Liquid Petroleum Pipelines
Safe, Efficient and Improving

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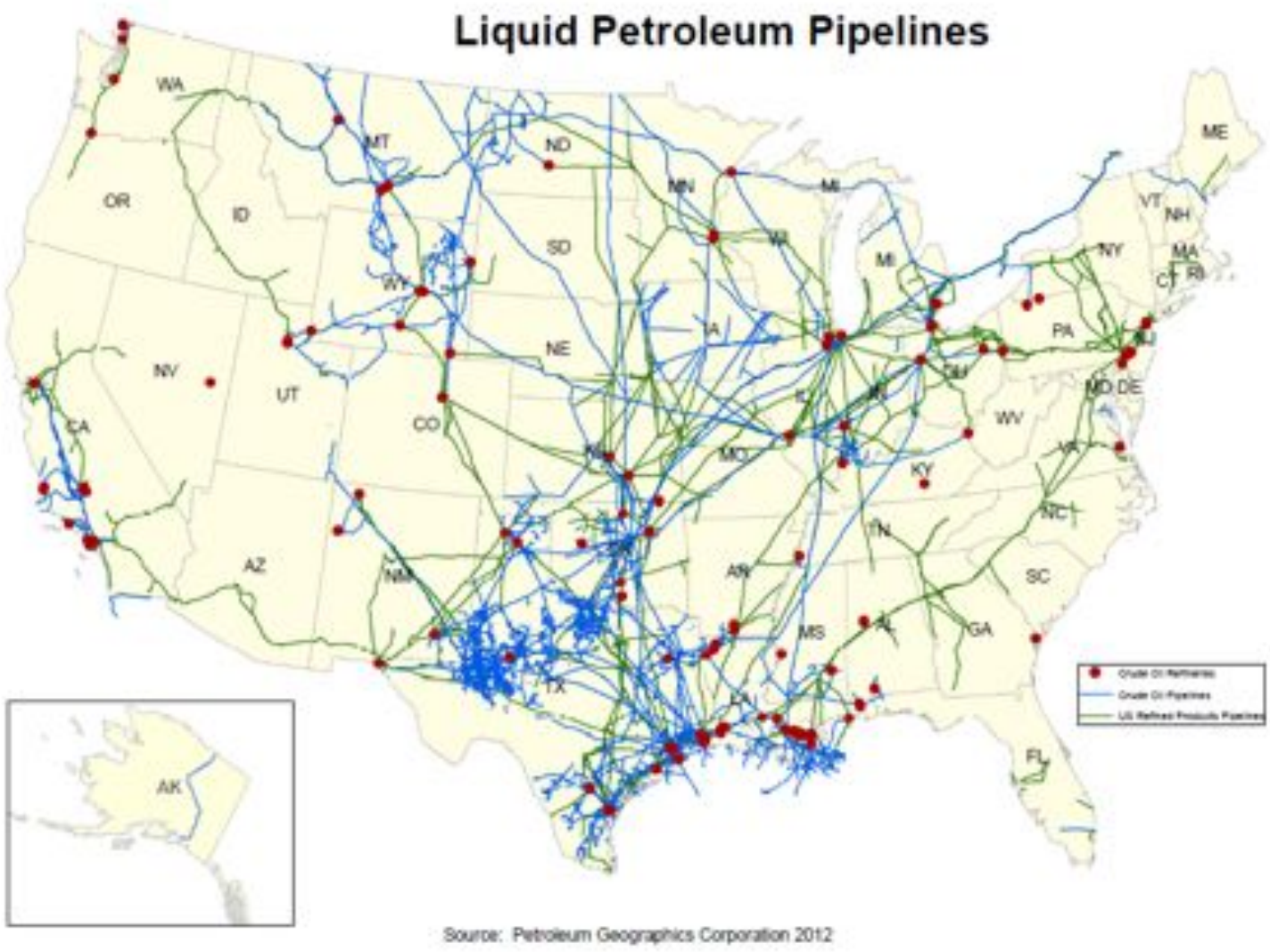
U.S. Oil Pipelines & Refineries



Source: Petroleum Geographics Corporation 2012

Pipelines: Safe and Getting Safer

- Safest and most efficient mode for transporting large volumes of energy products long distances
- Pipeline operators spent at least $2.7 billion on inspection & maintenance of pipelines over the last 5 years & at least $600 million on storage tank safety
- Liquid pipeline spills are down 60% and volumes released have dropped by 35%, over the past 11 years.
- Over the same time period, the number of spills from crude oil pipelines are down 72%.
- As a result of integrity management, corrosion failures are down 76%, equipment failures down 34%, and material and weld failures down 21%
- Pipeline incidents, while rare, do happen
- Industry works with PHMSA, NTSB, & State officials to investigate and learn from all incidents

Liquid pipeline operators assess many more miles than required

- Liquid pipelines subject to federal pipeline safety regulations – 49 CFR Part 195
- About 44% of miles “could affect” a high consequence area (HCA) and are thus subject to additional integrity management requirements
- Liquid operators assess about 90% of all miles
  - 83% of non-HCA miles (and 100% of HCA miles)
  - 80% assessed with ILI-only
  - 14% assessed by ILI plus pressure testing

Liquid pipeline operators strive to do more

- Since 1999 – Pipeline Performance Tracking System

  "You can't improve what you don't measure"

  - Started with spills of 5 gallons or more when regulations only required reports for spills of 2,100 gallons or more to be reported.
  - Used to produce operator advisories for the industry – available to the public on our web site
- Performance Excellence Team – how do we do better going forward?
- Since 2008 – Pipeline Information eXchange – Learning from incidents and near misses

In 2011, Seven New Pipeline Safety Initiatives Started:

- Leak Detection
- Excavation Damage Prevention
- Improved Integration of Data
- Improved Industry Learning and Knowledge Sharing
- Research & Development and Enhanced Technology
- Industry Strategic Planning
- Better Communication with Non-Industry Stakeholders

Supporting new safety regulations and standards

Changes to pipeline safety regulations and revisions to integrity standard:

- Require repair of discovered immediate repair conditions regardless of location (HCA **and** non-HCA)
- Conduct leak detection evaluations on all regulated transmission lines
- Update HCAs every ten years based on new information (census data; drinking water sources)
- Revisions to API 1160 reflecting industry experience over the last 11 years

Industry Goals

No fatalities

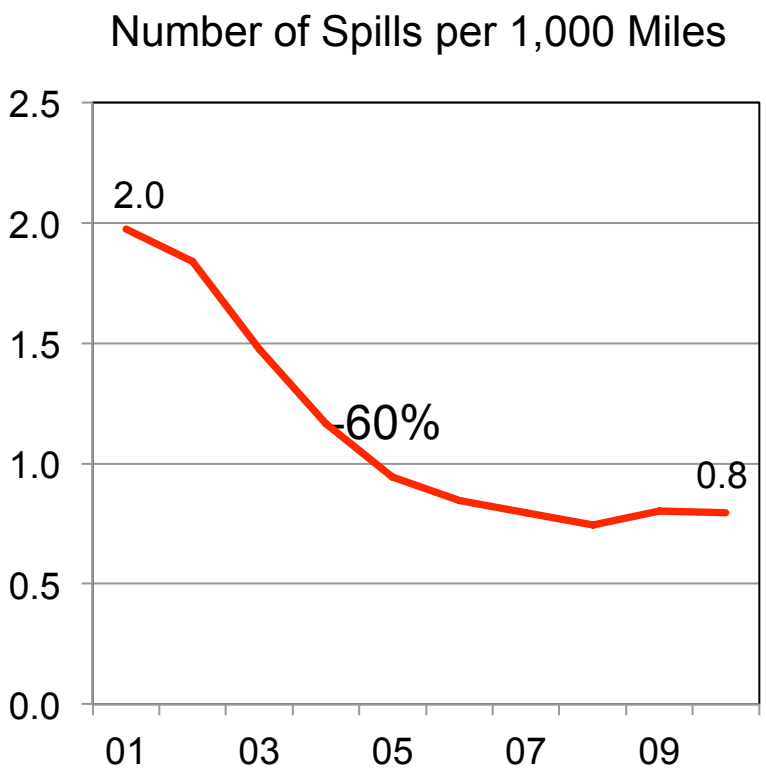
No injuries

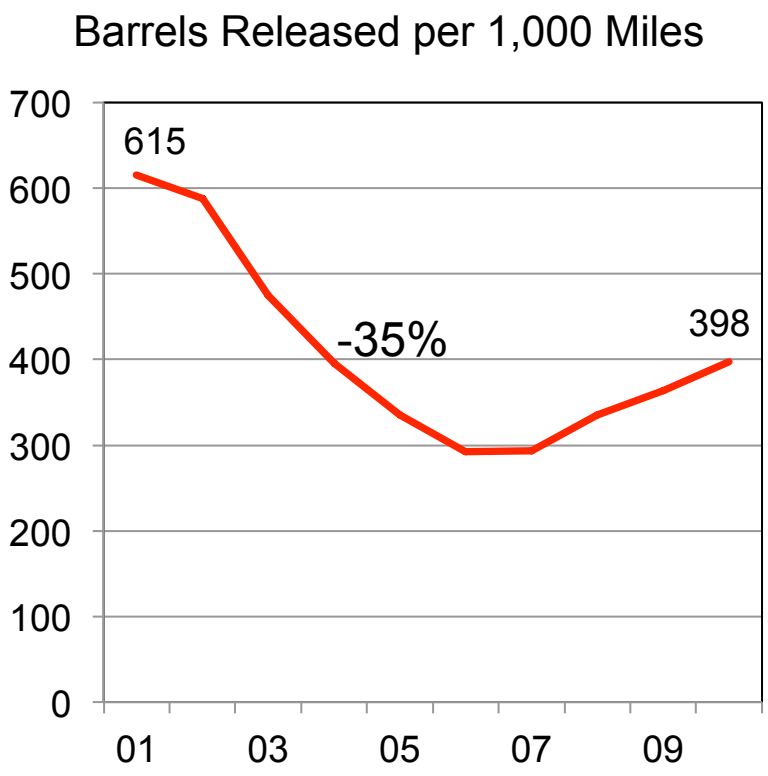
No releases to the environment

Reliable service to our shippers, customers and communities

Pipeline operators seek continuous improvement through practice sharing and adherence to industry and regulatory standards

Dramatic Improvement In Safety:
Oil Pipeline Industry Onshore Spill Record

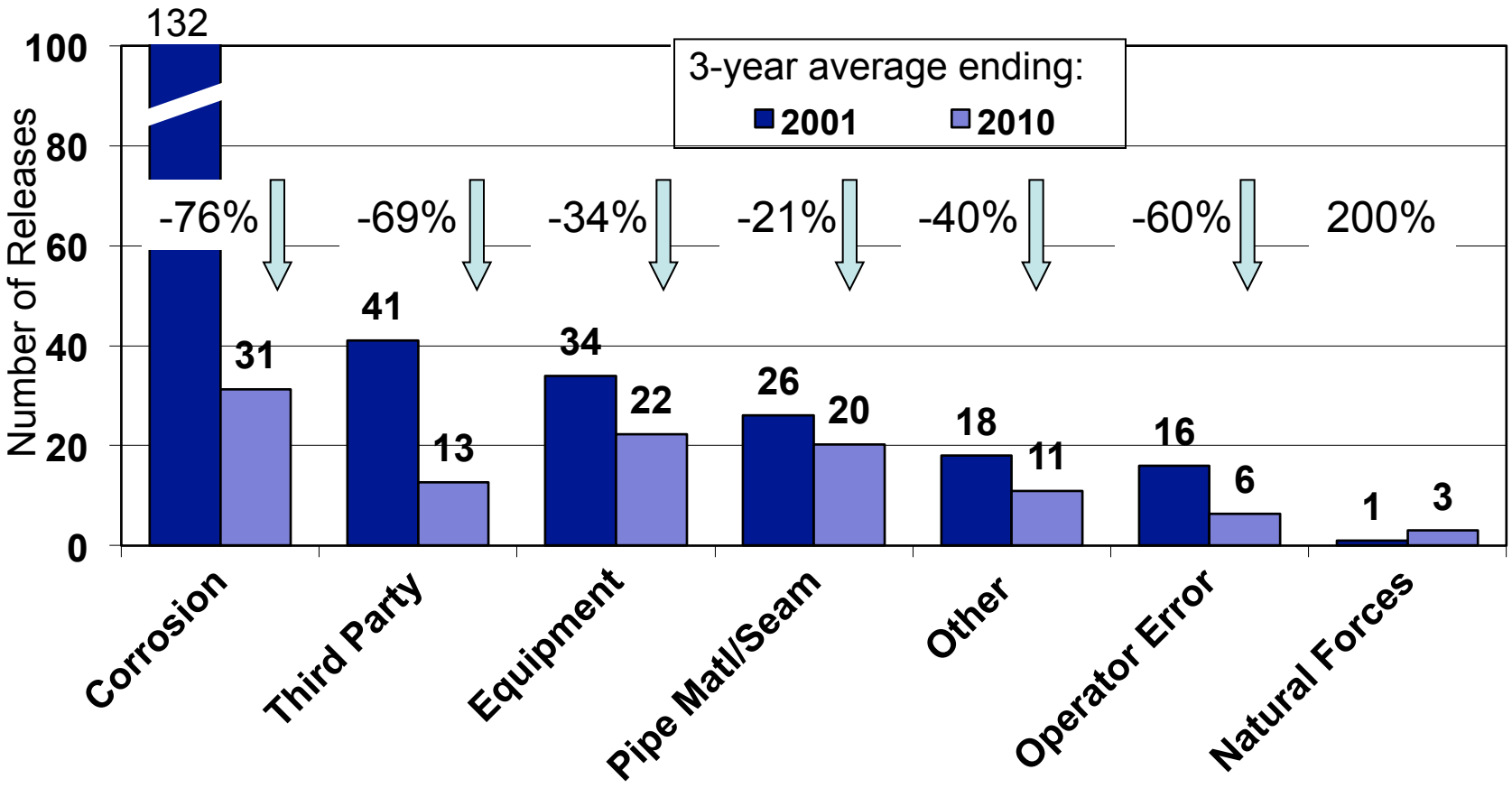




3-Year Averages Ending in Year Shown

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 2008-2010 average.

Reduction in all major causes of releases reflects diverse strategies



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

For More Information:

http://www.pipeline101.com

http://www.api.org/ppts

http://www.api.org/oil-and-natural-gas-overview/transporting-oil-and-natural-gas/pipeline

http://www.aopl.org

http://www.phmsa.dot.gov/pipeline