

DISTRIBUTION INTEGRITY MANAGEMENT

Developing a Regulatory Approach

23rd World Gas Conference
Amsterdam, The Netherlands
June 7, 2006



Outline

- **Regulatory Road to Distribution Integrity**
- **Approach**
- **Analysis of Incidents**
- **What We Have Learned**
- **Next Steps and Timeline**

Regulatory Road to Distribution Integrity Initiative

- Liquid Pipelines Integrity Mgmt Rule (2000)
- Pipeline Safety Legislation (2002)
- DOT Transmission Regulations (2003)
- DOT-IG Issued Report (June 2004)
- Congressional Hearings (June/July 2004)

Approach: American Gas Foundation Study
Independent Technical Foundation for
Government and Industry to Analyze
Safety Performance Trends
Causes of Incidents
Potential Gaps in State and Federal Regulations

- Published January 2005
- Conducted by URS Corporation
- Involved State Regulators and Utility Operators
- Incidents Analyzed Over 12 year period (1990-2002)
- Operators Surveyed
- Comparison Made of Distribution Vs Transmission Systems

Approach: American Gas Foundation Study

Findings

- 62% of incidents are property damage only (no fatalities or injuries.)
- Excavation or outside force damage leading cause of incidents
- All threats addressed by regulatory measures and/or industry practices, often in multiple ways
- Nearly all operator respondents exceed code requirements to address bare steel or cast iron management and excavation damage prevention
- Distribution systems differ significantly from transmission systems – similar approach to integrity management is not appropriate.

Approach: DOT Distribution Integrity Stakeholder Team Study

Integrity Management for Gas Distribution: Report of Phase 1 Investigations

- Stakeholder teams formed in 2005
 - State and federal regulators
 - Utility operators
 - Firefighter and public representation
- Multiple meetings held throughout 2005
- American Gas Foundation Study starting point
- DOT Study Completed January, 2006

Approach: Operator and Regulator Objectives

Common sense, risk-based, and technically defensible approach to address

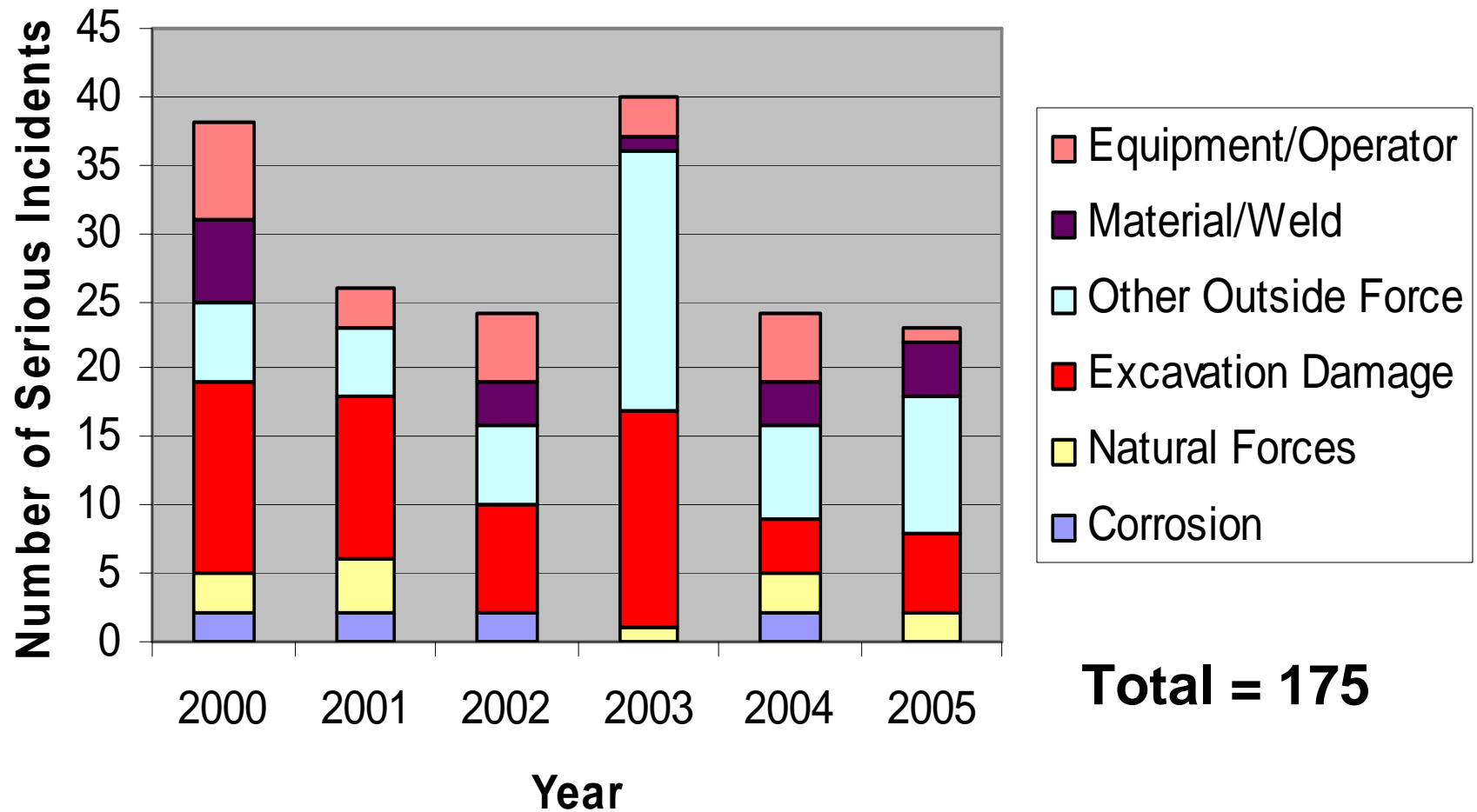
- *Aging infrastructure*
- *Increased excavation activity*

While continuing to deliver natural gas reliably and efficiently

- *Not placing undue burden on consumer*
- *Meeting today's and future energy needs*

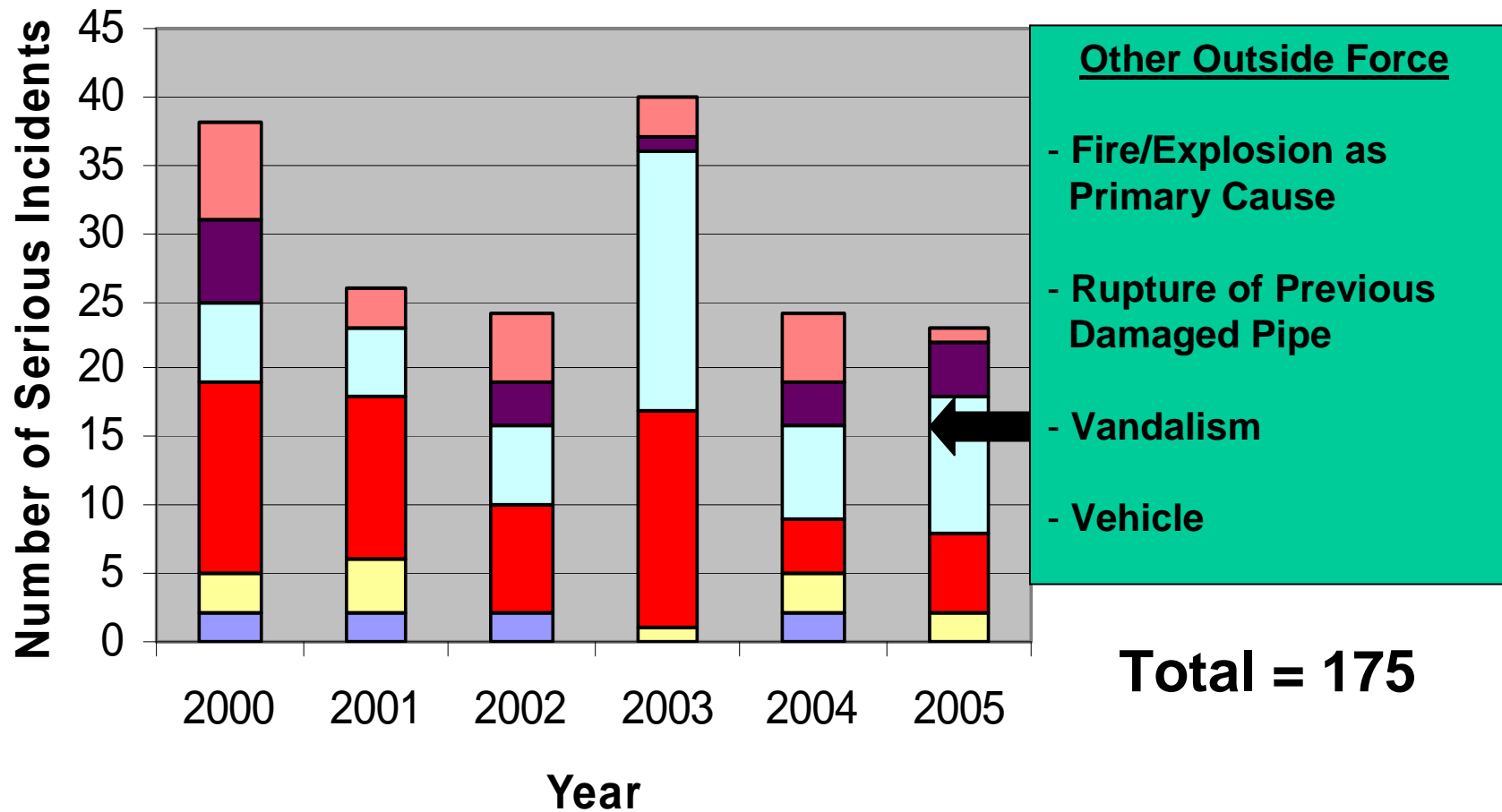
Distribution Serious Incidents* by Cause

* Serious incidents are those involving fatality or injury

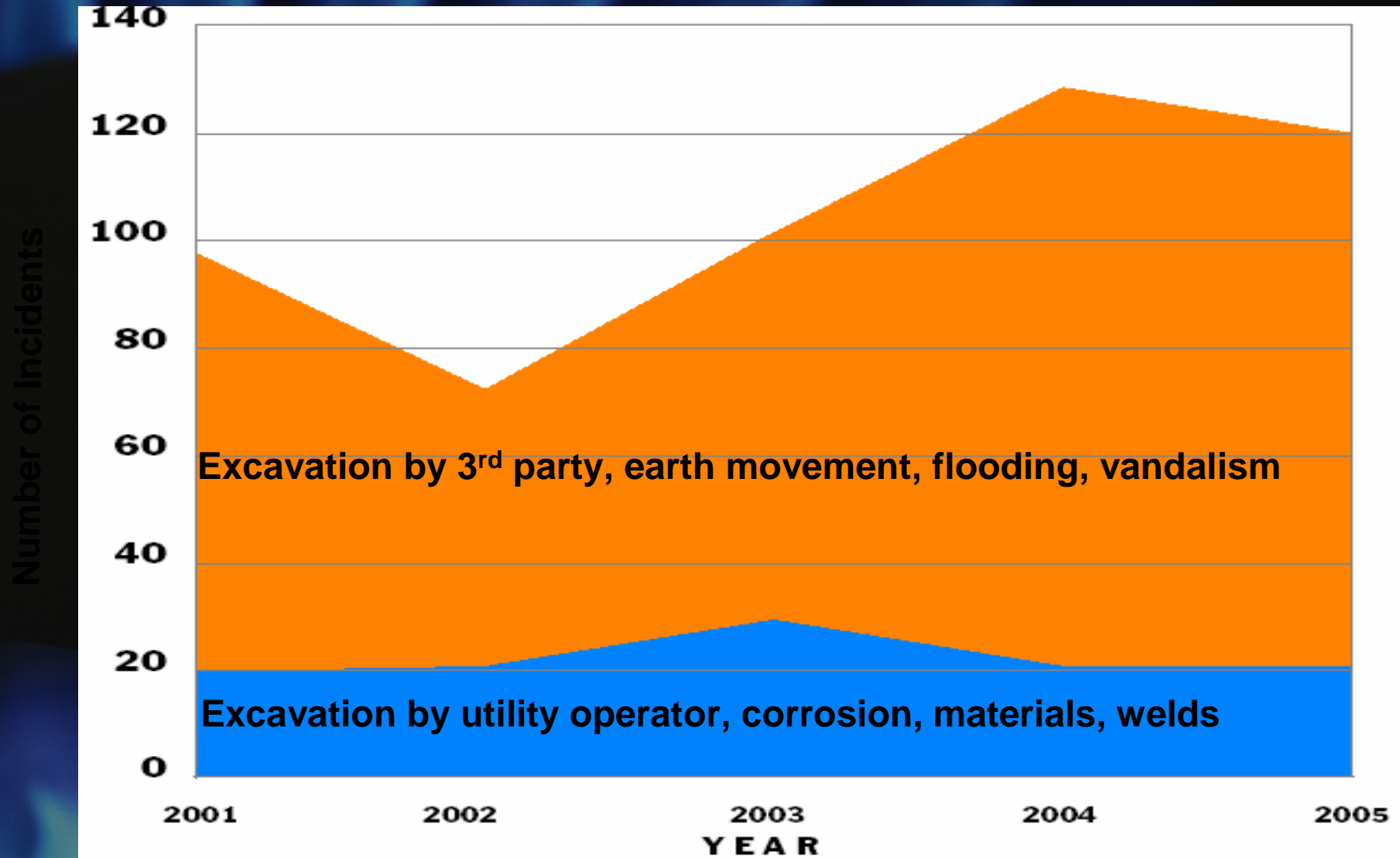


Distribution Serious Incidents* by Cause

* Serious incidents are those involving fatality or injury



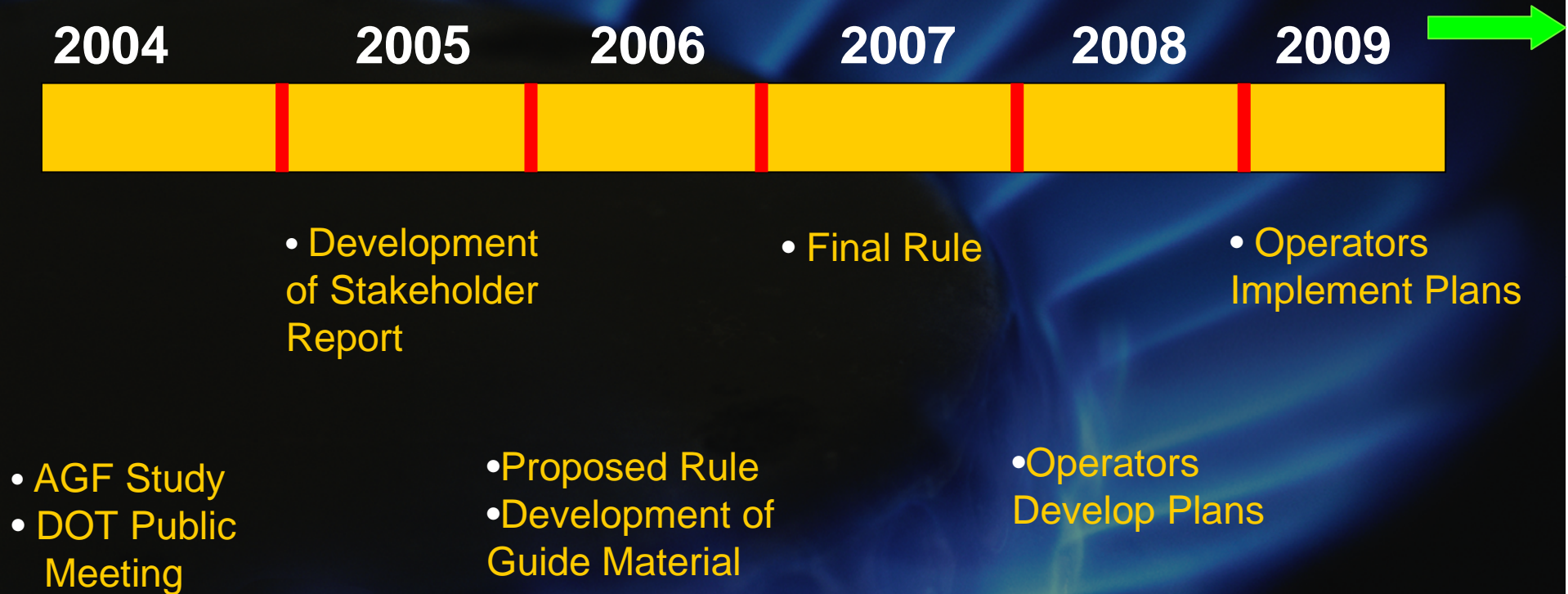
Incidents Directly Under Operator Control Are Low



What We Have Learned

- The distribution pipeline systems operations are currently safe but there are opportunities for improvement
- Overall Approach
 - ✓ High-level, flexible federal regulation
 - ✓ Implementation guidance
 - ✓ Nation-wide education program and federal legislation to prevent excavation damage
 - ✓ Continue research and development
- Operator written integrity management plan requirements:
 - ✓ Address leaks responsibly
 - ✓ Perform a risk assessment to determine if excess flow valves should be installed (if not already installing devices)
 - ✓ Collect meaningful performance measures

Distribution Integrity Management Rulemaking Timeline and Next Steps



DISTRIBUTION INTEGRITY MANAGEMENT

Developing a Regulatory Approach

23rd World Gas Conference
Amsterdam, The Netherlands
June 7, 2006

