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www.dot.gov

MY BOSS TOLD
ME TO CHANGE
THE STUPID SIGN
SO I DID

PETRO-CANADA



ONE WAY

STOP





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THANK YOU!



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Public Awareness Programs for Pipeline Operators

October 23, 2007

Karen Butler
DOT/PHMSA/OPS





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PHMSA's Public Awareness History

- Pipeline Safety Regulations Requiring:
 - Damage Prevention awareness for Excavators
 - Emergency Plans for Fire, Police, & Public Officials
 - Public Education
- Operator workshops in 2003 and 2005
- Final Rule published May 2005 requiring RP 1162-style programs by June 20, 2006



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PSIA 2002

The PSIA 2002 required that operators review their existing public education programs for effectiveness by December 17, 2003, and modify the programs as necessary.

The PSIA of 2002 also required that operators submit their existing public education programs to the Office of Pipeline Safety or the appropriate State Agency for periodic review.

OPS addressed the intent of this requirement through an Operator self-assessment initiative



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Self-Assessment Reminder for Kansas

Approximately 50% of KCC
jurisdictional facilities submitted self-
assessments.



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Self-Assessment General Information Reminder

- A large percentage of operators have recognized the need for modifications.
- A fairly large percentage of the operator programs promote the use of the one-call system.
- A smaller percentage promote the other messages related to damage prevention.
- Approximately 50% of the self-assessments indicate that management support for the public education program is not "high



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Self-Assessment General Information Reminder

- Less than 30% of the operator programs require periodic development and documentation of program plans.
- Less than 50% of the operators require documentation of the actual program efforts.
- A significantly small percentage of operator programs require a periodic assessment of the program's effectiveness.



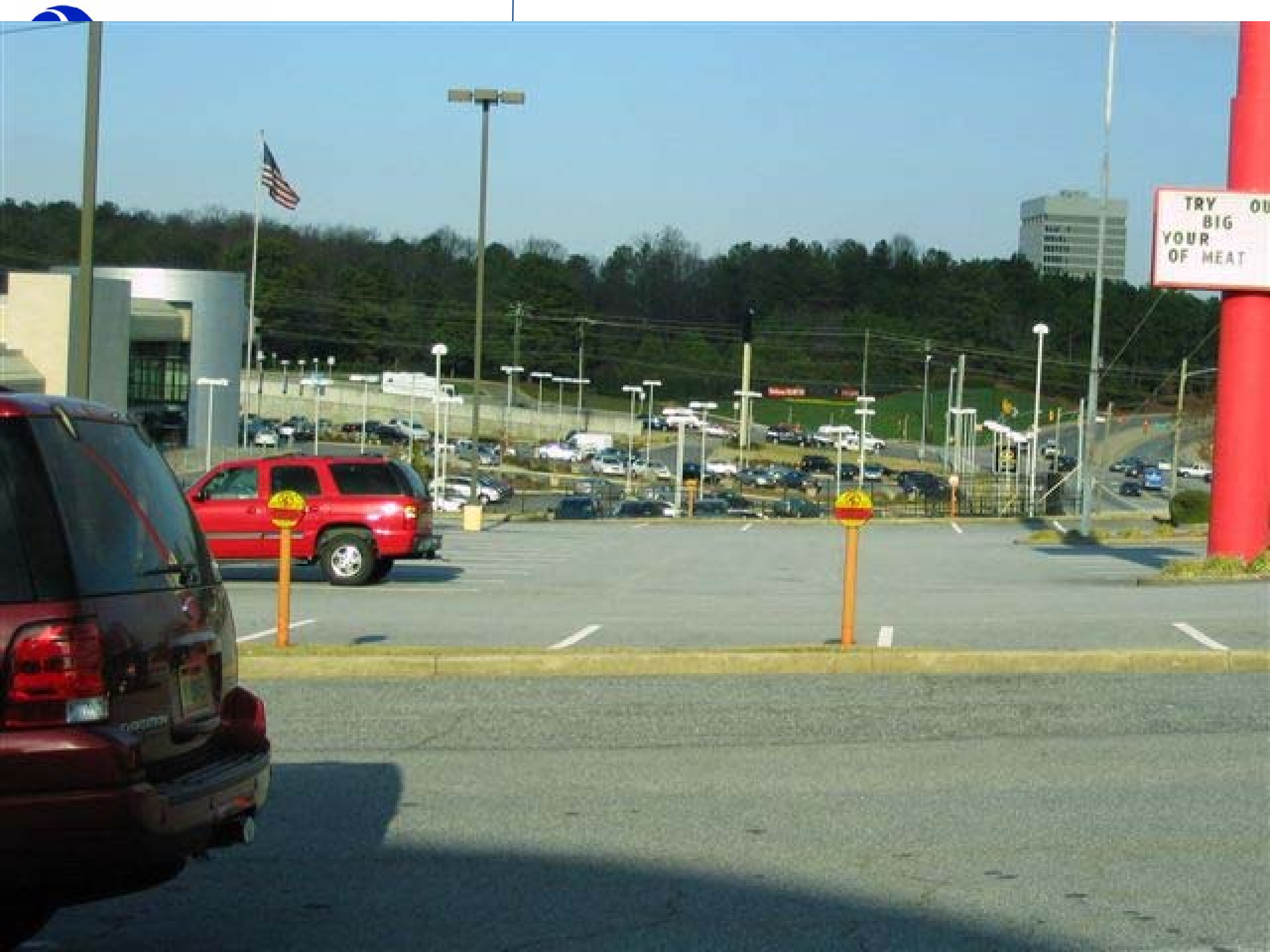
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Local Public Official Audience

- Messages (partial list)
 - Risky land use practices
 - Operator contacts for Integrity Management, land use practices, emergency preparedness, etc
- Audience Members (partial list)
 - Planning & Zoning Boards
 - Licensing & Permitting Departments
 - Town & City Councils
 - Franchise Managers



TRY OUR
BIG
YOUR
OF HEAT





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Written Program Review

- Regulations required operators to create written programs following the recommendations in API RP 1162 by June 20, 2006
- PHMSA Advisory Bulletin published June 16, 2006 requested submission of programs by October 8, 2006
- 8 States decided to conduct independent reviews
- Clearinghouse closed on October 15, 2007, after submission of 1,569 Programs, 410 from the Central Region



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Implementation of Completed Program

- There is no single “due date” for distributing RP 1162-style awareness materials to stakeholders
- “Due date” calculated by a simple formula:
June 20, 2006 + RP 1162 Frequency
- First evaluation of effectiveness due in June 2010



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Clearinghouse Process

- Review Criteria was developed jointly by NAPSR & PHMSA
- Clearinghouse results were provided to the jurisdictional pipeline safety agency, not to the operator
 - List of program aspects that deviate from RP 1162 recommendations
 - List of supplemental elements implemented
- Review of the written program concurrent with implementation of the program by operators



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Clearinghouse Information

Operator Type	Programs Submitted
Gas Distribution	1087
Gas Trans & Haz Liq	581
Gathering	158



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Clearinghouse Information

Summary of Programs Submitted	Programs Submitted	Programs With Deviations	Percent
National Data	1569	1545	99%
Central Region	410	400	98%



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Clearinghouse Information

Summary of Programs Submitted	Programs Submitted	Programs With Supplemental Deviations	Percent
National Data	1569	1289	82%
Central Region	410	310	76%



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Over 50% Deviations Elements Common to All Operator Types

- No process and procedure to determine whether Supplemental Elements will be implemented in response to Third-Party Damage and other considerations listed in RP-1162 Section 6.2
- No Management Statement of Support
- Evaluation of effectiveness not called for at maximum four year intervals
- No annual implementation audit



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Over 50% Deviations Elements Common to All Operator Types

- Most of this list was already noted in the Self-Assessments so why hasn't it been corrected already?



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Over 50% Deviations Gas Distribution

- Lack of damage prevention awareness and pipeline purpose and reliability messages to General Public
- Message delivery method to Excavators (remember ADB-06-03) and Emergency Officials not specified or deviates from RP 1162
- No awareness of hazards and protective measures undertaken message to Affected Public



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Over 50% Deviations Gas Trans & Haz Liq

- Insufficient pipeline location **or** NPMS information to Local Public Officials and Emergency Officials
- Insufficient pipeline location **and** NPMS information to Affected Public
- No process and procedure to determine whether Supplemental Elements will be implemented in response to High Consequence Areas



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Over 50% Deviations Gas Gathering

- Materials to Local Public Officials do not include copies of materials provided to Affected Public and Emergency Officials



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Damages and 911

- PIPES requires an excavator who damages a pipeline and product is released to call **911**
- CGA BP 5-25 – call **911** and pipeline operator
- Operators who hit their own pipeline and cause a leak are required to call **911**
- Driven by need for improved incident perimeter control for public safety



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Significant Incidents caused by Excavation Damage 2002 thru 2006

- Liquid Pipelines
 - 14% of Significant Incidents
 - 63% of Fatalities and 16% Injuries
- Gas Transmission Pipelines
 - 13% of Significant Incidents
 - 80% of Fatalities and 23% Injuries
- Gas Distribution Pipelines
 - 37% of Significant Incidents
 - 28% of Fatalities and 32% Injuries



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Supplemental Elements

- Additional actions beyond the Baseline implemented by an operator in response to one of 12 specific considerations listed in RP 1162
(all 12 should be included in the process and should not have to decide later what to do)
- Considerations include Third-Party Damage and High Consequence Areas
- Section 6.0 Recommendations for Supplemental Enhancements of Baseline Public Awareness Program should be reviewed



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Supplemental Elements

- Only 17% of Programs reviewed implement Supplemental Elements in response to Third-Party Damage
- Only 36% of Gas Trans and Haz Liq Programs reviewed implemented Supplemental Elements in response to HCAs
- Gas Integrity Management regulations **require** external communication program for the public equivalent to Supplemental Elements



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Implementation Inspections

- PHMSA Regions will inspect implementation records as part of an operator Standard Inspection
- NAPSAR members may inspect intrastate operators
- Pipeline Operators and Pipeline Safety Agencies will both experience a learning curve, especially regarding Supplemental Elements
- PHMSA inspection goal is to **Foster Improvements**, not to cite for non-compliance



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Post-Clearinghouse Actions by OPS

- Formal enforcement actions against non-submitting operators directly jurisdictional to OPS
- Coordinate revisions with operators
- Develop implementation questions for inspection forms
- Public Meeting On Feb 20th and Feb 21st
In Houston
 - Clearinghouse Findings
 - Recommendations for 2nd Edition RP 1162
 - Operator Lessons Learned



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Revising Messages

NPMS

www.npms.phmsa.dot.gov

- April 2007 changes to the National Pipeline Mapping System (NPMS)
 - Public access to maps in one County at a time, including attributes such as operator name, product, and operator contact
 - Local public officials can get electronic data layer AND add this layer to their own GIS
- Operator messages about NPMS should be modified to reflect new capabilities



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Revising Messages

811

www.call811.com

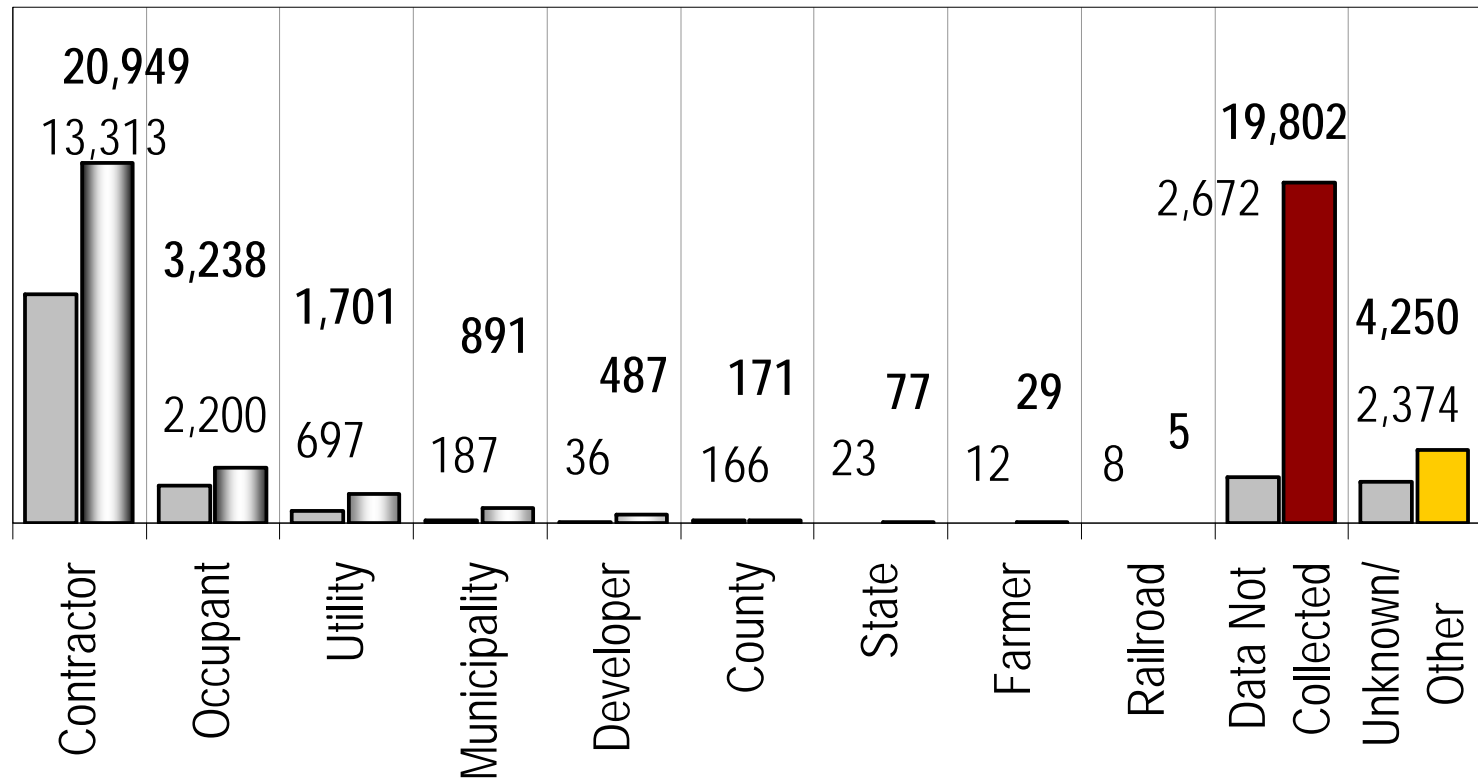
- National “Call Before You Dig” number officially launched on May 1, 2007
- Market research demonstrates homeowners often don’t make the call
- CGA 2005 DIRT report shows 31% of damages and near misses have a root cause of “No Notification to One-Call Center”
- 811 should have a prominent role in Public Awareness Programs.

Events by Excavator Type

Chart #D 2

CGA DIRT: Excavator Type : Events 2004,2005

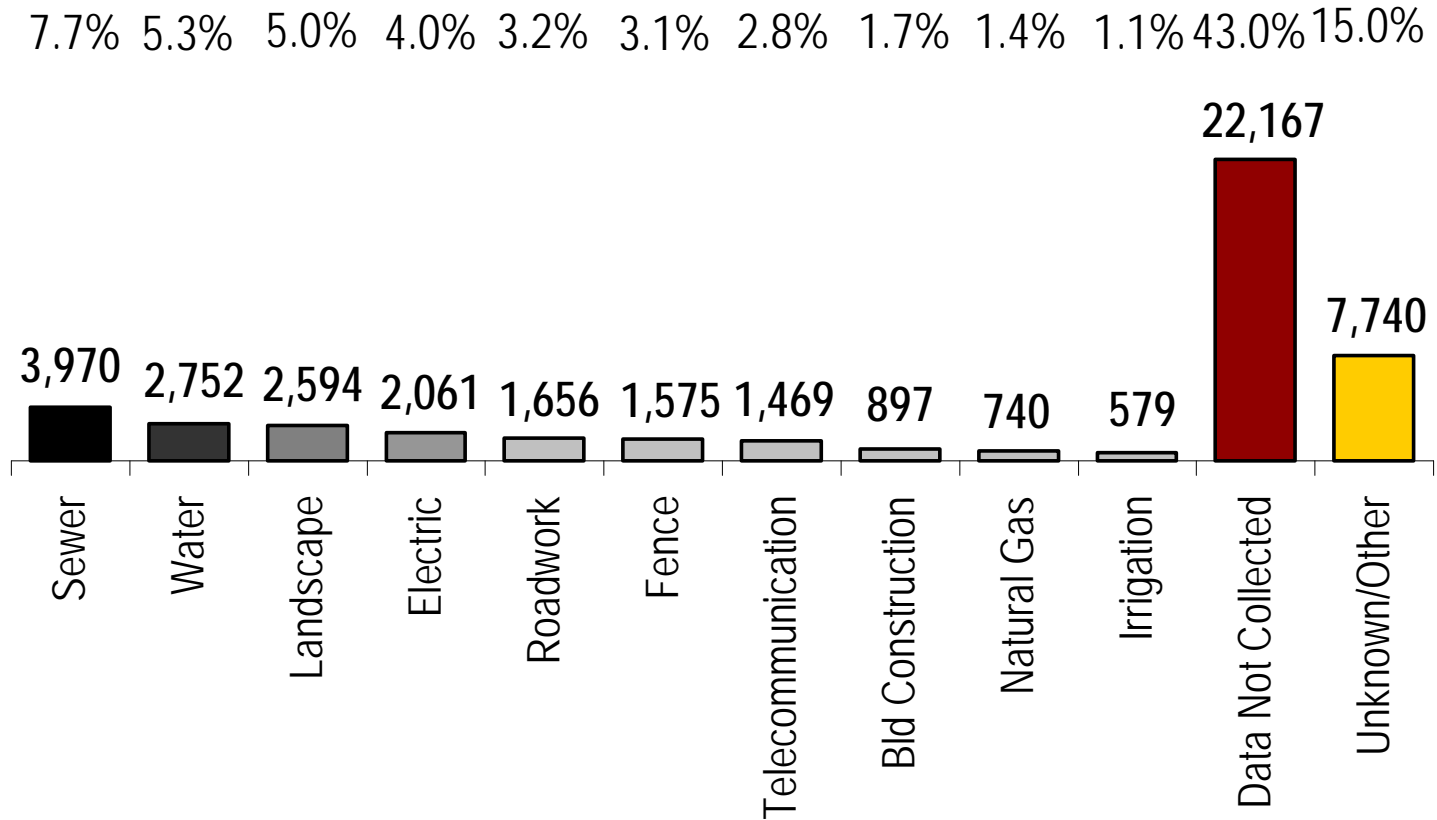
2004 Events 2005 Events



Events by Work Performed

Chart #D 19

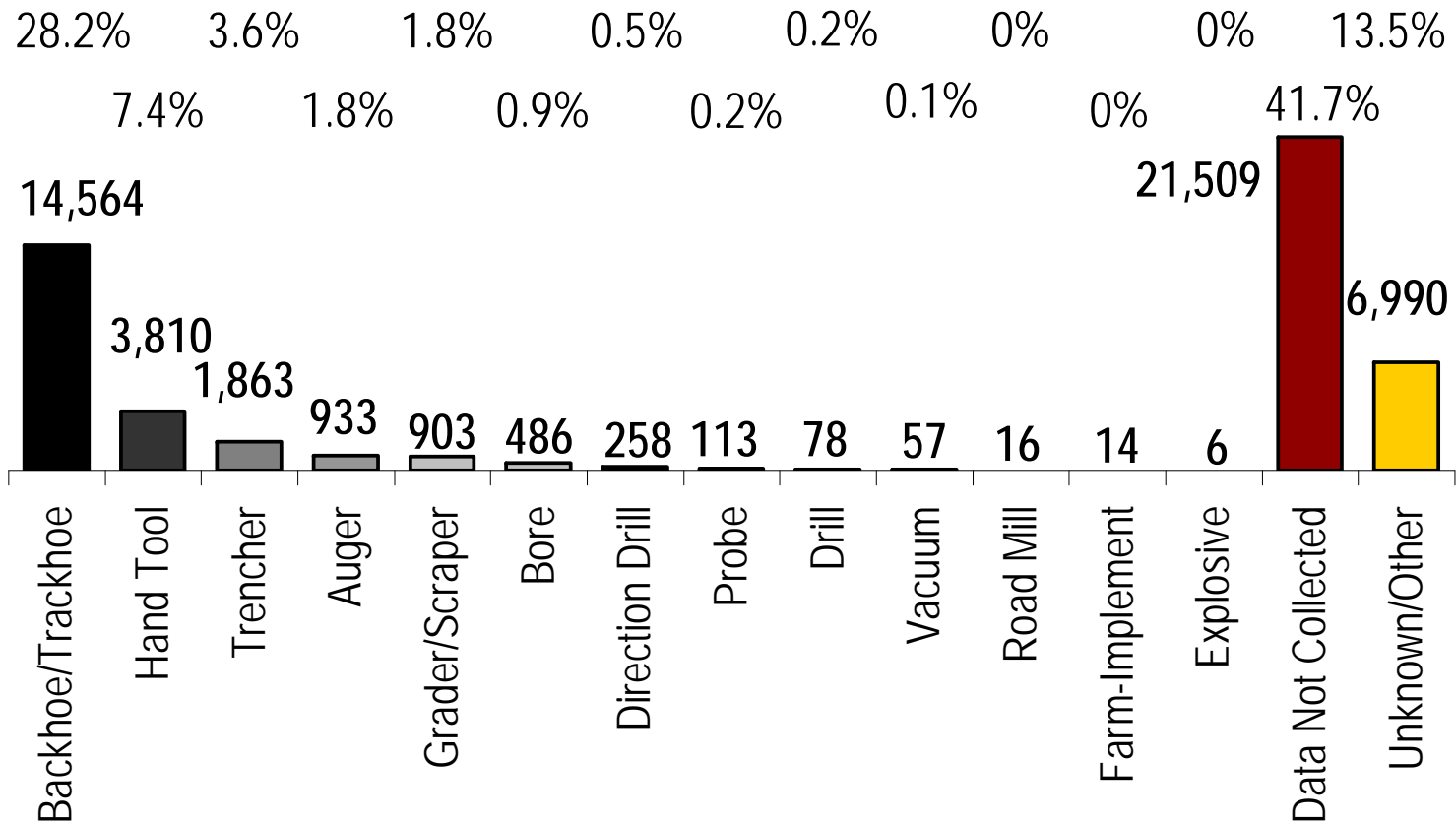
CGA DIRT: Work-Performed Type : Events 2005 (12 of 32, >1%)



Events by Equipment Type

Chart #D 10

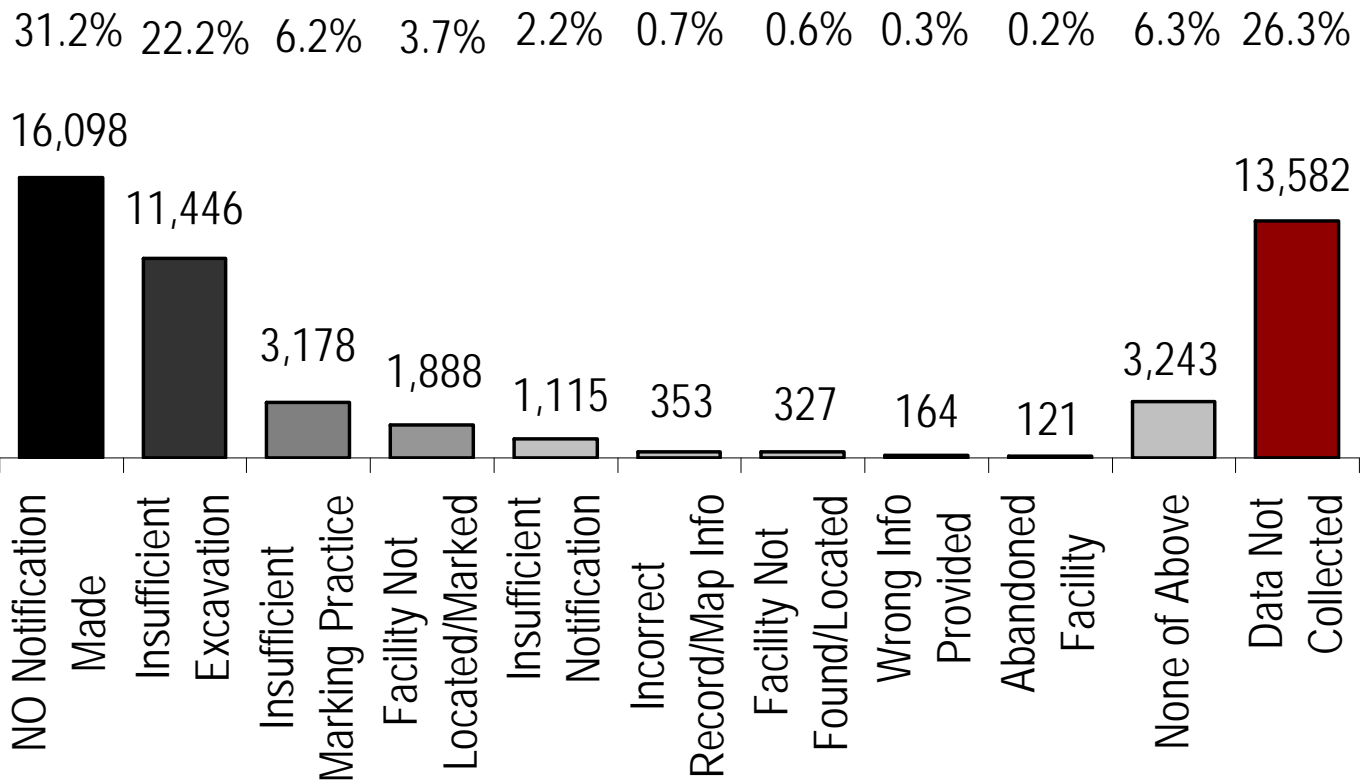
CGA DIRT: Excavation Equipment Type : Events 2005



Events by Root Cause

Chart # 1 1

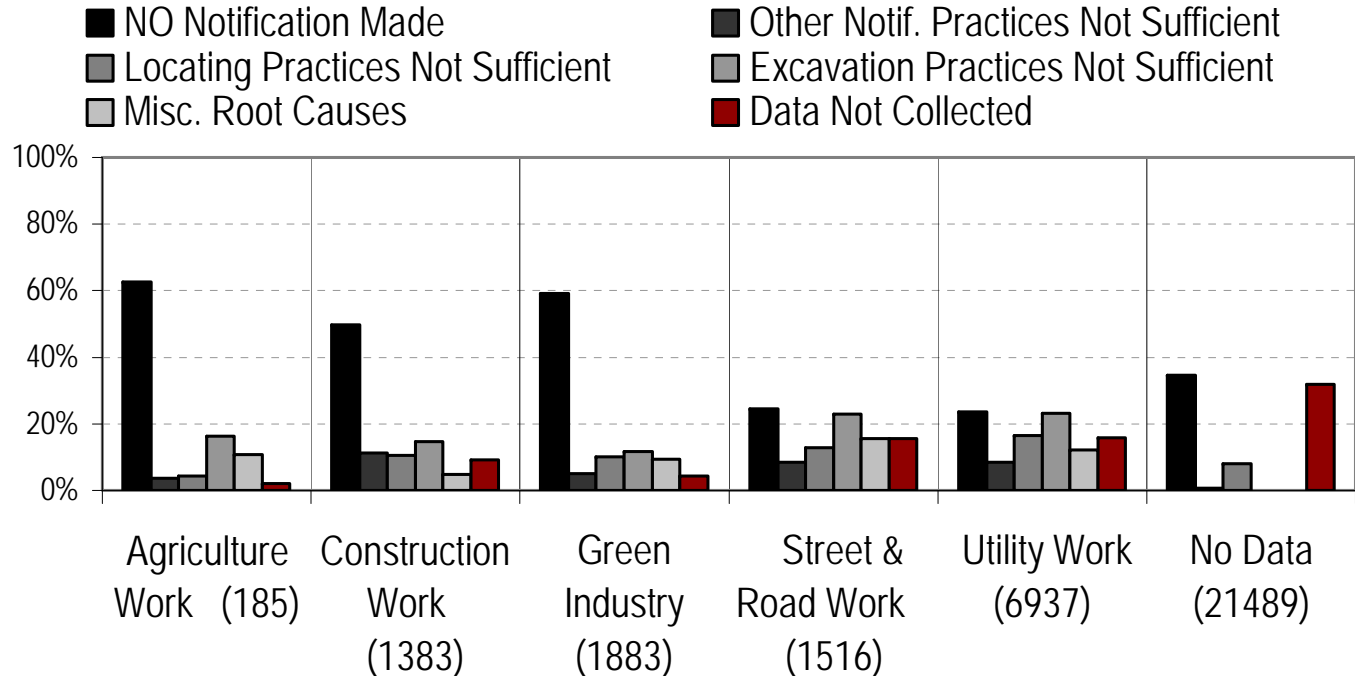
CGA DIRT: Description of Root Cause (11 of 14 >50 Events) : Events 2005



Example

Chart # I 13 - Natural Gas Facility (33,393 Events, 64.7%)

CGA DIRT: Contribution of Root Cause For Work Group : Events 2005



GROUP	WORK-PERFORMED TYPES
Utility Work	Sewer, Water, Electric, Telecom, Natural gas, CableTV, Liquid pipelines, Steam
Green Industry Work	Landscape, Fence
Street & Road Work	Road work, Curb/sidewalk, Stormdrain/culvert, Pole, Road mill, Traffic signal, Streetlight, Traffic Sign, Transit authority
Construction Work	Bld construction, Grading, Drainage, Site development, Driveway, Bld demolition, Engineer/survey, RR maint
Agriculture Work	Irrigation, Agriculture, Waterway
No Data	Data Not Collected, Unknown/Other

Distribution Piping

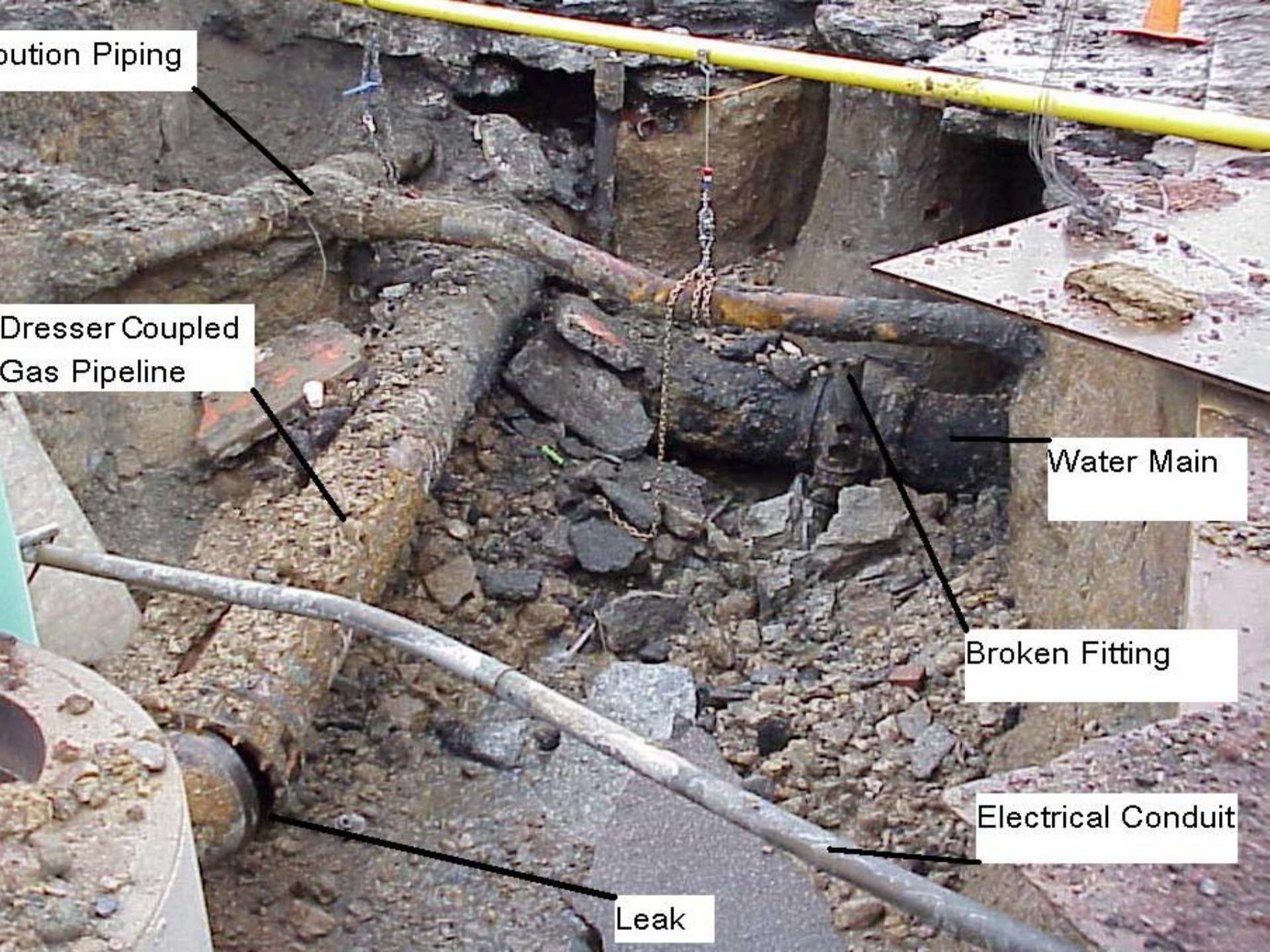
Dresser Coupled Gas Pipeline

Water Main

Broken Fitting

Electrical Conduit

Leak





904

LOWE'S

LOWE'S

10 8 2004

CAUTION





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RP1162 Section 2.4.7

- Emergency Responder Calls the Control Room
Asks how to fight the anhydrous ammonia leak
 - An operator should include in its Public Awareness Program provisions for familiarizing its employees with its public awareness objectives.
 - Many Public Awareness programs include components for key employee training in public awareness and specific communication training for specific key employees.



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School in St. Charles, MO

- Smelled Gas
 - Child Reports to the Teacher
 - Teacher tells everyone to stay in their places
 - Child had received information from others that they were to leave the area
 - Parents called OPS
 - Operators with OPS worked to change the emergency response plan for this item



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Existing Resources

- API Guidelines for Property Development
- National Pipeline Mapping System (NPMS)
- PHMSA Pipeline Stakeholder Communications Web Site



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Continuous Improvement







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Public Awareness Programs for Pipeline Operators

Questions ???

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