



State-Federal DIMP DIMP Implementation Team



National Association of Pipeline Safety Representatives and Office of Pipeline Safety

June 8, 2011 from 10:30 to 12:30 EDT



Today's Topics

- 1. Industry Perspective** – Columbia Gas of VA representing American Gas Association (AGA)
- 2. Industry Perspective** – City of Mesa, AZ representing American Public Gas Association (APGA)
- 3. Mechanical Fitting Failure Submission Update**
- 4. DIMP Performance Measures & Key Metrics**
- 5. DIMP Implementation Topics**
- 6. Question & Answer Session**
- 7. How to submit questions/comments post webinar**
- 8. Session Concludes @ 12:30 PM EDT**



**DIMP Pilot Inspection Summary
for
Columbia Gas of Virginia, Inc.
June 8, 2011**



***Dan Cote
General Manager
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Agenda

- **Columbia Gas of Virginia (CGV) Overview**
- **DIMP Milestones**
- **Plan Structure**
- **Inspection Prep**
- **Pilot Inspection Summary**

Columbia Gas of Virginia - Overview

- **Maintain 4,887 miles of distribution pipelines**
- **Continuous operation since 1847**
- **Dual peak usage LDC – Large power generation summer load**
- **Largest geographic footprint of LDC's in Virginia**

Infrastructure Highlights

- **Fast growing NiSource LDC**
- **Reduced 35% of bare steel and cast iron in past 10 years**
 - **Overall mainline leakage down 16% over last 5 years**
 - **Corrosion leaks on mainline down 40% over last 5 years**
- **Plan \$100 Million in infrastructure improvements over next five years**

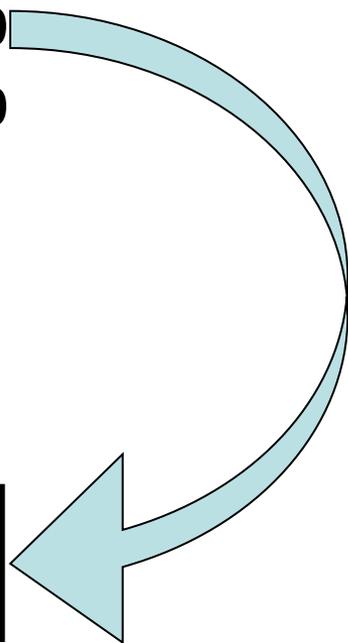
CGV Service Territory



DIMP Milestones

- Plan Development Begins Nov 2009
- Initial Draft Plan Complete Aug 2010
- PHMSA Pilot Inspection Sep 2010
- Final Draft Complete Dec 2010
- Periodic Review (trial) Apr 2011

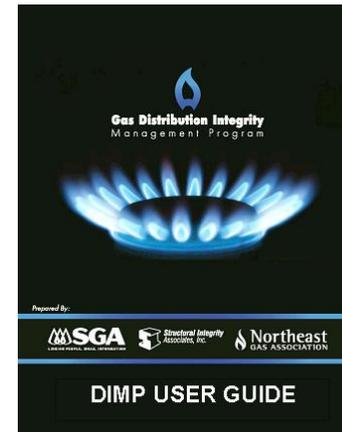
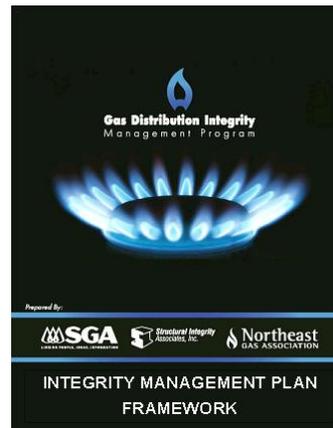
**Initial DIMP Pilot Inspection performed with
Columbia Gas of Virginia**



DIMP Plan Structure

Subject Matter Experts (SMEs) representing all geographic and subject areas assembled to develop a written plan

- **SGA/NGA framework and user guide used as reference to develop plan**



- **Contains a “Standard” narrative section and a “dynamic” appendix section (tabular data)**
- **DIMP Plan is a stand-alone document that supports and references Company O&M Manual procedures**

6.0 THREAT IDENTIFICATION

The purpose of this section is to describe the process used to identify threats, including the threat categories considered, the segmentation of the system to which the threats will be categorized, and the process by which subject matter experts determine if a threat exists.

6.1 THREAT CATEGORIES

An overview and discussion of each threat and sub-threat category is provided below in Sections 6.1.1 through 6.1.8.

In addition to the Company's own experiences and information, categories considered are based on the following.

(a) Membership or participation in local, regional, or national trade

Standard Narrative (Threat Identification)

(d) Information received from relevant government agencies,

(e) Review of trade journals and magazines that publish material regarding gas distribution,

(f) Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Advisory Bulletins, and

(g) National Transportation Safety Board (NTSB) Reports and Recommendations applicable to natural gas pipeline accidents

Through the periodic evaluation provisions contained within Section 10, the Company will periodically review data from internal and external sources, such as those listed above, to determine if other potential threats ought to be considered. Potential threats may include those which are not currently evident based on reasonably available data. Consideration of other potential threats could entail the collection of additional data such that the existence of such threats can be determined.

DIMP Plan Structure

Table B-1: Threat Identification
THREATS

Columbia Gas [®] of Virginia A NiSource Company		Corrosion		Natural Forces			Excav. Damage		Other Outside Force Damage				Material, Weld, or Joint Failure					Equipment Failure		Incor Ops	Other									
		External Corrosion	Internal Corrosion	Earth Movement	Lightning	Other Storm Damage	Frost	Excavator Error	Locator Error	Poor Records	Failure to Notify	Fire / Explosion	Vehicle Damage	Damage Caused by Maritime Vessels	Electrical Arcing from Other Equipment	Previous Mech Damage Not Excavation	Intentional Damage	Defective Body of Pipe	Defective Pipe Seam	Threaded Joint	Defective Weld	Defective Fusion Joint	Cast Iron Bell Joint	Mechanical Fitting	Repair Device Failure	Other Material Failure	Regulating Equipment Malfunction	Valve Failure / Leakage	Other Equipment Failure	Incorrect Construction / Operation
Asset Groups	Steel Mains	Bare Protected	See Detail (Slide 9)																											
		Bare Unprotected																												
		Coated Protected																												
		Coated Unprotected																												
	Steel Services	Bare Protected	See Detail (Slide 9)																											
		Bare Unprotected																												
		Coated Protected																												
		Coated Unprotected																												
	Plastic Mains	PE - Pre-1982	Customized Appendix (Threat Identification)																											
		PE - Post-1982																												
	Plastic Services	PE - Pre-1982	Customized Appendix (Threat Identification)																											
		PE - Post-1982																												
Other Pipe	Cast Iron	Customized Appendix (Threat Identification)																												
	Wrought Iron																													
	Copper																													
Aboveground	Aboveground Mains	Customized Appendix (Threat Identification)																												
	Settings																													
Steel Fittings	Customer Meter Set	Customized Appendix (Threat Identification)																												
	M&R Stations																													
	Mechanical Couplings																													
	Service Tees																													
	Service Risers																													
Plastic Fittings	Valves	Customized Appendix (Threat Identification)																												
	Other																													
	Mechanical Couplings																													
	Service Tees																													
	Service Risers																													
Other	Valves	Customized Appendix (Threat Identification)																												
	Other																													
	Other																													

Codes:
A = Threat is not applicable
B = Threat is perceived to be negligible or insignificant
C = Threat is applicable, general in nature, and applies throughout the Asset Group
D = Threat is applicable, but is localized to certain geography
E = Threat is applicable, but only applies to certain facilities within Asset Group

DIMP Plan Structure



		Corrosion		Natural Forces				Excav. Damage			
		External Corrosion	Internal Corrosion	Earth Movement	Lightning	Other Storm Damage	Frost	Excavator Error	Locator Error	Poor Records	Failure to Notify
Steel Mains	Bare Protected										
	Bare Unprotected										
	Coated Protected										
	Coated Unprotected										
Steel Services	Bare Protected										
	Bare Unprotected										
	Coated Protected										
	Coated Unprotected										

**Threat Identification
(Detail)**

DIMP Plan Structure

TABLE 4-1: DIMP Program Records

Program Element	Record*	Retention Responsibility	Location
General	Current IM Plan	Program Administration	Intranet
General	Superseded versions of DIMP Plan	Program Administration	Network drive
General	Summary of plan revisions	Program Administration	Network drive
General	Current referenced gas standards	Gas Standards	Intranet
General	Superseded versions of reference gas standards	Gas Standards	Network drive
System Knowledge	Completed forms – Form DIMP 5-1 (xx/xx)	Compliance Manager	Network drive
System Knowledge	Annual DOT Reports	Program Administration	Intranet
System Knowledge	DOT Incident Reports	Compliance Manager	Network drive
System Knowledge	Safety-Related Condition Reports	Compliance Manager	Network drive
Risk Evaluation	Optimain Project Listing	Field Engineering	Network drive
Periodic Evaluation	Form DIMP 10-1(xx/xx)	Compliance Manager	Network drive

*Source documents contributing to the compilation of the records listed above are maintained according to the Company's record retention policy.

➤ Preparation

- Acquire PHMSA's DIMP Plan Inspection Checklist
- Identify key participants (6 weeks out)
- Create presentation materials to support each inspection question
 - Plan language
 - Trend Lines
 - Procedures
- Meet with State Commission (two weeks)
 - Gain consensus
 - Establish presentation strategy

The Inspection Form was distributed in the spring of 2010. It has been revised and is available on the PHMSA/DIMP website.

CGV currently analyzes and trends key data metrics

Facility Failures

FACILITY FAILURE REPORT

Report Type: [] Company: BSG
 Location Number/TCC: [] Date Failed/Found: []
 Report Number: [(AutoNumber)] Form Completed By: []

FAILURE LOCATION:
 Address: [] Customer ID: [] Municipality: [] Map Number/GIS: []

FAILURE INFORMATION:
 Failed Item Stored At: [] Contact Person: [] Contact Number: []
 Detected By: [] Suspected Cause: [] Facility Type: []

PRODUCT INFORMATION:
 Product Type: [] Manufacturer: [] Model Number/Print Line/Other Markings: [] Year Installed (if known): []
 Material Size: [] Material Type: [] Item Description: []
 Related Work Order Number: [] Related Leak Order Number (if applicable): [] Leak Grade: [] Compression Coupling Location: []
 Method of Installation: [] Soil Type: [] Operating Pressure - Time of Failure: [] Operating Pressure - Normal Range: []

DESCRIPTION OF FAILURE:
 []

FIELD ACTION TAKEN/RECOMMENDATION(S):
 []

FRONTLINE LEADER/SUPERVISOR:
 []

Unit: IPS CTS NPS

Second material Being Joined: Steel Cast/Wrought Iron Ductile Iron Copper Plastic Unknown Other
 If Plastic: Specify: Polyethylene (PE) Polyvinyl Chloride (PVC) Cross-linked Polyethylene (PEX) Polybutylene (PB) Polypropylene (PP) Acrylonitrile Butadiene Styrene (ABS) Polyamide (PA) Cellulose Acetate Butyrate (CAB) Other = Specify: []

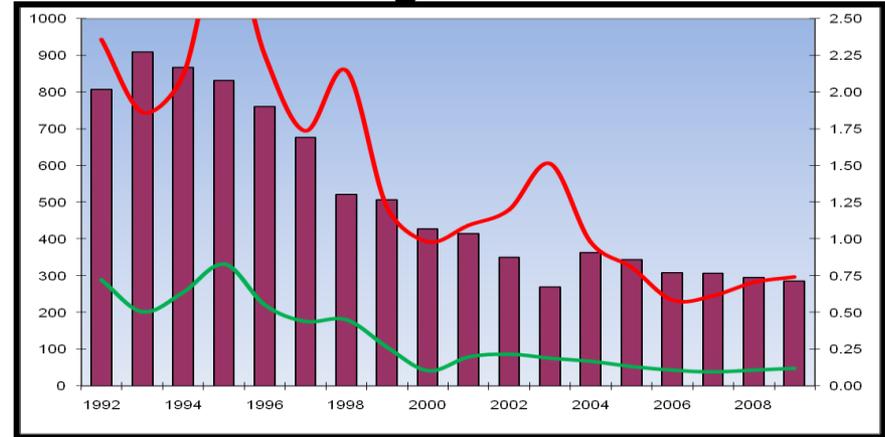
Apparent Cause of Leak: Corrosion Natural Forces Excavation Damage Other Outside Force Damage
 Material or Weld Equipment Incorrect Operation Other

Was the Failure a Result of: Construction/Installation Defect Material Defect Design Defect Previous Damage
 Thermal expansion/contraction

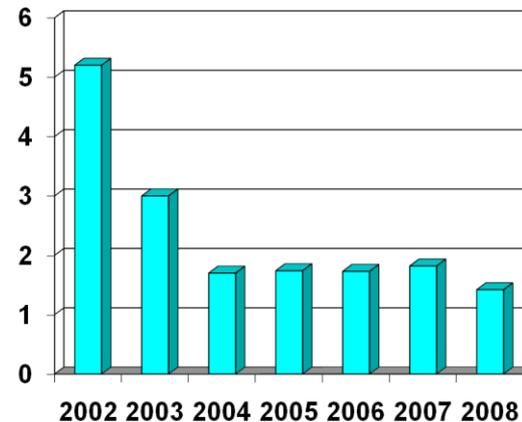
Location of Leak: Leak Through Seal Leak Through Body Pull Out

Date of Failure: []

Leakage Trends



Damage Trends



Critical processes will be maintained and improved as opportunities arise

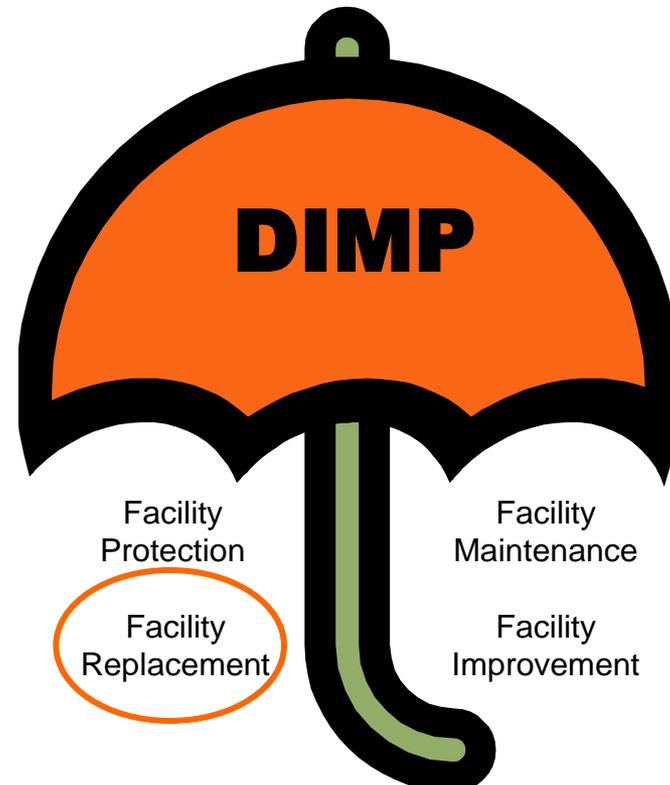
- **CGV will continue to utilize GPTC Guidance to classify leaks for scheduled repair**
- **CGV currently uses “Accelerated/Additional Actions” in addressing DIMP driven initiatives (one example below is CGV Damage Prevention\reduction efforts)**
 - **Quality Assurance of locate personnel**
 - **Electronic Marker installations**
 - **Increasing interaction (education) with excavators**
 - **Installation of HV Flow Limitors**



CGV anticipates 3rd Party Damage and Leakage from Corrosion to be the top risks to be mitigated under DIMP

DIMP will support existing initiatives and may leverage expansion of those initiatives

- **CGV began programs to replace significant mileage of aging infrastructure prior to DIMP**
 - **Engineering prioritizes replacement candidates using Optimain DS® and local knowledge**
 - **Engineering and Operations SMEs are key members of DIMP review teams**
 - **DIMP processes include risk analysis and prioritization of asset groups for replacement**



- **CGV has robust programs in place to minimize 3rd party damage threats and improve public safety**
 - **CGV performs root-cause analysis on all 3rd party damages**
 - No locate requested
 - Excavator error
 - Locator error
 - Poor records
 - **CGV threat/risk matrices are designed to analyze and target facility damages at the sub-threat level (root cause)**



Inspection Summary

- **Performed by PHMSA / NAPSAR / Virginia Commission**
- **Served as a test-run of the 50-question Plan Inspection Form**
- **Collaborative effort between CGV and Regulating Agencies to enhance inspection checklist**
- **Key Takeaways**
 - **Inspection team interested in process detail within plan, even for day-to-day activities (slight “difference” from GPTC Guidance)**
 - **Inspection team in favor of data trends appropriate to threat category (5 year trend typical time frame in commercial templates)**
 - **Inspection Form was revised throughout the pilot inspection process (6 inspections)**
 - **State regulating agencies may have specific, detailed requirements within the inspection question areas (e.g. System Knowledge)**

The Inspection Form was distributed in the spring of 2010. It has been revised and is available on the PHMSA/DIMP website.

SHRIMP, DIMP and the Pilot Inspection City of Mesa

June 8, 2011



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DIMP

- ▶ THE 'SHRIMP' EXPERIENCE
- ▶ RISK RANKING
- ▶ ADDITIONAL ACTIONS
- ▶ PILOT AUDIT INSPECTION SUMMARY

SHRIMP

- ▶ Mesa's participation
- ▶ Provides a template
- ▶ Plan development
- ▶ SHRIMP data entry
- ▶ Data collection methods

RISK RANKING

Risk = Probability x Consequence

- ▶ SHRIMP provides a mathematical risk model where questions address *probability* of failure and *consequence* of failure. Answers are weighted, determined by SMEs.
- ▶ After determining a quantitative value for each threat, SHRIMP will assign a risk ranking.

RISK RANKING

- ▶ Review Risk Ranking with SMEs to validate risk ranking
- ▶ Adjust ranking in accordance with team consensus. Note– this will require a comment explaining revision.

ADDITIONAL ACTIONS

- SHRIMP offers a list of possible actions to mitigate risks
- Also allows operator to include other actions

PILOT AUDIT INSPECTION SUMMARY

- Good list of action items
- Written Procedures are required for everything
- Reference O&M for procedures already in place
- Assign responsibilities
- Include source of information



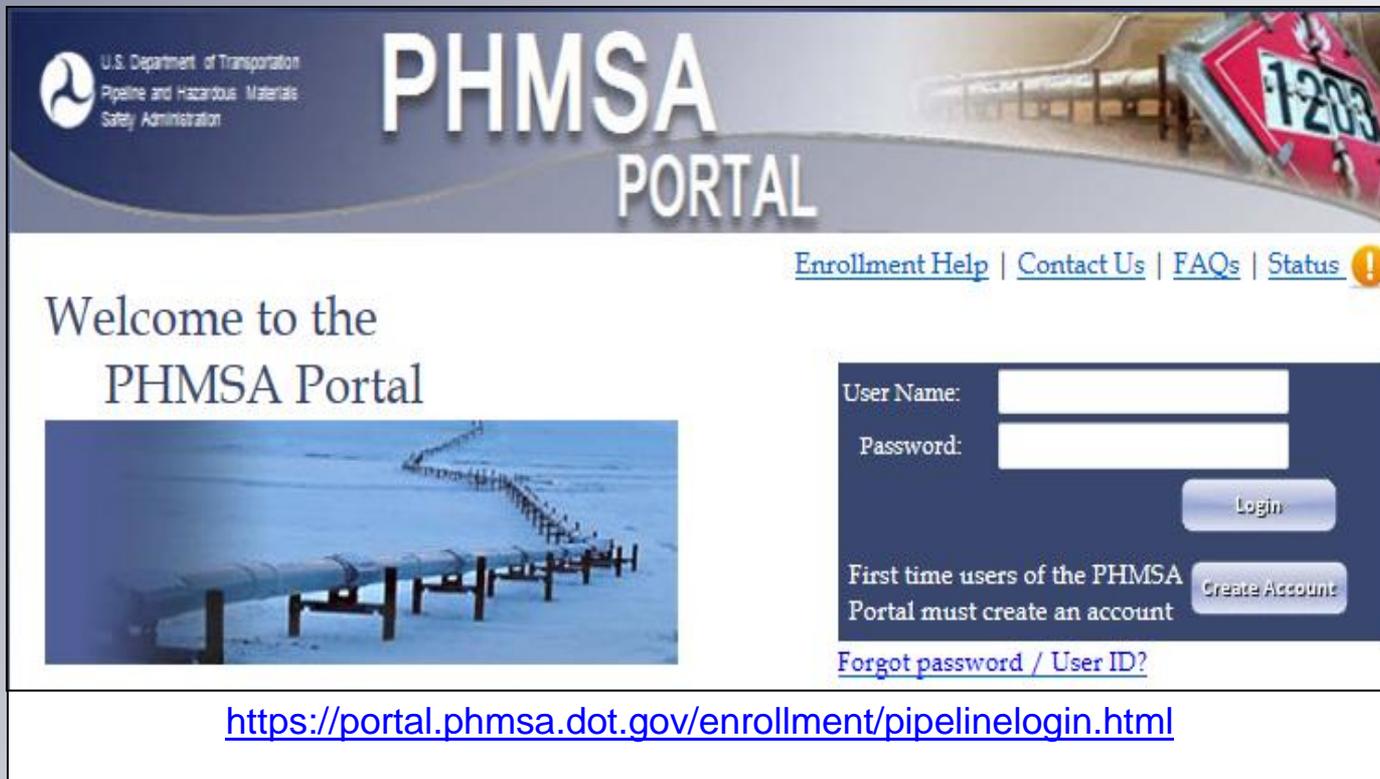
Mechanical Fitting Failure Reports

- Not required (optional) to report failures of the following mechanical fittings
 - Cast iron bell and spigot joint
 - Threaded joint fittings
 - Metal on metal compression fittings (other fittings whose design involves seal by compression of the pipe directly onto a metallic surface without the use of an o-ring or gasket)
- Do report failures of mechanical fittings with O-ring, gasket, or elastomer seals
 - Repair fittings (e.g. split sleeves, clamps, band sleeves)
 - Bolt on service tees
 - Strap-on saddles
 - Anodeless risers
- FAQs C.5.3 & C.5.4

MFF Online Submission Update

As of May 23:

- 18 Operators, 15 States, 236 Reports (170 by 1 operator)
- 200+ reports in queue



The screenshot displays the PHMSA Portal website. At the top left is the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration logo. The main header features the text "PHMSA PORTAL" in large white letters. To the right of the header are navigation links: "Enrollment Help", "Contact Us", "FAQs", and "Status" with a yellow warning icon. Below the header, the text "Welcome to the PHMSA Portal" is displayed above a photograph of a pipeline in a snowy landscape. On the right side, there is a login form with fields for "User Name:" and "Password:", a "Login" button, and a "Create Account" button. A note states "First time users of the PHMSA Portal must create an account". Below the login form is a link for "Forgot password / User ID?". At the bottom of the screenshot, the URL <https://portal.phmsa.dot.gov/enrollment/pipeline/login.html> is provided.



Preliminary Look at MFF Data

Leak Occurred:	Count
LEAKED THROUGH BODY	34
LEAKED THROUGH SEAL	183
PULLED OUT	19

Leak Location	Count
MAIN-TO-MAIN	52
MAIN-TO-SERVICE	103
METER SET	8
SERVICE-TO-SERVICE	73
Total	236

Decade	Count
PRE-1940	11
1940-1949	4
1950-1959	20
1960-1969	45
1970-1979	57
1980-1989	65
1990-1999	12
2000-2009	14
2010-2019	5
UNKNOWN	3
Total	236

Size of Pipe	Count
1"	38
1/2"	30
1-1/4"	65
2"	43
3/4"	43
4"	13
6"	2
8" or larger	2

Fitting Involved	ADAPTER	COUPLING	END CAP	OTHER	RISER	SERVICE OR MAIN TEE	SLEEVE	TAPPING TEE	TRANSITION FITTING	VALVE	Total
STAB		10	2			1		4	1		18
BOLTED		23		1	1	5	3	7		7	47
NUT FOLLOWER	4	105		3	5	13		3	3	1	137
OTHER COMPRESSION TYPE FITTING		9		3	3	4		8	3	4	34
Total	4	147	2	7	9	23	3	22	7	12	236



Performance Measures Reporting

- From the 2010 Gas Distribution Annual Report Data
- National Performance Measures

1. Demonstrate value of distribution integrity management efforts
2. Illustrate trends
3. Drive safety behaviors
4. Demonstrate progress
5. Increase public confidence

PART C - TOTAL LEAKS AND HAZARDOUS LEAKS ELIMINATED/REPAIRED DURING YEAR				
CAUSE OF LEAK	Mains		Services	
	Total	Hazardous	Total	Hazardous
CORROSION				
NATURAL FORCES				
EXCAVATION DAMAGE				
OTHER OUTSIDE FORCE DAMAGE				
MATERIAL OR WELDS				
EQUIPMENT				
INCORRECT OPERATIONS				
OTHER				
NUMBER OF KNOWN SYSTEM LEAKS AT END OF YEAR SCHEDULED FOR REPAIR _____				
PART D - EXCAVATION DAMAGE			PART E - EXCESS FLOW VALVE (EFV) DATA	
Number of Excavation Damages _____			Total Number Of EFVs on Single-family Residential Services Installed During Year _____	
Number of Excavation Tickets _____			Estimated Number of EFVs In System At End Of Year _____	



Performance Measures Report

- Purpose
 - Provide information to evaluate the effectiveness of DIMP
 - Provide data analysis to assist with inspector oversight and operator implementation of DIMP
- National DIMP performance measures:
 - Incident Statistics
 - Excavation Damage Statistics, and
 - Total and Hazardous Leaks Repaired/Eliminated Categorized by Cause
- Other DIMP related metrics such as the number of EFVs installed and pipeline replacement statistics.

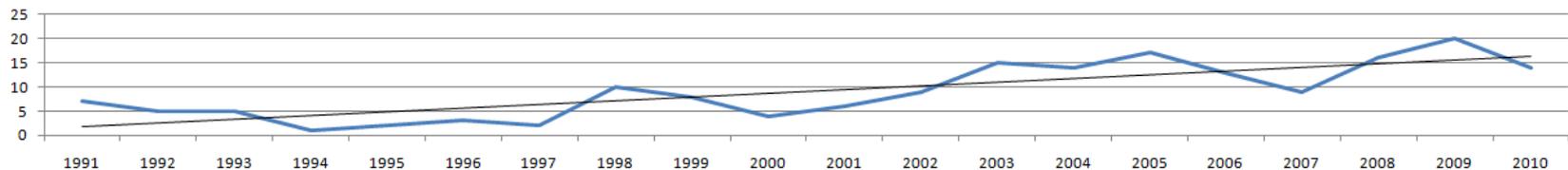


1991-2010 Incident Trends by Cause

Trends in Gas Distribution Significant Incident by Cause:

- Other Outside Force Damage - Rising trend
- All Other Causes - Remains around one-fourth of all incidents.
- Material/Weld & Equipment - Slight rising trend
- Incorrect Operations - After decreasing from 1999 now beginning to rise slightly, remains below the level reported in 1990's.
- Corrosion - Slight decreasing trend
- Excavation Damage - Peaked in 2004 then decreasing trend

OTHER OUTSIDE FORCE DAMAGE





2010 Incident Statistics

Likelihood of a Leak to Result in an Incident.

	Corrosion	Natural Forces	Excavation Damage	Other Outside Force	Material and Weld	Equipment	Incorrect Operations	Other	Total
Leaks									
2009	147,392	27,435	75,705	10,839	72,864	90,113	14,522	113,976	552,846
2008	128,347	27,026	92,390	11,337	49,782	53,304	14,754	110,260	487,200
2007	127,728	24,250	106,332	15,984	47,791	52,606	12,424	98,445	485,560
2006	133,632	27,975	116,047	11,633	49,864	46,371	10,180	106,370	502,072
2005	138,780	27,180	118,504	10,509	52,761	41,667	7,537	117,781	514,719
2004	150,365	27,978	118,789	10,926	53,697	35,246	8,614	124,297	529,912
Total 2004 - 2009	826,244	161,844	627,767	71,228	326,759	319,307	68,031	671,129	3,072,309
Incidents									
2009	2	8	43	58	3	5	5	34	158
2008	5	11	33	63	5	3	6	23	149
2007	1	11	55	39	7	4	0	36	153
2006	3	10	48	43	4	4	3	27	142
2005	2	15	66	51	8	3	7	18	170
2004	5	14	50	42	8	0	7	13	139
Total 2004 - 2009	18	69	297	297	35	19	28	151	914
Leaks per Incident									
2009	73,696	3,429	1,761	187	24,288	18,023	2,904	3,352	3,499
2008	25,669	2,457	2,800	180	9,956	17,768	2,459	4,794	3,270
2007	127,728	2,205	1,933	410	6,827	13,152	-	2,735	3,174
2006	44,544	2,798	2,418	271	12,466	11,593	3,393	3,940	3,536
2005	69,390	1,812	1,796	206	6,595	13,889	1,077	6,543	3,028
2004	30,073	1,998	2,376	260	6,712	-	1,231	9,561	3,812
From 2004 to 2009	45,902	2,346	2,114	240	9,336	16,806	2,430	4,445	3,361



2010 Excavation Damage

- Data Collected
 - Number of Excavation Damages
 - Number of Excavation Tickets (FAQ C.4.g.3)
- Potential Data Entry Errors
 - More excavation damages than excavation tickets
- Excavation Damage Statistics:

State	Number of Excavation Damages	Number of Excavation Tickets	Excavation Damages/ 1,000 tickets
State with Highest Rate of Excavation Damages per 1,000 Tickets	123	3,362	36.59
State with Lowest Rate of Excavation Damages per 1,000 Tickets	2	8,745	0.23
National Totals/Averages	75,476	19,901,050	3.79



2010 EFV Data

- Data Collected
 - Total Number Of EFVs on Single-family Residential Services Installed During Year
 - Estimated Number of EFVs In System At End Of Year
- Potential Data Entry Errors
 - More EFVs in system than number of services
 - No EFVs installed in the system but services installed in 2010
 - Number of services contained a decimal

- EFV Statistics:

	Number of EFVs Installed in 2010	Total Number of EFVs	Total Number of Services	Percentage of Services with EFVs
State with Lowest Percentage of Services with EFVs	0	0	35,780	0.0%
State with Highest Percentage of Services with EFVs	987	25,205	32,935	76.5%
National Totals/Average	503,278	6,347,245	65,658,771	9.7%



2010 Hazardous Leak Data

	Mains				Services			
	Number of Leaks	Percentage of Leaks by Cause Which are Hazardous	Percentage of Total Leaks by Cause	Percentage of Total Hazardous Leaks by Cause	Number of Leaks on	Percentage of Leaks by Cause Which are Hazardous	Percentage of Total Leaks by Cause	Percentage of Total Hazardous Leaks by Cause
Corrosion	54,321		38%		85,010		25%	
Corrosion Haz	9,666	18%		22%	32,142	38%		23%
Natural Forces	11,445		8%		15,459		5%	
Natural Forces Haz	4,852	42%		11%	5,831	38%		4%
Excavation Damage	16,255		11%		57,485		17%	
Excavation Damage Haz	13,872	85%		32%	49,952	87%		35%
Other Outside Force	1,698		1%		7,215		2%	
Other Outside Force Haz	852	50%		2%	4,592	64%		3%
Material & Welds	12,356		9%		41,397		12%	
Material and Welds Haz	3,218	26%		7%	11,624	28%		8%
Equipment Failure	12,551		9%		65,559		19%	
Equipment Failure Haz	2,560	20%		6%	16,723	26%		12%
Incorrect Operations	2,315		2%		7,689		2%	
Incorrect Operations Haz	453	20%		1%	2,276	30%		2%
Other	33,423		23%		56,870		17%	
Other Haz	7,526	23%		18%	18,306	32%		13%
Total Leaks	144,364				336,684			
Haz Leaks	42,999	30%			141,446	42%		



DIMP Implementation Topics

- Implementation (FAQ C.3.8 & C.8.3)
- Distribution farm taps (FAQ C.3.7)
- Evaluate and Rank Risk
 - Risk evaluation methods
 - Excavation damage
 - Removal of facilities



Farm Taps



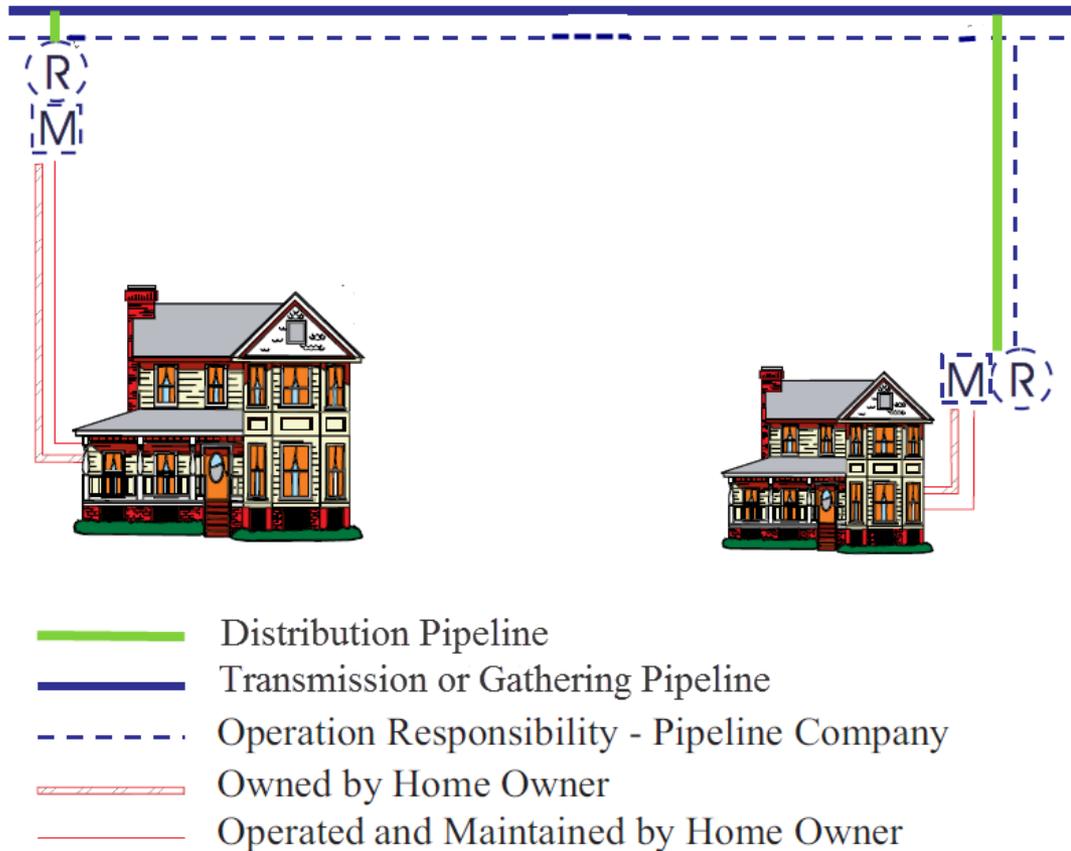
PHMSA has recognized farm taps as distribution lines for several years as addressed in the following rulemakings:

1. In the “Customer-Owned Service Lines” Final Rule (60 FR 41821) Docket Number 95-20021
2. In the “Excess Flow Valve-Performance Standards” Final Rule (61 FR 31449) Docket Number 96-15564

- FAQ C.3.7 Are operators required to include “farm taps” in their distribution integrity management plan?



Farm Taps



- Do the facilities meet the definition of Gathering? No.
- Do they meet the definition of transmission? No.
- Then the facilities are distribution.

The “farm tap” is pipeline upstream of the outlet of the customer meter or connection to the customer meter, 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.



Evaluate and Rank Risk

A risk evaluation predicts...

- How frequently could it happen?
- If it happens, how significant could it be?

Based on the results, the operator considers if the level of risk warrants additional measures to reduce risk.



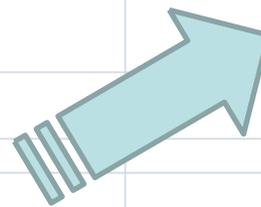
Cumulative Threat Risk Model

- Operator subdivides the system geographically
- Determines likelihood & consequence weighting
- Aggregates the risk due to each threat to the system

Risk Score for Groups of Facilities by Primary Threat Category	CORROSION (likelihood x consequence)	NATURAL FORCES (likelihood x consequence)	EXCAVATION DAMAGE (likelihood x consequence)	OTHER OUTSIDE FORCE DAMAGE (likelihood x consequence)	MATERIAL OR WELDS (likelihood x consequence)	EQUIPMENT (x likelihood x consequence)	INCORRECT OPERATIONS (likelihood x consequence)	OTHER (likelihood x consequence)	Total Risk Score
Operating District D	23	12	89	89	45	3	1	77	339
Operating District I	45	10	83	82	35	5	2	69	331
Operating District A	10	9	87	88	19	2	1	81	297
Operating District E	18	21	50	45	48	8	1	87	278
Operating District G	21	8	90	88	20	1	1	45	274
Operating District H	15	3	68	67	20	3	1	34	211
Operating District B	0	5	76	66	7	8	1	45	208
Operating District J	0	11	70	50	2	9	1	43	186
Operating District F	8	9	55	60	2	3	1	29	167
Operating District C	0	4	30	20	6	4	1	15	80



Corrosion	Total Risk Score (likelihood x consequence)	Natural Forces	Total Risk Score (likelihood x consequence)	Excavation Damage	Total Risk Score (likelihood x consequence)
Bare steel pipe VA	9	DC Cast Iron - water main breaks	78	Mapping omissions & inaccuracies	85
Bare steel pipe MD	4	Washouts Montgomery	54	Fiber optic planning district	77
Cast Iron DC	3	Downtown Alexandria Flood district	12	Blasting Leesburg	58
Outside Forces	Total Risk Score (likelihood x consequence)	Material or Weld	Total Risk Score (likelihood x consequence)	Equipment Failure	Total Risk Score (likelihood x consequence)
Meter sets in Parking Garages Without protection	78	Mechanical coupled services from 1950 - 1970	75	Obsolete recitifiers	1
Aboveground regulator stations near road widenings - VDOT	65	Kerotest valves - throughout system	12		
		Pre 1970 plastic pipe - uprated in '90s	8		
Incorrect Operation	Total Risk Score (likelihood x consequence)	Other	Total Risk Score (likelihood x consequence)		
Overpressure System	65	Pipe on building rooftops	34		



Relative Risk Ranking of groups	Total Risk Score
Mapping omissions & inaccuracies	85
DC Cast Iron - water main breaks	78
Meter sets in Parking Garages without protection	78
Fiber optic planning district	77
Mechanical coupled services from 1950 - 1970	75
Aboveground regulator stations near road widenings - VDOT	65
Overpressure System	65
Blasting Leesburg	58
Washouts Montgomery	54
Pipe on building rooftops	34
Kerotest valves - throughout system	12
Bare steel pipe VA	9
Pre 1970 plastic pipe - uprated in '90s	8
Bare steel pipe MD	4
Cast Iron DC	3
Obsolete recitifiers	1

Threat Specific Risk Model



Risk Evaluation - Excavation Damage

Question:

If an operator has a damage prevention program in place does the threat of excavation damage need to be included in the risk ranking?

Our approach is: DIMP plan + Damage Prevention program = DIMP program?

Additionally, GPTC Guidance in Section 5.4 *Example of a Risk Evaluation* states“An operator may choose to conduct a separate risk ranking for the excavation threat, as this threat is not tied to the physical properties of the pipe.”



Risk Evaluation - Excavation Damage

Answer: No, a damage prevention program alone does not meet the requirements for a threat assessment and risk evaluation for excavation damage.

The DIMP rule requires that the threat of excavation damage be included in the threat identification in §192.1007(b)...*The operator must consider the following categories of threats to each gas distribution pipeline:...excavation damage....*

From 192.1007(c) ...*In this evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline.*

The operator must assess their damage prevention program and perform a risk evaluation of pipeline subject to excavation damage.

The risks can be ranked separately by threat but then need to be merged into one relative risk ranking.

The relative risk ranking includes all risks posed by the eight primary threat categories to the pipeline.



Risk Evaluation – Removal of Facilities

GPTC Section 5.5 Evaluate and Rank Risk – Validation

It may be determined that facilities or groups of facilities that do not experience problems can be removed from the current risk evaluation and no further action necessary.

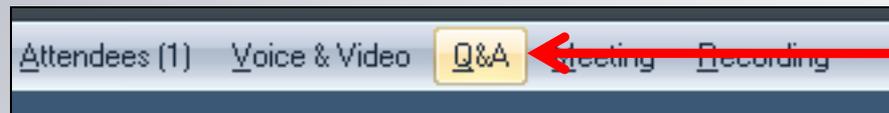
DIMP Team's Position

- All facilities are subject to risk. The facility may not have experienced any threats yet but there is the potential that it may in the future.
- All facilities should be evaluated for each threat. After they are evaluated, no further action may be necessary, but all facilities need to be evaluated for each applicable current and potential threat.



Question and Answer Session

Questions can be submitted by clicking on the Q&A menu in the LiveMeeting menu bar near the top of the screen:





Annual Report - Leak Reporting

- Non-hazardous leaks upon discovery eliminated by lubrication, adjustment, or tightening are not reportable.
- Hazardous leaks upon discovery eliminated by lubrication, adjustment, or tightening are reportable.
- If a mechanical fitting failure results in a hazardous leak, regardless of how it is eliminated, report the failure on the annual report (Part C) and submit a mechanical fitting failure report.
- Part C “Total Leaks Repaired/Eliminated” include all leaks repaired (GPTC Grade 1,2,3)
- “Leaks at the end of the year scheduled for repair” include:
 - Hazardous leaks (GPTC Grade 1)
 - Leaks that are scheduled for repair



Follow Up Question from May 10 Webinar

Q - A leak is called in. The 1st responder grades the leak as a grade 1. They call for a crew who upon arrival aerate it and now re-grade it as a grade 2 leak. They schedule the leak for repair, come back and repair the grade 2 leak.

- What should the leak repair be graded as....a grade 1 (upon discovery) or a grade 2?
- Or do they report two leaks – grade 1 leak eliminated and a grade 2 leak repaired?

A – They report the “upon discovery” grade and only count the leak one time. The leak wasn’t repaired via aerating, only downgraded.



Follow Up Question from May 10 Webinar

Q - There is excavation damage to the system which causes a leak, the crew arrives and repairs it. Prior to DIMP, they did not grade the leak, they just fixed it.

Does it need to be reported as a leak repaired and do they have to grade it?

A - Yes, reporting the leak would have always been required on the annual report as a leak eliminated/repaired. Now DIMP requires delineation between non-hazardous and hazardous leaks in Part C, so the leak must be graded.



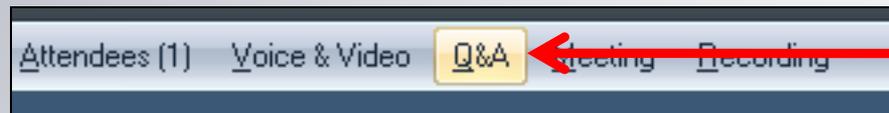
Questions Submitted Prior to Webinar

1. How can a regulator “see if a plan is effective” as mentioned in *FAQ B.2.1 How does PHMSA foresee this rule being enforced for compliance? Inspectors will review the IM plan for quality and completeness and ensure that operators are doing what their plan says; and then inspect to see if their plan is effective.* The procedures and records will be reviewed to verify that the operator performed them as written and in compliance with required dates. Enforcement will be consistent with current practice by the jurisdictional agencies.
2. The TIMP program success was measured by completing assessments over 5 and 10 year periods. How will PHMSA measure success for the DIMP program?
3. What coupling failure information has been submitted so far?



Question and Answer Session

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NAPSR and PHMSA are planning:

- A post-implementation webinar

Thank you for you interest in DIMP!

Submit questions or comments @
<http://primis.phmsa.dot.gov/dimp/comment.htm>