Incidents

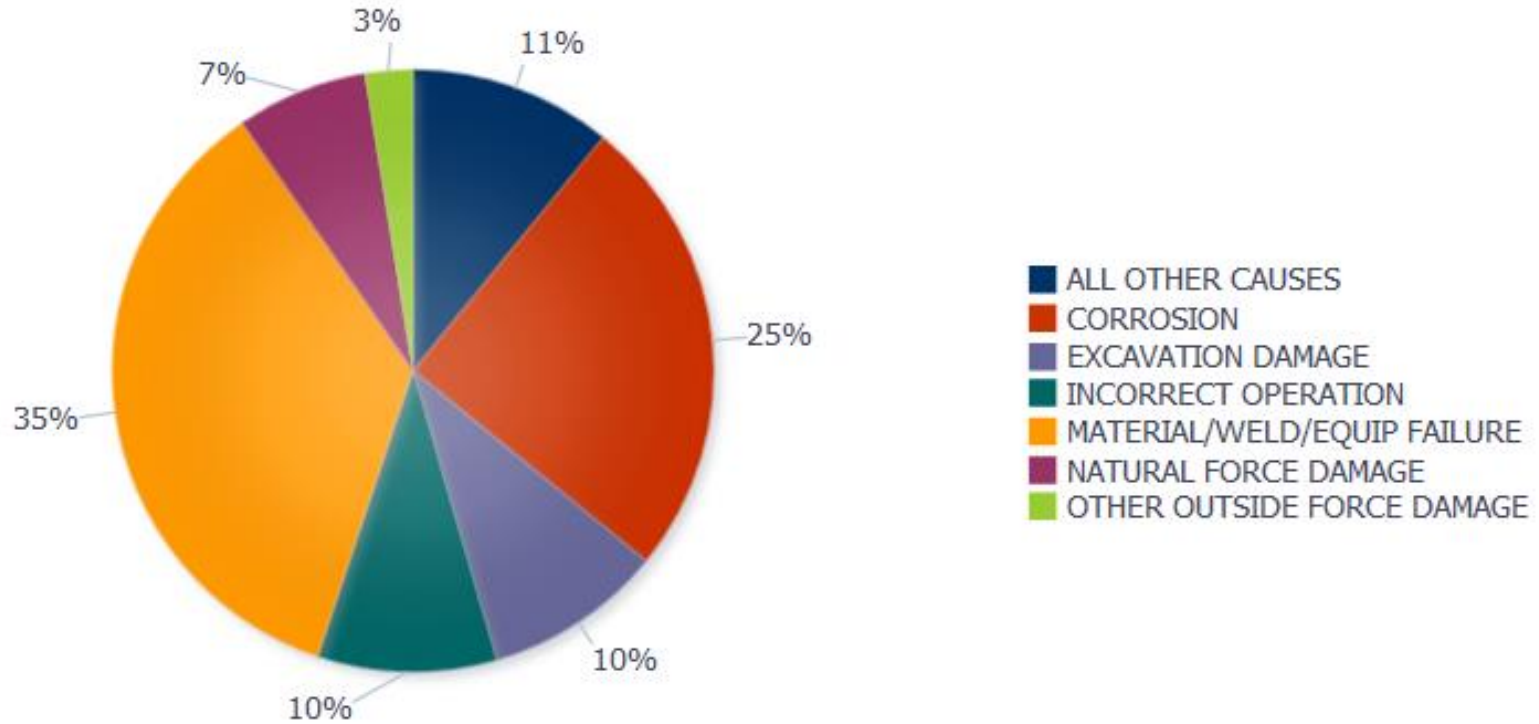
CY 2017 Leading Causes:

Material/Weld/Equipment Failure

Corrosion

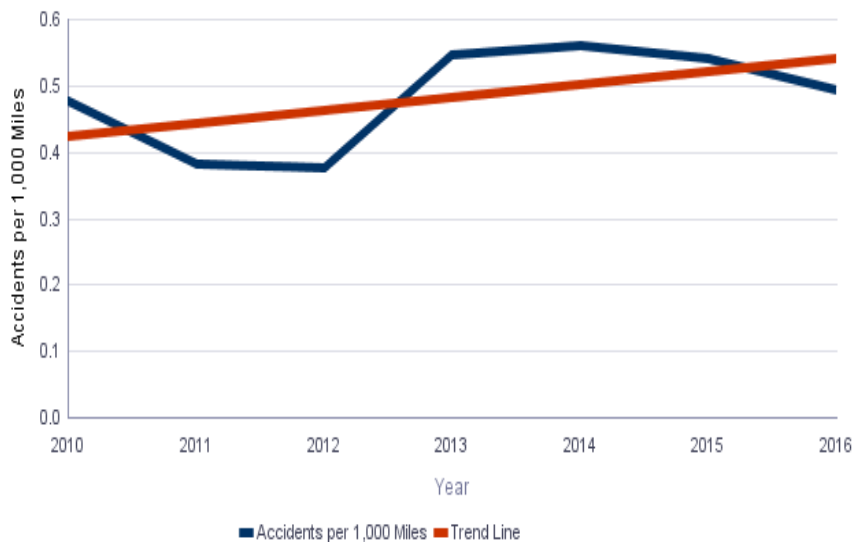
Other

data as-of 2-20-2018

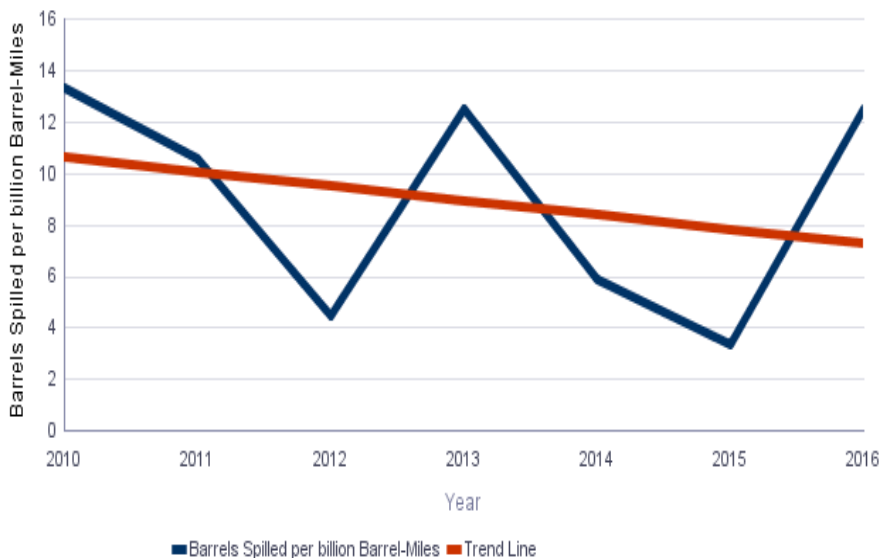


# Crude Oil/Refined Petroleum/Biofuel Accidents Impacting People or the Environment 2010 - 2016

The accident per 1,000 mile rate has increased since 2010



The volume spilled rate per billion barrel-miles transported has decreased since 2010.



Crude Oil/Refined Petroleum/ Biofuel	2010	2011	2012	2013	2014	2015	2016
<b>Accidents Impacting People or the Environment Miles</b>	87	70	70	105	112	113	105
<b>Volume Spilled (barrels)</b>	44,530	37,368	16,860	47,524	24,314	16,087	60,407
<b>Barrel-Miles Transported (billion barrel miles)</b>	3,334	3,534	3,739	3,806	4,105	4,766	4,832

Data as of: 02-21-2018



# Crude Oil/Refined Petroleum/Biofuel Accidents Impacting People or the Environment

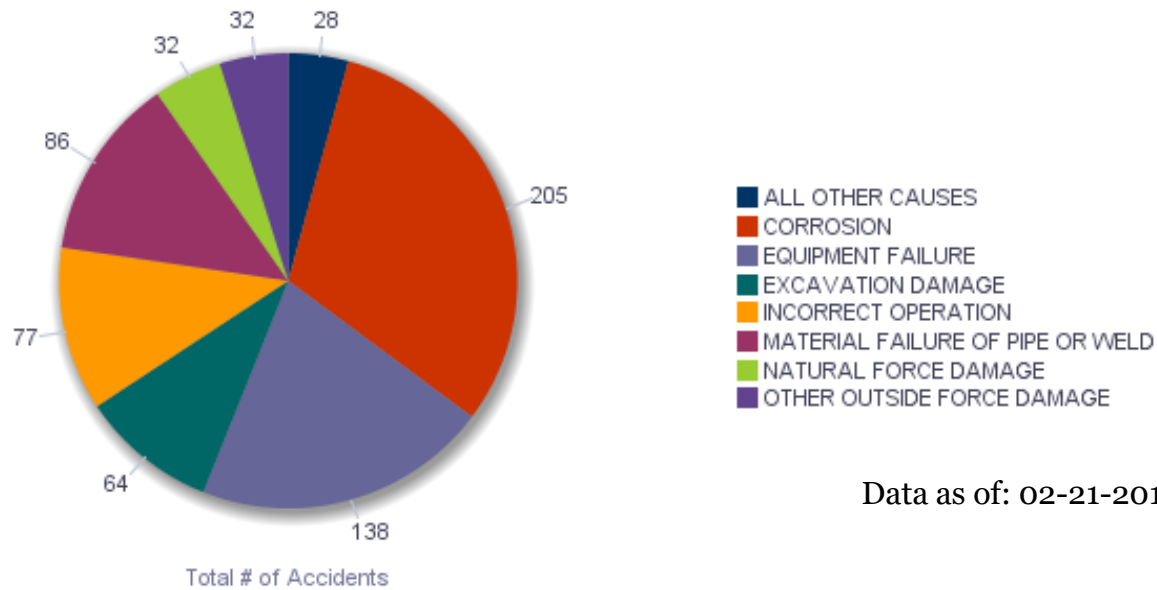
## Apparent Causes for 2010 - 2016

Leading Causes:

Corrosion

Equipment Failure

Material Failure of Pipe or Weld



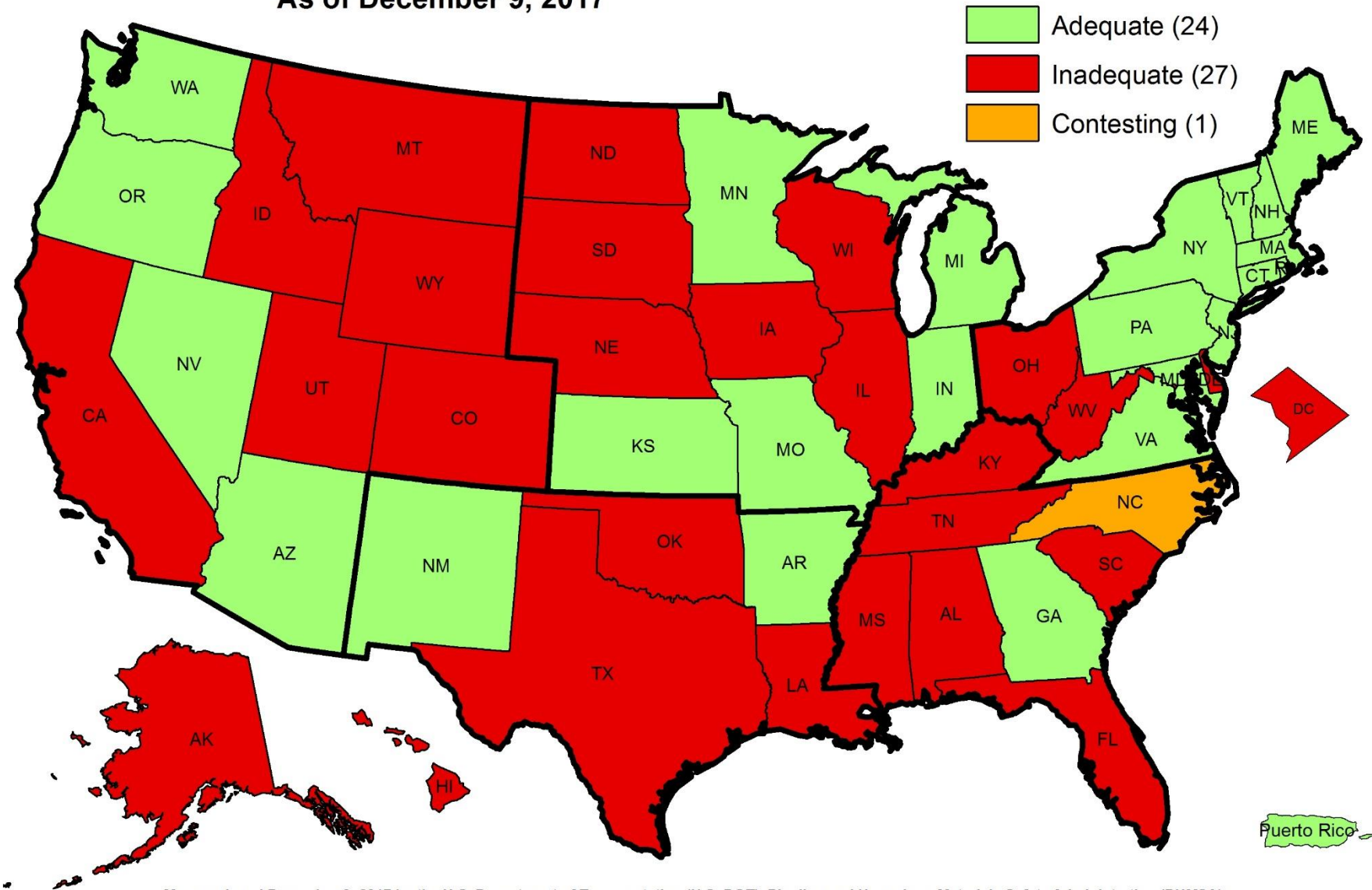
Data as of: 02-21-2018





# Adequacy of One-Call Law Enforcement Programs

As of December 9, 2017



Map produced December 9, 2017 by the U.S. Department of Transportation (U.S. DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA)  
Map provided as a reference only. PHMSA makes no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to this map for any purpose. PHMSA expressly disclaims liability for errors and omissions in the contents of this map.

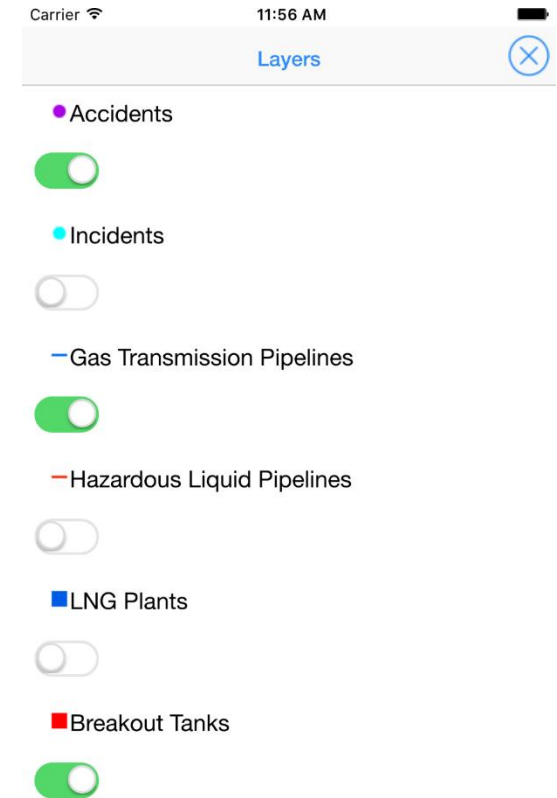
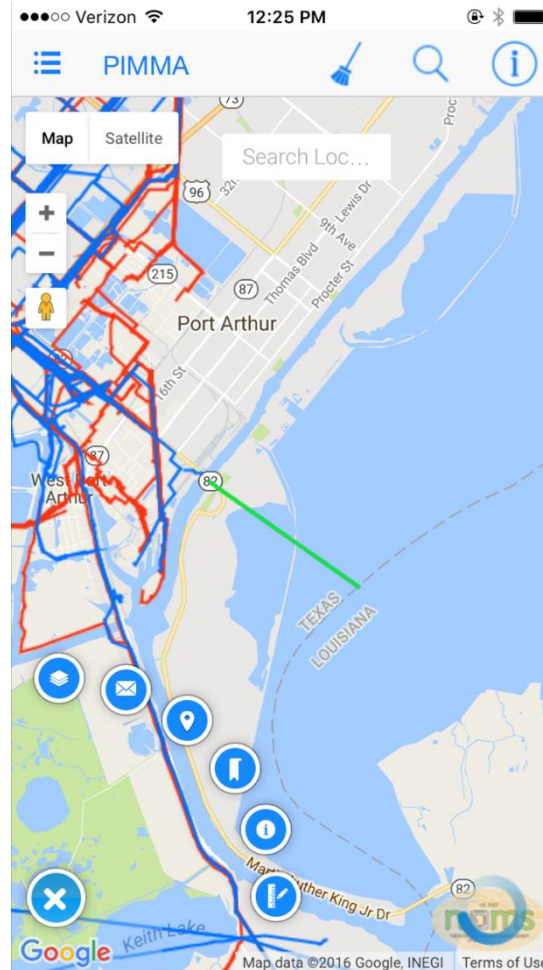
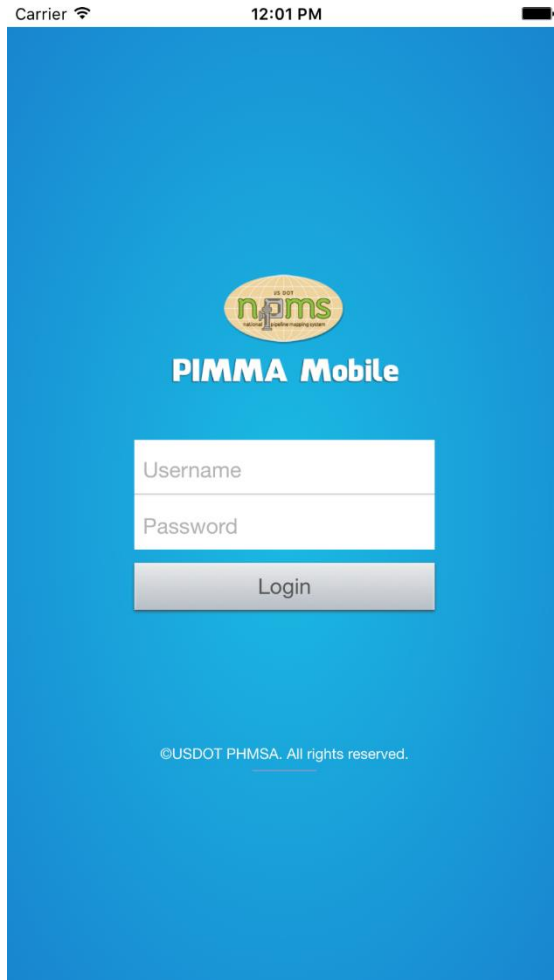
# State Excavation Damage Evaluation Criteria

- Does the State have enforcement authority with civil penalties and use it?
- Have a reliable means of learning about damages?
- State require:
  - Excavators must call 811 before digging
  - Excavators must “respect the marks”
  - If damage to a pipeline occurs...
    - Excavator must report damage to operator at earliest practical moment
    - If release occurs, excavator must call 911
- Are exemptions from the DP law limited? Written justification of exemptions is required.





# PIMMA iPhone app: search “pipeline information” in app store



# Safety Management Systems (SMS)

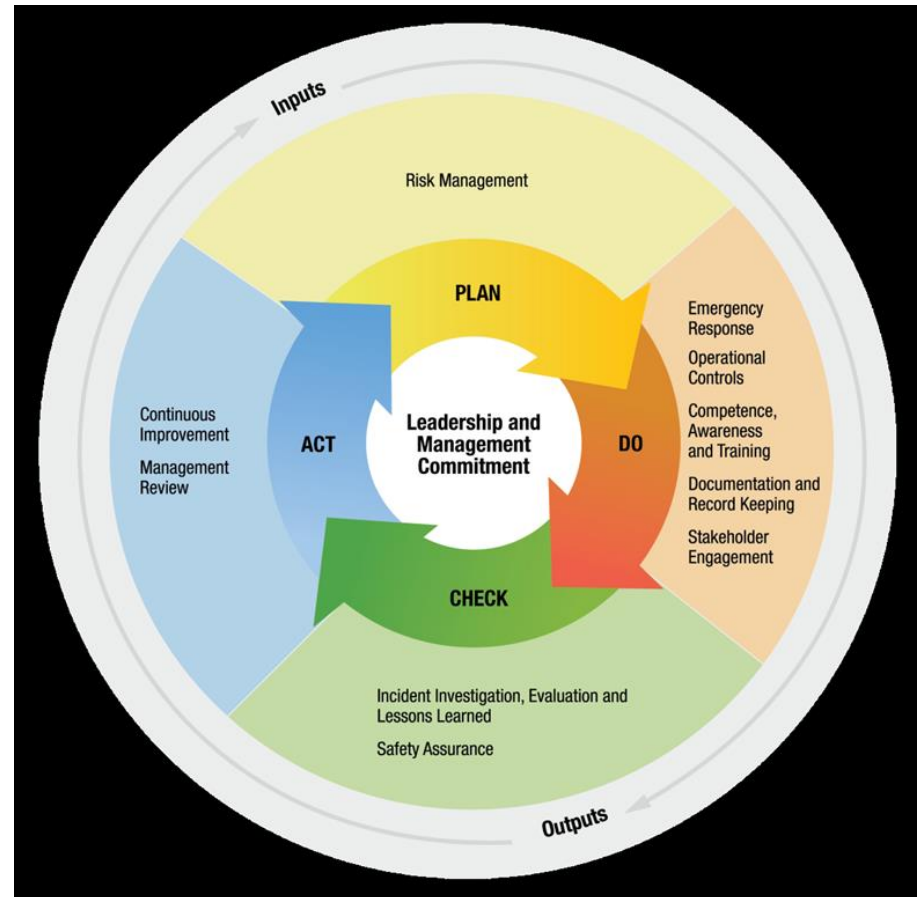
## PHMSA's Regulatory Expectations

- PHMSA does not intend to incorporate API RP 1173 by reference into the federal regulations. However, we are one bad accident away from Congress mandating SMS.
- As part of corrective actions following an incident or safety investigation, PHMSA may “order” a company to implement a SMS.
- Volunteer, Non-Punitive Pilot Audits.
- All SMS standards have very similar requirements. PHMSA does not care which flavor of SMS you choose.
- SMS and OSHA's PSM are not the same.
- SMS focuses more on organizational leadership and commitment, stakeholder engagement, safety culture and continuous learning.



# Pipeline Operators, No Matter Their Size, Can Benefit From a PSMS

- 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](https://www.youtube.com/playlist?list=PL4wHDSuQ-uKm7Mz20uvkeagVu2u_Cro6o)
  - Search PHMSA + SMS



# Publicly Available Information on the Status of Rulemakings

## Final Active Rules:

- [www.phmsa.dot.gov/regulations-fr/rulemaking](http://www.phmsa.dot.gov/regulations-fr/rulemaking)

## Proposed Rules:

- [www.reginfo.gov](http://www.reginfo.gov)
  - Unified Agenda
    - Current Unified Agenda and Regulatory Plan
  - Select Agency Department of Transportation
  - Scroll down to DOT/PHMSA for a list of rules with links



# Reminder

- The following PHMSA regulatory updates are simply an overview
- Details can be found in the Federal Register postings



# Recently Issued Final Rules





# Random Drug Testing Rate

- Effective Date: CY 2018 (Docket No: PHMSA-2018-0137)
- Raised to 50% random test rate (up from 25%)
- Careful not to water down testing pool
- PHMSA Drug & Alcohol Program Manager:  
[Wayne.Lemoi@dot.gov](mailto:Wayne.Lemoi@dot.gov)





# Addition of Certain Schedule II Drugs (OPIOIDS)

- Effective Date: January 1, 2018 (Docket No: DOT–OST–2016–0189)
- Past 5 drugs tested: marijuana, cocaine, amphetamines, PCP, & opiates
  - Opiates include: codeine, morphine, and heroin
- OPIOIDS (pain killers) are synthesized from natural opiates.
- Effective 1/1/2018 DOT drug tests include the four semi-synthetic opioids:
  - Oxycodone, Oxymorphone, Hydrocodone, and Hydromorphone



# Recently Issued Final Rules

## Excess Flow Valves (EFV) for Multi-Residential and Commercial Applications

- Effective Date: April 14, 2017 (Docket No: PHMSA-2011-0009)
- § 192.383(b) Operators must install an EFV on new or replaced service lines that:
  - Branch to an Single Family Residence
  - Serve multifamily residences where the known load is  $\leq 1,000$  SCFH
  - Serve single, small commercial customers where the known load is  $\leq 1,000$  SCFH
    - Exceptions:  $< 10$  psig, contaminants in gas stream, interference with O&M activities, EFV unavailable
- § 192.383(d) Existing customers have a right to request EFV installation
- § 192.383(e) Operators must notify customers of their right to request EFVs & this notice must be available for PHMSA inspection
- § 192.385(b) Each operator must install either a manual shut-off valve or, if possible and based on sound engineering analysis, an EFV, on new or replaced service lines  $> 1,000$  SCFH
- § 192.385(c) Manual shut-off valves must be installed to allow accessibility during emergencies & are subject to maintenance consistent with the valve manufacturer's specification



# Operator Qualification, Cost Recovery, Accident and Incident Notification, and Other Changes

- Effective Date: March 24, 2017 (Docket No: PHMSA-2013-0163)
- Specifies an operator's **accident and incident** reporting time to **within 1 hour**.
- Sets up a **cost recovery** fee structure for design review of new gas and hazardous liquid pipelines.
- Provides a renewal procedure for expiring **special permits**.
- Excludes **farm taps** from the DIMP requirements.
- Under §192.740, Farm taps **must** be inspected and tested at least once every 3 calendar years
- Requires pipeline operators to report to PHMSA permanent **reversal of flow**.
- Provides methods for **assessment tool** selection by incorporating consensus standards by reference in part 195 for stress corrosion cracking direct assessment.



# Operator Qualification, Cost Recovery, Accident and Incident Notification, and Other Changes

- Requires electronic reporting of **drug and alcohol testing** results in part 199, and modifying the criteria used to make decisions about conducting post accident drug and alcohol tests.
- Adds a procedure to request PHMSA keep submitted **information confidential**.
- Adds reference to Appendix B of API 1104 related to **in-service welding** in parts 192 and 195.
- Develops and clarifies requirements for team training of control center staff involved in pipeline operational decisions.
- Develops requirements for **team training** of control center staff involved in pipeline operations similar to those used in other transportation modes.



# Recently Issued Final Rules

## Safety of Underground Natural Gas Storage Facilities

- Effective Date: January 18, 2017 (Docket No: PHMSA-2016-0016)
- Operators of underground natural gas storage facilities must submit 4 reports:
  - Annual reports (2017 due in March 2018)
  - Incident reports
  - Safety-related condition reports
  - National Registry information
- Incorporates by reference
  - API RP 1170, “Design and Operation of Solution-mined Salt Caverns used for Natural Gas Storage” (July 2015), and
  - API RP 1171, “Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs” (September 2015).



# PHMSA Rules in Progress

- Pre-rule Stage - Class Location Requirements 2137-AF29
- Proposed Rule Stage - Amendments to Parts 192 and 195 to Require Valve Installation and Minimum Rupture Detection Standards 2137-AF06
- Proposed Rule Stage - Standards Update Rule--2015 and Beyond 2137-AF13
- Final Rule Stage - Safety of Hazardous Liquid Pipelines 2137-AE66
- Final Rule Stage - Gas Transmission 2137-AE72
- Final Rule Stage - Issues Related to the Use of Plastic Pipe in Gas Pipeline Industry (RRR) 2137-AE93
- Final Rule Stage - Underground Storage Facilities for Natural Gas 2137-AF22
- Final Rule Stage - Enhanced Emergency Order Procedures 2137-AF26





# Information Collection Request (NPMS)

- Non-rulemaking (Miscellaneous)
- July 2016 – Request for comments posted in FR Number:2016-14712
- Additional attributes proposed:
  - Breakout Tanks (become mandatory)
  - LNG Plant attributes
  - Percent SMYS
  - Wall Thickness
  - Pipe Grade (predominant)
  - Decade of Installation
  - Could Affect HCA (population, ecological, drinking water, Commercially Navigable Waterway)
  - Method of Last Assessment
  - Coated/Uncoated
  - Last Assessment Year
  - Mainline Block Valves
  - Gas Storage Fields
- Awaiting final release





# Pre-rule Stage – Pipeline Safety

- Class Location Requirements RIN 2137-AF29
  - Seeking comments on alternatives to current class location requirements
  - Next step: ANPRM



# Proposed Rule Stage – Pipeline Safety

- Amendments to Parts 192 and 195 to Require Valve Installation and Minimum Rupture Detection Standards RIN 2137-AF06
  - Define rupture, outline performance standards for isolation
  - specific valve maintenance and inspection requirements, and 9-1-1 notification
  - Next step: NPRM
- Standards Update Rule--2015 and Beyond RIN 2137-AF06
  - Update references to standards
  - Next step: NPRM



# Final Rule Stage – Pipeline Safety

- Safety of Hazardous Liquid Pipelines RIN 2137-AE66
  - Gravity Lines
  - Gathering lines
  - Inspection of affected areas (weather, natural disasters, etc.)
  - Non-HCA assessments
  - Leak detection systems
  - IM repair criteria
  - ILI capable for non-HCA areas
  - Next step: Final Rule



# Final Rule Stage – Pipeline Safety

- Gas Transmission RIN 2137-AE72
  - Repair criteria (HCA & Non-HCA)
  - Assessment methods
  - Integrity Verification Process
  - Gathering lines
  - Corrosion control
  - Change management
  - Launchers/receivers
  - Next step: NPRM
- Issues Related to the Use of Plastic Pipe in Gas Pipeline Industry (RRR) RIN 2137-AE93
- Underground Storage Facilities for Natural Gas RIN 2137-AF22
  - Next step: Final Rule
- Enhanced Emergency Order Procedures RIN 2137-AF26
  - Next step: Final Rule



# 811 Student Poster and Video Contest

- Sponsored by PHMSA, currently underway
- [Poster contest](#): Open to students in grades 4 -6. Grand prize is educational trip to DC to participate in 811 Day events, which occur on and around August 11.
- [Video contest](#): Open to high school students. Grand prize is laptop computer
- \$811 classroom grants awarded to teachers of winning students
- Deadline for next Entries: April, 2019



# June is National Safety Month

Observed annually in June, National Safety Month focuses on reducing leading causes of injury and death at work, on the road and in our homes and communities.

There are downloadable resources highlighting a different safety topic for each week in June:

- Week 1: Emergency Preparedness
- Week 2: Wellness
- Week 3: Falls
- Week 4: Driving

4





# Questions?

**Tom Finch**

**[thomas.finch@dot.gov](mailto:thomas.finch@dot.gov)**

**720-963-3175 (office)**

**303-807-7200 (cell)**

# Thank You!

