

# Western Region Gas Conference - DOT PHMSA Update -



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US DOT PHMSA Office of Pipeline Safety

August 28, 2018 8:45-9:15 AM



# PHMSA Organizational Updates

- **Elaine Chao** – USDOT Secretary
- **Skip Elliot** – Administrator
- **Drue Pearce** – Deputy Administrator
- **Howard (Mac) McMillan** – Executive Director
- **Alan Mayberry** - Associate Administrator (OPS)
- **Linda Daugherty** – Deputy Associate Administrator for Operations
- **Massoud Tahamtani** – Deputy Associate Administrator for Policy and Programs



# PHMSA Western Region Update

- Western Region Director - Kim West
- 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



# 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



# 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 identify emerging safety trends



# Western Region Gas Pipeline Stats

**Gas Distribution**



**Gas Gathering Total Miles**

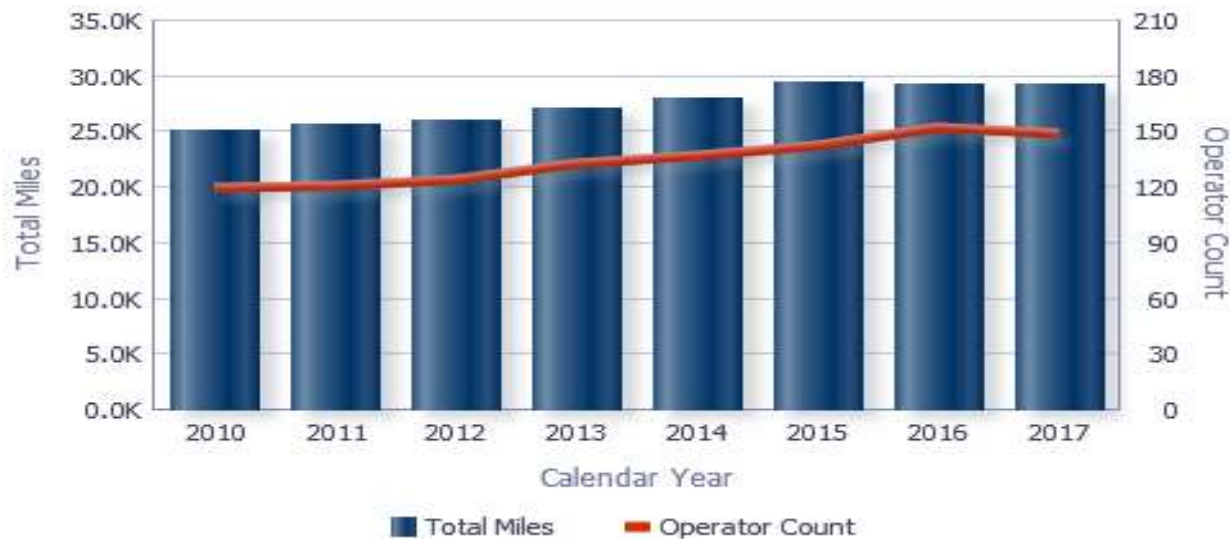


# Western Region GT and HLT Pipeline Stats

## GT Total Miles



## HL Total Miles



# Trends in National GT Incidents

Significant Incidents per 10,000 HCA Miles from Incident Reports



Failures per 5,000 HCA Miles

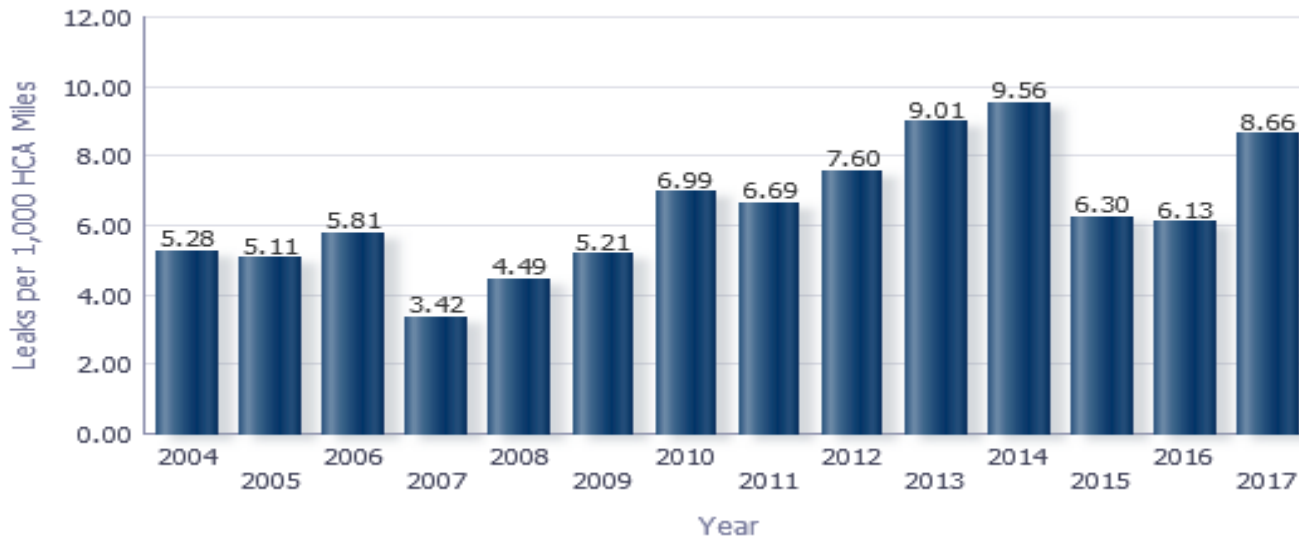


Failure is defined in ASME/ANSI B31.8S as a general term used to imply that a part in service: has become completely inoperable, is still operable but is incapable of satisfactorily performing its intended function; or has deteriorated seriously, to the point that it has become unreliable or unsafe for continued use. Failures that result in an unintentional release of gas should be reported as leaks.

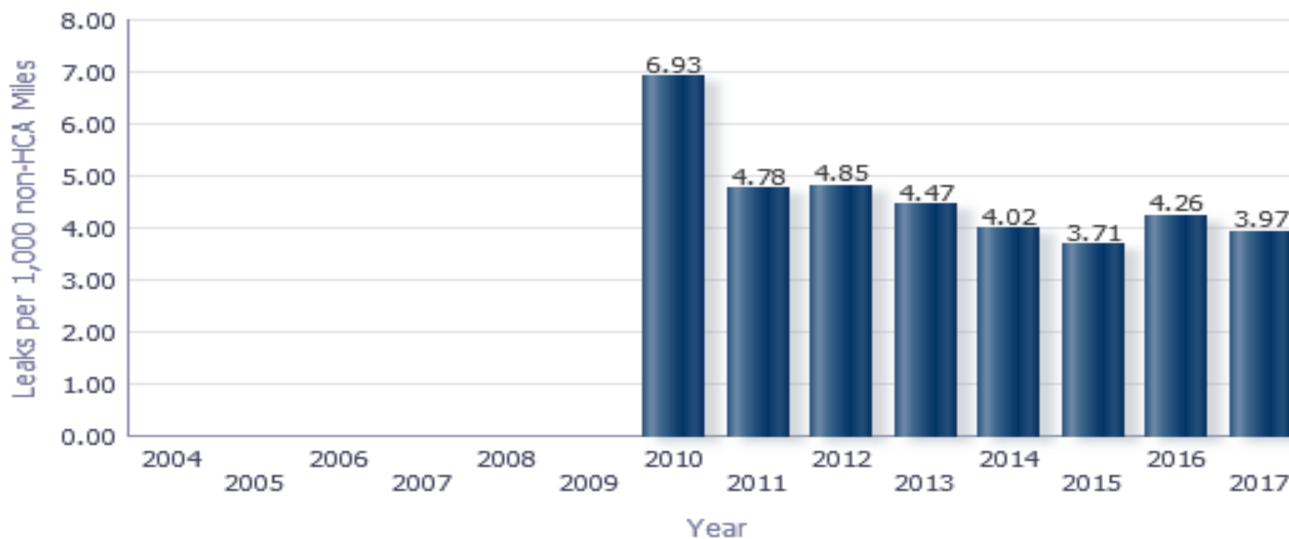


# Trends in National GT Leaks

Leaks per 1,000 HCA Miles



Leaks per 1,000 non-HCA Miles



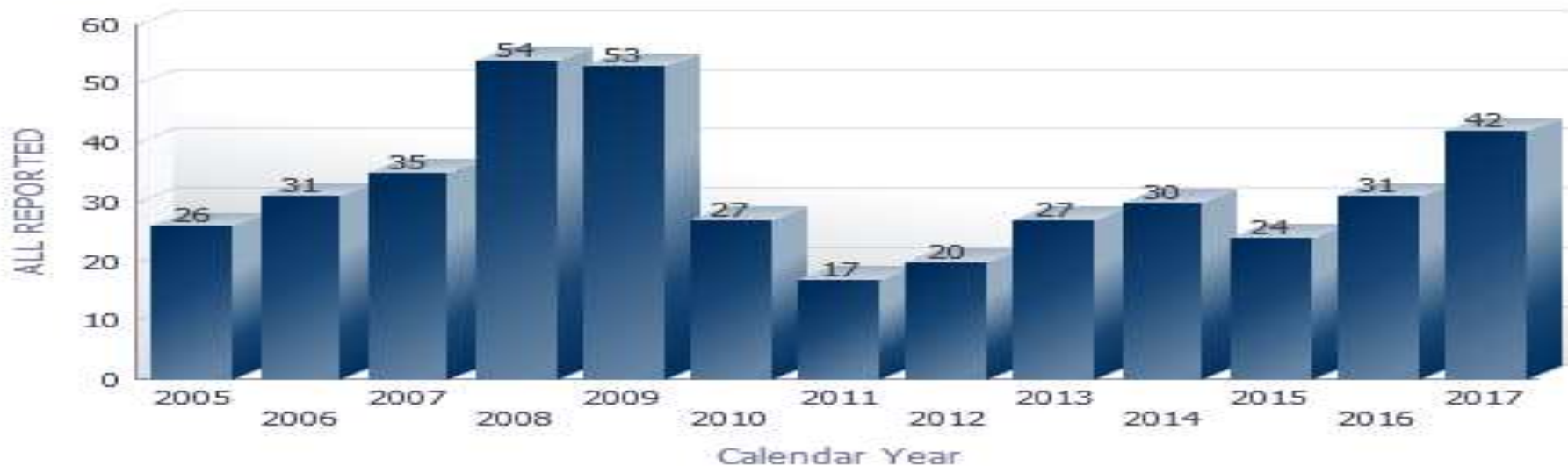
# Trends in Gas Distribution Incidents

## - Western Region Specific data -

Geo Region: WESTERN Geo State: (All Column Values)

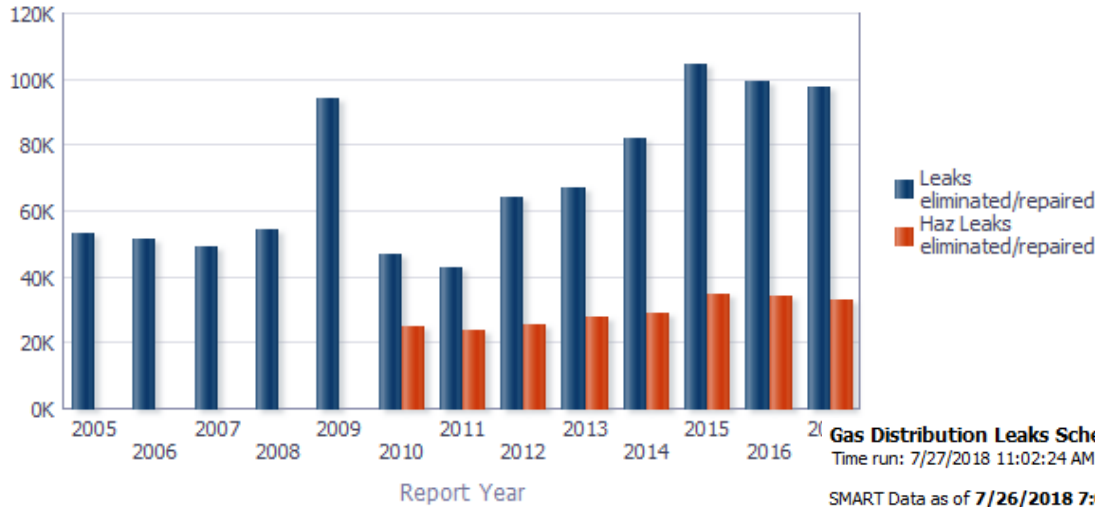
Incident Type ALL REPORTED ▾

	ALL REPORTED													Total
Incident Cause Type	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
ALL OTHER CAUSES		7	8	6	5							2	3	31
CORROSION	1			1	1	1				1		1		6
EXCAVATION DAMAGE	7	12	15	7	9	5	6	1	13	9	8	10	11	113
INCORRECT OPERATION	1			3	2	1	1	1		2		1		12
MATERIAL/WELD/EQUIP FAILURE	6	1	3	2	5	1	3	2	2	4	2	5	11	47
NATURAL FORCE DAMAGE	4	1	2	3	3	2	1		1	2	1	4	2	26
OTHER OUTSIDE FORCE DAMAGE	7	10	7	32	28	17	6	16	11	12	13	8	15	182
<b>Grand Total</b>	<b>26</b>	<b>31</b>	<b>35</b>	<b>54</b>	<b>53</b>	<b>27</b>	<b>17</b>	<b>20</b>	<b>27</b>	<b>30</b>	<b>24</b>	<b>31</b>	<b>42</b>	<b>417</b>



# Trends in Gas Distribution Leaks - Western Region Specific data -

Geo Region: WESTERN Geo State: (All Column Values)



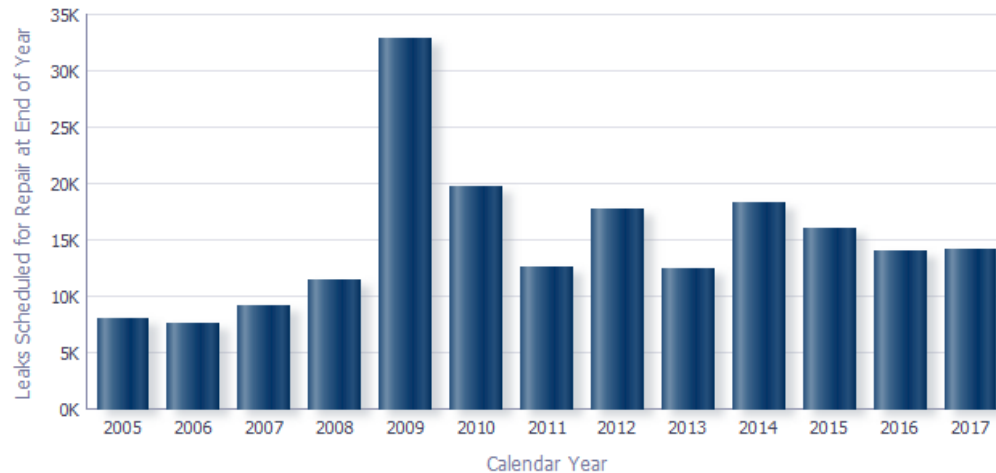
Gas Distribution Leaks Scheduled for Repair at End of Year

Time run: 7/27/2018 11:02:24 AM

SMART Data as of 7/26/2018 7:00:52 PM

Portal Date as of 7/26/2018 10:16:25 PM

Geo Region: WESTERN Geo State: (All Column Values)



# “What gets measured, gets done.”

- To ensure Risk Mitigation Actions are Improving Safety, Performance must be Measured and Trended
- There are many websites that provide performance monitoring for Stakeholders on public websites at the National, Regional, and Operator level

PHMSA Data and Statistics Overview -

[www.phmsa.dot.gov/data-and-statistics/pipeline/data-and-statistics-overview](http://www.phmsa.dot.gov/data-and-statistics/pipeline/data-and-statistics-overview)

PHMSA National Pipeline Performance Measures -

[www.phmsa.dot.gov/data-and-statistics/pipeline/national-pipeline-performance-measures](http://www.phmsa.dot.gov/data-and-statistics/pipeline/national-pipeline-performance-measures)

PHMSA DIMP Website –

[www.primis.phmsa.dot.gov/dimp/perfmeasures.htm](http://www.primis.phmsa.dot.gov/dimp/perfmeasures.htm)

PHMSA State Pipeline Performance Metrics -

[www.phmsa.dot.gov/data-and-statistics/pipeline/state-pipeline-performance-metrics](http://www.phmsa.dot.gov/data-and-statistics/pipeline/state-pipeline-performance-metrics)



# State Excavation Damage Evaluation Criteria

- 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.





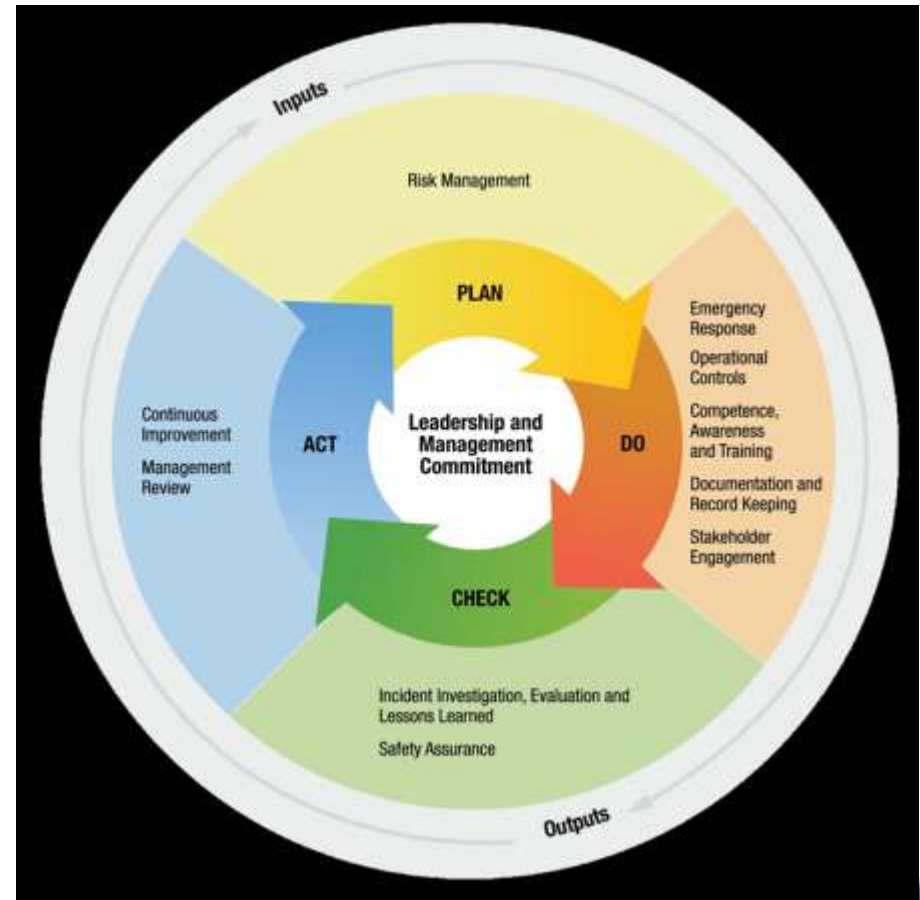
# Safety Management Systems (SMS) - PHMSA's Regulatory Expectations

- 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 and Continual Process Improvements

- 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-uKm7Mz2ouvkeagVu2u\\_Cro6o](https://www.youtube.com/playlist?list=PL4wHDsuQ-uKm7Mz2ouvkeagVu2u_Cro6o)
  - Search PHMSA + SMS
- Continual Improvement is a requirement of existing Integrity Management Regulations





# VISS (ILI Data Sharing) Committee

- PHMSA's Voluntary Information-sharing System (VIS) Working Group is mandated by law, section 10 of the Protecting our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2016.
- Provide recommendations on the development of a voluntary information-sharing system to encourage collaborative efforts to improve inspection information feedback and information sharing with the purpose of improving gas transmission and hazardous liquid pipeline facility integrity risk analysis.

<http://www.phmsa.dot.gov/pipeline/regs/technical-advisory-comm/voluntary-information-sharing-system-working-group>



# Lessons Learned Programs

- Implementing lessons learned programs support development of a safety culture
  - Corrective Action Programs
  - Near Miss Reporting
  - FAA – Aviation Safety Alert Programs
  - FRA - Confidential Close Call Reporting
- Quantitative Data Programs take longer to implement and see results



# Improving Quality Management Systems (QMS) for Pipeline Construction Activities

- QMS was Topic M in Gas IM ANPRM in 2011
- PHMSA sponsored a Construction Management R&D paper - used as basis for API RP 1177  
<https://primis.phmsa.dot.gov/matrix/PrjHome.rdm?prj=504>
- API RP 1177 – Recommended Practice for Steel Pipeline Construction Quality Management Systems. Draft available for viewing at  
[http://ballots.api.org/pipeline/ballots/docs/1177\\_PipelineConstructionQMS\\_1E\\_ballot\\_3916.pdf](http://ballots.api.org/pipeline/ballots/docs/1177_PipelineConstructionQMS_1E_ballot_3916.pdf)



# Recently Issued Final Rules

- *The following PHMSA regulatory updates are simply an overview*
  - *Details can be found in the Federal Register postings*
- <https://www.phmsa.dot.gov/regulations-and-compliance>
- [www.reginfo.gov](http://www.reginfo.gov)
- <https://www.transportation.gov/regulations/report-on-significant-rulemakings>



# Gas Transmission final rule / GPAC update

- Gas rule will be finalized by breaking it into three separate rulemakings
  1. Congressional mandates including MAOP reconfirmation, related MAOP requirements, material documentation, records, and assessments outside HCAs
  2. Repair criteria, strengthen assessment methods, IM clarifications
  3. Gas gathering – GPAC meeting in Late 2018



# Random Drug Testing Rate

- Effective Date: CY 2018 (Docket No: PHMSA–2018–0137)
- Raised to 50% random test rate (up from 25%)
- Effective 1/1/2018 DOT drug tests include the addition of Certain Schedule II Drugs (OPIOIDS)
  - Oxycodone, Oxymorphone, Hydrocodone, and Hydromorphone
- PHMSA Drug & Alcohol Program Manager: Wayne.Lemoi@dot.gov



# 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.



# Regulatory Reform Rulemaking

- Common Gas Topics Between PHMSA and Docket Comments
  - Plastic pipe operational limits
  - Class location and MAOP
  - Farm taps
  - Boiler pressure vessel code safety factors
  - Update IBR's – phased approach
  - Reporting thresholds and information collection activities





# Interim Final Rule 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 (see Part 191.15(c), .17(c), 22(a), and .23):
  - National Registry information (Operator ID)
  - Incident reports
  - Annual reports (2017 due in March 2018)
  - Safety-related condition reporting
- Incorporates by reference (see part 192.12):
  - 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).



# Identified Areas of Concern

1st Round of Inspections started in March-2018  
Based on Interim Final Rule focused on written procedures and implementation plans

- Inadequate/Lack of Procedures
- Incomplete Data Collection and Analysis (not using all available data)
- Inadequate records
- Record retention period not addressed for all records.
- Lack of effectiveness review for IMP
- Part 199 Drug/Alcohol program –some contractors not following



# Other PHMSA Gas Rules in Progress

- NPRM Stage - Amendments to Parts 192 and 195 to Require Valve Installation and Minimum Rupture Detection Standards 2137-AF06
- NPRM Stage - Standards Update Rule-2137-AF13
- Final Rule Stage - Issues Related to the Use of Plastic Pipe in Gas Pipeline Industry-2137-AE93
- Final Rule Stage - Enhanced Emergency Order Procedures 2137-AF26



# ANPRM on Class Location Requirements 2137-AF29, issued July 31, 2018

- PHMSA issued an Advance Notice of Proposed Rulemaking (ANPRM) seeking public comment on its existing class location requirements
- Operators are required to take actions following class location changes due to population growth near the pipeline.
- Operators suggested that performing IM measures on pipelines where class locations have changed due to population increases would be equally safe but less costly than current requirements of either reducing pressure, pressure testing, or replacing pipe
- Continues discussion from a Notice of Inquiry published in 2013 and a report to Congress in 2016 regarding whether expanding IM would mitigate the need for class location requirements
- Written comments must be submitted by October 1, 2018.



# ANPRM on Class Location Requirements 2137-AF29, issued July 31, 2018

- Q1—When the population increases along a pipeline route that requires a class location change as defined at § 192.5, should PHMSA allow pipe integrity upgrades from Class 1 to Class 3 locations by methods other than pipe replacement or special permits?
- Q2—Should PHMSA give operators the option of performing certain IM measures in lieu of the existing measures (pipe replacement, lower the operating pressure, or pressure test at a higher pressure; see § 192.611) when class locations change from Class 1 to Class 3 due to population growth within the sliding mile?
- Q3—Should PHMSA give operators the option of performing certain IM measures in lieu of the existing measures (pipe replacement with a more conservative design safety factor or a combination of pressure test and lower MAOP) when class locations change due to additional structures being built outside of clustered areas within the sliding mile, if operators are using the cluster adjustment to class locations per § 192.5(c)(2)?



# ANPRM on Class Location (continued)

- Q4—If PHMSA allows operators to perform certain IM measures in lieu of pipe replacement when class locations change from Class 1 to Class 3, should some sort of “fitness for service” standard determine which pipelines are eligible?
- Q5—As it is critical for operators to have traceable, verifiable, and complete (TVC) records to perform IM, should operators be required to have TVC records as a prerequisite for performing IM measures on segments instead of replacing pipe when class locations change?
- Q6—Should PHMSA incorporate its special permit conditions regarding class location changes into the regulations, and would this incorporation satisfy the need for alternative approaches?
- Q7—For all new and replaced pipelines, to what extent are operators consulting growth and development plans to avoid potentially costly pipe change-outs in the future?



# ANPRM on Class Location (continued)

- Q8—What is the amount of pipeline mileage per year being replaced due to class location changes for pipelines: (1) Greater than 24 inches in diameter, (2) 16–24 inches in diameter, and (3) less than 16 inches in diameter?
- Q9—Should any additional pipeline safety equipment, preventative and mitigative measures, or prescribed standard pipeline predicted failure pressures more conservative than in the IM regulations be required if operators do not replace pipe when class locations change due to population growth and perform IM measures instead?
- Q10—Should there be any maximum diameter, pressure, or potential impact radius (PIR) limits that should disallow operators from using IM principles in lieu of the existing requirements when class locations change?



# Questions and Comments?

*Thank you for your  
participation in Pipeline  
safety!*

