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# Pipeline Safety and Spill Response

NCSL Environment Committee

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Andy Black, President and CEO

Association of Oil Pipe Lines

# Overview of Liquid Pipelines

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- **Crude Oil**
- **Products** –refined products such as gasoline, diesel, heating oil, jet fuel, and kerosene.
- **Natural Gas Liquids**
- **HVL (Highly Volatile Liquids)** –propane, butane, ammonia, etc.
- Safest and most efficient way to move fuels.

*There are approximately 175,000 miles of Hazardous Liquids Pipelines in the U.S.*

# Oil Pipeline Network



# Interstate Pipelines

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- Federal pipeline safety laws and regulations.
- Inspections by:
  - U.S. Pipelines and Hazardous Materials Safety Administration (PHMSA), or
  - PHMSA-certified State agencies under delegated authority.
    - AZ, CA, MN, NY, VA, WA
- Enforcement by U.S. PHMSA.

# Intrastate Pipelines

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- Federal pipeline safety laws and regulations, and possibly State laws and regulations.
- Inspection and enforcement by:
  - U.S. PHMSA, or
  - PHMSA-certified State agencies for inspection and/or enforcement:
    - AL, AZ, CA, KY, LA, MD, MN, MS, NM, NY, OK, PA TX, VA, WA, WV.

# PHMSA Certification of State Pipeline Safety Programs

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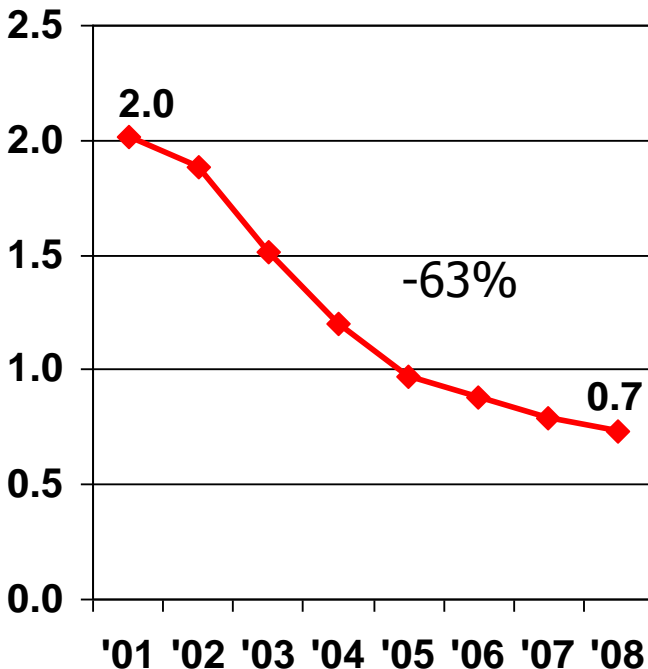
- Minimum Federal regulations; additional regulations if not incompatible with Federal law.
- Injunctive and monetary sanctions substantially the same as those authorized by Federal legislation.
- Encourage and promote a damage prevention program.
- Pass an annual PHMSA audit.

# Dramatic Improvement:

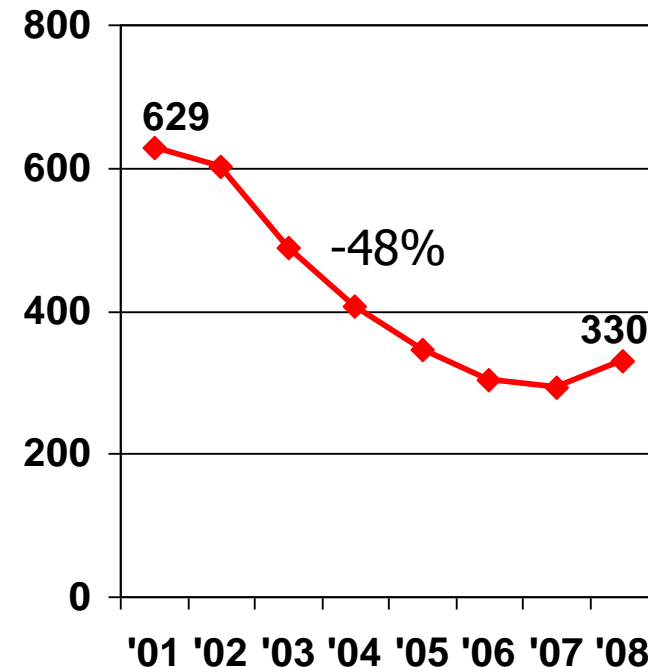
## Liquids Pipeline Industry Onshore Pipe Spill Record

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Number of Spills per 1,000 Miles



Barrels Released per 1,000 Miles

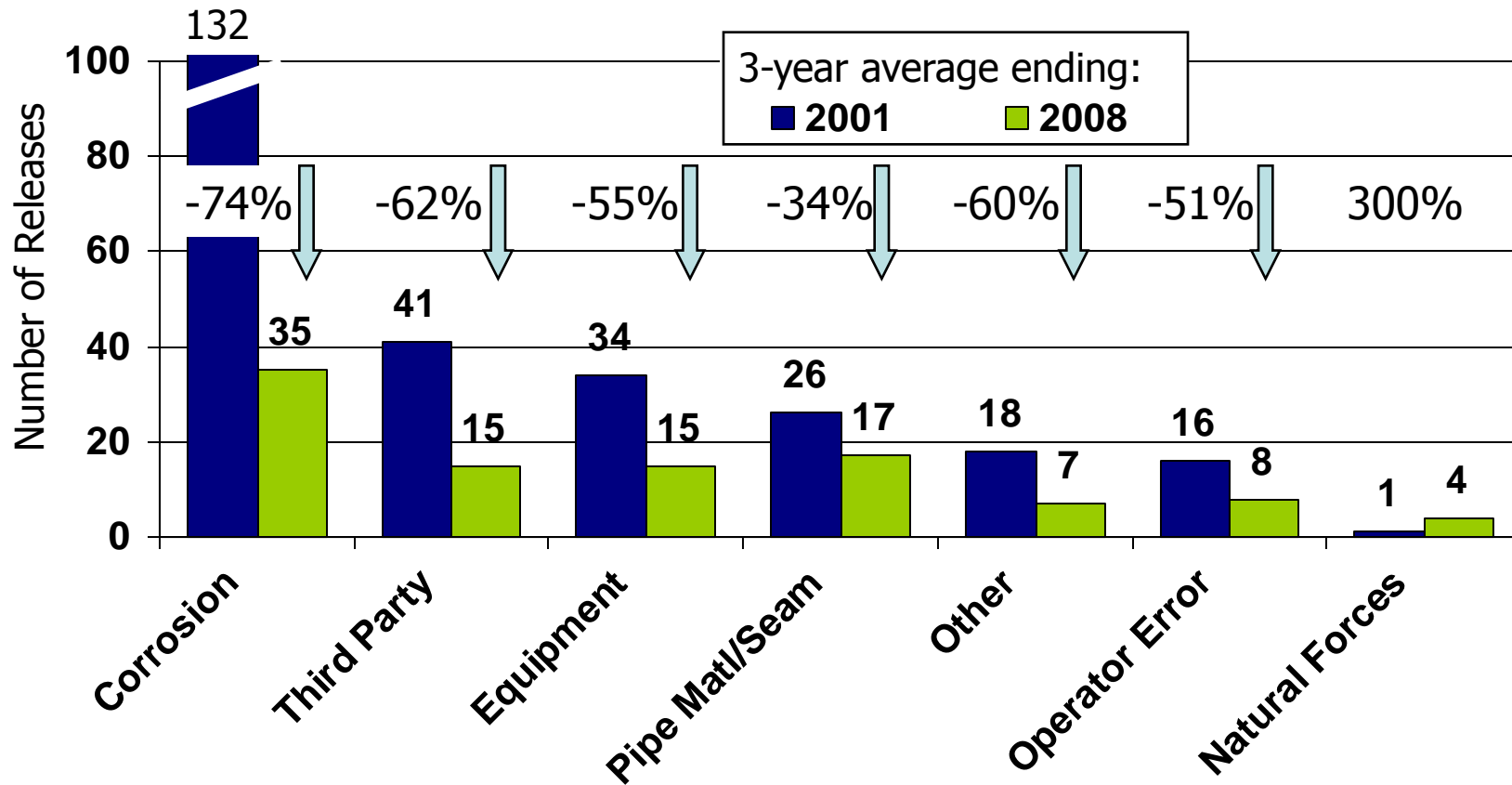


3-Year Averages Ending in Year Shown

Source: Pipeline Performance Tracking System, a voluntary spill reporting system involving 85% of the U.S. liquids pipeline mileage.

Percentage decline from 1999-2001 average to 2006-2008 average.

# Pipeline Failures Have Decreased From All Major Causes



Source: Pipeline Performance Tracking System, a voluntary spill reporting system involving 85% of the U.S. liquids pipeline mileage



# Third-Party Damage Is Leading Cause of Fatalities and Injuries

	Cause	Incidents (#, '99-'08)	Empl.	Contr. (# People)	Other	Total
<b>Fatalities</b>	<b>Third Party Damage</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>11</b>
	Operator Error	2	0	2	0	2
	Other	3	3	0	2	5
	<b>Total</b>	<b>10</b>	<b>3</b>	<b>2</b>	<b>13</b>	<b>18</b>
<b>Injuries</b>	<b>Third Party Damage</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>17</b>
	Operator Error (incl. excavation)	5	4	6	0	10
	Pipe mat'l/seam	2	1	0	2	3
	Corrosion	2	0	0	3	3
	Equipment Malfunction	1	0	0	1	1
	"Other failure" in a Tank	1	1	0	0	1
	Other Cause	2	0	1	7	8
	<b>Total</b>	<b>21</b>	<b>6</b>	<b>7</b>	<b>30</b>	<b>43</b>

# Damage Prevention Steps

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- 2000 – Common Ground Alliance formed
- 2002 – Congress encourages adoption of consensus best practices regarding excavation, marking, and One-Call Centers.
- 2006 - Congress grants PHMSA limited authority to enforce Federal damage prevention law in States which do not have adequate State damage prevention programs.
- 2006 – Congress authorizes 811 as the national “call before you dig” number.

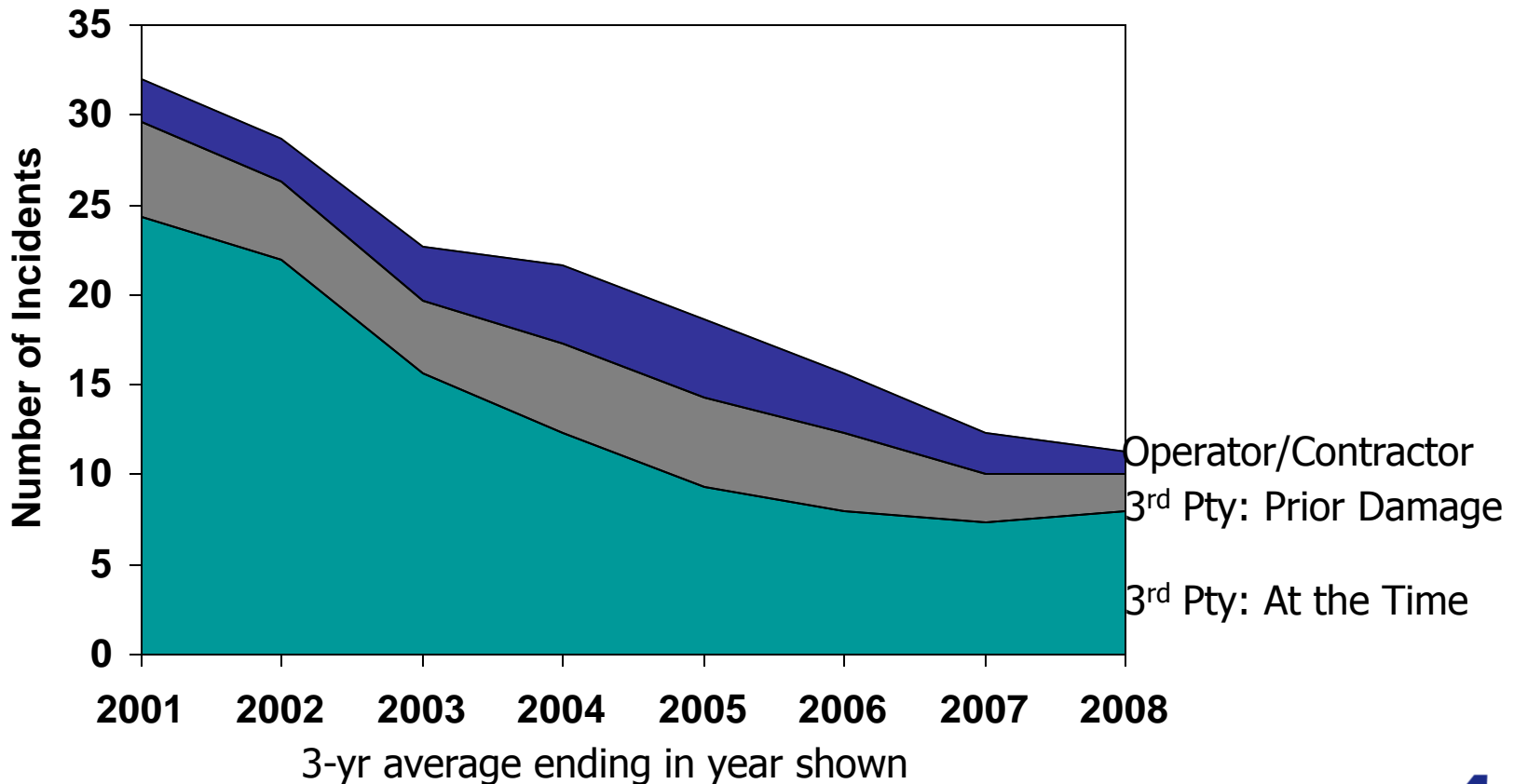
# “Call Before You Dig”



- A person calls a One-Call Center (usually 811) 48 hours before excavating.
- One-Call Center notifies underground utility operators.
- Operators or locators mark underground infrastructure as needed.
- Excavator follows markings when digging.

*Nobody gets hurt!*

# 66% Decline in Excavation Damage Causing Immediate Failure



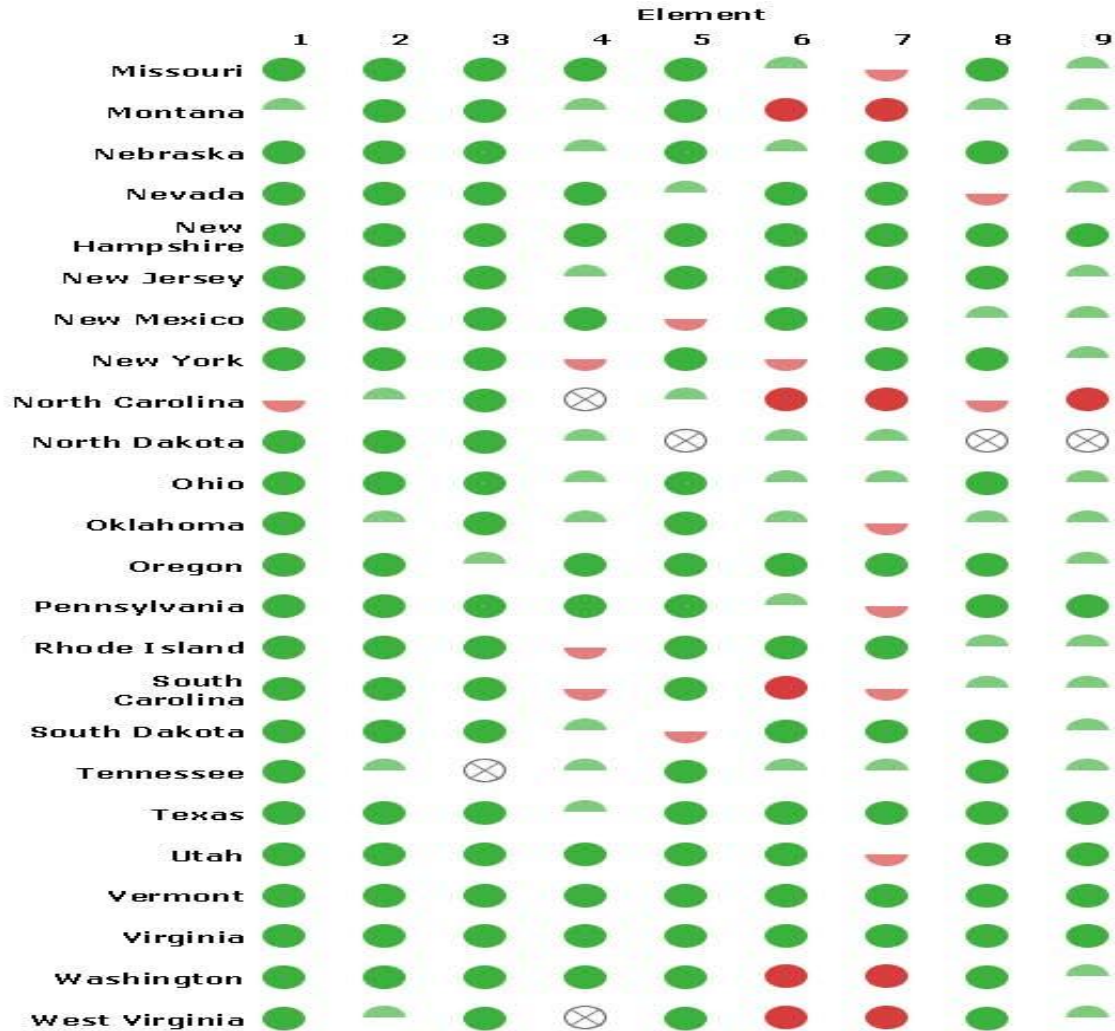
\* Includes onshore pipeline incidents  $\geq 5$  barrels or death, injury, fire or explosion

# State One-Call Exemptions

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- Some State agencies, municipalities and other local entities are exempted from State requirements to use the One-Call system before they undertake excavation activities.
  - There is a gap in enforcement and safety.
  - The threat of pipeline damage is the same regardless of who the excavator is or who he works for.

*Please help eliminate One-Call exemptions for use of any mechanized equipment!*



# Potential Federal Enforcement

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## 2009 - PHMSA issues Advanced Notice of Proposed Rulemaking (ANPRM).

- Outlines and collects input on where and how it might exercise this Federal authority to enforce damage prevention in States.
- Docket Number – PHMSA-2010-0229

*Risk of Federal enforcement in States with inadequate plans.*

# Potential Federal Legislation

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- S. 3856 (Lautenberg/Rockefeller)
  - Prohibits PHMSA from deeming adequate a State damage prevention plan that exempts municipalities, State agencies, or their contractors from One-Call notification programs.
  - New minimum standards for damage prevention grants to States

*Risk of Congress requiring Federal enforcement in States whose plans have certain exemptions.*



# PIPA

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- Pipelines and Informed Planning Alliance
  - Recommended practices related to protecting communities, protecting pipelines, and communicating among stakeholders.
  - Risk-informed land use planning and development adjacent to transmission pipelines.

[www.pipelineinformedplanning.com](http://www.pipelineinformedplanning.com)

# Emergency Preparedness

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- In the rare event of an accident, pipeline operators can turn off pumps and close valves to isolate an incident.
- To prepare, operators:
  - Develop emergency response plans subject to government approval or review during audits.
  - Maintain liaison with local emergency officials.
  - Conduct deployment and tabletop drills.

# Response Plans

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- Emergency Response Plans
  - Responsibility and resources of government agencies.
  - Operator's ability to respond.
  - Types of emergencies.
  - Mutual assistance between operator and government.
- Facility Response Plans
  - Notification procedures.
  - System descriptions or diagrams.
  - Worst-case discharges.
  - Spill response resources.
- Response plans have Security Sensitive Information (SSI) and Privacy Act information that should be kept out of the wrong hands.

# Thank You

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Andy Black, President and CEO, AOPL

202-292-4500

[ablack@aopl.org](mailto:ablack@aopl.org)

[www.aopl.org](http://www.aopl.org)