U.S. DOT
Pipeline and Hazardous Materials Safety Administration

Risk Management Systems

[DIMP, TIMP, SMS, QMS, etc.]

Wednesday, September 14, 2016 3:00-4:30PM
New York 2016 Pipeline Safety Seminar
Chris McLaren

Know what's below. Call before you dig.

Performance Based Regulations

- Historically, regulation have been prescriptive providing tasks that must be completed to meet established minimum safety requirements
- Performance based regulations provide a framework that an operator tailors to meet their unique operating environment to meet objectives
- Programs are expected to mature and be continuously improved and worked on
- Prescription is added to performance based IM regulations as time goes by to address inadequacies identified in inspections and accident investigations

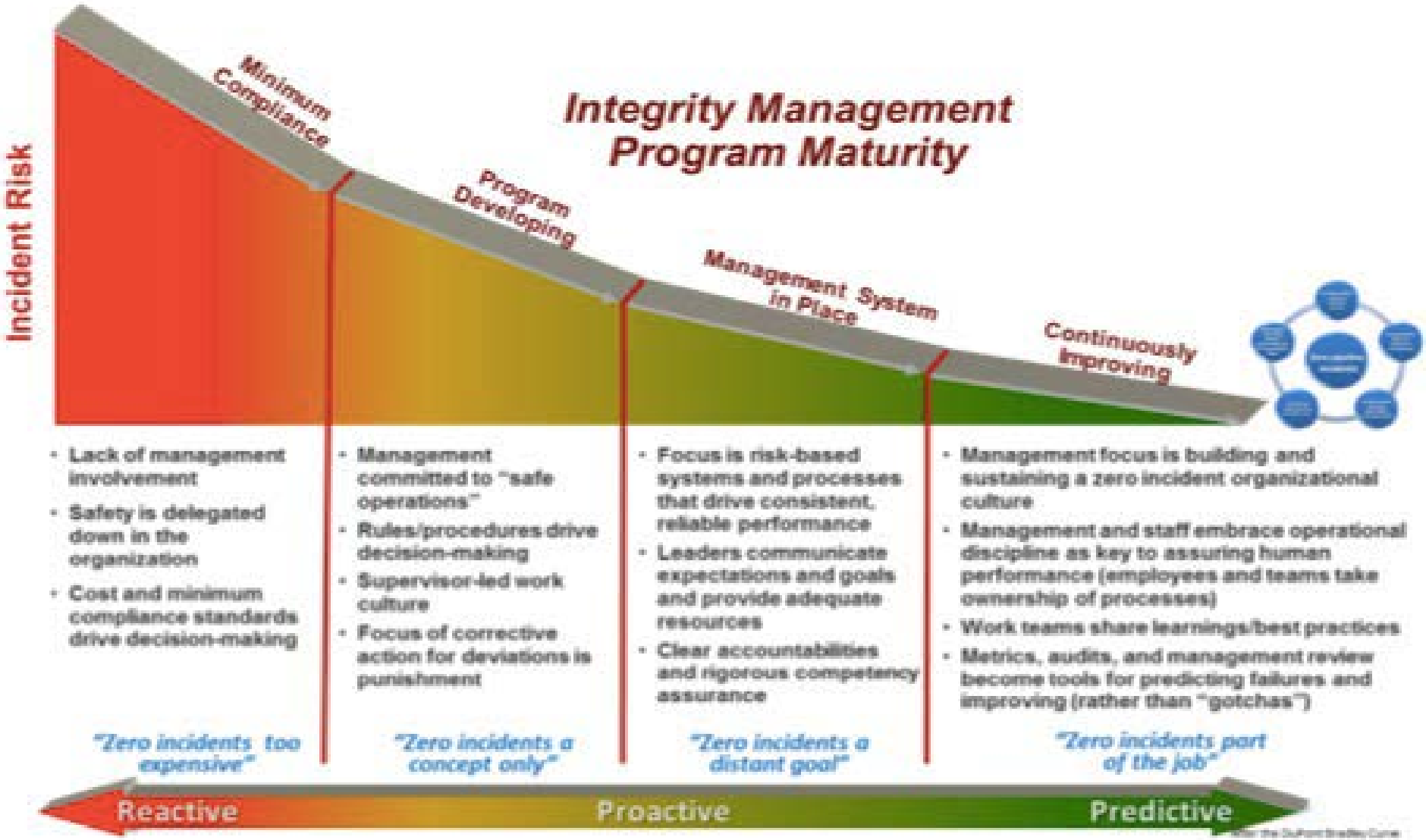
Management Systems

- PHMSA has worked on Pipeline Risk Management Systems since 1990's
- In the 1990's, PHMSA completed the Risk Management Demonstration & Systems Integrity Projects
- 2000's - Integrity Management (IM) Regulations promulgated for Hazardous Liquid and Gas Transmission pipelines
- 2010's – IM Regulations promulgated for Gas Distribution and Hazardous Liquid Gathering pipelines
- PHMSA has continuously evaluated the implementation of the IM regulations and sought to clarify and improve them thru Rulemaking and Stakeholder Communication

Management Systems

- A framework of policies, processes and procedures used to ensure that an organization can fulfill all tasks required to achieve its objectives.
- Include accountability (an assignment of personal responsibility) and a schedule for activities to be completed, as well as auditing tools to implement corrective actions, creating an upward spiral of continuous improvement.
- A simplified model is the P-D-C-A "Plan, Do, Check, Act/Adjust“ cycle of continuous improvement in API 1173.
- A-D-D-I-E Model is another way to describe a continuous improvement cycle –
  - Analyze, Design, Develop, Implement, & Evaluate

Assessing Maturity



Moving from Compliance to Choice

- Our world must move from a “checkbox” mentality to understanding the health of our pipeline systems by analyzing and understanding data and information and promptly acting to reduce risks
- Safety culture is a term commonly used as a mechanism to change operator behavior from minimum compliance standards towards choosing to do the “right thing” for the safe operation and integrity of the pipeline system
- Safety Management Systems are just one type of Management Systems implemented or discussed by PHMSA – Integrity, Quality, Risk

National Drivers Continue to Place the Focus on Gas Distribution

- Vintage Pipe Materials
- US DOT Call to action
- Continued Incidents involving Vintage Pipelines
- Methane Emissions
- PHMSA Research and Development Activities
- DIMP
- Gas Transmission and gas Gathering NPRM

Vintage Pipelines

- The term “Vintage Pipelines” commonly refers to pipe installed prior to the 1970’s.
- Pipe making and construction practices that are no longer used, including some early variations of current practices, are termed historic. Vintage pipelines are those built using pipe or construction practices made with such historic practices.
- Different for Transmission and Distribution in some respects, but used across both.
- For Distribution Infrastructure - cast and wrought iron mains, certain vintages of plastic pipe and mechanical coupling installations, bare steel pipe without adequate corrosion control, copper piping, and other legacy systems.

US DOT Secretary Call to Action

- In March 2011, former Secretary of Transportation Ray LaHood and PHMSA issued a Call to Action to engage all the state pipeline regulatory agencies, technical and subject matter experts, and pipeline operators in accelerating the repair, rehabilitation, and replacement of the highest-risk pipeline infrastructure.
- http://opsweb.phmsa.dot.gov/pipeline_replacement/

Aging Pipelines

- Pipeline transportation is one of the safest and most cost-effective ways to transport natural gas and hazardous liquid products.
- As the United States continues to develop and place more demands on energy transportation, it becomes necessary to invest in upgrading its infrastructure, including the replacement of aging pipelines.
- Among other factors, pipeline age and material are significant risk indicators. Distribution Pipelines constructed of cast and wrought iron, bare steel, and other vintage plastics are among those pipelines that pose the highest-risk
- In 2011, following major natural gas pipeline incidents, DOT and PHMSA issued a Call to Action to accelerate the repair, rehabilitation, and replacement of the highest-risk pipeline infrastructure.

Call to Action Highlights

- Letters requesting for assistance with Cast Iron Replacement to Governors, State Regulators (NAPSR) & Commissioners (NARUC)
- Letters to Industry
- Letters to Technical, Safety, and Environmental Organizations
- Letters to Local and State Organizations
- Letter to Federal Energy Regulatory Commission (FERC)
- White Paper on State Replacement Programs
- Request for State Governors' Assistance with Cast Iron Replacement
- Call to Action - Action Plan

“Legacy” in Gas IM NPRM

- ***Legacy construction techniques*** mean usage of any historic, now-abandoned, construction practice to construct or repair pipe segments, including any of the following techniques:
  1. Wrinkle bends;
  2. Miter joints exceeding three degrees;
  3. Dresser couplings;
  4. Non-standard fittings or field fabricated fittings (e.g., orange-peeled reducers) with unknown pressure ratings;
  5. Acetylene welds;
  6. Bell and spigots; or
  7. Puddle welds.
- ***Legacy pipe*** means steel pipe manufactured using any of the following techniques, regardless of the date of manufacture:
  1. Low-Frequency Electric Resistance Welded (LF-ERW);
  2. Direct-Current Electric Resistance Welded (DC-ERW);
  3. Single Submerged Arc Welded (SSAW);
  4. Electric Flash Welded (EFW);
  5. Wrought iron;
  6. Pipe made from Bessemer steel; or
  7. Any pipe with a longitudinal joint factor, as defined in § 192.113, less than 1.0 (such as lap-welded pipe) or with a type of longitudinal joint that is unknown or cannot be determined, including pipe of unknown manufacturing specification.

§ 192.624 Maximum allowable operating pressure verification: Onshore steel transmission pipelines. …

(c)Maximum Allowable Operating Pressure Determination. The operator of a pipeline segment meeting the criteria in paragraph (a) above must establish its maximum allowable operating pressure using one of the following methods:

1. Method 1: Pressure test.

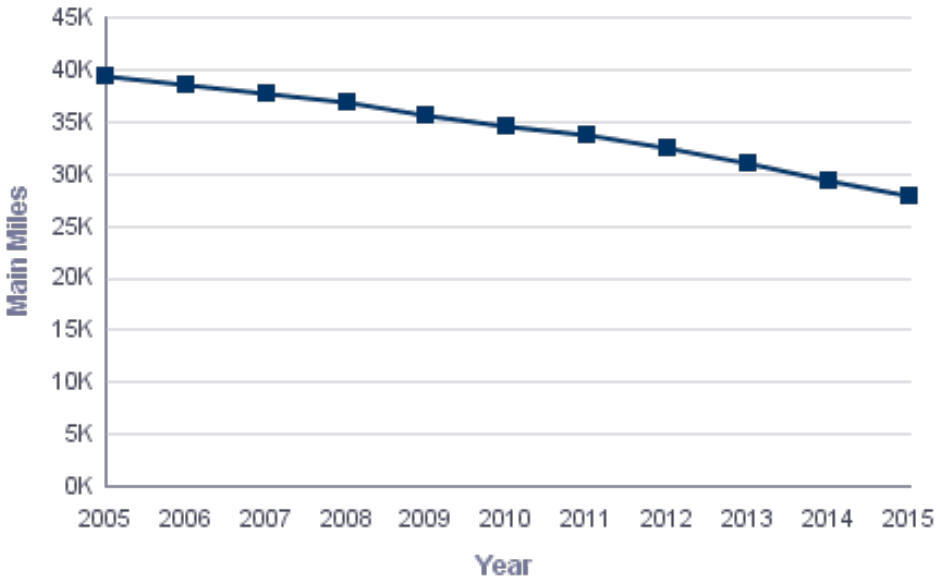
i. Perform a pressure test in accordance with §192.505(c). The maximum allowable operating pressure will be equal to the test pressure divided by the greater of either 1.25 or the applicable class location factor in §192.619(a)(2)(ii) or §192.620(a)(2)(ii).

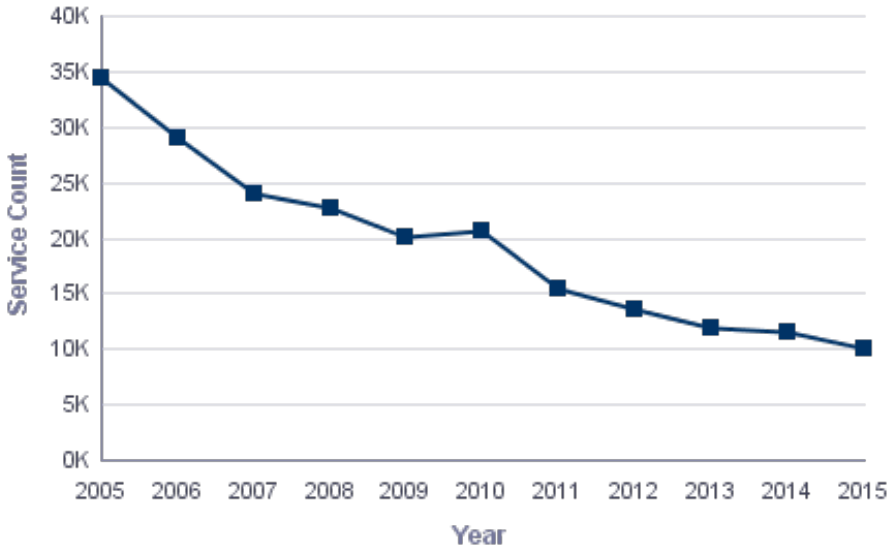
ii. If the pipeline segment includes **legacy pipe** or was constructed using **legacy construction techniques** or the pipeline has experienced an incident, as defined by §191.3, since its most recent successful subpart J pressure test, due to an original manufacturing-related defect, a construction-, installation-, or fabrication-related defect, or a crack or crack-like defect, including, but not limited to, seam cracking, girth weld cracking, selective seam weld corrosion, hard spot, or stress corrosion cracking, then the operator must perform a spike pressure test in accordance with §192.506. The maximum allowable operating pressure will be equal to the test pressure specified in §192.506(c) divided by the greater of 1.25 or the applicable class location factor in §192.619(a)(2)(ii) or §192.620(a)(2)(ii).

iii. If the operator has reason to believe any pipeline segment may be susceptible to cracks or crack-like defects due to assessment, leak, failure, or manufacturing vintage histories, or any other available information about the pipeline, the operator must estimate the remaining life of the pipeline in accordance with paragraph (d) of this section.

Progress in Modernization

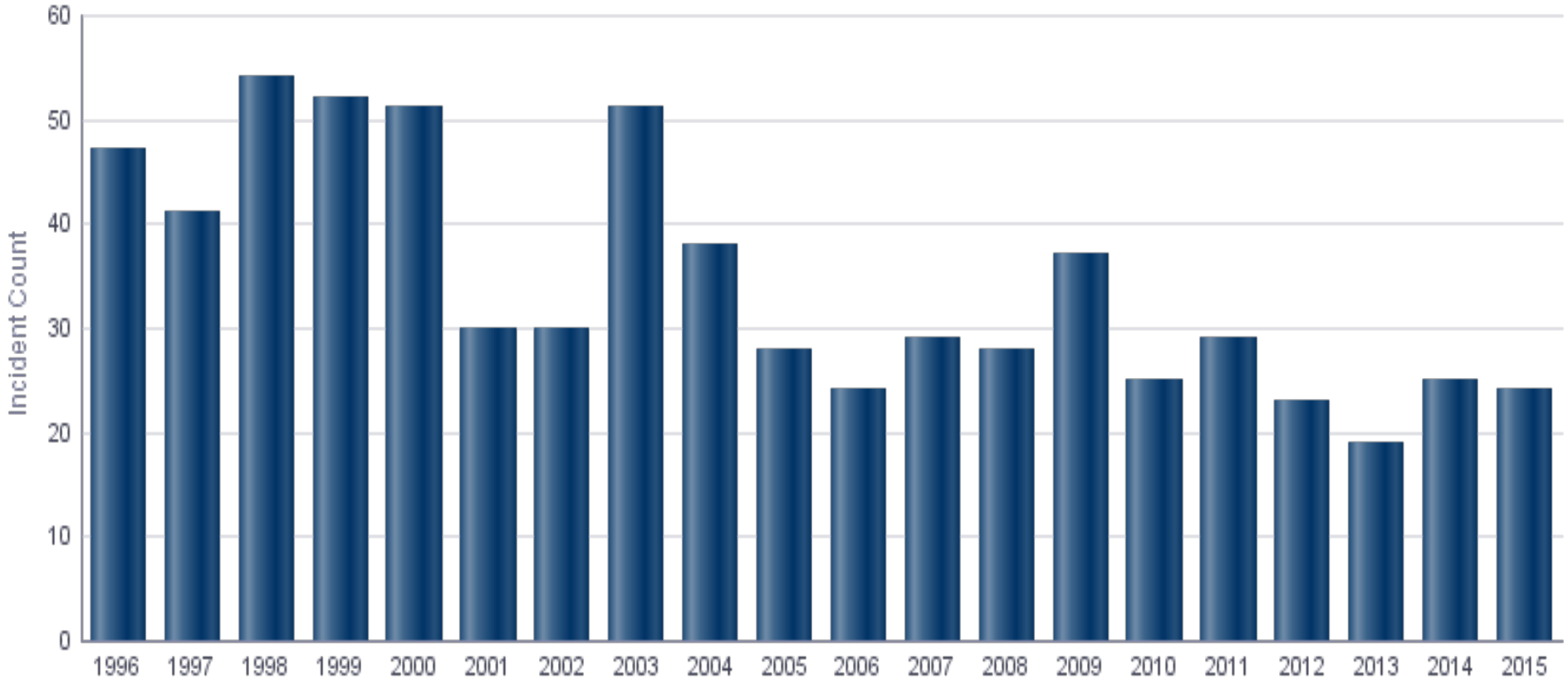
- Gas Distribution Cast/Wrought Iron Main Miles and Service Count Trend
- More progress is needed in accelerating replacements





Serious Gas Distribution Incidents

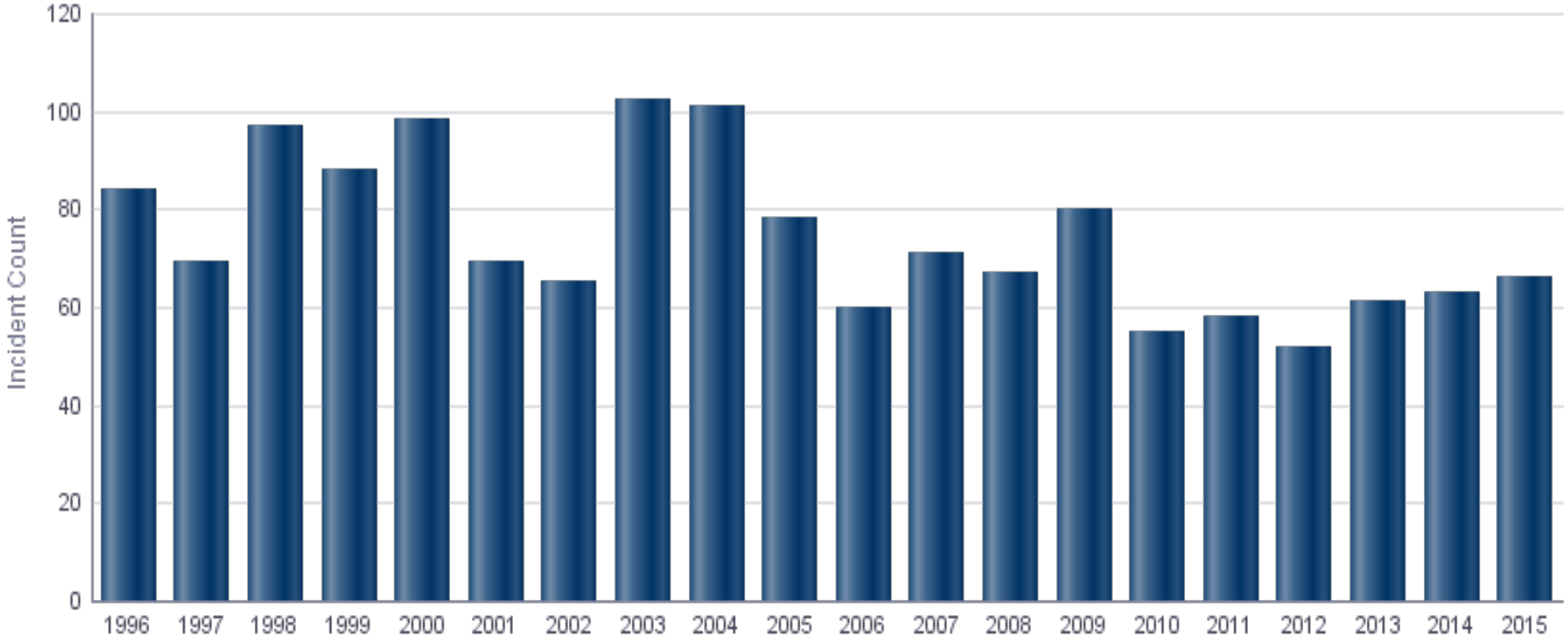
Distribution System Type have plateaued



Serious – fatality or injury requiring in-patient hospitalization

Significant Incidents

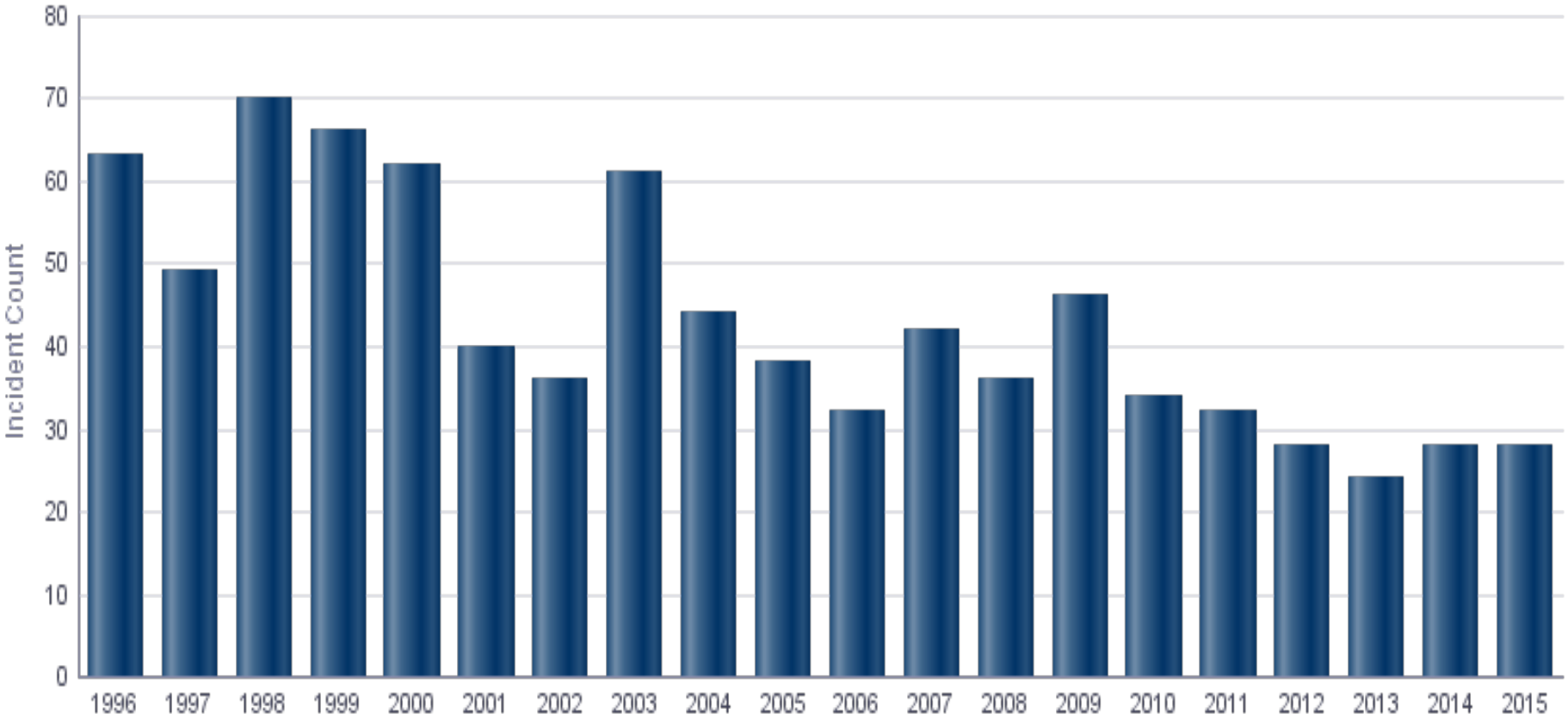
Distribution System Type have plateaued/rising trend



Significant includes Serious incidents as well as incidents costing $50,000 or more in total costs, measured in 1984 dollars; Highly volatile liquid (HVL) releases of 5 barrels or more; Non-HVL liquid releases of 50 barrels or more; or Liquid releases resulting in an unintentional fire or explosion

Serious Incidents

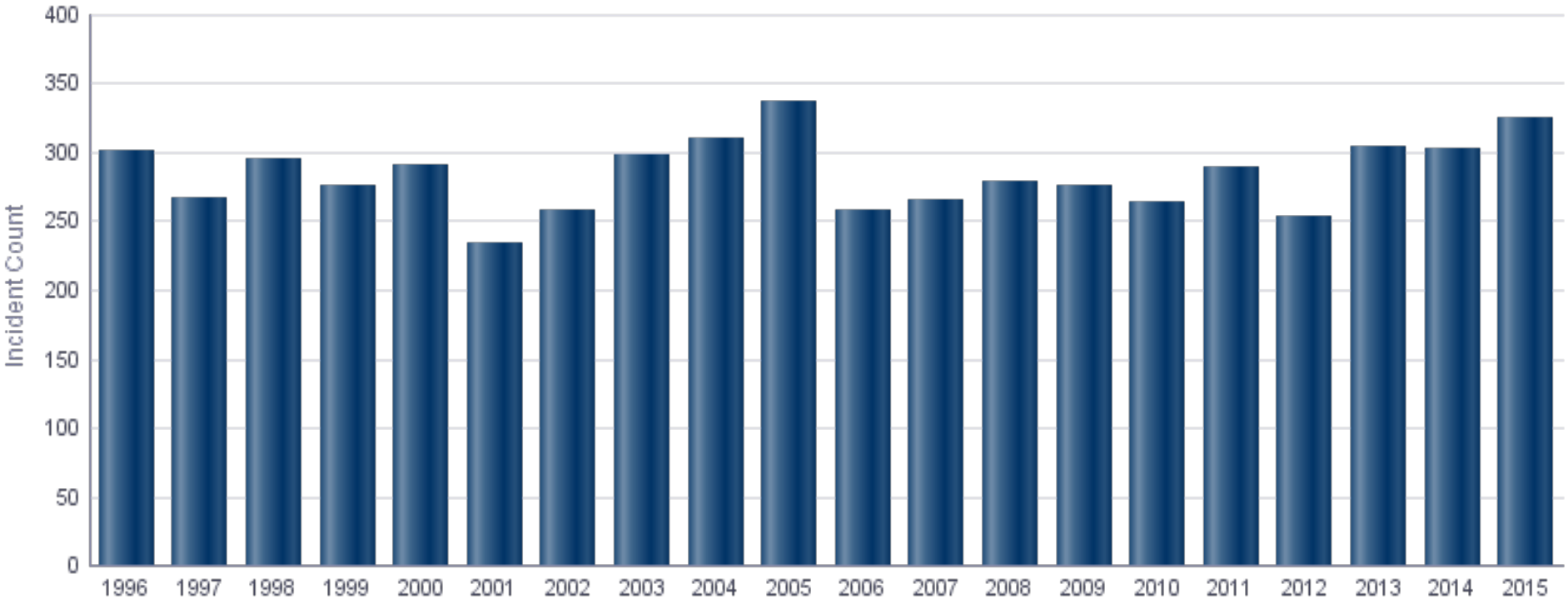
All System Type rises slightly in 2014 and have plateaued



Serious – fatality or injury requiring in-patient hospitalization

Significant Incidents

All System Types have plateaued/rising trend



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Distribution IM Impact

- The regulation requires distribution operators to develop and implement a distribution integrity management program with the following elements:
  - Knowledge
  - Identify Threats
  - Evaluate and Rank Risks
  - Identify and Implement Measures to Address Risks
  - Measure Performance, Monitor Results, and Evaluate Effectiveness
  - Periodically Evaluate and Improve Program
  - Report Results

Knowledge

- Data quality is a common concern, and an appropriate level of resource allocation is required;
  - Outdated, incomplete, obvious errors.
  - Outdated data systems difficult to use or sort.
  - Data cleanup and scrubbing is often required.
- Field data acquisition forms and internal IT processes to incorporate new information and correct inaccurate information may need to be modified.
- Procedures for identification and collection of additional and missing information must be included in DIMP to ensure consistent collection and processing.

Identify Existing and Potential Threats

§192.1007 What are the required elements of an integrity management plan? A written integrity management plan must contain procedures for developing and implementing the following elements:

(b) Identify threats. The operator must consider the following categories of threats to each gas distribution pipeline: Corrosion, natural forces, excavation damage, other outside force damage, material or welds, equipment failure, incorrect operations, and other concerns that could threaten the integrity of its pipeline. An operator must consider reasonably available information to identify existing and potential threats. Sources of data may include, but are not limited to, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience.

Potential Threats

- Some Operators struggle with potential threats beyond existing threats that are important
  - Threats the Operator has not previously experienced (from industry or PHMSA information)
  - Threats from aging infrastructure and materials with identified performance issues may need to be considered existing threats depending on the materials in question and the operating environment
  - Threats that endangered facilities but have not resulted in a leak (e.g., exposed pipe, near misses).
  - Non-leak threats (overpressure, exposure, outside force)
  - Manufacturing and Construction Threats
  - Maintenance history

Evaluate and Rank Risks

- System subdivision for the evaluation and ranking of risks must be sufficient to appropriately analyze risk(s) present in the Operator's unique operating environment.
- Geographical segmentation may be appropriate when systems are separated by space or a specific, predominate threat exists (e.g., where flooding can be expected, earthquake prone area, uniform construction).
- However, materials or construction may be the predominate threat(s) in a region, and segmentation may need to be refined to accommodate different failure rates to adequately differentiate and identify significant potential and existing threats.

Identify and Implement Measures to Address Risks

- Replacement of Vintage Materials is a Priority to PHMSA, and acceleration in any established replacement programs is warranted
- Increased Leak Survey Frequency to identify emerging threats
- Establish replacement schedules to Repair or replace the problem materials or equipment.
- Monitor coupons & internal pipe conditions when cut (bell hole report)
- Correct cathodic protection deficiencies
- Evaluate gas supply inputs and take corrective action with supplier

Performance Measurement

- §192.1007(e) - A DIMP must include procedures for establishing baselines and monitoring Performance Measures
  - Total number of leaks and the Number of hazardous leaks either eliminated or repaired categorized by cause
  - Number of hazardous leaks either eliminated or repaired categorized by material
  - Number of excavation damages and tickets
  - Operators must develop and monitor performance measures from an established baseline to evaluate the effectiveness of its IM program.
- §192.911 What are the elements of an integrity management program? (i) A performance plan as outlined in ASME/ANSI B31.8S, section 9 that includes performance measures meeting the requirements of §192.945.

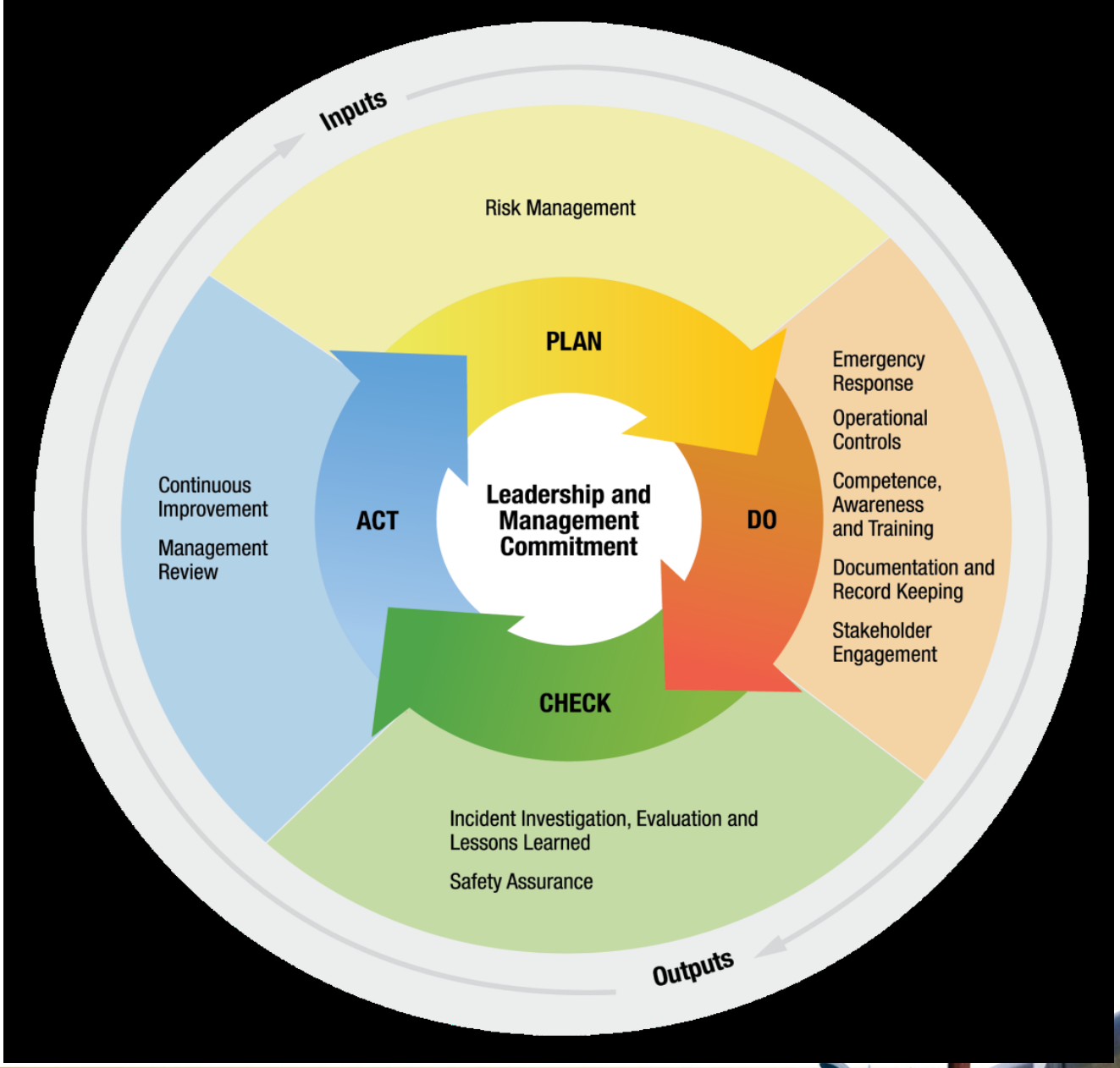
Periodic Evaluation and Improvement

- 192.1007(f) *Periodic Evaluation and Improvement.*
  - An operator must re-evaluate threats and risks on its entire pipeline and consider the relevance of threats in one location to other areas.
  - Each operator must determine the appropriate period for conducting complete program evaluations based on the complexity of its system and changes in factors affecting the risk of failure.
  - An operator must conduct a complete program re-evaluation at least every five years.
  - The operator must consider the results of the performance monitoring in these evaluations.

Periodic Evaluation and Improvement

- §192.911 What are the elements of an integrity management program?
  - …An operator must make continual improvements to its program.
  - (f) A process for continual evaluation and assessment meeting the requirements of §192.937
- §192.937(b) *Evaluation.* An operator must conduct a periodic evaluation as frequently as needed to assure the integrity of each covered segment. The periodic evaluation must be based on a data integration and risk assessment of the entire pipeline as specified in §192.917. For plastic transmission pipelines, the periodic evaluation is based on the threat analysis specified in 192.917(d). For all other transmission pipelines, the evaluation must consider the past and present integrity assessment results, data integration and risk assessment information (§192.917), and decisions about remediation (§192.933) and additional preventive and mitigative actions (§192.935). An operator must use the results from this evaluation to identify the threats specific to each covered segment and the risk represented by these threats.

Safety Management Systems - Plan, Do, Check, Act - The core of SMS in API RP 1173



Continuous Improvement is the Goal and a Requirement of IM Programs

Systematic Management of Risk

- **PSMS will help pipeline operators integrate across organizational silos and diverse processes.**

- **PSMS promotes front line, as well as Executive, safety leadership and individual accountability.**

- **PSMA requires a positive Safety Culture as the glue that brings it all together.**

Why Not Regulate SMS?

- If PSMS is So Great, Why Isn't PHMSA Turning it into a Regulation?
  - The Regulatory Process is SLOW.
  - The Industry (people and organizations) needs to embrace the concept, not just the letter of a law.
    - Many executives from various industries believe SMS is the right thing to do AND it is financially viable (insurance, etc.)
  - Advice from Chris Hart, Chair – NTSB, and FAA
    - "Collaboration is absolutely essential – or SMS implementation will not be successful"

SMS 2016 - Where are we today

- Increased focus on Integrity Management Systems especially the "later TIMP protocols"
  - Performance Measurement
  - Continuous Improvement
  - Management of Change
  - Communication
  - Quality Assurance
- Training PHMSA Inspectors in auditing techniques - different from inspection techniques for compliance to minimum safety requirements of prescriptive regulations
  - Supports IM training for inspection of performance based rules
- Supporting industry workshops and conferences on SMS and their design, development, and implementation
- Industry is performing gap analyses on operators' management systems to identify areas for improvement

Management Systems are Effective

Management Systems require More

- Intentional and systematic actions
- Diligence and oversight
- Involvement at all levels - communications
- “Go and Check” attitude

The rewards of Management Systems are

- Increased pipeline safety – risk reduction
- Creation / Enhanced safety oriented culture
- Broader organizational involvement

Leadership is everywhere

Top Management- accountable for continuous improvement, routine review of safety performance and communications about safety

Management- ensures process, procedures and training to meet objectives; assess, evaluate and adjust as needed to meet objectives; foster continuous improvement

Employees– identify improvements, reveal risks

- Consider employee, public and pipeline safety when stopping work for safety concern
- Bring rigor of employee safety to asset protection

PHMSA Form 24

- NAPSR and PHMSA are looking to incorporate field investigation and verification of the Operator's DIMP Implementation into regulatory inspection programs with the new "Records and Field Implementation" Inspection Form
- PHMSA Form 24 is for the evaluation of an operator's implementation of its DIMP through a review of its records and actions performed on pipeline facilities.
- Intended for inspections of Implementation of DIMP after initial DIMP inspections
- The form asks inspectors to review records and perform field observations regarding the implementation of the required DIMP elements.

PHMSA Form 24 Example

PHMSA Form 24 - Gas Distribution System DIMP Implementation Inspection, July 7, 2014, Rev 0

Question Number	Rule §	Description	S/Y	U/N	N/A	N/C
	192.1005	Issues Identified in previous Integrity Management Inspection(s)				
1	* - If not satisfactory, insert appropriate code section(s)	Have all issues raised in previous DIMP inspections been satisfactorily addressed? Provide comments below.	☐	☐	☐	☐
Inspector Comments						
	192.1007(a)	Knowledge of the system				
2	.1007 (a)(3)	Is the operator collecting the missing or incomplete system information and data needed to fill knowledge gaps to assess existing and potential threats?	☐	☐	☐	☐
Inspector Comments						
3	.1007 (a)(3)	Is the operator collecting the missing or incomplete system information and data using the procedures prescribed in its DIMP plan?	☐	☐	☐	☐

Form 24 – 1007(f) section

28	.1007 (f)	Did the periodic evaluation include the following: • Verification of general system information (e.g., contact information; form names; action schedules, etc.)? • New information acquired since the previous evaluation? • Review of threats and risks? • Was the risk model re-run? • Review of performance measures? • Review of measures to reduce risks? • Evaluation of the effectiveness of measures to reduce risks? • Modification of measures to reduce risks, if necessary?				
Inspector Comments						

Form 24 – 1007(f) section

29	.1007 (e)	If any established performance measures indicated an increase in risk beyond an acceptable level (as established in the DIMP plan), did the operator implement new risk reduction measures along with their associated performance measures?	☐	☐	☐	☐
Inspector Comments						
30	.1007 (f)	If the periodic evaluation indicates that implemented measures to reduce risks are NOT effective, were risk reduction measures modified, deleted or added?	☐	☐	☐	☐
Inspector Comments						

Form 24 – 1007(f) section

31	.1007 (f)	Did the periodic evaluation indicate that the selected performance measures are assessing the effectiveness of risk reduction measures? If not, were performance measures modified, deleted or added? (describe in Inspector comments)	☐	☐	☐	☐
Inspector Comments						
32	.1007 (f)	Did the operator follow its procedures in conducting periodic evaluation and program improvement?	☐	☐	☐	☐

Mechanical ~~Fitting~~ Joint Failure Reporting

- Communication of Performance Data is through the DIMP web page. To view MFFR data, go to:
- http://primis.phmsa.dot.gov/dimp/perfmeasures.htm
- Total Report Submitted Numbers (08/01/2016):
  - MFFRs submitted for 2011 – 8,342
  - MFFRs submitted for 2012 – 7,607
  - MFFRs submitted for 2013 – 9,920
  - MFFRs submitted for 2014 – 11,718
  - MFFRs submitted for 2015 – 12,854
- Data submitted for 2015 shows similar trends to previous 4 years of data collection.

MFJFR Data Analysis

- Mechanical Joint Failures are being identified in many DIMPs as a significant threat requiring risk mitigation measures.
  - 6.0% of hazardous leaks eliminated/repaired in 2015 involved a mechanical fitting
- The majority of mechanical joint failures resulting in a hazardous leak involve nut-follower, coupling types.
- Steel fittings are involved the majority of reports, and plastic fittings are second.
- The majority of leaks occur outside, belowground involving service-to-service connections.
- Equipment failure is the leading reported cause of leaks, and Natural forces is second.

Risk Analysis Application in IM

- Integrity Management is a Performance based Risk Management Program
- Risk Models and Assessments are required to be used throughout the IMP
  - Baseline Assessment
  - Data Integration / Information Analysis
  - Preventive Measures Determinations
  - Mitigative Measures Determinations
  - Continuing Evaluation and Assessment

NTSB and Others' Comments On Risk Methodologies

- **Risk evaluation methods must be sufficiently analytical to be predictive (NTSB Investigations and Safety Study)**
  - Threats on a particular line segment increasing or decreasing?
  - Consequence potential increasing?
  - Interactive threat potential becoming a major issue?
- Industry and PHMSA are in general agreement that risk models need to evolve in such a way as to be more investigative in nature

As summarized and discussed in past public forums and workshops on pipeline safety (*e.g.*, 2014 *Government/Industry Pipeline R&D Forum*)

Sufficiently Analytical to be Predictive

- Do Results reflect year-to-year changes in risk levels?
  - Operational, Environmental, Assessments
- Does the overall risk profile adequately match operational experience?
- Approaches may need to vary between respective types of threats (time dependent/independent)
- More complex does not necessarily mean better
  - Interactive threats may need more sophisticated modeling than threats evaluated individually

Connection to Decision Making

- **Risk evaluation results must have a connection to real-life decision making**
  - Point of risk evaluations is not to do a risk evaluation
  - Risk insights must be integrated into routine integrity-related decision making
  - Operators should be able to easily demonstrate how risk evaluation results influence work practices

Risk Modeling Meeting website
http://primis.phmsa.dot.gov/meetings/

PHMSA

PHMSA Public Meetings and Documents
Time: 05/26/2016 12:30 PM

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PHMSA Pipeline Risk Modeling Methodologies Public Workshop

PRESENTATION VIDEOS ARE AVAILABLE: HTTPS://WWW.YOUTUBE.COM/PLAYLIST?LIST=PL4WHDSUQ-UKK9O1MPHXFWGHL5A3ERG--F

Meeting Information	
Status	Completed
Starts	Sep 9, 2015 at 8:30 AM EDT
Ends	Sep 10, 2015 at 12:00 PM EDT
Location	Crystal City Marriott at Reagan National Airport
Virtual Information	Webcast Link: http://www.onlinevideoservice.com/clients/PHMSA/090915/ Q&A Responses: (pipelineforum @ dot.gov) email submissions; and Tweet (#phmsaRMM)
Purpose & Summary	On September 9-10, 2015, the Pipeline and Hazardous Materials Safety Administration (PHMSA), partnering with the National Association of Pipeline Safety Representatives (NAPSR), will hold a public workshop to discuss risk modeling methodologies of gas transmission and hazardous liquid pipelines and non-pipeline systems. Pipelines are the primary energy highways of the Nation that provide efficient means to transport the vast volumes of commodities on which we depend. Understanding the risk profile and underlying risk drivers for each pipeline system is a fundamental aspect of safe pipeline operations. This workshop will provide the pipeline industry, Federal and State regulators, interested members of the public, and other stakeholders an opportunity to share their knowledge and experience about risk modeling and practical approaches to improving pipeline risk models. It will focus on improving risk modeling approaches and techniques for pipeline and non-pipeline systems to advance pipeline risk models. Federal Registry Notification: https://federalregister.gov/a/2015-19929

Results

Additional Information

Contact: Vincent Holohan, Office of Pipeline Safety
202-366-1933 or by email at vincent.holohan @ dot.gov

Files

AGENDA

08/28/2015:
Risk_-_Agenda_-_Handout.pdf (87 KB)
[VIEW] [DOWNLOAD/SAVE...] [File #661]

PRESENTATION FILES

09/10/2015:
1-01_Alan_Mayberry-_PHMSA_-_Agenda_Overview_and_Day_1_Opening_-_PHMSA_Risk_Modeling_Workshop.pdf (220 KB)
[VIEW] [DOWNLOAD/SAVE...] [File #691]

09/10/2015:
1-02_Steve_Nanney_and_Ken_Lee-_PHMSA_-_Current_Regulatory_Requirements_for_Evaluations_of_Risk_-_PHMSA_Risk_Modeling_Workshop.pdf (882 KB)
[VIEW] [DOWNLOAD/SAVE...] [File #692]

09/10/2015:
1-03_Steve_Allen-_NAPSR_-_State_Regulatory_Perspective_-_PHMSA_Risk_Modeling_Workshop.pdf (139 KB)
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Risk Modeling Work Group (RMWG)

- The PHMSA Pipeline Risk Modeling Work Group was formed as a follow up to the September 2015 - Pipeline Risk Modeling Methodologies Public Workshop
- The purpose of the group is to provide technical, integrity management and operational input to PHMSA to aid in the development of a pipeline system risk modeling technical guidance document
- http://primis.phmsa.dot.gov/rmwg/index.htm

Risk Modeling Work Group

- PHMSA is seeking a wide range of input and consensus as part of the development of this technical guidance, both from within, and from applicable stakeholders
- There are approximately 30 members from the regulatory, operator, and interested party communities
- This work group provides a forum to obtain the combined perspective of industry, regulators, public, and risk services providers, and it will also provide a mechanism for eventual public input/comment

RMWG Mission Statement

- The mission of the Risk Modeling Work Group (RMWG) is:
  - Characterize the state of the art of pipeline risk modeling for gas transmission and liquid pipelines,
  - Identify and, if necessary in specific areas, develop a range of state-of-the-art methods and tools capable of addressing the spectrum of pipeline risk management applications, and
  - Provide recommendations to PHMSA regarding the use of these methods, tools, and data requirements

Risk Modeling Work Group

- PHMSA has identified a need to provide technical guidance on
  - Methods, and tools to be used in pipeline risk modeling, and
  - Application of these methods and tools in pipeline risk management.
  - PHMSA's technical guidance needs to be based on the state of the art of pipeline risk modeling, as reflected in the views of the technically informed community of practice

RMWG Guidance Document

Following several RMWG meetings, a Guidance Document will be published in the Summer, 2017, covering the following:

- Regulatory Requirements for Risk Analysis Performance
- How Risk Modeling Fits into Overall Pipeline Risk Management
- Likelihood Modeling
- Consequence Approach Selection
- Facility Risk Approach Selection
- Risk Modeling Data Needs

Climate Change Impact

- Growing focus on mitigating fugitive methane
- EPA to potentially regulate LDCs via the Clean Air Act
- Studies by the Environmental Defense Fund illustrate volumes released by LDCs and that replacement/rehabilitation of old pipe breeds rapid/large reductions

Mitigating Fugitive Methane

- PHMSA closely following issues and policy development by others - White House, Congress and Industry
- Coordinating with EPA with data sharing, meetings and PHMSA participation at EPA Gas Star Program events
- Coordinating with the Environmental Defense Fund efforts and added EDF representation on PHMSA's congressionally mandated Pipeline Advisory Committee
- Reviewing natural gas regulations to understand leak paths and possible actions germane to our statutory mission
  - However, safety case largely already made in support of hazardous leak reductions
  - Remaining non-hazardous leaks generally economic in nature
    - NARUC, FERC and the Congress

Downstream Natural Gas Initiative

- The Downstream Natural Gas Initiative is a group of natural gas utilities collaborating to address key technical and regulatory factors affecting methane emission reduction opportunities from natural gas distribution systems.
- Partners will work to identify and encourage programs that accelerate investments in infrastructure and promote outstanding operations, including modernizing their systems, utilizing next generation technologies, and quantifying emissions.
- The initiative is focused on opportunities that can substantially reduce methane emissions and support safe, reliable, and cost-effective service
- http://www.mjbradley.com/content/downstream-natural-gas-initiative

PHMSA R&D on Methane Emissions

- **Emissions Quantification Validation Process**
  http://primis.phmsa.dot.gov/matrix/PrjHome.rdm?prj=647
- The main objective of this project is to identify, apply and test a methodology or methodologies that validate quantified methane emissions rate measurements in gas distribution systems. This project will build on current and evolving understanding related to the practical application of methane emissions quantification technologies for non-hazardous grade 3 leaks.
- If successful in validating a technology or combination of technologies that can apply to accurately quantify methane emissions, the proposed effort would allow more data driven decisions based on the greenhouse gas emissions contribution of individual non-hazardous leaks. This validated quantitative flow rate information could aid in prioritization of repair decisions.

NPRM: Safety of Gas Transmission & Gathering Pipelines

- 3 webinars held on proposed rules and files and recordings are available at http://primis.phmsa.dot.gov/meetings/MtgHome.mtg?mtg=117
- Comment period ended June 8, 2016
- Comments will be addressed in the next few months and changes made
- Final Rule anticipated to be issued in late 2017

This Meeting
- Print-Friendly

Meetings
- Current Meetings

Document Commenting
- Current Documents

Navigation
- PHMSA Communications

My Pages
- Log In...

Safety of the Nation's Gas Transmission Pipelines - NPRM (Webinar #3)

THIS MEETING IS IDENTICAL TO THE JUNE 8TH & JUNE 28, 2016 WEBINARS.

THE SAME PRESENTATION WILL BE USED AND IS POSTED BELOW. IF YOU HAVE AN ISSUE WITH ADOBE CONNECT, DOWNLOAD THE PRESENTATION FILE AND FOLLOW ALONG.

EACH MEETING IS LIMITED TO THE FIRST 500 REGISTRANTS.

Meeting Information

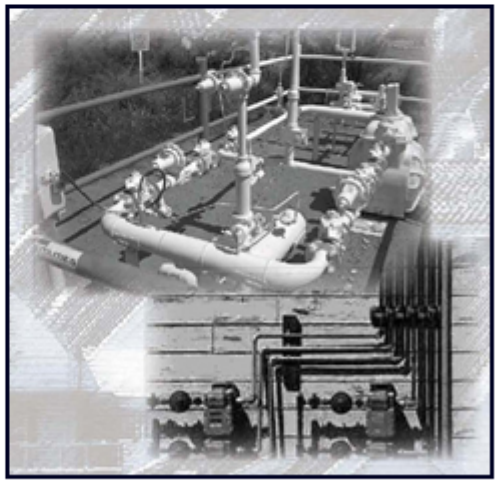
Status	Completed
Starts	Jun 29, 2016 at 1:30 PM EDT
Ends	at 3:00 PM EDT
Virtual Information	The call-in #: 866-216-6835 Code: 322298 Adobe Connect Link: https://connectdot.connectsolutions.com/phmsa_publicmeeting/
Purpose & Summary	This public webinar is being hosted by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) to discuss the proposed rulemaking for the safety of the nation's gas transmission pipelines. Learn more about the proposed rule on gas transmission pipelines by attending one of the two planned webinars. At the sessions, PHMSA senior staff will present factual information about the regulatory proposal and will answer clarifying questions intended to help you comment more knowledgeably. Among a number of topics in the rulemaking proposal, PHMSA is proposing to update integrity management (IM) requirements and to address issues related to non-IM requirements for natural gas transmission and gathering pipelines.

Results

Additional Information

PHMSA is extending the comment period from June 7, 2016, to July 7, 2016. All members of the public can submit comments by any of the following methods referencing Docket No. PHMSA-2011-0023:
E-Gov Web Site: http://www.Regulations.gov. This site allows the public to enter comments on any Federal Register notice issued by any agency.
Fax: 1-202-493-2251.

Gas Distribution Integrity Management Program



The Pipeline and Hazardous Materials Safety Administration (PHMSA) published the final rule establishing integrity management requirements for gas distribution pipeline systems on December 4, 2009 (74 FR 63906). The effective date of the rule is February 12, 2010. Operators are given until August 2, 2011 to write and implement their program.

PHMSA previously implemented integrity management regulations for hazardous liquid and gas transmission pipelines. These regulations aim to assure pipeline integrity and improve the already admirable safety record for the transportation of energy products. Congress and other stakeholders expressed interest in understanding the nature of similarly focused requirements for gas distribution pipelines. Significant differences in system design and local conditions affecting distribution pipeline safety preclude applying the same tools and management practices as were used for transmission pipeline systems. Therefore, PHMSA took a slightly different approach for distribution integrity management, following a joint effort involving PHMSA, the gas distribution industry, representatives of the public, and the National Association of Pipeline Safety Representatives to explore potential approaches.

http://primis.phmsa.dot.gov/dimp/index.htm

PHMSA Websites

Please regularly use PHMSA websites as they are a primary form of communication with Stakeholders

PHMSA Office of Pipeline safety

http://phmsa.dot.gov/pipeline

DIMP Home Page

http://primis.phmsa.dot.gov/dimp/index.htm

Pipeline Safety Stakeholder Communications

http://primis.phmsa.dot.gov/comm/

Pipeline Replacement Updates

http://opsweb.phmsa.dot.gov/pipeline_replacement/

Thank you for Your participation in Pipeline Safety

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