SGA
LINKING PEOPLE, IDEAS, INFORMATION

SGA Management Conference Distribution Operations Executive Roundtable

Session 2

The Changing Regulatory Landscape

Chris McLaren – PHMSA DIMP Coordinator

April 19, 2012

1:45 – 3:00 PM

Topics for Today

- Regulatory Update
- Public Awareness
- Pipeline Safety Initiatives
- Vehicular Safety Initiative
- Near Miss Initiative
- Questions and Answers

Key Messages [from SGA Conference July, 2011]

- The World is Changing…Recent Events are Bringing a LOT of Attention Our Way
  - The Public is Expecting and Demanding more from Regulators and Operators
- We Need to Be Ready with reasonable explanations for the actions we have and have not taken
- Overall safety has improved, but significant incidents continue to occur

Current Regulatory Topics for Distribution Operators

NAPSR / PHMSA DIMP Implementation Team

Let's Quickly talk about DIMP

- Regulatory Expectations are that a DIMP was developed and implemented by August 2, 2011, and the Program should continue to be used, developed, and mature.
- Inspection Experience and feedback from most Operators is that DIMP inspection are positive experiences based on the interactions with Inspectors that provide meaningful insights into DIMP Implementation and solution-oriented comments.

DIMP is a Performance Regulation

- An operator should be able to document and discuss their primary threats, the actions they are taking to address them, and the metrics used to measure their performance. *[Conveniently, this is the last table on the inspection form.]*
- Regulators have commented that performance based language is a challenge to inspect. Time during inspections is required for drill downs of data sets and gathering a comprehensive understanding of an operator's system. Inspectors are required to use judgment during their inspections in making decisions on compliance.

Insights from DIMP Team

- Operators should trust that they have implemented a sound DIMP, and do what your plan tells you to do.
- Communication within the organization of what DIMP means to each individual group is important for its successful implementation.
- Implementation may require a change in culture to put pipeline safety first and change the way business is done.
- The importance and usefulness of DIMP is not always understood - The DIMP is not just another book on the shelf, and resources must be allocated to manage the program.

Data

- Data quality is commonly a concern; and data cleanup and scrubbing is often required.
- Access to records and acquiring quality data from which to perform analysis can require operators to revise their data gathering forms and input requirements.
- Finding the right balance between SME and hard data is important.
- Thoughtful integration of data to identify existing and potential threats is needed, and these tasks require an appropriate level of resource allocation.

Common Struggles

- Software enhancements or program augmentation can be required to “canned” programs and existing systems that were originally designed and implemented for specific purposes.
- Identifying measures to reduce risk requires good analysis, and tying performance measures to these actions is required.
- Criteria for when measures to address risk are needed requires quantifiable results, and we are not finding criteria all the time.
- Baselines have to be established for performance measures, and if data collection has just initiated, then the plan to establish baselines must be documented.

Potential Threats

- Some Operators are struggling with potential threats, and these include threats that are known threats that the Operator has not experienced yet (from industry or PHMSA information) as well as threats that have not resulted in a leak (e.g., near misses). Some examples include:
  - overpressurization events; regulator malfunction or freeze-up; cross-bores into sewer lines; static electricity build and discharge; materials with identified performance issues; gophers; plastic eating bugs; etc.

Looking Forward

- Regulators are interested in learning what measures operators are implementing to address identified risks.
- PHMSA is identifying and compiling best practices and potential threats that have been identified by each operator for communication to Stakeholders.
- Ensure appropriate levels of funding is being allocated to address all significant risks that meet established criteria.
- As a DIMP matures, good performance measurement should show positive trends towards improving integrity and safety culture, or changes to the DIMP should be implemented.

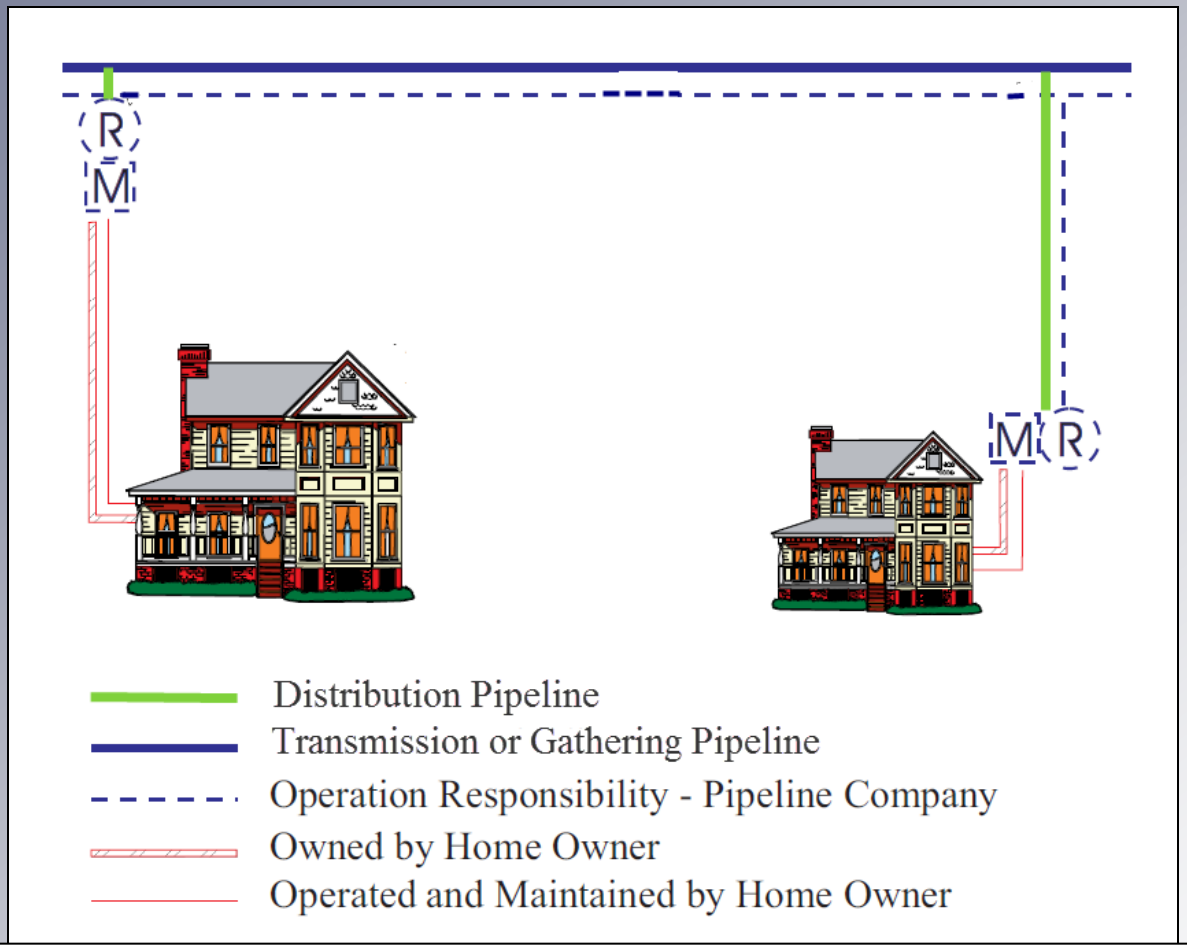
Farm Taps

Quotes from preamble materials in "Customer-Owned Service Lines", 60 Fed. Reg. 41821, 41823 (August 14, 1995):

PHMSA has defined a 'farm tap' as "industry jargon for a pipeline that branches from a transmission or gathering line to deliver gas to a farmer or other landowner."

"… Some operators primarily engaged in the gathering or transmission of gas also operate distribution pipelines. They do so when they deliver gas directly to customers through farm taps and industrial taps. In fact, because portions of these delivery lines qualify as service lines, gathering and transmission operators report them as distribution pipelines under 49 CFR 191.13. Moreover, farm and industrial tap customers are not immune from harm by potential hazards that could occur on their piping. And surely not all farm and industrial tap customers know enough about gas piping safety to make even a single maintenance notice unnecessary."

Farm Taps [from June 8, 2011]



- Do the facilities meet the definition of Gathering? No.
- Do they meet the definition of transmission? No.
- If No to both,

Then the facilities are distribution.

The “farm tap” is pipeline upstream of the outlet of the customer meter or connection to the customer piping, whichever is further downstream, and is responsibility of the operator. The pipeline downstream of this point is the responsibility of the customer. Some States require the operator to maintain certain portions of customer owned pipeline. The pipeline maintained by the operator must be in compliance with 49 Part 192.

Treatment of Farm Taps in DIMP

We have discussed the treatment of farm taps in DIMP FAQ C.3.7 (issued 08/02/2010) and in the 3 DIMP Webinars.

PHMSA's position is that since a farm tap is neither a transmission pipeline or a gathering pipeline it is a distribution pipeline

From 192.3 Definitions:

- "Gathering Line means a pipeline that transports gas from a current production facility to a transmission line or main."
- "Transmission line means a pipeline, other than a gathering line, that: (1) transports gas from a gathering line or storage facility to a gas distribution center, storage facility, or large volume customer that is not down-stream from a gas distribution center; (2) operates at a hoop stress of 20 percent or more of SMYS; or (3) transports gas within a storage field."

Treatment of Farm Taps in DIMP

- PHMSA continues to meet with and talk to industry groups to gather information, understand the need for change, and discuss solutions.
- The Farm tap discussion involves regulated and unregulated production, gathering, transmission, and distribution pipeline operators.
- PHMSA takes Industry's concerns on the treatment of Farm Taps and their inclusion in DIMP very seriously, but there is a process that we have to go through in this matter. It is not a simple matter, and there are ramifications in each option that we discuss with Industry.
- As a result of the many scenarios in which Farm Taps occur, all of the various operator's positions must be considered to come to an appropriate solution for the handling of Farm Taps in DIMP.

Distribution Annual Report Revisions

Distribution Annual Report modifications to align leak causes with the Incident Report have initiated.

Other modifications are being discussed and solutions identified for their implementation, and these include:

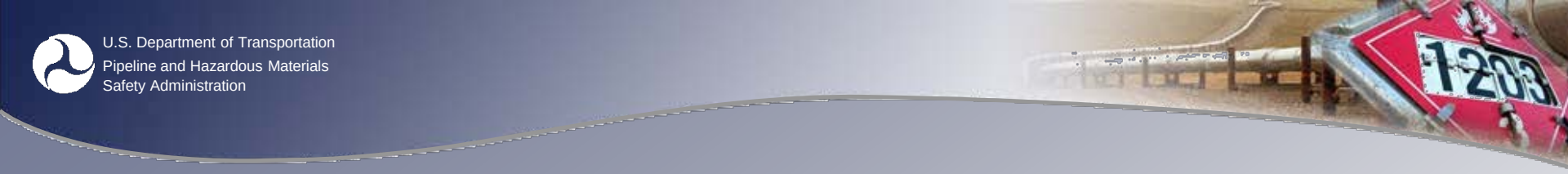
- Easier data input fields for mileages and services
- Definition of the type of operator
- Definition of the commodity transported.
- Expand data gathering for Excavation Damage and EFV

DIMP Enforcement Guidance

- DIMP Enforcement Guidance is being reviewed.
- When completed, this guidance will be made publicly available and posted on PHMSA's website with the other Enforcement Guidance documents currently posted at http://www.phmsa.dot.gov/foia/e-reading-room
- This posting will allow Operators to understand Regulators' expectations with regards to the DIMP Regulation

ANPRM on Expanding the Use of Excess Flow Valves

- ANPRM on Expanding the Use of Excess Flow Valves (EFVs) in Gas Distribution Systems to Applications Other Than Single-Family Residences has been issued, and the comment period was extended to March 19, 2012.
- The NTSB made a safety recommendation (P-01-02) to PHMSA that EFVs be installed in all new and renewed gas service lines, regardless of a customer's classification, when the operating conditions are compatible with readily available valves.
- The ANPRM sought public comment on several issues related to expanding the use of EFVs in gas distribution systems. PHMSA also sought comment from gas distribution system operators on their experiences using EFVs, particularly from a cost-benefit perspective.



DIMP Performance Measures

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

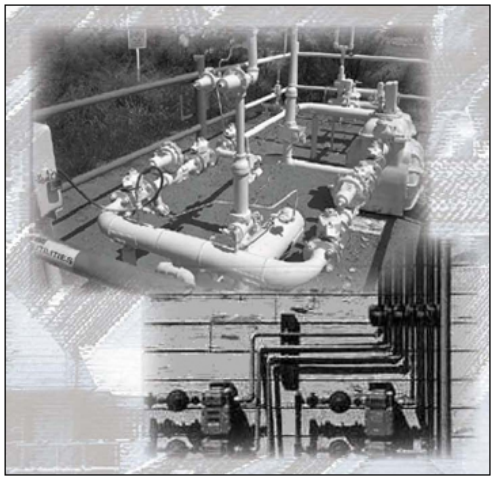
Link to live demonstration of website, as available

DIMP Home

U.S. Department of Transportation

- DIMP Home
- DIMP Communications: Public Meetings, Webinars, Webcasts, and State Seminars
- DIMP History
- DIMP Resources
- FAQs
- Performance Measures
- Questions and Comments for OPS
- Regulator Contacts

Distribution Integrity Management



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.

The regulation requires operators, such as natural gas distribution companies to develop, write, and implement a distribution integrity management program with the following elements:

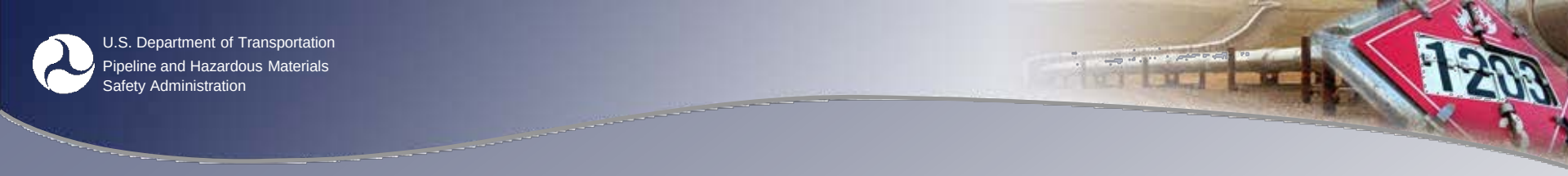
- Knowledge
- Identify Threats
- Evaluate and Rank Risks
- Identify and Implement Measures to Address Risks
- Measure Performance, Monitor Results, and Evaluate Effectiveness
- Periodically Evaluate and Improve Program
- Report Results

The DIMP Inspection Forms as well as other resources to support operators implement their program are on the DIMP Resources page and through PHMSA's Pipeline Safety website.

PHMSA has developed and continues to enhance guidance to help the public and the affected industry understand the requirements of the final rule in the form of FAQs.

DOT Website | PHMSA Website | Privacy Policy | FOIA

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



DIMP Website

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

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/

Mechanical Fitting Failure Reporting and Data Analysis

MFFR Reporting

- **§ 192.1009 What must an operator report when a mechanical fitting fails?** (a) Except as provided in paragraph (b) of this section, each operator of a distribution pipeline system must submit a report on each mechanical fitting failure, excluding any failure that results only in a nonhazardous leak, on a DOT Form PHMSA F–7100.1–2. The report(s) must be submitted in accordance with § 191.12.
- (b) The mechanical fitting failure reporting requirements in paragraph (a) of this section do not apply to the following: (1) Master meter operators; (2) Small LPG operator as defined in § 192.1001; or (3) LNG facilities.

Mechanical Fitting Failures
Reporting and Data Analysis

- Communication of Performance Data through DIMP web page in a manner similar to Liquid and Gas IM. 2011 Annual report IM Performance Data will be posted along with 2011 MFFR data (first year) in or about May, 2012.
- There has been some Industry confusion over which failures to report. The MFFR instructions have been revised to better communicate that Operators are to report all failures of mechanical fittings and compression type couplings, regardless of material, that result in a hazardous leak.
- Failures resulting from a construction or installation defect should be identified with the “Incorrect Operations” leak cause and not the “Material or Welds/Fusions” leak cause category (as is described in PHMSA F 7100.1-2 and the Instructions).

MFFR Data Analysis

- **2011 Data submitted by March 21, 2012 has been collected.**

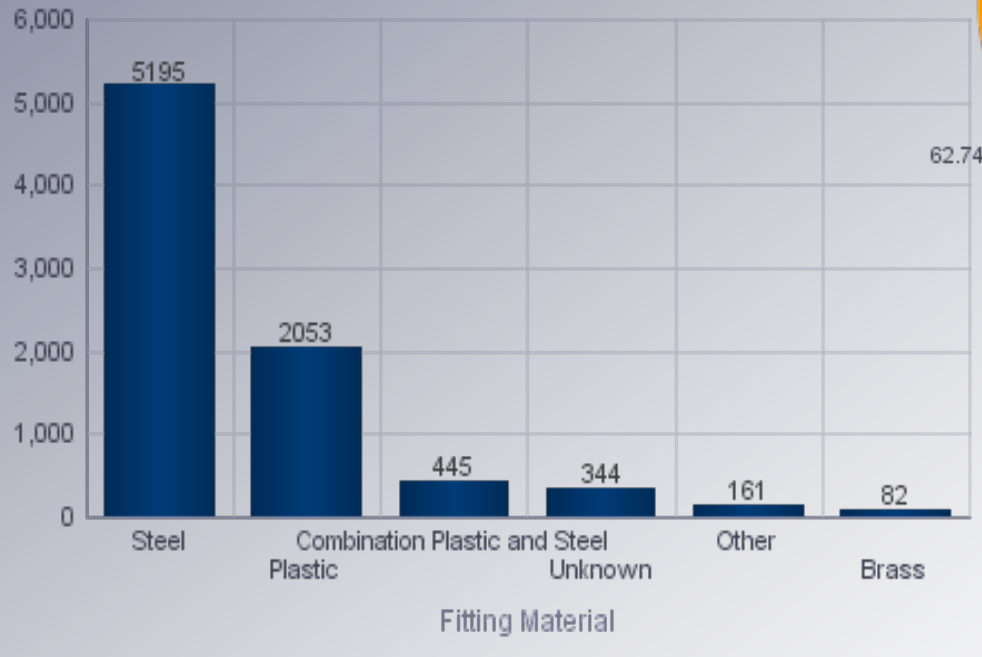
- **Approximately 8300 MFF reports have been submitted**

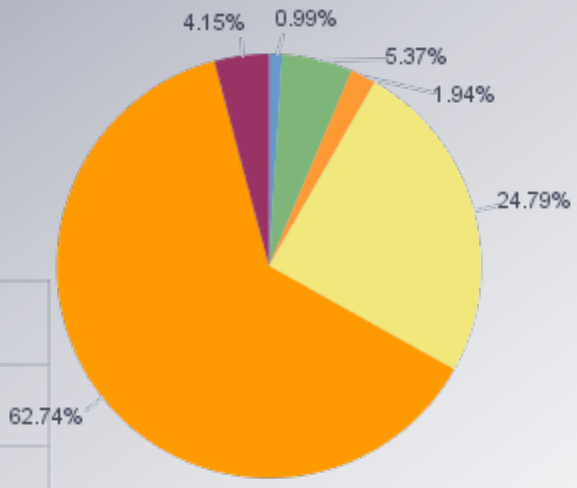
INSTRUCTIONS FOR COMPLETING FORM PHMSA F 7100.1-2

- Make an entry in each block for which data are available. Some companies may have very old pipe for which installation records do not exist. Estimate data if necessary. ***Avoid entering "Unknown" if possible.***

Mechanical Fitting Failures by Material

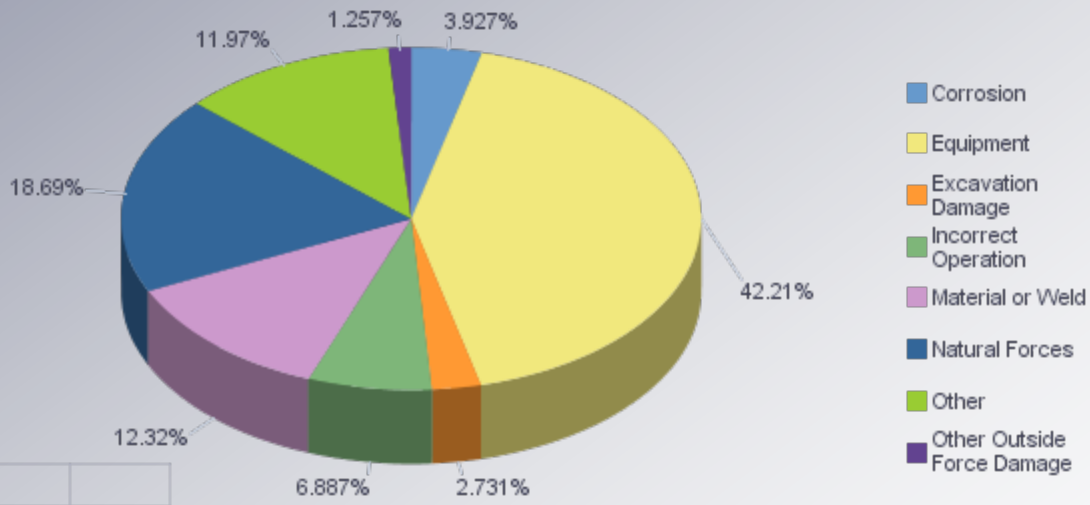
as of 3/21/2012

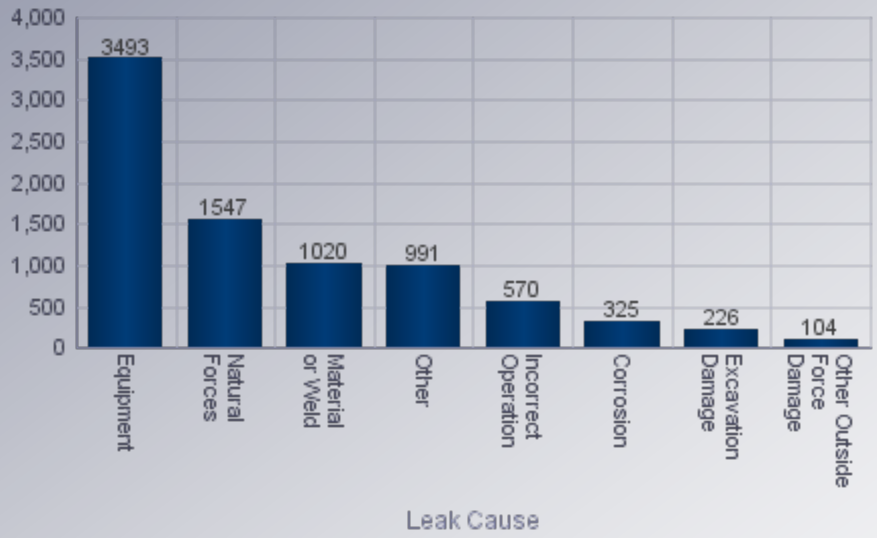




Mechanical Fitting Failures by Cause

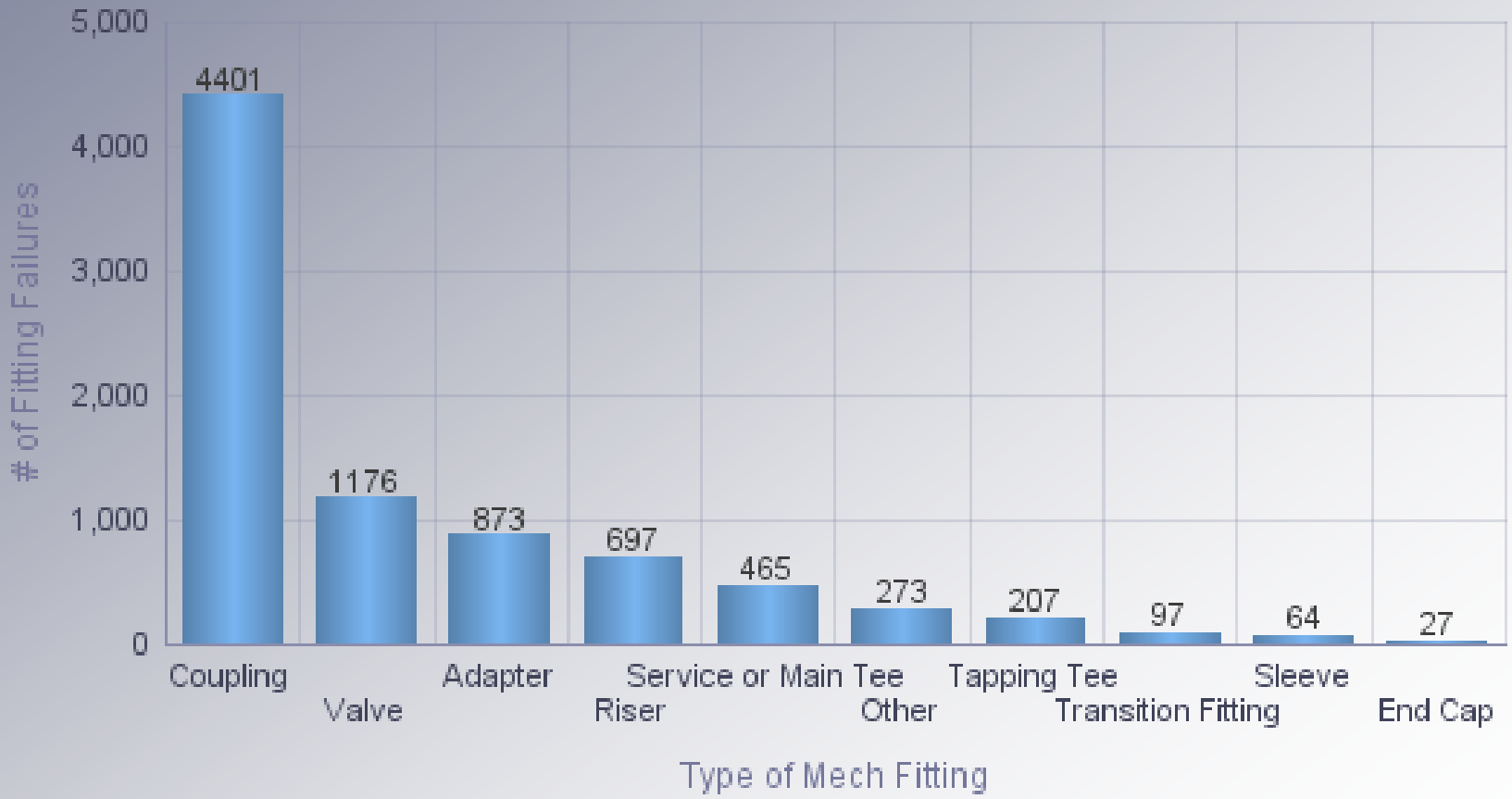
as of 3/21/2012





Mechanical Fitting Failure by Type of Mechanical Fitting

as of 3/21/2012



Specify the Mechanical Fitting Involved

Stab Type

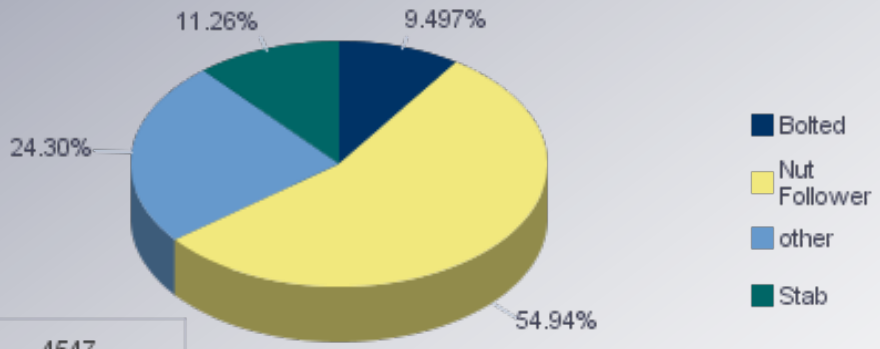
Nut Follower

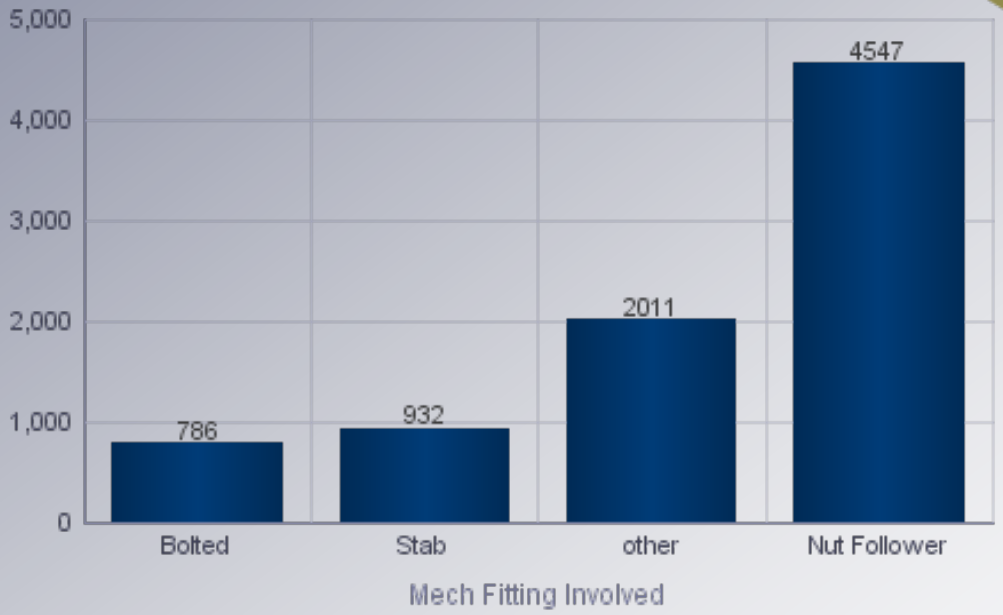
Bolt Type

Other(s)

Mechanical Fitting Failures by Type

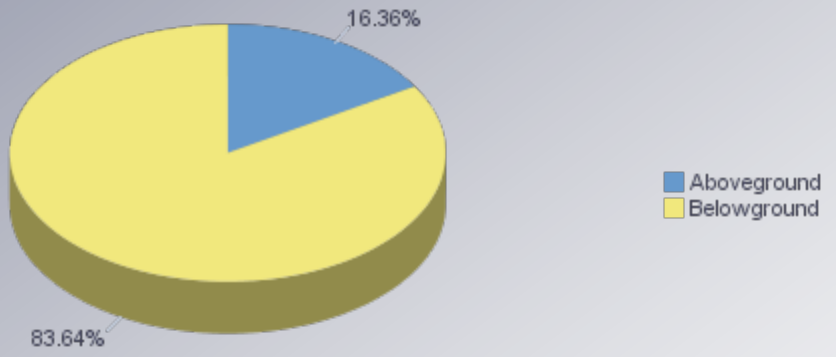
as of 3/21/2012

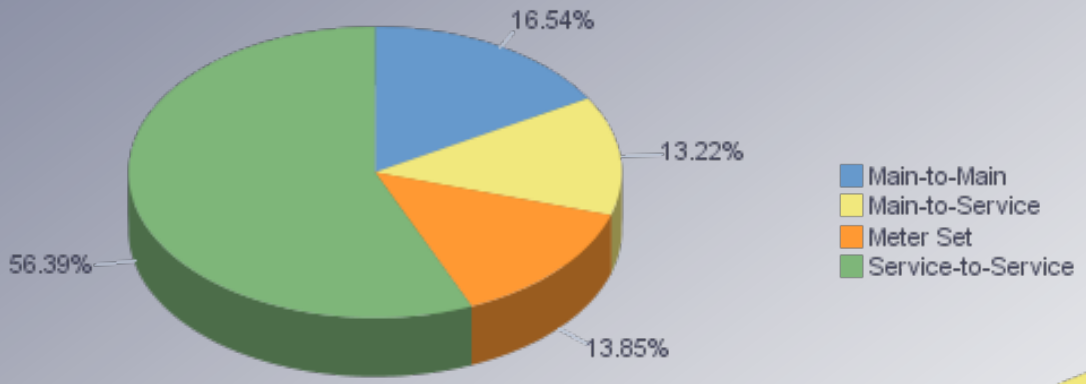


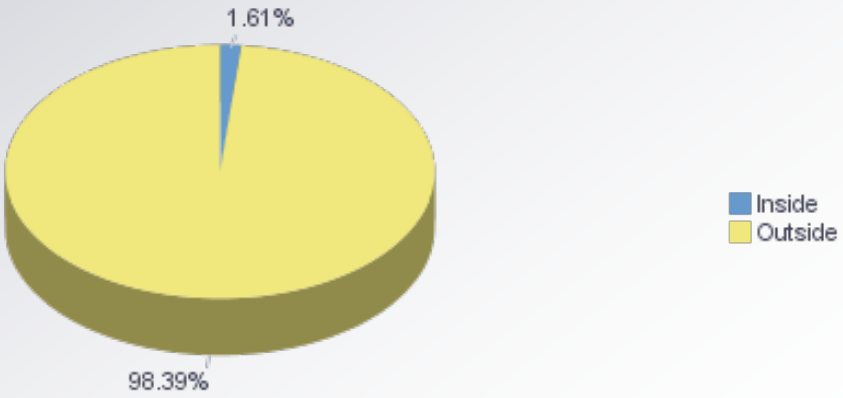


Mechanical Fitting Failures by Location in System

as of 3/21/2012







Manufacturer's Information for Mechanical Fittings

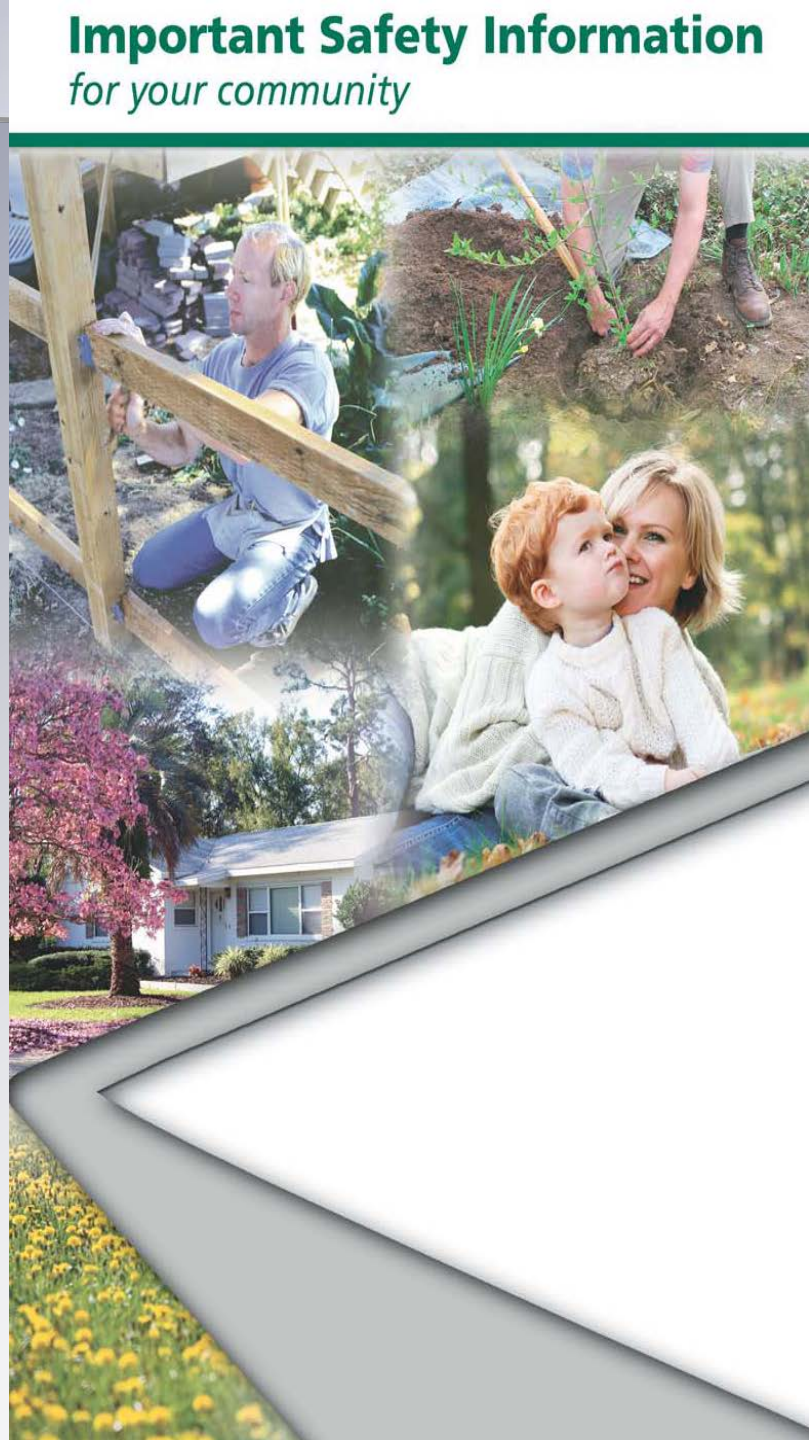
- The PPDC's manufacturer database file shows historical and current listings of manufacturers for plastic pipe and fittings used in natural gas distribution systems. The file is available on the PPDC website.
- AGA's Plastic Materials Committee's coupling database website is in the final stages of development. The coupling database has been developed for informational purposes only, and does not contain any information regarding the performance of the included couplings.

MFFR Data Analysis (continued)

- Raw data received by March 21, 2012 is presented here.
- Following the receipt of all 2011 reports (by March 15th), the MFFR Team will QA/QC the data and initiate analysis.
- Preliminary analysis of the data should be completed and posted on the DIMP Website - May, 2012.
- Results of the MFFR data analyses will be a topic at the June 27th DIMP Workshop to be held in the DFW area.

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

PUBLIC AWARENESS



NTSB Hearings
San Francisco Chronicle, March 2, 2011

San Bruno's fire chief said Wednesday that he was not aware before last year's deadly natural-gas explosion that a major PG&E pipe ran under the city, although he acknowledged that it had been his responsibility to know.

Only after the San Bruno disaster did he realize that "there was a need to know" what lines were in the area, and that online maps and other resources were available to first responders.

He conceded that he should have known about the pipeline that exploded. "We didn't have the information, we didn't have maps of a pipeline going through," Haag said. "I just didn't know about it

NTSB Hearings

San Francisco Chronicle, March 2, 2011

After the hearing, NTSB chairwoman said Federal officials "…believe the pipeline industry can do a better job" of informing the public, as required under a 5-year-old law for pipeline operators.

People who live near gas-transmission lines should be told as much in a specific mailing, said Rep. Jackie Speier, whose district includes the San Bruno neighborhood devastated in the blast. She is sponsoring a bill to require such notice for people living within 2,000 feet of a pipeline.

§192.616

- Follow requirements of API RP 1162,
  1st edition

Master meter or petroleum gas systems exempt from RP 1162 requirements

§192.616

- Plan by June 20, 2006
  - Identify Stakeholder audiences
  - Message including method of message delivery and frequency
  - Supplemental activities
  - Self-assessments
  - Four year effectiveness evaluations

Gathering Lines

- Gathering lines definitions as found in 192.8 were added in 2006
- 192.9 different implementation dates
  - Plan by April 15, 2008
  - Effectiveness by 2012

PHMSA Form 21

- Published July, 2011

phmsa.dot.gov/pipeline/library/forms

PHMSA Form 21 Public Awareness Program Effectiveness Inspection, July 21, 2011, Rev 0

PUBLIC AWARENESS PROGRAM EFFECTIVENESS INSPECTION SPECIFIC INFORMATION

Control Information

Inspection Start Date*:		
Inspection End Date*:		
OpID:		
Parent Operator Name:		
Unit ID (s):		
State/Other ID:		
Activity Record ID No.		
Address of Company Official*:	Company Official*:	
	Title*:	
	Phone Number*:	

PHMSA Form 21

Divided into five sections

- Administration and Development of Plan
- Program Implementation
- Program Evaluation and Continuous Improvement (annual review)
- Program Evaluation and Continuous Improvement (effectiveness evaluations)
- Findings

Section 1

Commonly found deficiencies

- Management support
- Named administrator
- Unique attributes/ asset descriptions/ product description
- Inadequate written procedures
- Lack of operator understanding because of use of contractors

Stakeholder Lists – Common Deficiencies

- Do not account for new developments or communities
- Lack of documentation or follow up on returned mailings
- Lack of evidence that mailings sent out
- Tracked correspondence and those actually reached
- Tracked meeting attendance and follow up for non-attendance

Message – Common Deficiencies

- Messages did not include all required outreach messages
- Multiple company logos/information
- Appropriate hazards not always identified or failed to address unique attributes

Inspections did identify some creative outreach approaches such as e-mails, websites, and children campaigns.

Section 2

Common deficiencies

- Language considerations
- Message content
- Supplemental activities
- Documentation

Message – Common Deficiencies

- Messages did not include all required outreach messages
- Multiple company logos/information
- Appropriate hazards not always identified or failed to address unique attributes

Emergency Response Liaison

- ADB - 10 – 08, October 28, 2010
  - Emergency Preparedness Communications
  - To ensure a prompt, effective, and coordinated response to any type of emergency involving a pipeline facility, pipeline operators are required to maintain an informed relationship with emergency responders in their jurisdiction.
  - **the need to share the operator's emergency response plans with emergency responders.**

Program Evaluation

- Verifying done according to one of the methods allowed by API RP 1162
  - Internal Self-assessments
  - Third party audits
  - Regulatory inspections
- If other method, operator should provide written justification

Annual Review – Common Deficiencies

- No written procedure
- Lack of documentation
- Implementation of recommended changes

Program Effectiveness – Common Deficiencies

- *Operators considered effectiveness evaluation complete when data collected, did not review data to understand improvement opportunities*
- *Just having effective evaluation data does not meet the intent of evaluating program*
- *Lack of understanding of survey methodologies*
- *Stakeholder audience or product type*

Operator Challenges

- Information overload to stakeholders
- Stakeholders to stop and listen to the messages
- School messages because of Federal/State mandates
- Emergency Plan information to appropriate emergency officials
- Inconsistent or no documentation

Pipeline Emergency Response Forum

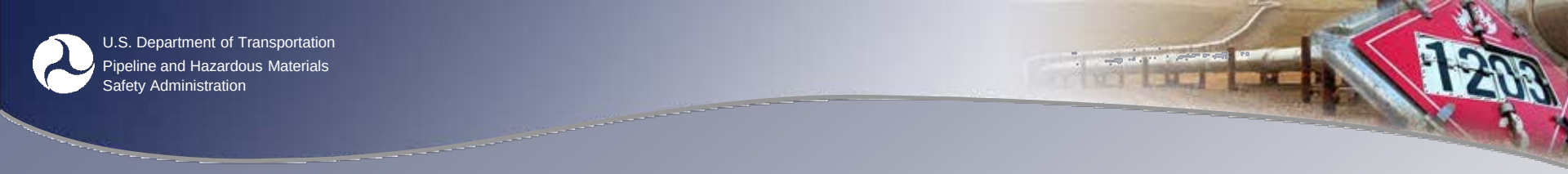
- Five primary lessons learned from the emergency response forum On December 9, 2011 were:
- 1. Strategies should leverage and enhance existing channels and be sustainable. They should work towards institutionalized solutions. Key existing channels are NFPA standard 472, the National Pipeline Mapping System, the 911 emergency dispatch system, and the national 811 call-before-you-dig system.
- 2. Emergency responders want limited, targeted information in an easy to access form.

Pipeline Emergency Response Forum

- Primary lessons learned continued:
- 3. A central source of up-to-date emergency responder and pipeline operator contact information is needed.
- 4. The National Emergency Numbers Association (NENA) Pipeline Emergency Operations Standard is a good start but the details need to be developed.
- 5. Emergency response training is most effective when it is hands-on, provides continuing education credits, is consistent across jurisdictions, succinct, and accompanied by a meal.

PIPA

- The Pipelines and Informed Planning Alliance (PIPA) Communication Team is developing resource material for state and local governments to enhance their hazard mitigation plans to address pipeline hazards.
- Hazard mitigation plans are developed by state, regional and local governments. Hazard mitigation is any action taken to permanently reduce or eliminate long-term risks to people and their property from the effects of both natural and man-made or technological hazards.



Pipeline Safety Initiatives

PHMSA Advisory Bulletins

- **Advisory Bulletins**
  - **ADB-12-05 - Cast Iron Pipe**
  - **ADB-12-03 - Driscopipe® 8000 High Density Polyethylene Pipe (Drisco8000) of the potential for material degradation**
  - **ADB-12-02 - conduct post accident drug and alcohol testing of all potentially involved personnel despite uncertainty about the circumstances of the accident**
  - **ADB -11-01 - Establishing Maximum Allowable Operating Pressure or Maximum Operating Pressure Using Record Evidence**
  - **ADB-10-08 - Emergency Preparedness Communications**

Proposed Regulatory Changes

- **NPRMs**
  - **77 FR 5472 - Feb 3, 2012, PHMSA-2011-0009; Pipeline Safety: Expanding the Use of Excess Flow Valves in Gas Distribution Systems to Applications Other Than Single-Family Residences; Advance notice of proposed rulemaking (ANPRM); extension of comment period.**
  - **77 FR 5472 - Feb 3, 2012, PHMSA-2010-0026; Pipeline Safety: Miscellaneous Changes to Pipeline Safety Regulations; Notice of proposed rulemaking (NPRM); Extension of comment period.**
  - **76 FR 70953 - Nov 16, 2011, Pipeline Safety: Safety of Gas Transmission Pipelines - Advance notice of proposed rulemaking; extension of comment period**

NTSB Findings on San Bruno, CA Incident on September 9, 2010

NTSB Findings on San Bruno, CA Incident on September 9, 2010

- **The NTSB identified certain deficiencies and areas for improvement in Pipeline Safety Integrity Management Programs.**
- **PHMSA is working to address the NTSB recommendations**
- **A finding discussed in several recommendations is that without effective and meaningful metrics in performance-based pipeline safety programs, neither the Operator nor the Regulator was able to effectively evaluate or assess the Operator's pipeline system and detect the inadequacies of the Operator's pipeline integrity management program.**

NTSB Findings

- **Relevant to Integrity Management Programs NTSB also made the following comments:**
  - **The IM Program was based on incomplete and inaccurate pipeline information**
  - **The IM Program did not consider the design and materials contribution to the risk of a pipeline failure.**
  - **The structure of the IM Program led to internal assessments of the program that were superficial and resulted in no improvements.**

NTSB Recommendations

- **Several Recommendations directly included Distribution Operators:**
  - **Operators should provide system-specific information about their pipeline systems to the emergency response agencies of the communities and jurisdictions in which those pipelines are located. [P-11-8]**
  - **Operators immediately and directly notify the 911 emergency call center(s) for the communities and jurisdictions in which those pipelines are located when a possible rupture of any pipeline is indicated. [P-11-9]**
  - **Operators should conduct post accident drug and alcohol testing of all potentially involved personnel despite uncertainty about the circumstances of the accident. [P-11-12 & P-11-13]**

NTSB Recommendations

- **NTSB has discussed with PHMSA several key topics that impact distribution operators:**
  - **Pressure excursions**
  - **Appropriate records**
  - **QA/QC to ensure validity of records/assumptions**
  - **Identification of information gaps**
  - **Knowledge of what information is unknown**
  - **Documentation of replacements and decisions made**
  - **Performance metrics that provide meaningful insight**
- **Operators should be aware that NTSB's concerns include ensuring adequate oversight of the operator and adequate field inspections.**

Vehicular Safety Initiative

NTSB Public Meeting

- NTSB Public Meeting on “Attentive Driving - Countermeasures for Distraction Forum” on March 27, 2012 to discuss the growing impact of distracted driving on safety
  - Distracted driving is a serious safety risk on our highways as evidenced by both accident data and laboratory research. The purpose of this one-day forum is to examine countermeasures that can mitigate distracted driving behaviors.
  - Specific countermeasures to be addressed include distracted driving laws and enforcement, changing attitudes and behaviors through education and outreach, technology and design countermeasures

Near Miss Initiative

DIMP's Regulatory required "Near Miss Initiative"

- Existing and Potential Threats – 192.1007(C)
- In the evaluation and ranking of risk, an operator must consider each current and potential threat
- Existing threats that have not resulted in a leak must be considered
- Potential threats identified from in Industry and PHMSA published materials must be considered, as appropriate

Damage Prevention NPRM

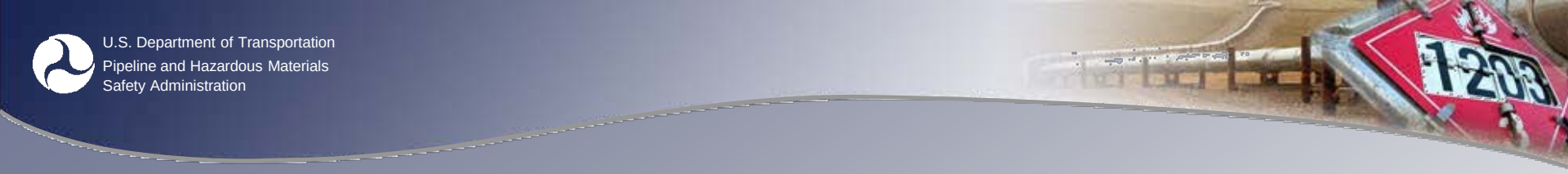
- "PHMSA is not proposing to require reporting pipeline excavation damage near-misses at this time. While data on near-misses would be valuable in guiding state excavation damage prevention program improvements, this proposed rule pertains specifically to excavators who actually damage PHMSA regulated pipelines. In addition, this requirement could impose a significant cost on excavators. However, there is nothing stopping a state from adopting more stringent reporting requirements such as including near-misses. PHMSA seeks comments on the potential cost impacts of requiring reporting of pipeline excavation damage near-misses."

Damage Prevention NPRM

- Pipeline Damage Prevention Programs Notice of Proposed Rulemaking issued recently
- "… while excavators are subject to extensive damage reporting requirements in most state laws, the lack of state requirements to report "near misses" obstructs efforts to provide accurate data trends. NUCA considers that when underground facility operators fail to locate and mark their lines accurately, that data should be captured regardless of whether the facility was damaged. Even if reporting of "near misses" is required by state law, NUCA believes these requirements are rarely enforced."

DIMP Public Meeting

- **NAPSR/PHMSA DIMP Public Meeting on June 27, 2012**
  - **Location - DFW / Webcast for those who cannot attend**
  - **Presentations will discuss:**
    - **Expectations of implemented DIMP programs**
    - **Current versions of DIMP inspection forms**
    - **Observations from DIMP Inspections conducted**
    - **MFFR Data Results from 1st year (2011)**
    - **Methodologies that Industry is employing**
    - **Discussion of areas of concern and current topics**
  - **Opportunity for Q&A**



Questions and Answers