Pipelines and Informed Planning Alliance (PIPA)

Presentation to the Virginia Association of Zoning Officials (VAZO)
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Supporting: PHMSA/Office of Pipeline Safety
Energy Pipelines

- Natural gas, crude oil and refined petroleum products pipelines extend across and into a majority of cities and counties in the U.S.
- Our national economy and security depend on these products.
- Pipelines are one of the safest, most efficient and most reliable means of transporting energy products.
- Serious pipeline incidents can occur, although in the last few years trends are going down.
- PIPA is addressing the concerns of land use planning and development near transmission pipelines.
Data Trends

All “Significant” Transmission Pipeline Incidents (1989-2008)

Causes

Excavation Damage 18%
All Other Causes 82%

“Serious” Pipeline Incidents (1989-2008)
All Pipeline Types, Including Distribution Causes

Excavation Damage 26%
All Other Causes 74%

Source: DOT/PHMSA Significant Incident Data files April 15, 2009
Energy Pipelines and Land Use Planning

- Land use planning and development can have a direct impact on pipeline safety.
- In 2000 PHMSA began looking at developing guidance for communities regarding development near pipelines.
- Cooperative agreement with TRB revised to address PSIA 2002 requirement to study land use.
Population Encroachment

PSIA required information from study be used to:

- Determine effective practices to limit encroachment on transmission pipeline ROW.
- Address and prevent hazards and risks to public, workers, and environment associated with ROW encroachment.
- Raise awareness of the risks and hazards of encroachment.
- Address preservation of environmental resources while maintaining the ROW.
Population Encroachment

TRB Special Report 281, September 2004
(http://primis.phmsa.dot.gov/comm/RiskInformedLandUse.htm)

- Recommendations to PHMSA:
  - Develop risk-informed land use guidance.
    - Involve all stakeholders
    - Include expertise in risk analysis, risk communication, land use management, and developing regulations
  - Ensure process is transparent, independent, and peer reviewed
  - Refine the guidance over time

- Recommendations to transmission pipeline industry:
  - Develop practices for specifying, acquiring, developing, maintaining ROW.
Population Encroachment

Illustrated: Growth Along Pipeline in Washington State

Figure 1 - 1990

Figure 2 - 2002
Pipelines and Informed Planning Alliance (PIPA)

- PIPA resulted from implementing TRB recommendations and PSIA
- PIPA is a partnership of stakeholders whose purpose is to further enhance pipeline safety
- Its aim is to help understand risks of ROW encroachment
- Its focus is to develop guidance and recommendations for stakeholders in land use planning and property development in the vicinity of transmission pipelines
- Inaugural meeting – January, 2008 – Approximately 130 stakeholder representatives participating
- Including representatives of NACo, NLC, NAHB, PST, MRSC, APWA, NASFM, NAPSR, NARUC, FERC, PHMSA, Pipeline Industry
Through PIPA we recognize:

- Need to educate local planners on pipelines and associated risks
- Need to develop guidelines for local planners to make risk-informed decisions about development along pipeline ROW
- **KEY** – Encourage communication between local planners and developers and transmission pipeline operators.
- Guidance also needed for pipeline operators regarding maintenance of their ROW.
Pipelines and Informed Planning Alliance (PIPA)

- Key stakeholders for consideration in recommended practices are:
  - Local governments
  - Property developers/owners
  - Transmission pipeline operators
  - Real estate commissions

- Task teams considered existing practices and stakeholder needs and challenges.

- Consensus used to develop recommendations and guidance.
Three task teams established:

- **Protecting Communities** – Addressed concerns on lands adjacent to the pipeline rights-of-way to reduce the risk to communities

- **Protecting Transmission Pipelines** – Addressed concerns regarding activities on the transmission pipeline rights-of-way to reduce risks to the pipelines and community while preserving environmental resources

- **Communication** – Addressed issues of how risks to communities and transmission pipelines should be communicated among pipeline safety stakeholders

- Populated by volunteers, facilitated
Recommended Practice Scenarios:

- Baseline (BL)
- New Development (ND)
- New Pipeline (NP)
Examples of recommended practices

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<th>ND01</th>
<th>Pipeline Operators and Local Governments Should Convene with Developers/Owners</th>
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<td>ND02</td>
<td>Gather Information for Design near Transmission Line and Utilities</td>
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<td>Property Developer/Owner Review of Acceptable Planning and Design Prior to Design</td>
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<td>ND04</td>
<td>Property Developer/Owner Coordination of Development Design and Construction with Pipeline Operator</td>
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<td>ND05</td>
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<td>ND06</td>
<td>Local Government Requires Consideration of Transmission Pipeline Facilities in Land Development Design</td>
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<td>ND07</td>
<td>Define Blanket Easement Agreements When Necessary</td>
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<td>ND08</td>
<td>Developing the Pipeline Transmission Right-of-Way</td>
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<td>ND09</td>
<td>Provide Flexibility to Property Developer for Providing Open Space in Close Proximity to the Right-of-Way of Transmission Pipeline</td>
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<td>Record Transmission Pipeline Easements on Development Plans and Final Plats</td>
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<td>BL07</td>
<td>Understanding the Elements of a Pipeline Easement</td>
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<td>Documenting and Recording Easement Amendments</td>
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<td>Implement Communications Plan</td>
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<td>BL11</td>
<td>Effectively Communicate Pipeline Risk and Risk Management Information</td>
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<td>BL13</td>
<td>Encroachment Prevention and Management</td>
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<td>BL14</td>
<td>Participate in Organizations Pursuing Improved State Damage Prevention Programs</td>
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<td>BL15</td>
<td>Enhanced Damage Prevention Practices for Excavation near High Priority Underground Facilities</td>
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<td>BL18</td>
<td>Real Estate Disclosure</td>
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PIPA Report

• Publish as a web-based document
• Printable
• Practices selectable by the stakeholder audience taking action
  • Local Government
  • Property Developer/Owner
  • Pipeline Operator
  • Real Estate Commission
• Each recommended practice will have a brief Practice Statement and a Practice Description
PIPA Status

- Consensus reached on majority of recommended practices
- Ongoing discussion between industry and local government / community representatives regarding Consultation Zone and Planning Zone recommendations
- Publication of the PIPA Report during fall 2009
- PHMSA presenting at national and state stakeholder conferences
- Communications Team evaluating options for getting the word out
- Evaluating path forward regarding “evergreen”
- Stakeholders are encouraged to begin consideration of the recommended practices as soon as they are published.
Stakeholder Communications

We are the Office of Pipeline Safety (OPS) within the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

OPS is the primary federal regulatory agency responsible for ensuring the safe, reliable, and environmentally sound operation of America’s energy pipelines. We develop and implement pipeline safety regulations at the federal level, and we share regulatory responsibility with the states, with whom we oversee more than two million miles of pipelines.

We are changing the way pipelines are regulated and we have new strategies that are improving the operation of pipelines as well as public and environmental safety.

We are now more mindful than ever of the roles that others play in helping to ensure the safe, sustained flow of energy products across our country. We are actively partnering with state and local officials, first responders, excavators, and the general public – among others – to “get the word out” on pipeline safety. All of us, in one way or another, are pipeline safety stakeholders.

On this website you will find information that you can use right now – regardless of your stakeholder interest – to help ensure pipeline safety in your community. To begin, please select the stakeholder tab above that best describes you or select a topic from the menu on the left.

If you don’t have time to browse our website you can follow this link to download a printable brochure about OPS.

Be sure to come back and browse when you have more time.

Following are some recent items of interest related to pipeline safety. Please visit http://phmsa.dot.gov/pipeline for additional What’s New and event information.

What’s New

- PHMSA solicits additional research on alternative fuels and to address pipeline integrity issues with ethanol, biodiesel, biogas and hydrogen (October 2008)
- PHMSA publishes Final Rule for Increasing Maximum Allowable Operating Pressure on Gas Transmission Pipelines (October 2008)
- PHMSA Issues Guide for Strengthening State Damage Prevention Programs (September 2008)
- PHMSA Advisory Bulletin: Pipeline Safety: Installation of Excess Flow Valves into Gas Service Lines (June 2008)
- Report – Virginia Pilot Project – Incorporating GPS Technology to Enhance One-Call Damage Prevention - Phase I: Electronic White-Ining
- Pipelines and Informed Planning Alliance (PIPA)
- PHMSA Publishes Final Rule to Relax Applicability of Public Awareness Regulations to Certain Gas Distribution Operators (December 2007)
- NTSB Study on Supervisory Control and Data Acquisition Systems in Liquid Pipelines (November 2005)

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What's New

- 2008 State Damage Prevention Grants Solicitation Posted (July 2008)
- PHMSA Seeks R&G Proposals on High Strength Line Pipe Anomaly Assessment Methods (July 2009)
- PHMSA Releases Report on Mechanical Damage to Pipelines (April 2009) [This is a large file (approx. 40 MB)]
- PHMSA Publishes Final Rule for Increasing Maximum Allowable Operating Pressure on Gas Transmission Pipelines (October 2008)
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- 2010 State Damage Prevention Grants Solicitation Posted (July 2009)
- PHMSA Seeks R&D Proposals on High Strength Line Pipe Anomaly Assessment Methods (July 2009)
- PHMSA Releases Report on Mechanical Damage to Pipelines (April 2009) [This is a large file (approx. 40 MB)].
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Thanks for your time and consideration

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Questions?