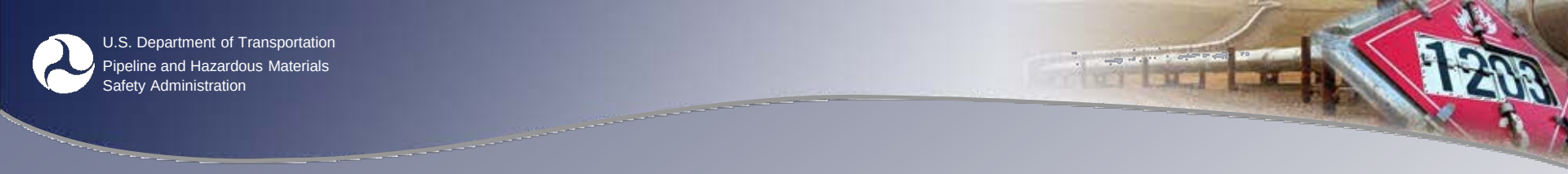


Pipeline Safety Conference
New Orleans, LA

Pipeline and Hazardous Materials Administration
Office of Pipeline Safety

Chris McLaren, PHMSA State Programs
Tuesday, July 24, 2012, 10:30AM

Topic Areas

1. High level Comments
2. In-depth Discussion of the DIMP Regulation
3. Inspection Forms and Communication

Comments on Lessons Learned from Inspections, implementation of Inspection Programs, and Other Specific Topics of Interest will be discussed in this afternoon's session

Implementing a DIMP Inspection Program

- Regulatory Expectations are that a DIMP was developed and implemented by August 2, 2011
- Some States are using Team based approach during the first year of DIMP Inspections
- The DIM Plan and Program evolution and maturity
- New and Potential Threats should be incorporated as they are identified
- Risk assessments may need to be performed “off cycle” to address new concerns.

Implementation Experience

- Inspection Experience - Positive feedback from some Operators
- Meaningful insights into DIMP Implementation and solution-oriented comments.
- DIM Plans interact with other required plans (OM&I) to create overall DIM Program

DIMP is a Performance Regulation

- Regulators have commented that performance based language is a challenge to inspect.
- Time must be allowed during inspections for drill downs of data sets to obtain a comprehensive understanding of an operator's system.
- Inspectors are required to use judgment during their inspections in making decisions regarding compliance.

The Big Picture

- An operator should be able to document and discuss:
  - Their Primary Threats,
  - Actions taken to address Primary Threats,
  - Metrics used to measure their performance. *[Conveniently, this is the last table on the inspection form.]*

Insights from DIMP Team

- Operators should trust that they have implemented a sound DIMP, and follow the Plan.
- Communication within the organization of what DIMP means to each individual group is important for 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.

Allocation of Resources

- Allocation of appropriate resources to perform the required DIMP Tasks.
- Use of technology (GIS, GPS, Bar coding, RFID, etc.) to help manage DIMP.

The benefit derived from a IM Program is proportional to the amount of effort and resources an operator puts into it.

§192.1001 What definitions apply to this subpart?

- *Excavation Damage* means any impact that results in the need to repair or replace an underground facility due to a weakening, or the partial or complete destruction, of the facility, including, but not limited to, the protective coating, lateral support, cathodic protection or the housing for the line device or facility.
- *Hazardous Leak* means a leak that represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until the conditions are no longer hazardous.

§192.1001 Definitions (continued)

- *IM Plan* means a written explanation of the mechanisms or procedures the operator will use to implement its integrity management program and to ensure compliance with this subpart.
- *IM Program* means an overall approach by an operator to ensure the integrity of its gas distribution system.
- *Mechanical fitting* means a mechanical device used to connect sections of pipe. The term “Mechanical fitting” applies only to: (1) Stab Type fittings; (2) Nut Follower Type fittings; (3) Bolted Type fittings; or (4) Other Compression Type fittings.

§192.1003 What do the regulations in this subpart cover?

- *General.* This subpart prescribes minimum requirements for an IM program for any gas distribution pipeline covered under this part, including liquefied petroleum gas systems. A gas distribution operator, other than a master meter operator or a small LPG operator, must follow the requirements in Sec. §192.1005-192.1013 of this subpart. A master meter operator or small LPG operator of a gas distribution pipeline must follow the requirements in §192.1015 of this subpart.

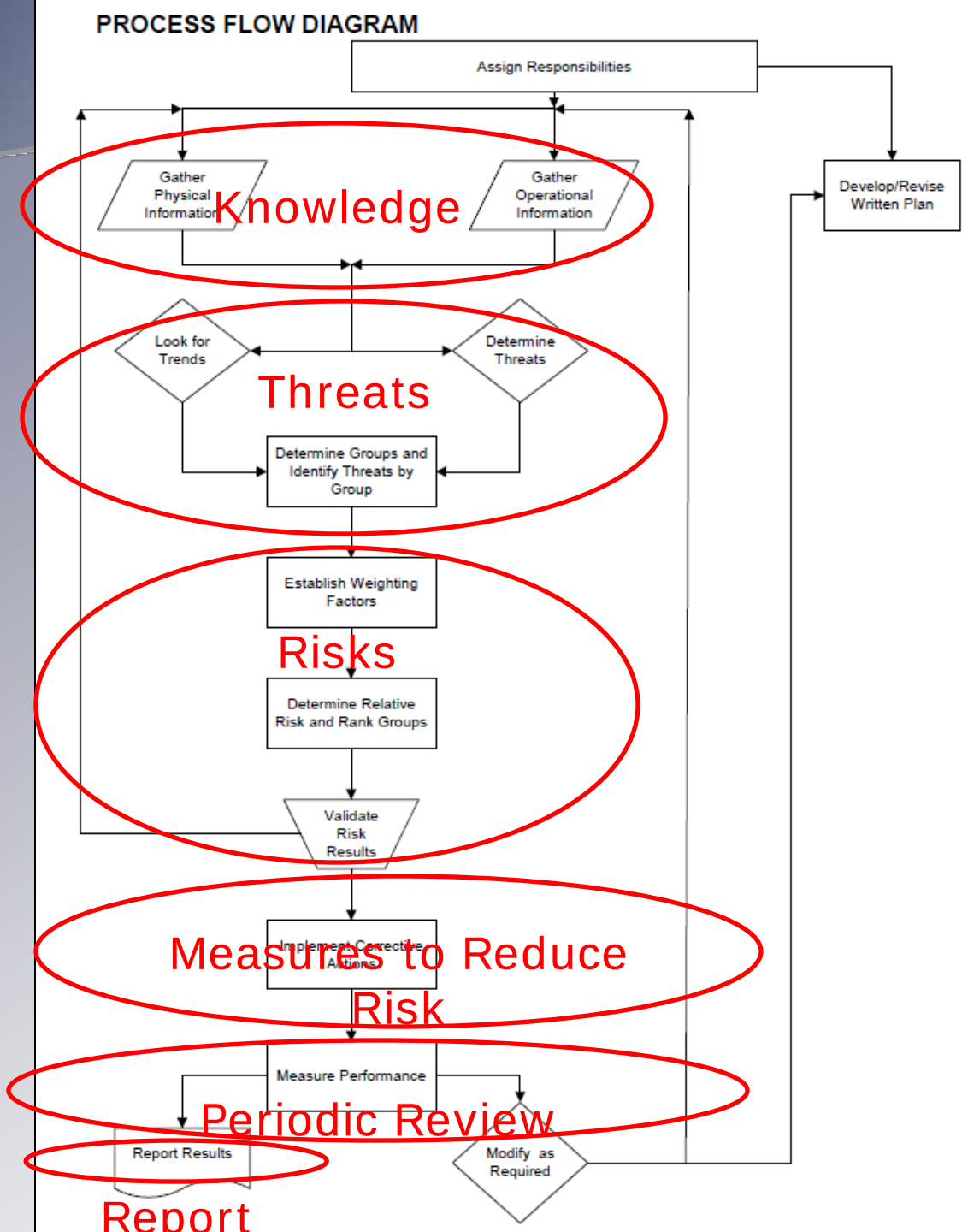
§192.1005 What must a gas distribution operator do to implement this subpart?

- No later than August 2, 2011 a gas distribution operator must develop and implement an integrity management program that includes a written integrity management plan as specified in §192.1007.
- *A DIMP must be continually improved based on feedback mechanisms within the program*
- *A DIMP must be customized to the specific operator, and generic plans, procedures, and statements are not adequate*

§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:…
- *Procedure means a fixed, step-by-step sequence of activities or course of action (with definite start and end points) that must be followed in the same order to correctly perform a task.*

DIMP PROCESS FLOWCHART DIAGRAM (FROM MEA)



§192.1007(a) *Knowledge*

- An operator must demonstrate an understanding of its gas distribution system developed from reasonably available information.

  (1) Identify the characteristics of the pipeline's design and operations and the environmental factors that are necessary to assess the applicable threats and risks to its gas distribution pipeline.

  (2) Consider the information gained from past design, operations, and maintenance.

§192.1007(a) *Knowledge*

(3) Identify additional information needed and provide a plan for gaining that information over time through normal activities conducted on the pipeline (for example, design, construction, operations or maintenance activities).

(4) Develop and implement a process by which the IM program will be reviewed periodically and refined and improved as needed.

(5) Provide for the capture and retention of data on any new pipeline installed. The data must include, at a minimum, the location where the new pipeline is installed and the material of which it is constructed.

§192.1007(b) *Identify threats*

- The operator must consider the following categories of threats to each gas distribution pipeline:
  1. Corrosion
  2. Natural forces
  3. Excavation damage
  4. Other outside force damage
  5. Material or welds
  6. Equipment failure
  7. Incorrect operations
  8. Other concerns that could threaten the integrity of its pipeline.

§192.1007(b) *Identify threats*

- 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
  - Excavation damage experience.

§192.1007(c) *Evaluate and rank risk*

- An operator must evaluate the risks associated with its distribution pipeline. In this evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline.
- This evaluation must consider each applicable current and potential threat, the likelihood of failure associated with each threat, and the potential consequences of such a failure.

§192.1007(c) *Evaluate and rank risk*

- An operator may subdivide its pipeline into regions with similar characteristics (e.g., contiguous areas within a distribution pipeline consisting of mains, services and other appurtenances; areas with common materials or environmental factors), and for which similar actions likely would be effective in reducing risk.

§192.1007(d) *Identify and implement measures to address risks*

- Determine and implement measures designed to reduce the risks from failure of its gas distribution pipeline.
- These measures must include an effective leak management program (unless all leaks are repaired when found).

§192.1007(e) *Measure performance, monitor results, and evaluate effectiveness.*

- (1) Develop and monitor performance measures from an established baseline to evaluate the effectiveness of its IM program.
- An operator must consider the results of its performance monitoring in periodically re-evaluating the threats and risks. These performance measures must include the following:

§192.1007(e) (continued)

- (i) Number of hazardous leaks either eliminated or repaired as required by §192.703(c) of this subchapter (or total number of leaks if all leaks are repaired when found), categorized by cause;
- (ii) Number of excavation damages;
- (iii) Number of excavation tickets (receipt of information by the underground facility operator from the notification center);
- (iv) Total number of leaks either eliminated or repaired, categorized by cause;

§192.1007(e) (continued)

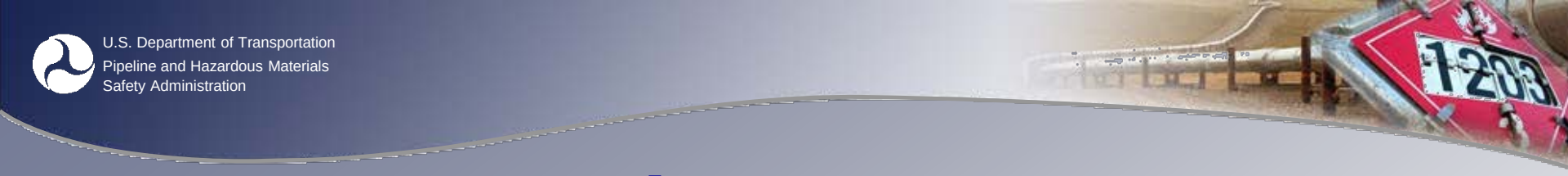
- (v) Number of hazardous leaks either eliminated or repaired as required by §192.703(c) (or total number of leaks if all leaks are repaired when found), categorized by material; and
- (vi) Any additional measures the operator determines are needed to evaluate the effectiveness of the operator's IM program in controlling each identified threat.

§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.

§192.1007(g) *Report results*

- Report, on an annual basis, the four measures listed in paragraphs (e)(1)(i) through (e)(1)(iv) of this section, as part of the annual report required by §191.11.
- An operator also must report the four measures to the state pipeline safety authority if a state exercises jurisdiction over the operator's pipeline.



§192.1009 What must an operator report when compression couplings fail?

- (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 Department of Transportation 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.

§192.1011 What records must an operator keep?

- An operator must maintain records demonstrating compliance with the requirements of this subpart for at least 10 years. The records must include copies of superseded integrity management plans developed under this subpart.

§192.1013 When may an operator deviate from required periodic inspections under this part?

- (a) An operator may propose to reduce the frequency of periodic inspections and tests required in this part on the basis of the engineering analysis and risk assessment required by this subpart.
- (b) ... The applicable oversight agency may accept the proposal on its own authority, with or without conditions and limitations, on a showing that the operator's proposal, which includes the adjusted interval, will provide an equal or greater overall level of safety.

§192.1013 (continued)

- (c) An operator may implement an approved reduction in the frequency of a periodic inspection or test only where the operator has developed and implemented an integrity management program that provides an equal or improved overall level of safety despite the reduced frequency of periodic inspections.

§192.1015 What must a master meter or small liquefied petroleum gas (LPG) operator do to implement this subpart?

- (a) *General.* No later than August 2, 2011 the operator of a master meter system or a small LPG operator must develop and implement an IM program that includes a written IM plan as specified in paragraph (b) of this section. The IM program for these pipelines should reflect the relative simplicity of these types of pipelines.

§192.1015 (continued)

- (b) *Elements.* A written integrity management plan must address, at a minimum, the following elements:
  - (1) *Knowledge*
  - (2) *Identify threats*
  - (3) *Rank risks*
  - (4) *Identify and implement measures to mitigate risks*
  - (5) *Measure performance, monitor results, and evaluate effectiveness*
  - (6) *Periodic evaluation and improvement*

§192.1015 (continued)

- (c) *Records.* The operator must maintain, for a period of at least 10 years, the following records:
  - (1) A written IM plan in accordance with this section, including superseded IM plans;
  - (2) Documents supporting threat identification; and
  - (3) Documents showing the location and material of all piping and appurtenances that are installed after the effective date of the operator's IM program and, to the extent known, the location and material of all pipe and appurtenances that were existing on the effective date of the operator's program.

Farm Taps

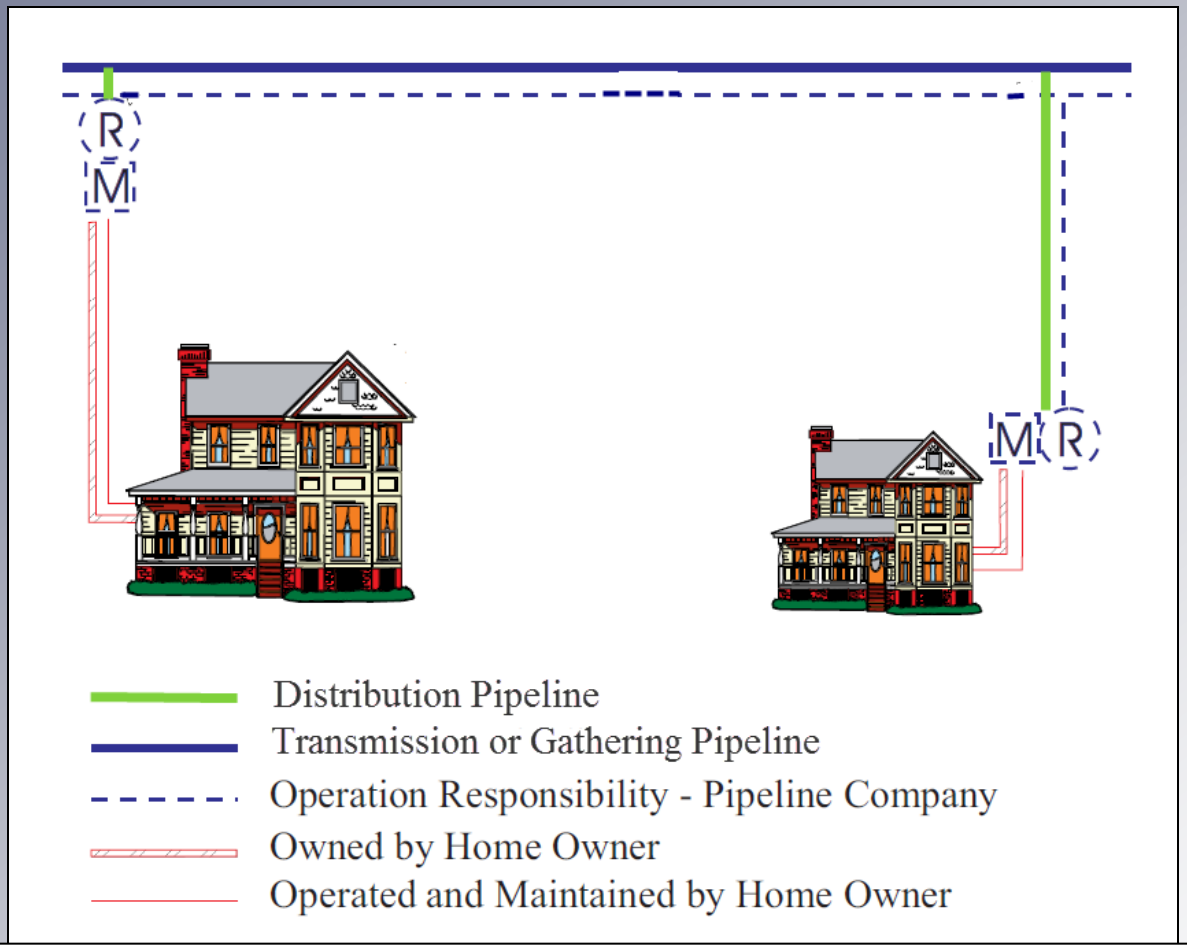
Farm Taps

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), in the 3 DIMP Webinars at Conference, and in the DIMP Public Workshop/Meeting on June 27th.

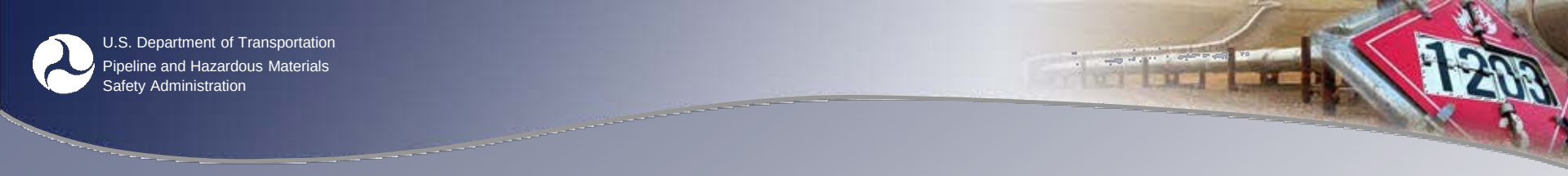
PHMSA's position is that since a farm tap is neither a transmission pipeline or a gathering pipeline it is a distribution pipeline

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.



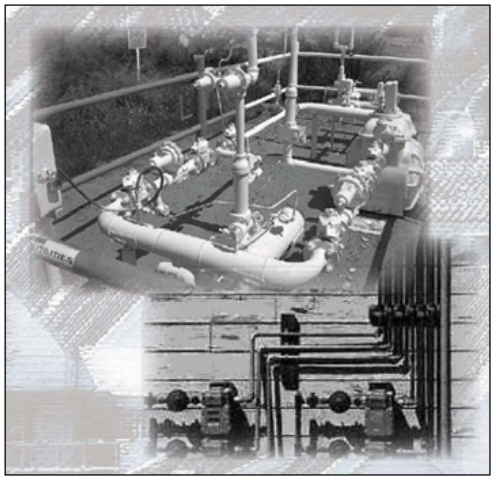
DIMP Website and Posting of DIMP Performance Measures

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 Performance Measures

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Webcast

Integrity Management Performance Measures for Operators of Gas Distribution Pipelines in the United States

Performance Measure Reporting and Quick Facts

Protecting America's Gas Distribution Pipelines

Gas distribution pipeline operators are required to submit annually performance measure reports on their Integrity Management (IM) programs and on their pipeline infrastructure. PHMSA and State Pipeline Safety Programs use these reports – due on March 15 for the previous calendar year – to monitor and report on industry progress in meeting the requirements of the Distribution IM Rule (which took effect in August of 2011), and to respond to inquiries about both PHMSA's and individual State's oversight programs.

The Distribution IM performance measure reports have only been required beginning in 2010, and these measures provide key information pertaining to operators' IM programs, including the total number of leaks either eliminated or repaired by cause, the number of hazardous leaks eliminated or repaired by cause, the number of excavation damages, and the number of excavation tickets (based on One-Call notifications).

For a basic overview of the progress being made under the Distribution IM Rule, please refer to the Quick Facts below.

Quick Facts on Performance Measures for Distribution Integrity Management

The table below, entitled "Summary of Gas Distribution Pipeline Performance", depicts the new Distribution IM data collected beginning in 2010 along with the historical leak data collected since 2005. The historical data consists of the total number of leaks which were repaired or otherwise eliminated, whereas the new Distribution IM data being collected includes this same leak count while also breaking out separately those leaks defined as hazardous.

Summary of Gas Distribution Pipeline Performance
Time run: 2/29/2012 6:14:24 AM

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

DIMP Website

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

PHMSA Office of Pipeline safety

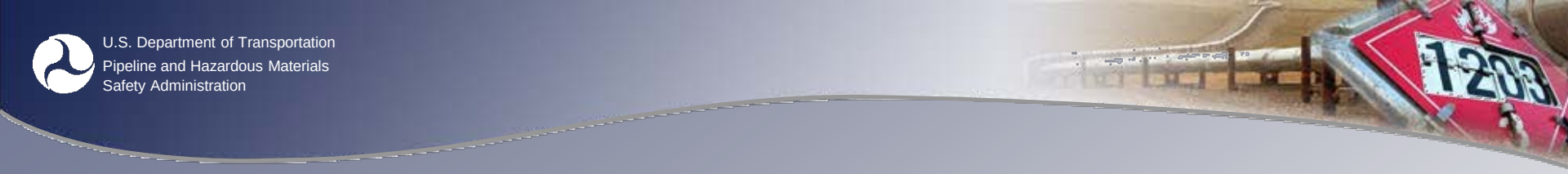
http://phmsa.dot.gov/pipeline

DIMP Home Page

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

Pipeline Safety Stakeholder Communications

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



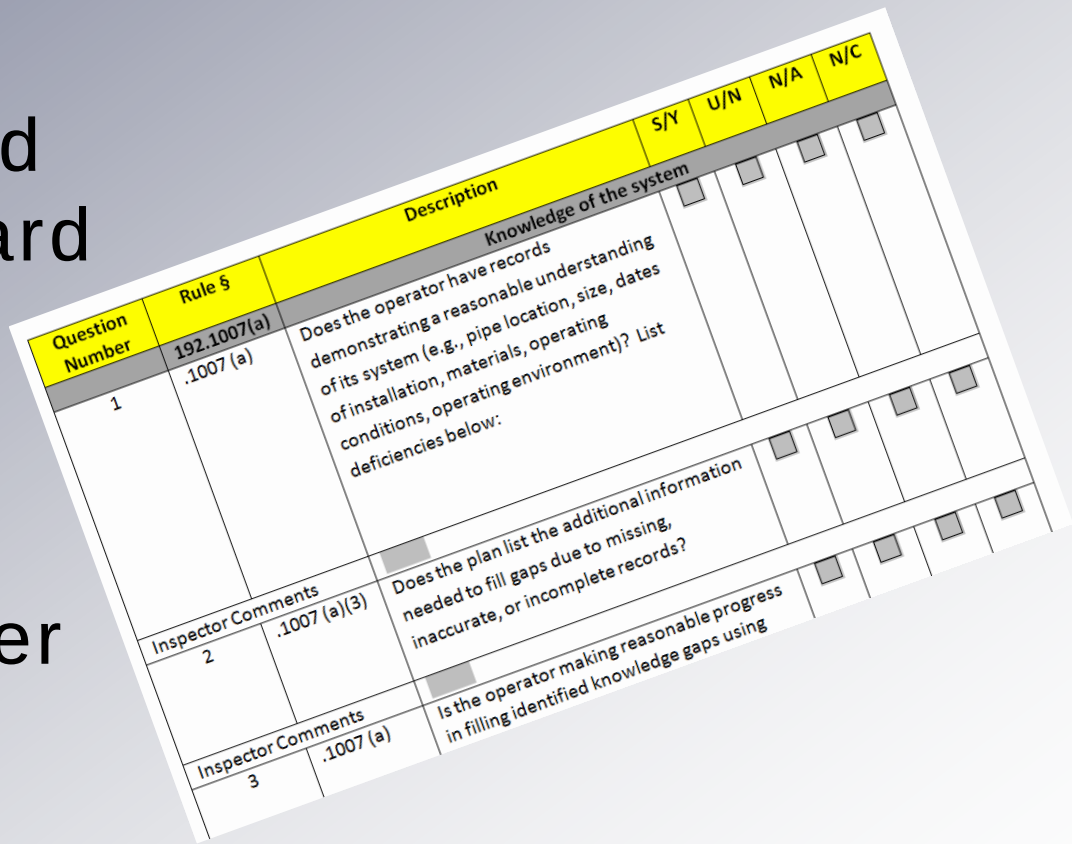
DIMP Inspection Forms

DIMP Inspection Forms

- PHMSA DIMP Inspection Forms for 192.1005 and 192.1015 distribution operators are available at http://primis.phmsa.dot.gov/dimp/resources.htm
- PHMSA Forms 22 & 23 are available on the PHMSA website in the Library under “Forms” http://phmsa.dot.gov/pipeline/library/forms

Record and Field Inspection Form

- Draft developed per NAPSR Board request – In Review
- Intended for inspections after initial DIMP inspections



Question Number	Rule §	Description	S/Y	U/N	N/A	N/C
	192.1007(a)	Knowledge of the system				
1	.1007 (a)	Does the operator have records demonstrating a reasonable understanding of its system (e.g., pipe location, size, dates of installation, materials, operating conditions, operating environment)? List deficiencies below:				
Inspector Comments						
2	.1007 (a)(3)	Does the plan list the additional information needed to fill gaps due to missing, inaccurate, or incomplete records?				
Inspector Comments						
3	.1007 (a)	Is the operator making reasonable progress in filling identified knowledge gaps using				

Thank you for Your Participation

Questions and Answers