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of Transportation

Pipeline and
Hazardous Materials
Safety Administration



Increased Pipeline Safety Through Shared Planning

Pipeline Safety Trust Conference

New Orleans, LA

November 15, 2007



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Setting the Stage

- **Transmission Pipelines**
 - **Role and value**
 - **Layers of protection**
 - **Incident statistics**
 - **What do we know**
- **The Problems**
- **How We Got to Here**
- **What's Next**



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Transmission Pipelines

- **Our Economic Mobility, Basic Comforts, and Lifestyles Depend on the Reliable and Efficient Transportation of Oil and Natural Gas Through Transmission Pipelines**
- **Over the Past 70 Years, a Network of Liquid And Gas Transmission Pipelines Were Constructed, Often in Sparsely Populated Areas, to Connect Production/Refining Centers with Consumption Centers**
- **Today There are Nearly 500,000 Miles of Natural Gas and Hazardous Liquid Transmission Pipelines in the U.S.**
- **No Two are Exactly the Same**

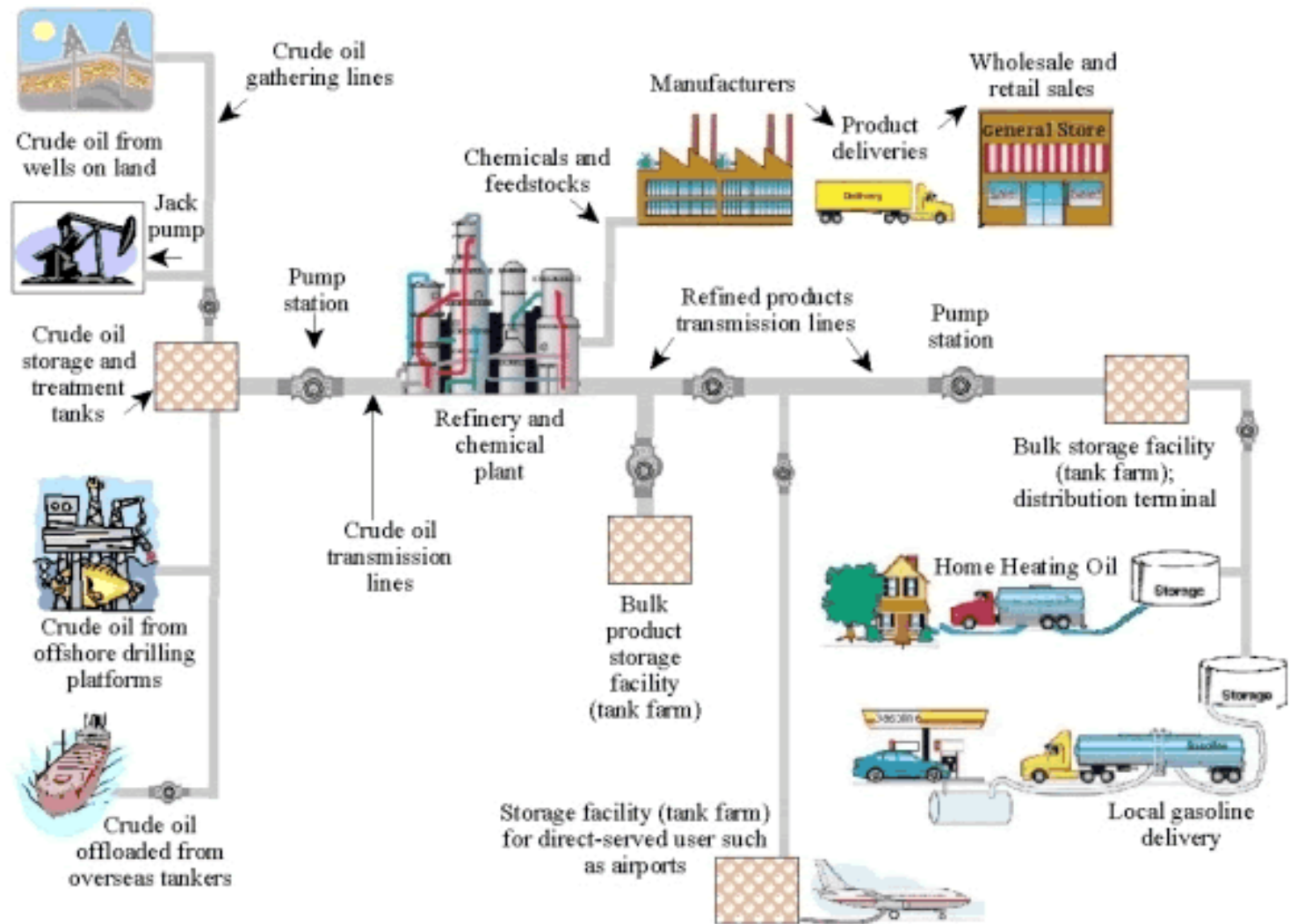


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Hazardous Liquid Transmission





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Layers of Protection

- **Design**
 - **Including materials**
- **Manufacture**
- **Transport**
- **Construction and Commissioning**
- **Operations and Maintenance**
 - **Including ROW Monitoring**
- **Public Awareness**
- **Emergency Preparedness and Response**
- **Excavation Damage Prevention**
- **Shared Planning?**



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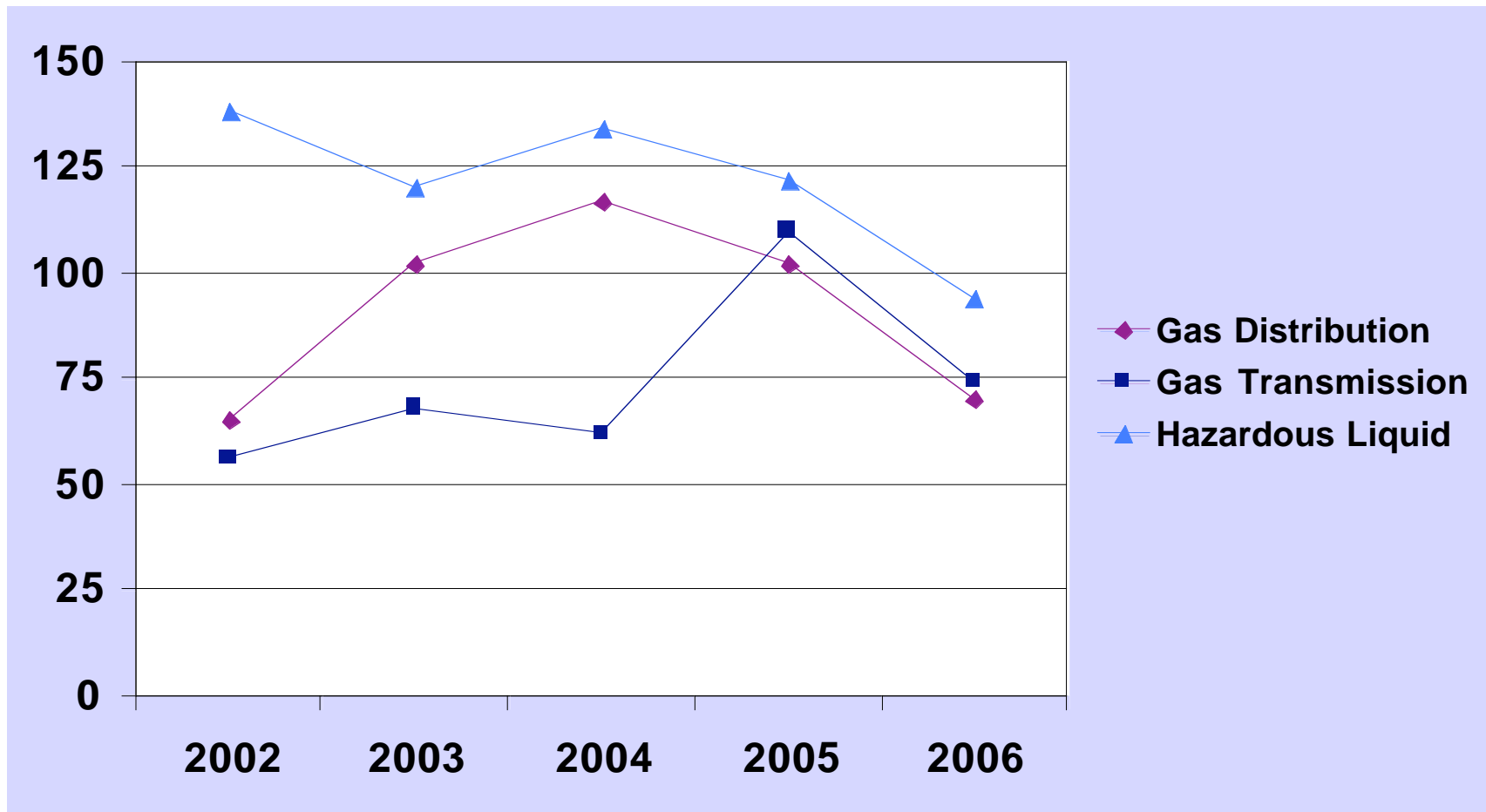
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Transmission Pipelines

- **Various Portions of PHMSA's Pipeline Standards Require Transmission Pipelines to Operate with Higher Safety Factors When Operated Near Populated Areas**
 - **E.g., Design / Public Awareness**
- **PHMSA's Integrity Management Standards Require Periodic Integrity Assessments for Transmission Pipelines Operated in Populated or Environmentally Sensitive Areas**
- **PHMSA Has No Authority to Prescribe Standards for Activities Either On, or Adjacent to, Rights-of-Way**

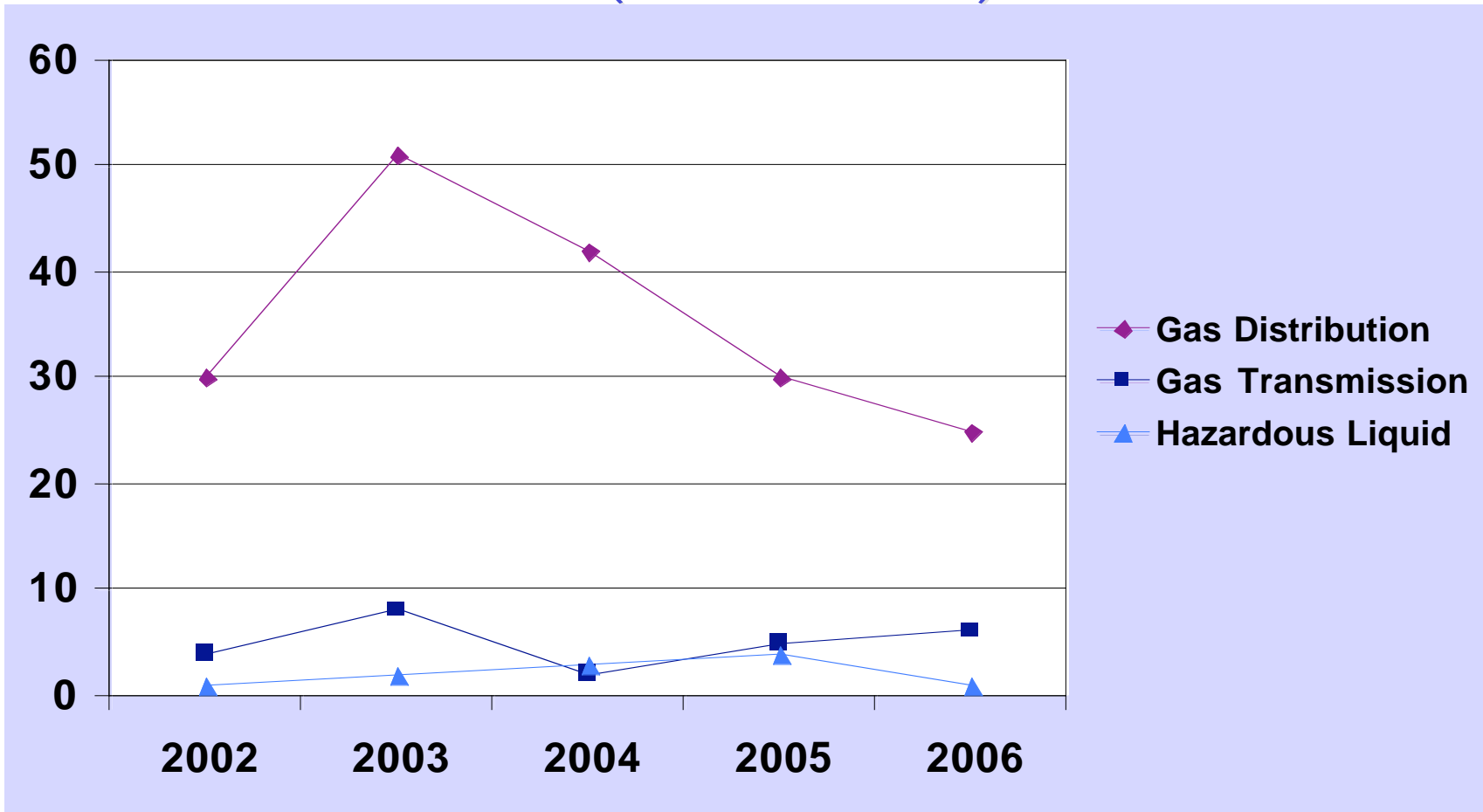
Nationwide Significant Pipeline Incidents* by Sector (2002 - 2006)



* Significant Incidents are those incidents reported by pipeline operators with any of the following conditions are met: 1) fatality or injury requiring in-patient hospitalization. 2) \$50,000 or more in total costs, measured in 1984 dollars. 3) highly volatile liquid releases of 5 barrels or more or other liquid releases of 50 barrels or more. 4) liquid releases resulting in an unintentional fire or explosion.

Source: <http://primis.phmsa.dot.gov/comm/reports/safety/SigPSI.html>

Nationwide Serious Pipeline Incidents* by Sector (2002 - 2006)



* A serious pipeline safety incident is an event involving a fatality or injury requiring in-patient hospitalization.

Source: <http://primis.phmsa.dot.gov/comm/reports/safety/SerPSI.html>



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What Do We Know

- **Pipeline Accidents are Very Rare, but They Can Be Serious When They do Occur**
- **Safety Impacts Generally Fall More Heavily on Industry Than on the Public in Serious Accidents**
- **Transmission Pipelines Can Operate Safely Anywhere**
 - **Risks unique to these areas can be mitigated**
 - **Pipeline safety is a shared responsibility**
 - **Many of those who own a share don't know it, or don't know how to be effective**
- **It is Often Very Difficult to Proactively Engage Communities Before an Accident Occurs**



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Problems?

- **Local Government Planners Have No Stakeholder-endorsed Guidance for Making Planning Decisions Adjacent to Transmission Rights-of-Way**
- **Property Developers and Local Government Planners are Sometimes Unaware of Transmission Pipeline Rights-of-Way During Early Planning for Development (and vice versa)**
- **Developers Have No Stakeholder-Endorsed Guidance for Incorporating Transmission Pipeline Rights-of-Way Into Developments**
- **Property Owners are Sometimes Unaware of Transmission Pipeline Rights-of-way on Their Property**
- **All of the Above Problems Put Transmission Pipelines at Risk of Excavation Damage, Restrict Access to Pipelines During Emergencies, and Exacerbate Encroachment Onto Rights-of-way**



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How We Got to Here

- **Immense Focus on PHMSA, the States, and the Transmission Pipeline Industry Implementation of the Many Layers of Protection Our Code Affords**
- **Limited Focus on What Role Localities, Counties, and Others Have in Pipeline Safety**
 - **And How They Can Balance Competing Needs – Risk-Informed Decisions**
- **PHMSA’s Office of Pipeline Safety Commissioned the National Academy of Sciences’ Transportation Research Board**
 - **Special Report 281**
- **DOT’s Response to Congress**



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What's Next

- **Pipelines and Informed Planning Alliance**
 - **Covered in Depth in a Later Session**
 - **Convening Meeting: January 15-17, 2008**
 - *Washington, D.C.*
 - **Expecting a Year+ Long Dialog**
 - **Looking for Consensus Guidance Communities Can Use to Make “Risk-Informed” Decisions**
 - **Looking for Partners to Help Disseminate Results**
 - **Expecting to Increase Pipeline Safety Through Shared Planning**



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THE END

THANKS!