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# Hazardous Liquid Low Stress Lines

**Public Meeting  
June 26, 2006**

**Chris Hoidal  
Regional Director, Western Region  
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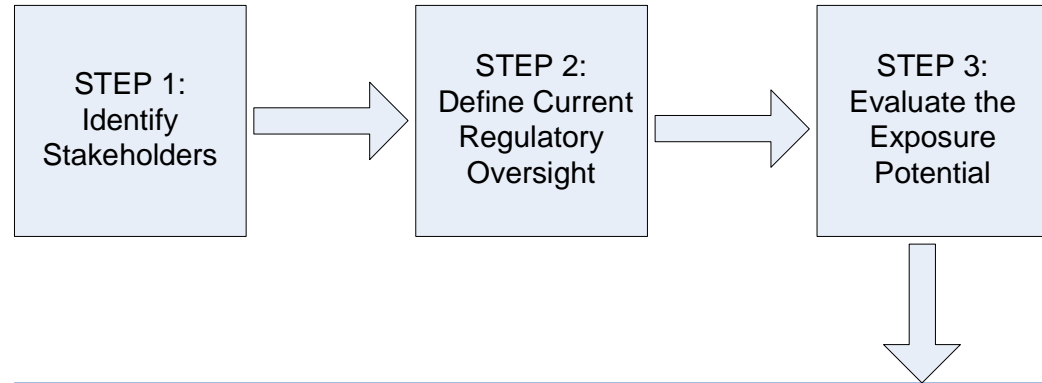
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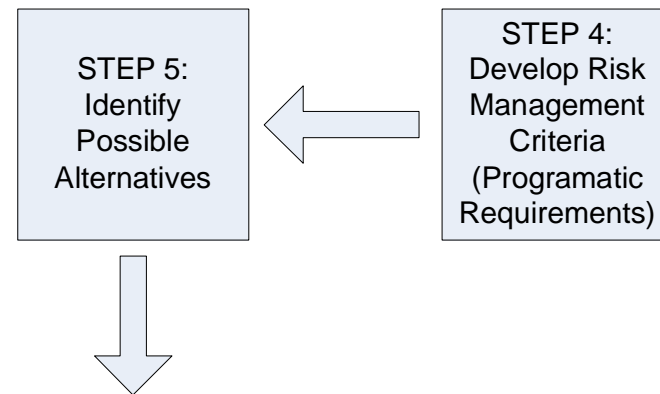
Hazmat Safety

# HAZARDOUS LIQUID LOW STRESS LINES WORKSHOP

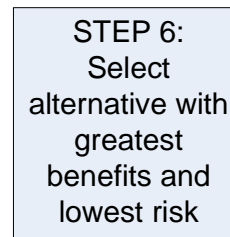
PANEL 1



PANEL 2



RULE  
MAKING  
PROCESS





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# Background

**Pre 1990's – prevailing view that low stress pipelines pose little risk to public safety.**

**1990 – 500,000 gallons heating oil spilled from underwater pipeline in New York.**

**1990 – PHMSA issues advance notice of rulemaking to develop cost/benefit analysis for regulation of low stress pipelines.**

**1992 – Congress limits authority to exempt a pipeline from regulation solely because of stress level.**



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## Background (con't.)

**1993 – PHMSA published notice of proposed rule for low stress transmission pipelines that transport highly volatile liquids, traverse a populated area, or traverse a navigable waterway.**

**1994 – PHMSA defers rulemaking on non volatile products in low stress lines operating in environmentally sensitive areas.**

**2000- PHMSA defines unusually sensitive areas (USA's) for haz. liquid pipelines.**

**2003 – Public meetings held for liquid and gas gathering line definitions.**



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# High Profile Accidents

- **North Slope spill - March 2, 2006**
  - **Internal corrosion caused a 5,000 barrel crude oil spill onto the Arctic Tundra.**
  - **Issued a CAO on a 34” diameter, low stress crude oil transmission pipeline NOT regulated by DOT**
  - **This spill catapulted rulemaking on low stress pipelines in USA areas to head of list.**



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# North Slope spill from non-regulated low stress pipeline

- Internal corrosion at a cased caribou crossing





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# Impact of North Slope spill on PHMSA initiatives

- **Confirmed that we can effectively bring enforcement actions on non regulated, but jurisdictional pipeline facilities.**
- **Accelerates rulemaking on low stress hazardous liquid pipelines in Unusually Sensitive Areas.**





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# Stakeholders

- **Affected community**
- **Local and state government**
- **Environmental Groups**
- **Landowners involved**
- **Pipeline operators**



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# 49 CFR 195

## Low Stress Exemptions

**Transportation through any of the following low-stress pipelines:**

- (i) An onshore pipeline or pipeline segment that—**
  - (A) Does not transport HVL;**
  - (B) Is located in a rural area; and**
  - (C) Is located outside a waterway currently used for commercial navigation;**



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# 49 CFR 195 Exemptions (con't.)

**Transportation through any of the following low-stress pipelines:**

- (ii) A pipeline subject to safety regulations of the U.S. Coast Guard; or**
- (iii) A pipeline that serves refining, manufacturing, or truck, rail, or vessel terminal facilities, if the pipeline is less than 1 mile long (measured outside facility grounds) and does not cross an offshore area or a waterway currently used for commercial navigation;**



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# 49 CFR 194 Exemptions

- **Pipelines  $\leq 6 \frac{5}{8}$ " or  $\leq 10$  miles long**
  - with no release  $> 1000$  bbl
  - $< 2$  releases in 5 years
  - Pre 1970 ERW pipe  $< 50\%$  SMYS
  - Not in proximity to *navigable* waters, public drinking water intakes, or environmentally sensitive areas (ESA's).

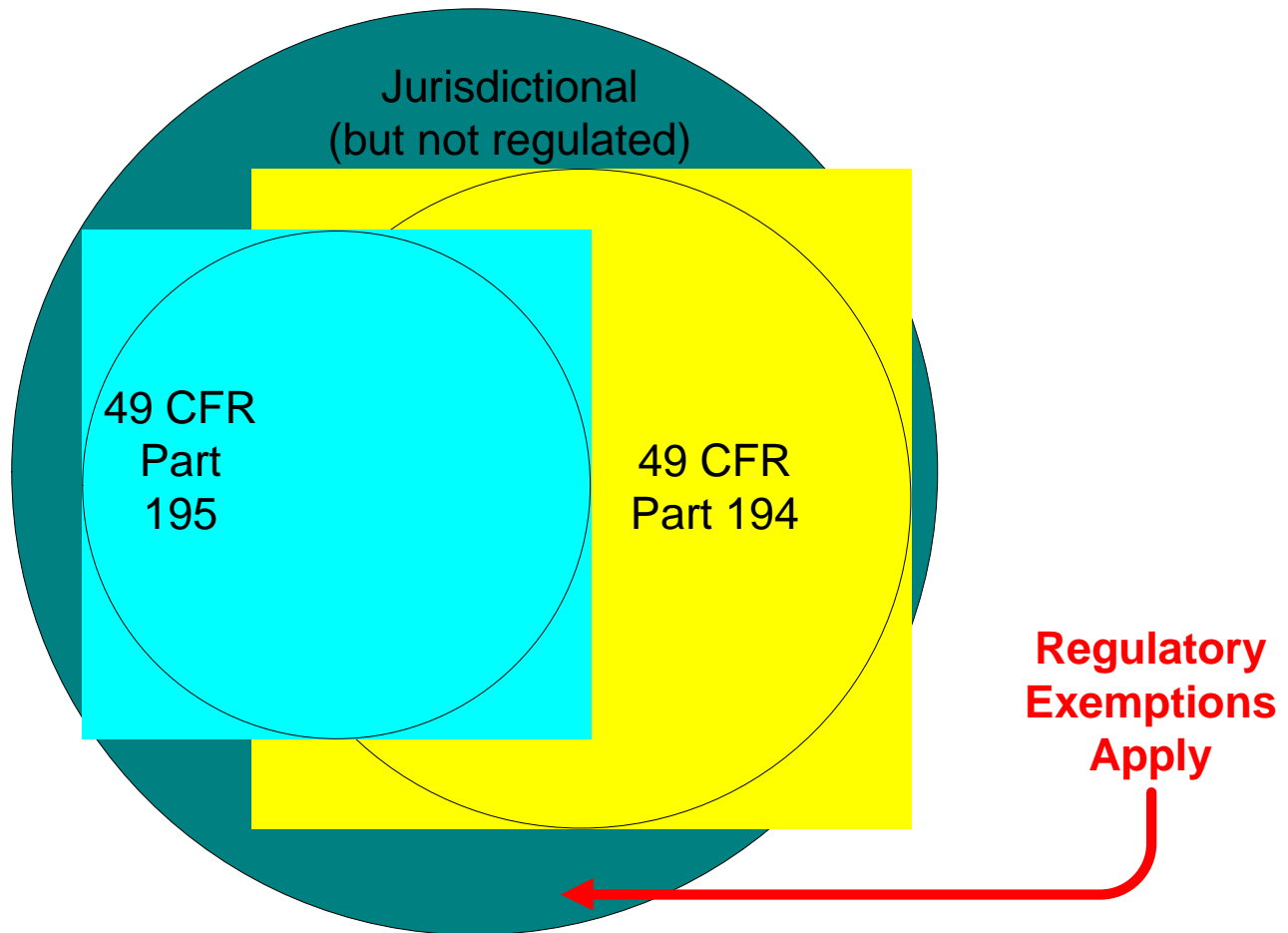


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# Pipeline Operator Exemptions





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# Exemption Examples

## Regulated by 195, but not under 194:

A 4” diesel fuel pipeline that transports fuel through an urban area. The pipeline is 8 miles long and it has never experienced a leak or failure.

## Regulated by 194 but not under 195:

A 34” low stress crude oil pipeline that is 3 miles long and operates in a rural area.

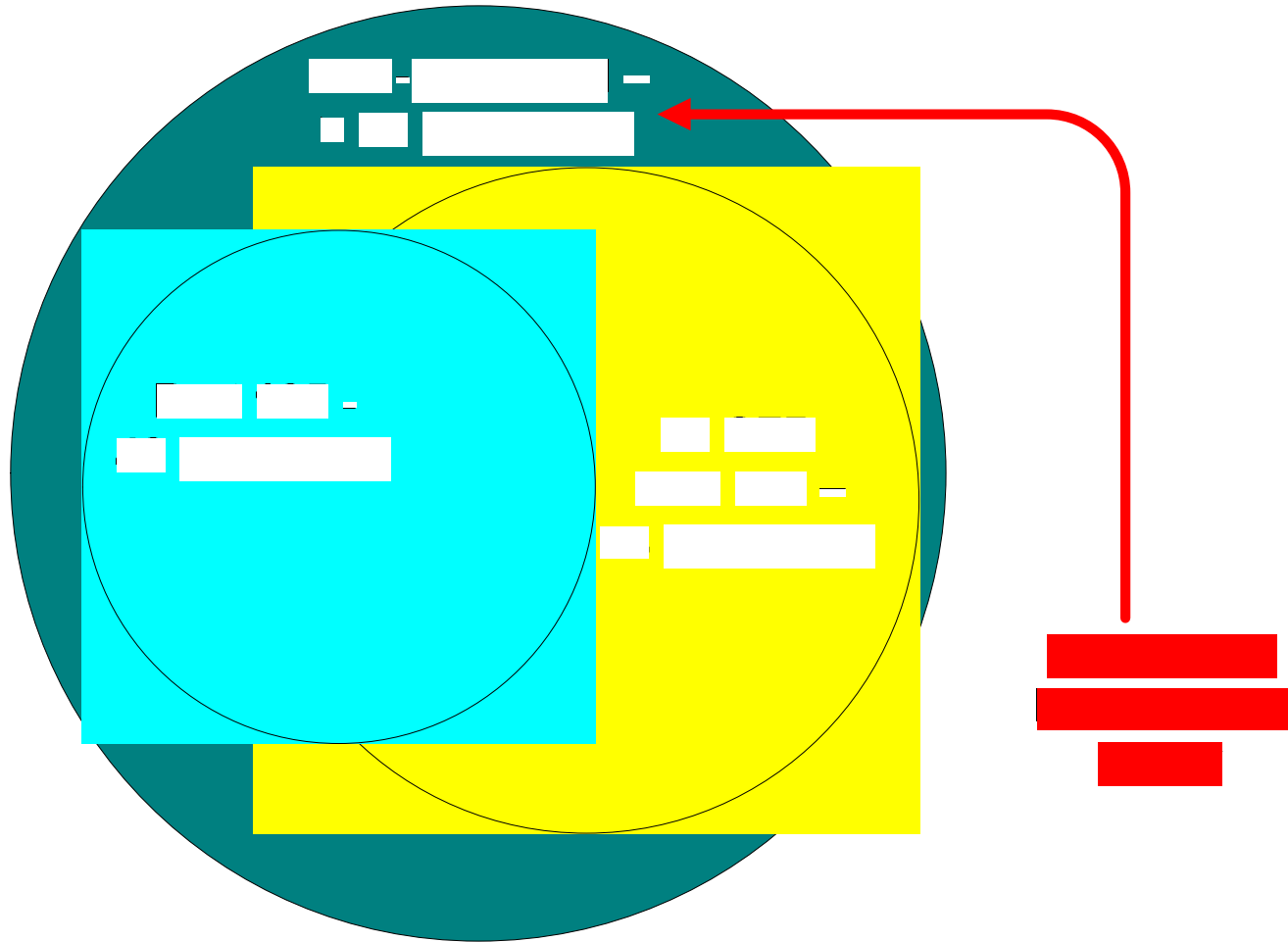


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# Texas Example



**Note: includes crude gathering and petroleum products**

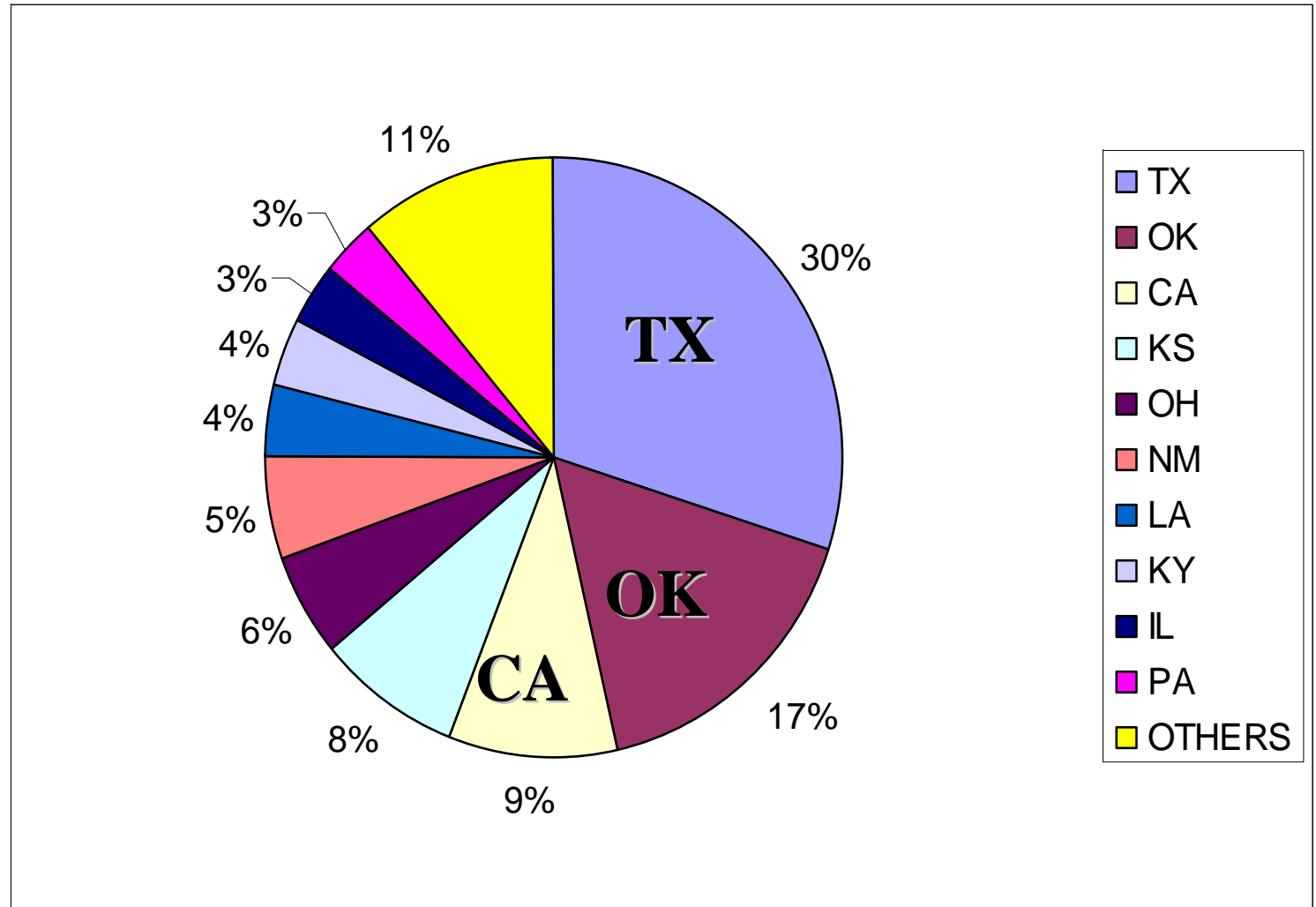


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# Producing Wells



Energy Information Administration Petroleum State Profiles (2004)





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# Data Analysis

*To understand criteria for applicability, we must first understand the potential for incidents and the consequences of those incidents.*

For Regulated Low Stress Pipelines:

- Frequency of Accidents
- Cause of Accidents
- Serious Accidents by System Location

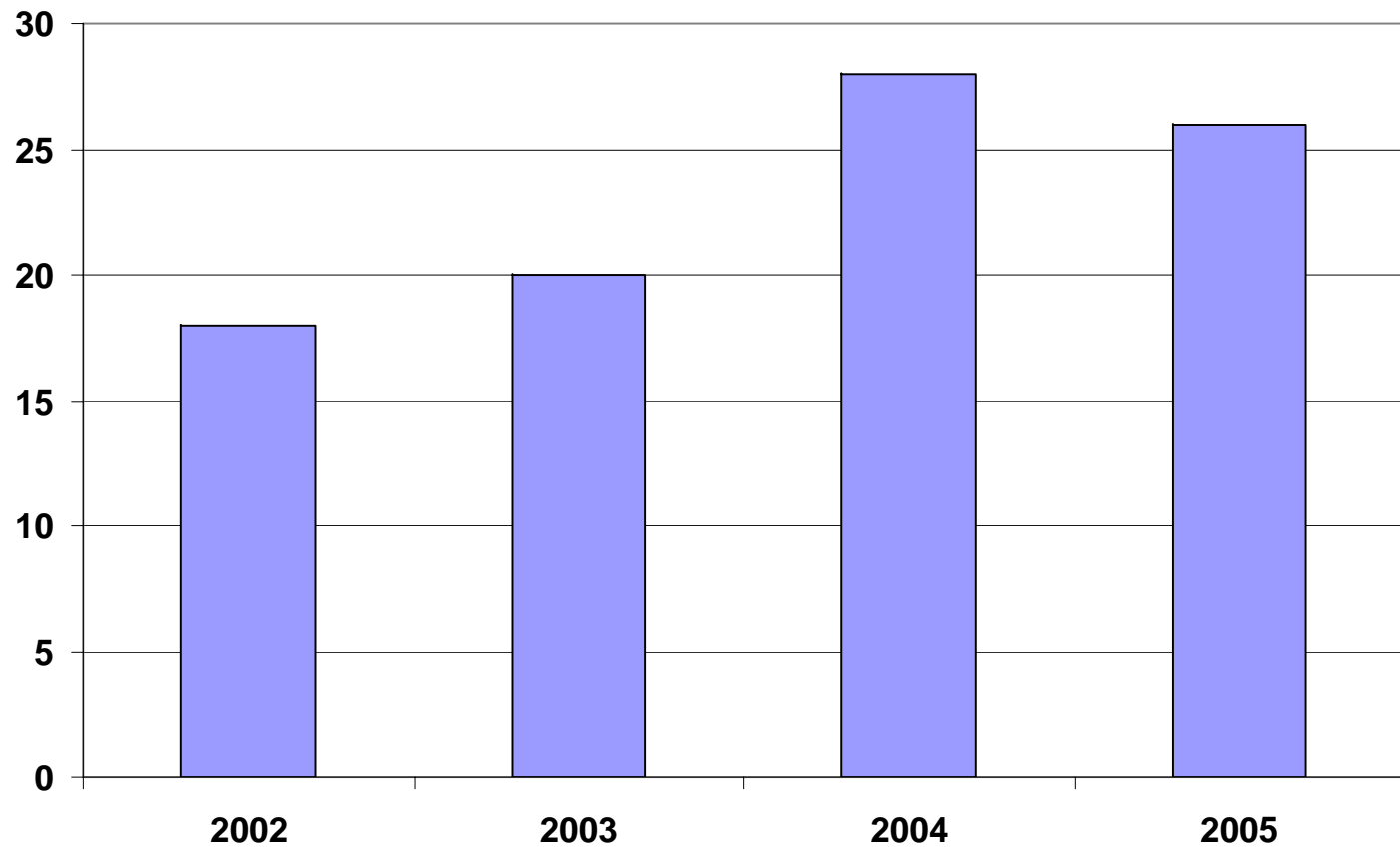


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# Accident Frequency for Regulated (non-rural) Low Stress Pipelines 2002-2005



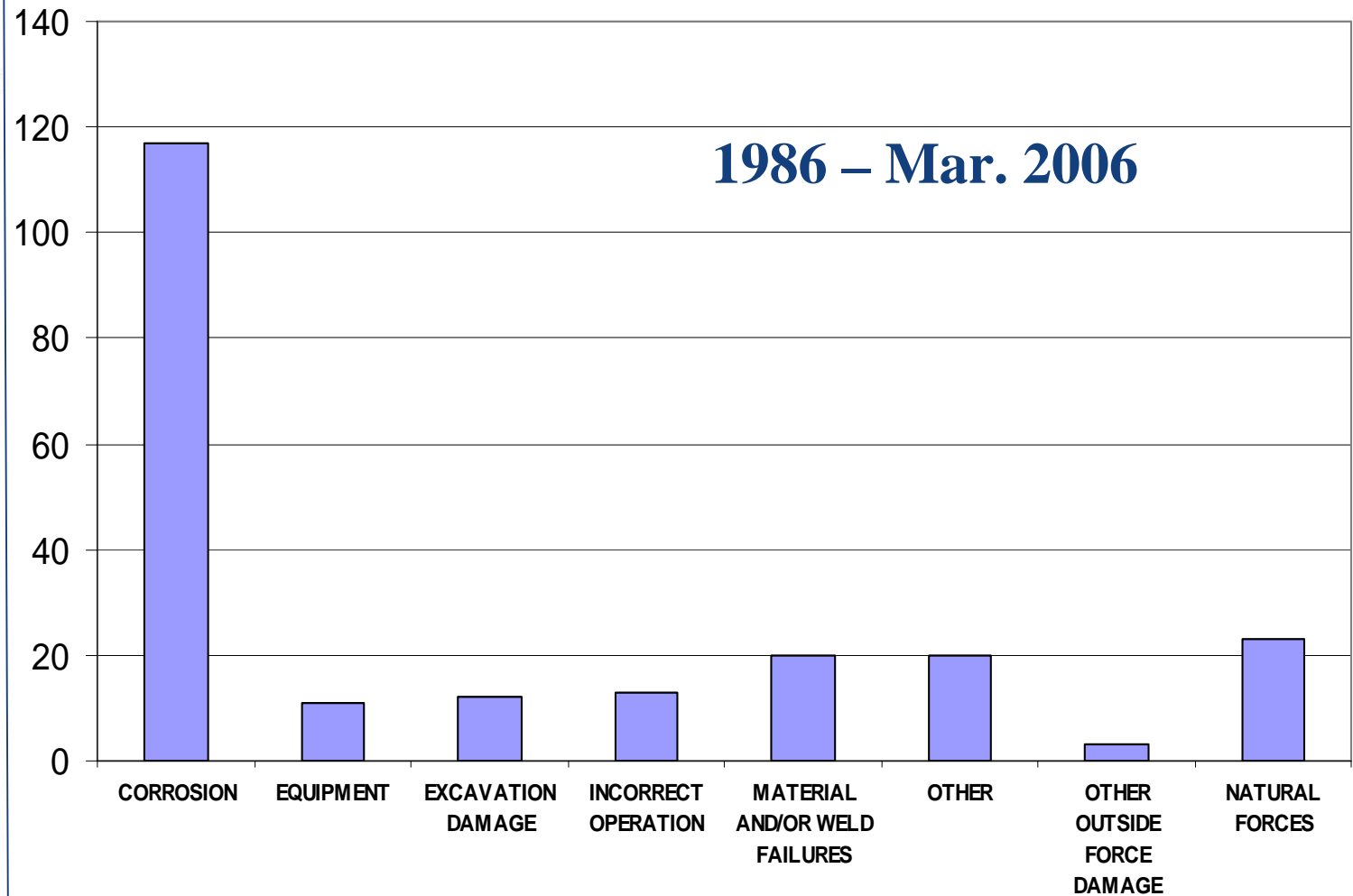


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# Causes of Failures in Low Stress Regulated Pipelines



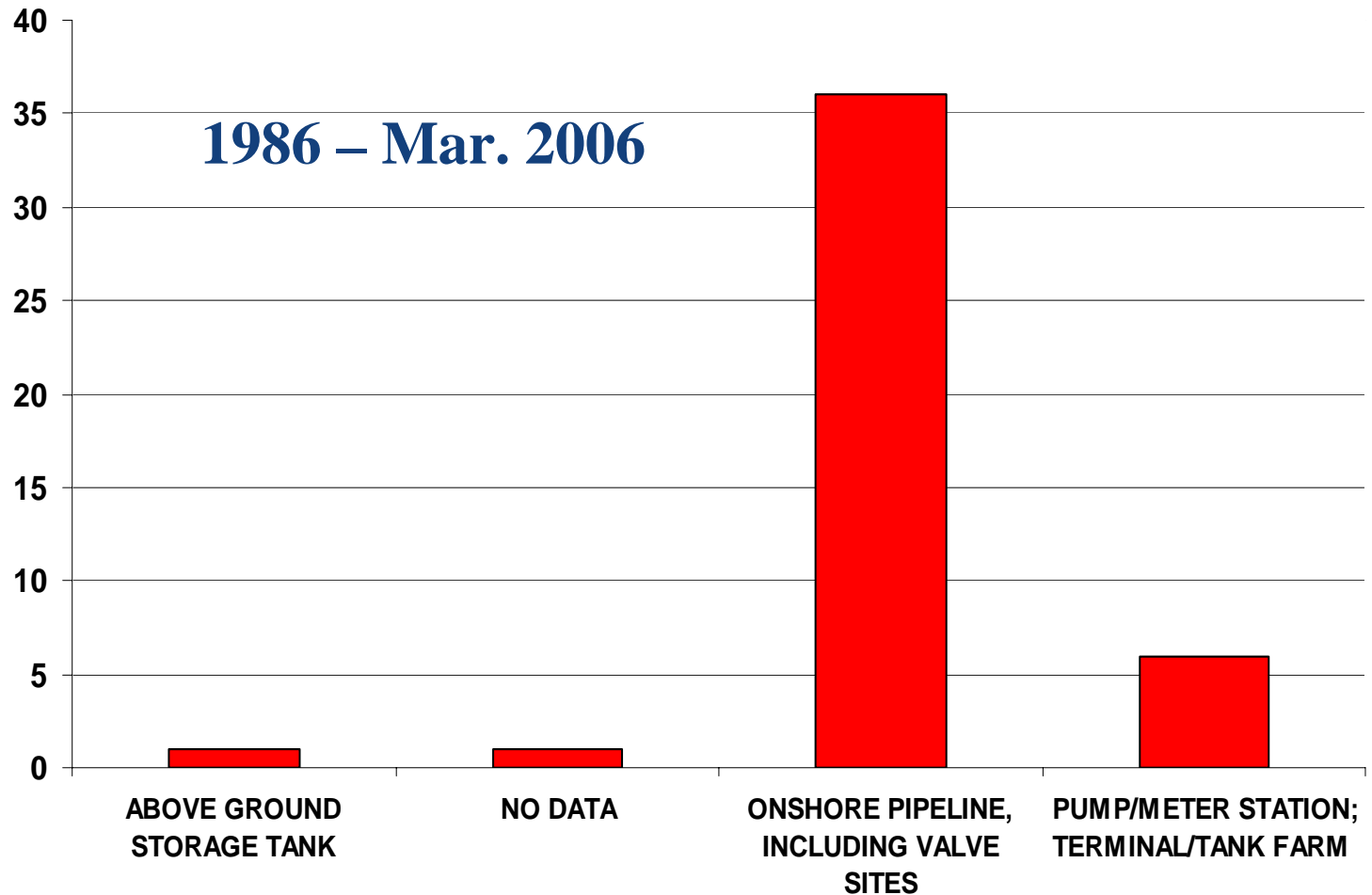


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# “Serious” Accidents by System Location for Low Stress Regulated Pipelines





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# Exposure Potential on Non-regulated Pipelines Western Region Experience

- **Estimated 200,000 gallons of crude oil spilled impacting the Arctic tundra covering approximately 2.5 acres of permafrost in March 2006.**
- **Majority of unregulated spills reported to the National Response Center are small (less than 30 bbls).**
- **Factors causing failure include external corrosion (most common), mechanical damage, and operator error.**



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# Next Steps

- 1. Gather input from today's meeting and comments to the docket.**
- 2. Issue Notice of Proposed Rulemaking for public comment (November 2006)**
- 3. Analyze the comments, make any needed changes, and develop Final Rule.**
- 4. Brief Technical Advisory Committee.**
- 5. Issue the Final Rule for approval, signature, and publication in the *Federal Register* in 2007.**



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