NAPSR Perspective

Presented by

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for

National Association of Pipeline Safety Representatives (NAPSR)

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NAPSR
National Association of Pipeline Safety Representatives

History

- NAPSR and State pipeline safety regulators have been involved in the IMP process since at least ***2002***
- NAPSR and State pipeline safety regulators have been involved ***since the inception of Distribution IMP***
- NAPSR and State pipeline safety regulators were active in the ***AGF-DIGIT Study***

History

- NAPSR and State pipeline safety regulators were active in the Integrity Management for Gas Distribution ***Phase 1*** process
- NAPSR and State pipeline safety regulators have demonstrated ***commitment*** to Distribution IMP

Caveat

- While NAPSR has been extensively involved in Distribution IMP, we have ***not seen the NPRM***
- Although involved in Distribution IMP since the beginning, NAPSR has ***only recently*** become aware of the proposed time frame deviations

Caveat

- Our comments are based on what we ***understand will be in the rule***
- We ***reserve the right to revise*** our opinions as events warrant

Purpose

- The purpose of the Distribution IMP process is to produce a ***safer pipeline system*** using ***cost-effective*** techniques
- Ratepayers will insist on ***value for their dollars***

Aim

- The aim of the Distribution IMP process is to ***better understand***
  1. the ***individual*** pipeline system
  2. the ***threats*** it is facing
  3. ways to ***evaluate*** the risks
  4. options to ***mitigate*** the risk
  5. how to ***evaluate*** the options
  6. ***implementation*** of selected options
  7. means to ***measure*** the performance

Methodology

- A high-level ***flexible*** rule is the appropriate approach for Distribution IMP
- There should be ***no protocols*** or similar requirements developed
- ***States*** must be ***responsible*** for oversight of the Distribution IMP implementation for their operators

Outcome

- If the results of the risk analysis identify areas where more effort is needed, then ***more effort should be applied***
- If the results of the risk analysis indicate sufficient effort is currently being expended in an area, the ***current activity should be maintained***

Outcome

- If the results of the ***risk analysis***
  - require additional funds to provide adequately for public safety, ***these funds should be provided***
  - indicate some funding can be transferred from one area to another with the same or superior level of safety, such action ***might be appropriate***

Outcome

- Producing ***meaningful improvement in safety*** is more important that producing reams of procedures, detailed flow charts and statistical analyses

Outcome

- By using effective data discovery and integration, operators:
  - can ***make better choices*** regarding their systems
  - can ***better allocate scarce resources*** to those areas that will result in the greatest increment in public safety

Local Threats

- The individual risk analysis will identify the threats and issues for ***each local system***

National Threats

- Nationally, the largest issues are:
  - ***Excavation damage*** – which can best be addressed by an effective 1-call system with ***strong enforcement***
  - ***Natural force damage*** – which can be improved by pipe ***replacement programs*** eliminating pipe less able to sustain the force
  - ***Vehicular damage*** –existing data are inadequate to fully identify the problem

Local Assessment

- Most means of evaluating programs will be the specific performance measures developed by the operator ***for the individual systems***

National Assessment

- Much of the Distribution IMP program will involve ***local measures***
- There is a need for some measurement of performance at the national level
- ***Summing up local performance*** data will not be beneficial – amassing measures tailored to local conditions would produce inconsistent data

National Assessment

- There is a need to ***demonstrate progress on a national level***
  National metrics that may reflect the progress of Distribution IMP are:

  1. ***Incident data*** contained in the Form PHMSA 7100.1
     a) National data can be "***sliced & diced***" to reveal underlying factors and issues
     b) Local data is too sparse for analysis

National Assessment

2. The ***status of the operator in complying*** with the required elements of the program in accordance with deadlines established by the regulation
3. ***Excavation damages*** normalized by number of tickets

National Assessment

4. The amount and ratio of pipe that is not considered "***state of the art***," i.e., pipe of a type which operators today would not normally install (e.g., cast iron, unprotected steel and PVC)
5. Refined measure related to ***leaks*** - no consensus on value of leak analysis

National Assessment

- Operators and Sates are ***at different points*** in the development of programs designed to improve distribution integrity
- ***Progress*** on improvement ***may vary*** depending on the level of integrity already achieved

National Assessment

- Care must be exercised in ***comparing improvements***
  - A State with an comprehensive 1-call program ***will not show the same level of improvement*** as a State that makes improvements to a less comprehensive program

National Assessment

- An operator who has already replaced large amounts of pipe that is not state-of-the-art ***will not show the same level of improvement*** as one that has recently initiated such a program

Written Plan Review

- "The review of the operator's ***written*** distribution integrity management ***program*** should be at intervals not exceeding 15 months, but at least ***once each calendar year*** (the same interval currently required for review and update of its Operations and Maintenance (O&M) Plan (49 CFR 192.605))" (Phase 1 Report, RCP 7-1)

Effectiveness Review

- "The operator should complete an evaluation of the ***effectiveness*** of its distribution integrity management program ***periodically***. The period for the evaluation of program effectiveness should be specific in the plan and should be ***as frequent as needed*** to assure distribution system integrity." (Phase 1 Report, RCP 7-1)

Applicability

- Distribution IMP must apply to ***all distribution operators***, regardless of size or product
- The level of ***complexity*** of analysis ***will vary***, but all evaluations ***must uncover*** the ***significant safety issues*** that exist

Data Requirements

- All systems represent a ***potential threat*** to public safety
- Therefore, incident data ***reporting*** and other national metrics must be filed by all operators
- Data must be ***reviewed*** when filed for accuracy and consistency

Data Requirements

- Data must be developed to address areas where ***better definition of a problem, or the root cause*** of the problem, is necessary
- Data must be ***analyzed*** on an on-going basis to understand the dynamics of the threats to distribution systems

Conclusion

- NAPSR and State pipeline safety regulators believe that, properly applied, Distribution IMP can ***improve safety at reasonable cost***

Distribution Integrity Management
Industry Perspective

What improvements are anticipated with DIMP?

Susan Fleck
Vice President
National Grid

Challenges

- **One size rarely fits all in gas distribution**
- **Flexibility in how states implement elements of rule**
- **Options available – operator's choice**
- **Integrating existing management process with DIMP**
- **Minimize audit paperwork burden**
- **Avoid forcing inefficient use of resources**

High-level Flexible Rule
Seven elements

1. **Develop written integrity program plan**
2. **Know your infrastructure**
3. **Identify the threats**
4. **Assess & prioritize risks**
5. **Implement appropriate measures to mitigate risks**
6. **Measure performance, monitor results & evaluate effectiveness of program; adjust <u>if needed</u>**
7. **Report results**

Distribution Integrity Management

Biggest Impact

a. **Improve management systems**

b. **Reduce excavation damage incidents**

c. **Enhance leak management confidence**

d. **Allocate resources**

Improve Management Systems

Existing operating systems should be improved as the first four steps of DIMP are implemented.

1. **Develop written integrity program plan**
2. **Know your infrastructure**
3. **Identify the threats**
4. **Assess & prioritize risks**

Excavation Damage Prevention

Enhancements in:

- Operator-excavator communications
- Partnership w/ all stakeholders
  - *Communications*
  - *Training*
  - *Public Education*
  - *Enforcement*
- EDPI Guidance Document
- Fair and effective enforcement
- Use of technology to improve one-call process

Leak Management Framework

Locate – Leak surveys & other detection means

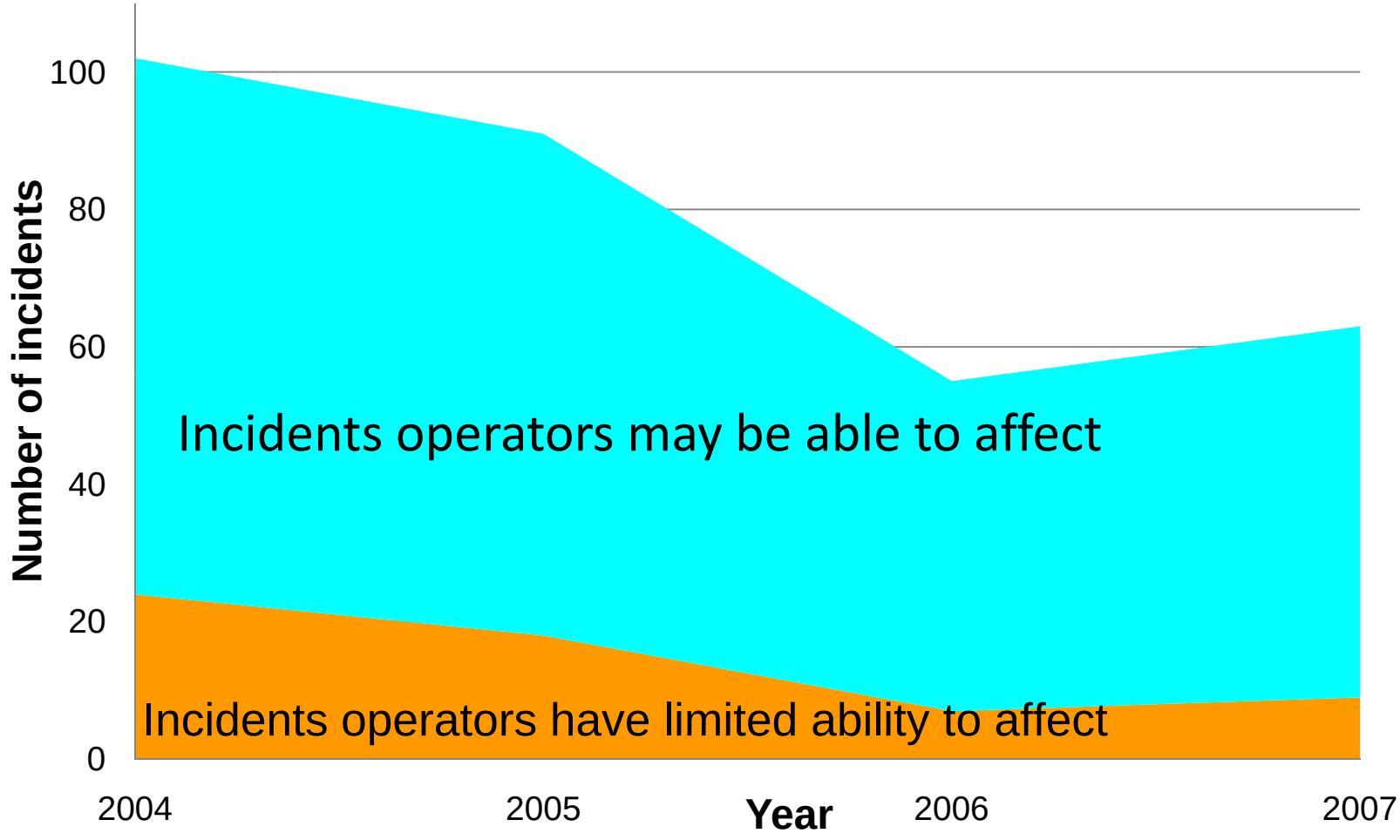
Evaluate – Assess severity of leak based on risk posed

Act – Remediate, or reduce risk and/or monitor

Keep records – Collect key data to increase knowledge of system

Self-assess – Measure performance & adjust if necessary

Distribution Pipeline Incidents



------ **Corrosion, Material / Weld, Equipment / Operator Error**

----- **Excavation/Mechanical Damage, Natural Force, Other Outside Force**

Allocate Resources

Framework elements 5 and 6 should permit operators to use the risk assessment techniques and schedule that most benefits safety.

5. **Implement appropriate measures to mitigate risks**
6. **Measure performance, monitor results & evaluate effectiveness of program; adjust <u>if needed</u>**

Distribution Integrity Management Rule – APGA's Position

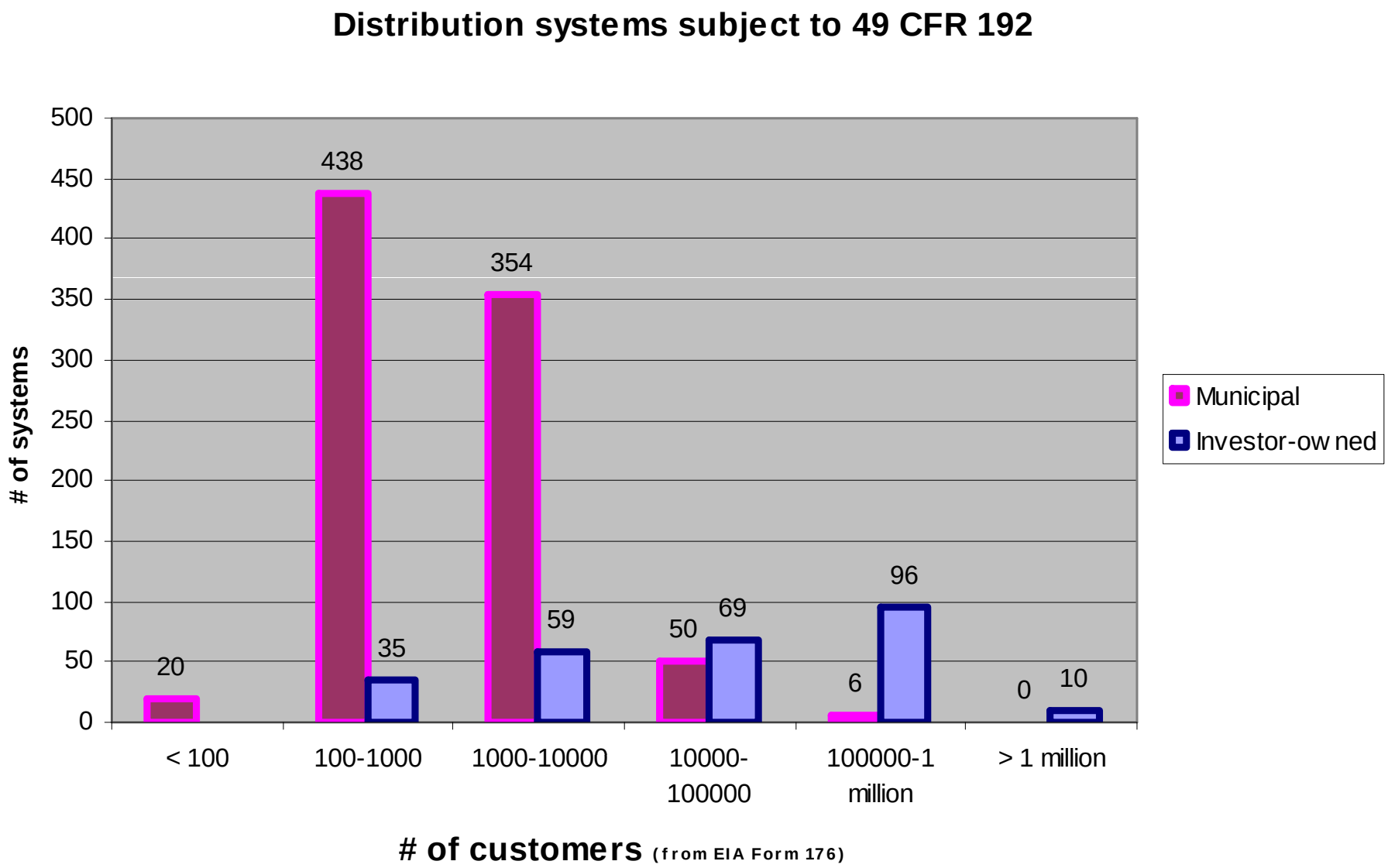
John Erickson, PE

American Public Gas Association

What Is APGA?

- American Public Gas Association
- The National Trade Association for Publicly-Owned Gas Utilities
- Created in 1961
- Moved to Washington, DC in 2004
- Nearly 700 member utilities

Most LDC's Are Small



APGA Principles For DIMP

- APGA Board Approved Resolution in 2005
- Integrity Management principles can be applied to distribution systems
- Rules must rely on as inputs data that can reasonably be expected to be known to operators of small distribution systems
- Rules must minimize the amount of data analysis required of the user

APGA Principles For DIMP

- The cost should be in line with the expected benefits
- Rules should not presume that the user is knowledgeable about integrity management and risk management principles
- Compliance should not require an engineering degree
- Rules should assume operators are qualified and understand gas inspection and repair methods

APGA Has Offered A Simplified Process

1. Get your construction and maintenance records together
2. Get your most knowledgeable operations and maintenance personnel together
3. Discuss whether any of the 8 threats are significant threats for each segment of your system, based on the knowledge and experience of your personnel and your construction and maintenance records
4. Segment the system, if necessary

Simple Process continued

5. For any threats you decide are significant, determine if these are adequately addressed by your current programs. If not, look at the listed options for reducing each significant threat and pick one or more option that you believe will best address the threat.
6. Consider how you will determine whether your program to reduce the threats to your distribution system is working – how will you measure success?

Simple Process continued

7. Write down the results of each step in this process.
8. If the performance measures for any threat are not showing improvement, go back to step 5 and consider other options to reduce these threats.
9. Repeat this process periodically

What Improvements Will Result from the DIMP Rule?

Public Expectations

Richard Kuprewicz

Distribution Systems Covered

- Should Go Beyond Current Master Meter Definition
  - Also Cover Many Simple Systems With Higher Exposure to Public
    - Includes Some Propane Systems
  - Not All Systems
- For Smaller Simpler Systems With High Public Exposure
  - Merits Much Simpler Approach
  - KISS is Hard Work!
    - But Don't Overwork in Regulation
  - Must Include The Seven Basic Elements for System Control
    - See DIMP Report to Congress
    - Also Must Be Auditable Some Documentation is Required

Concerning EFVs

- Mandate Installation on New/Replacement Service Lines
  - With Clearly Define Exemptions
  - Respect/Handle as a Safety Device
- Improvement in EFV Reporting Requirements
  - Number of EFVs Installed
  - Failures if Any, and Cause
- Additional Costs Go into Rate Base
- Time to Just Do It!

DIMP Results

- More Operators Will Have System Under Better Control
  - Risk Based Approaches Don't Work without Sound Feedback Loops!
  - Performance Measures
    - Leak Repairs by Cause
      - Core 5 Elements in LEAKS Program
    - Clarify Minimum Leak Management
    - Incorporate Plastic Pipe Factors Not Currently Reported to PHMSA!
    - Track Number of EFVs Installed
    - Excavation Damages/One-Call Tickets
- Caution - States Don't Want Unfunded Mandates
  - Resources Needed
    - Money/People/Time
  - Don't Overwork – Not that Complicated
    - The Basic 7 Elements - Lots of Latitude/Flexibility