



**UNITED STATES DEPARTMENT OF TRANSPORTATION  
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**

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**Hearing on  
Implementation of the Pipeline Inspection, Protection,  
Enforcement and Safety Act of 2006 and Reauthorization of the  
Pipeline Safety Program**

**Before the  
Committee on Transportation and Infrastructure  
Subcommittee on Railroads, Pipelines, and Hazardous Materials  
United States House of Representatives**

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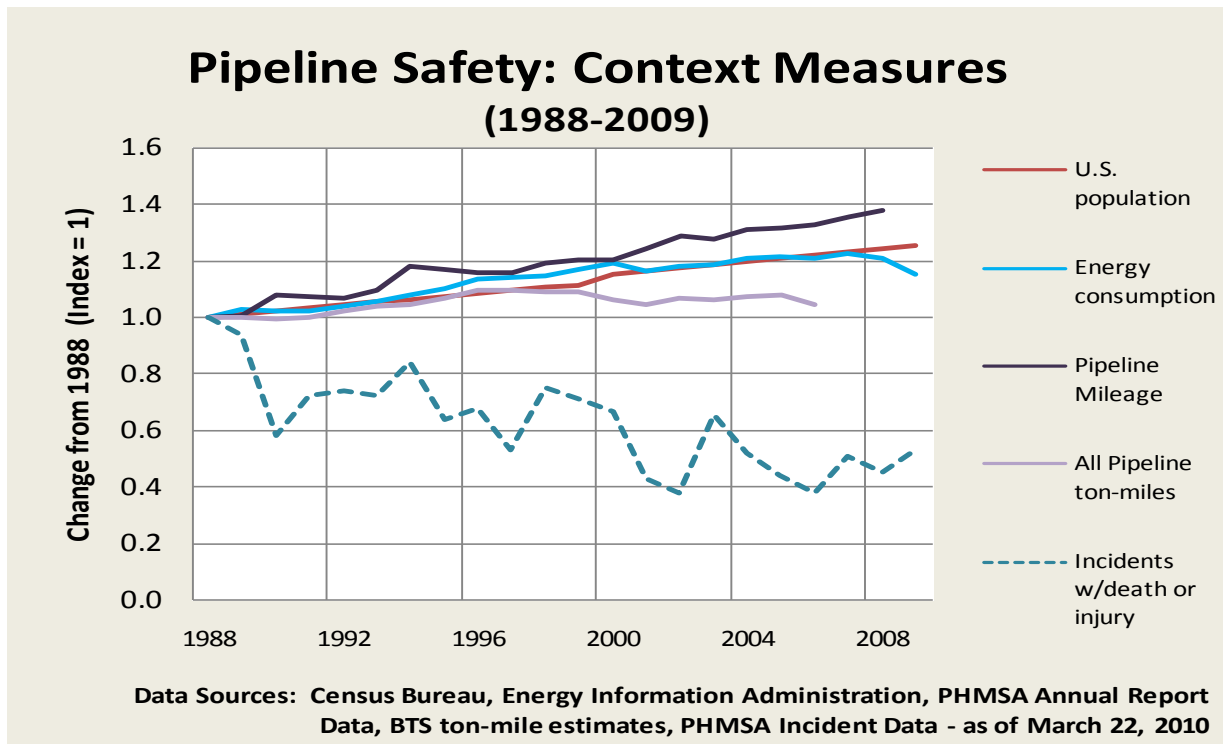
Chairwoman Brown, Ranking Member Shuster, members of the subcommittee, thank you for the opportunity to appear today. Safety is Secretary LaHood's top priority and it is my top priority as well. Our employees are also committed to reducing risks in pipeline transportation as their highest priority. We want our employees to bring up new and creative ideas and to challenge each other and supervisors so that the best safety solutions are put forward. As our nation's reliance on the safe and environmentally sound transportation of energy fuels and hazardous materials is increasing, the Pipeline and Hazardous Materials Safety Administration's (PHMSA) safety oversight of the nation's pipelines provides critical protection for the American people.

We continue our work with many governmental partners to promote safety. The National Transportation Safety Board (NTSB), the Department's Office of Inspector General (OIG) and the Government Accountability Office (GAO) all have a vested interest in the safe and reliable operation of the nation's pipeline infrastructure. For years we have worked aggressively to be responsive to all of their recommendations. We have taken seriously each and every recommendation that they have made to PHMSA. Indeed, we implemented a deliberate approach to responding to their recommendations. Accomplishments include closing the three OIG recommendations; significant progress on GAO recommendations on incident reporting with the last action due out this summer; and making progress on all of the NTSB recommendations. When the Pipeline Inspection Protection Enforcement and Safety (PIPES) Act of 2006 passed, NTSB had thirteen open recommendations to PHMSA. Over the last several years, NTSB has closed nine of these recommendations and we are currently working to address the remaining and additional recommendations. We do not have any open unacceptable recommendations.

I am pleased to discuss the PHMSA Pipeline Safety Program and to brief you on the significant progress made since the passage of the PIPES Act in December, 2006. We also look forward to working with you to build on this solid foundation.

### I. IMPLEMENTATION OF THE PIPES ACT.

PHMSA has made significant progress in fulfilling the statutory requirements of the PIPES Act that has resulted in safer communities today. The pipeline safety record is good. Over the past 20 years, all the traditional measures of risk exposure have been rising – population, energy consumption, pipeline ton-miles. At the same time, the number of serious pipeline incidents – those involving death or injury – has declined by 50% over the last twenty years. As indicated in the chart below we aim to continue this long-term trend.



The following is a brief description of PHMSA’s successful use of the tools provided by Congress in the PIPES Act to improve the safety record of the nation.

**A. PHMSA Has Increased the Strength of Integrity Management Programs and Enforcement Activities.**

The PIPES Act broadened the scope of the systems-based approach to assessing and managing safety related risks. The additional initiatives included: (1) increasing enforcement activity, transparency, and data quality; (2) implementing an integrity management program for distribution pipelines and; (3) requiring a human factors management plan to reduce risks associated with human factors, including operator fatigue in pipeline control centers, and implementing NTSB recommendations on the Supervisory Control and Data Acquisitions (SCADA) systems in pipelines. We are pleased with increasing results from our effective systems risk management approach, which this Subcommittee helped devise.

1. PHMSA Has Increased Enforcement, Increased Transparency, and Improved Data Quality.

PHMSA has used its full enforcement authority to give teeth to its systems-based approach to risk management and increase pipeline company management accountability for safety. The PIPES Act, and the appropriations that followed, authorized PHMSA to increase the number of federal inspectors, as well as state inspectors. In 2006, PHMSA had 141 pipeline staff. That increased to 173 by the end of 2009, including a significant increase in inspection and enforcement staff, and we expect to have 206 pipeline staff by the end of 2010.

Also, PHMSA has embraced enforcement transparency by leveraging its website and databases to provide on-the-spot information to stakeholders. Within months after the Act was signed into law, we launched our enforcement transparency website. As we reported in our 2008 testimony before this Subcommittee, PHMSA has made tremendous strides in improving the transparency of its enforcement process. The enforcement transparency web site provides public access to a variety of reports and enforcement program information that goes beyond what is required by the PIPES Act. This site provides year-by-year reports on cases initiated and closed,

the status of different types of enforcement cases, and reports on civil penalty cases showing the amounts proposed, assessed, and collected. Information and documents on individual cases are also provided. These documents include the initial notices that allege operator violations or inadequacies; operator responses to these allegations; and the orders documenting PHMSA's final determinations. In addition, PHMSA provides monthly updated enforcement summaries to the public. Use of the enforcement transparency web site has climbed steadily since its inception in May 2007 and averaged more than 1,500 hits per day in 2009. In 2010, we expanded and improved the information on civil penalty cases and began displaying enforcement data from state pipeline safety agencies.

In addition to economic resources, the PIPES Act also gave PHMSA a much needed enforcement tool – the Safety Order. On January 16, 2009, PHMSA published a final rule establishing the process by which PHMSA will conduct Safety Order proceedings to address pipeline integrity risks to public safety, property, or the environment.

Finally, the PIPES Act now requires that senior executive officers of pipeline companies certify their pipeline integrity management program performance on an annual and semi-annual basis. As we had hoped, the certification requirement has placed an increased emphasis on management's accountability and the importance and accuracy in performance reporting.

PHMSA also undertook a significant effort to improve data consistency and quality culminating in a new generation of data reporting that will begin in the summer of 2010. First, PHMSA published a final rule in August 2009 to align cause categories across natural gas transmission and distribution incident reports. Second, PHMSA sought and received Office of Management and Budget approval for new forms and additional data collections. Third, PHMSA updated its guidance and forms regarding incident reporting. Fourth, PHMSA proposed

revisions to the reporting requirements in Part 191 and expects to issue a final rule. While all seemingly small changes, the process allowed for coordination and input from state pipeline safety agencies and other Federal agencies that ultimately resulted in raising industry awareness. This effort specifically addressed Congress' mandates to modify reporting requirements to ensure that incident data accurately reflects incident trends over time and collects data on controller fatigue. PHMSA took that direction and acted comprehensively.

2. PHMSA Has Established a Gas Distribution Integrity Management Program (DIMP).

Pursuant to the authority granted in the PIPES Act, PHMSA issued a final rule on December 4, 2009, requiring operators of gas distribution pipelines to develop and implement integrity management programs to manage and reduce risks in gas distribution pipeline systems. These programs are intended to enhance safety by identifying and reducing pipeline integrity risks. The requirements for the integrity management programs are similar to those required for gas transmission pipelines, but tailored to reflect the differences in and among distribution pipelines. The regulation requires operators to develop and implement plans for monitoring and improving the condition of their systems, in addition to complying with current code requirements. The rule also requires distribution operators to install excess flow valves in new and replaced service lines for single family residences where conditions are suitable for their use. The rule applies to the entire extent of distribution pipelines and the thousands of small and large companies that deliver natural gas over the 2 million miles of pipelines serving American communities, not just high consequence areas. That said, the rule establishes simpler requirements for master meter and small liquefied petroleum gas operators, reflecting the relative risk of these smaller pipeline systems.

PHMSA made tremendous efforts getting ready for the establishment of DIMP. We have consensus standards, guidance, training, IT systems, and data to increase our understanding of risk and provide effective oversight. We are especially mindful of the increased oversight requirements associated with the program. Getting 50 states to implement a performance standard takes a lot more preparation than preparing a single federal entity. Accordingly, we have worked with our state partners to prepare them for assuring thorough training, education, and effective enforcement compliance.

3. PHMSA Has Established Control Room Management Requirements

Pursuant to the authority granted in the PIPES Act, PHMSA issued a final rule on December 4, 2009, to address human factors and other aspects of control room management for pipelines remotely operated and controlled by personnel using SCADA systems. Operators must define the roles and responsibilities of controllers and provide controllers with the necessary information, training, and processes to fulfill these responsibilities. Controllers must manage SCADA alarms; assure control room considerations are taken into account when changing pipeline equipment or configurations, and review reportable incidents or accidents to determine whether control room actions contributed to the event. Operators must also implement methods to prevent controller fatigue. These regulations will enhance pipeline safety by coupling strengthened control room management with improved controller training and fatigue prevention measures.

The regulations apply to all hazardous liquid pipelines, and gas transmission and distribution pipelines that meet certain risk criteria. This rule not only responds to the PIPES Act mandate but also addresses a NTSB safety recommendation regarding controller fatigue that was on the NTSB's Most Wanted list. A public workshop is planned for November 2010 to present

preliminary guidance materials. Programmatic inspections will be conducted between September 2011 and February 2013.

**B. PHMSA is Enhancing Pipeline Safety with Increased Assistance to States, Damage Prevention Education, Technical Assistance Grants, and Public Access to Information.**

1. PHMSA Has Strengthened Its Assistance to States.

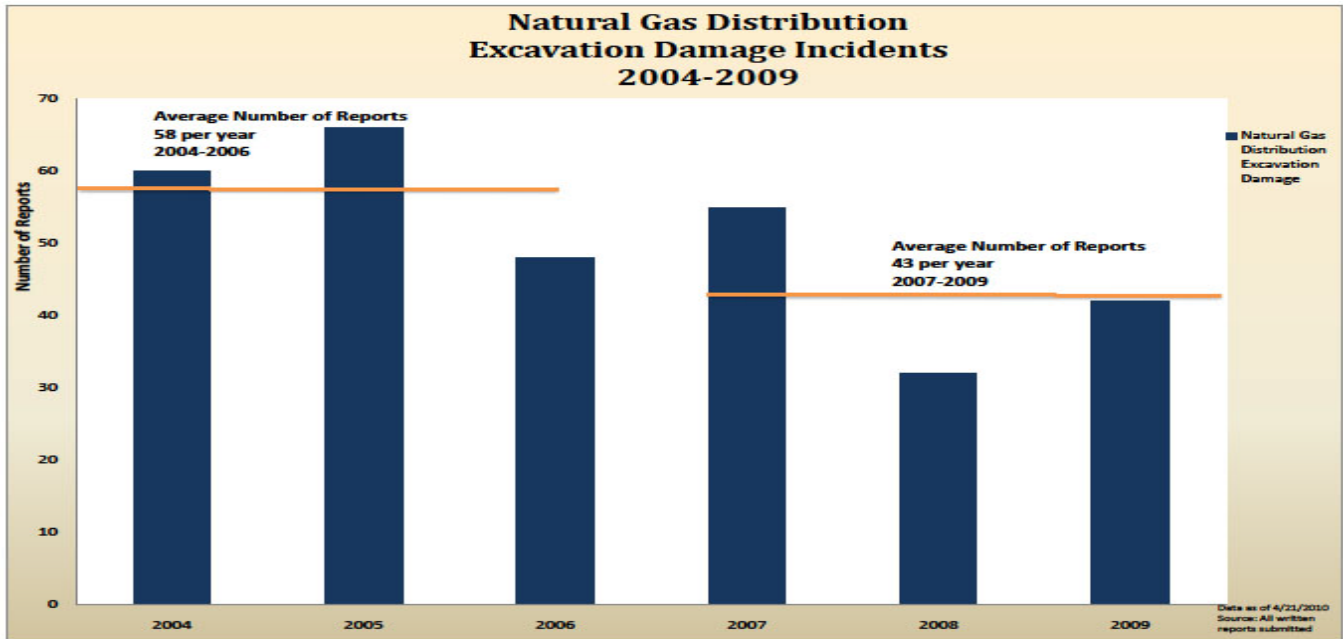
State pipeline safety agencies oversee the bulk of the 2.5 million miles of pipeline infrastructure. Specifically, states are responsible for oversight of virtually all gas distribution pipelines, gas gathering pipelines and intrastate gas transmission, as well as 88% of intrastate hazardous materials liquid pipelines and 20% of the interstate gas pipelines. PHMSA maintains primary responsibility for the remaining pipelines, including all interstate hazardous liquid pipelines and 80% of the interstate gas pipelines. States employ approximately 63% of the inspector workforce. The expansion of the Federal pipeline safety initiatives has increased the cost of and resource demands on both federal and state pipeline safety agencies.

In recognition, Congress increased PHMSA's ability to provide grants to state pipeline safety agencies to offset the costs associated with the statutory requirements for their inspection and enforcement programs. In addition, Congress gave PHMSA considerable resources to expand its relationship with state pipeline safety agencies, increasing policy collaboration, training, information sharing, and data quality and collection. In FY 2010, PHMSA's \$40.5 million appropriation to support state programs will fund 54% of state pipeline safety programs. Additionally, the President's FY 2011 request includes an increase in funds to support state programs totaling approximately \$44.5 million, which would reflect a 65% funding of the state pipeline safety programs. These partnerships have proven to be one of PHMSA's strongest assets in helping to strengthen the safety of pipelines in American communities.



2. PHMSA Has Strengthened Damage Prevention Efforts.

The vast majority of America’s pipeline network is underground making pipelines vulnerable to accidental breaches and failures by third-party excavators. While excavation damage is 100% preventable, it remains a leading cause of pipeline incidents involving fatalities and injuries. Three-quarters of all serious consequences from pipeline failures relate to distribution systems and more than one-third of these failures are caused by excavation damage. PHMSA’s goal is to significantly reduce excavation damage with strong outreach and public awareness programs. As evident in the chart below, PHMSA is making progress.



The PIPES Act authorizes PHMSA to award State Damage Prevention (SDP) grants to fund improvements in damage prevention programs. Each state has established laws, regulations, and procedures shaping its state damage prevention program. Since 2008, PHMSA provided over \$4 million dollars in SDP grants to 30 distinct state organizations. Eligible grantees include state one call centers, state pipeline safety agencies, or any organization created by state law and designated by the Governor as the authorized recipient of the funding.

SDP grants reinforce nine specific elements that make up the components of an effective damage prevention program, under the PIPES Act:

1. Enhances communications between operators and excavators;
2. Fosters support and partnership of all stakeholders;
3. Encourages operator's use of performance measures for locators;
4. Encourages partnership in employee training;
5. Encourages partnership in public education;
6. Defines roles of enforcement agencies in resolving issues;
7. Encourages fair and consistent enforcement of the law;
8. Encourages use of technology to improve the locating process; and
9. Encourages use of data analysis to continually improve program effectiveness.

PHMSA's Technological Development Grants program makes grants to an organization or entity (not including for-profit entities) to develop technologies that will facilitate the prevention of pipeline damage caused by demolition, excavation, tunneling, or construction activities. A total of \$500,000 was appropriated for the program in 2009. Two awards have been made to date.

PHMSA has also used the authority in the PIPES Act to promote public education awareness with national programs such as, "811- Call Before You Dig Program" through the Common Ground Alliance (CGA). PHMSA provided over \$1.5 million funding assistance for CGA's 811 advertising campaign.

PHMSA is proud of its continued and steady leadership in supporting national and state damage prevention programs. In March 2010, we participated in the CGA's annual meeting highlighting the importance of the National "811-- Call Before You Dig Program." In April

2010, Transportation Secretary LaHood acknowledged the importance of calling before you dig by establishing April as “National Safe Digging Month.” The U.S. Senate and the House of Representatives both introduced resolutions designating April 2010 as “National Safe Digging Month.” Forty states, including those represented by the members of this committee, also followed suit. The efforts driven and supported by PHMSA, involved the CGA, many states, and damage prevention stakeholders from around the country, who are advocates for safe excavation practices.

3. PHMSA Has Launched the Technical Assistance Grant Program.

The PIPES Act empowers PHMSA to encourage communities to take part in efforts to develop technical solutions for environmental and emergency planning, zoning, and land use management near pipelines, and to prevent damage to pipelines. Under this authorization, PHMSA created the Technical Assistance Grant (TAG) program to provide grants to local communities and organizations for technical assistance related to pipeline safety issues. Technical assistance is defined as engineering or other scientific analysis of pipeline safety issues. The funding can also be used to help promote public participation in official proceedings.

In 2009, PHMSA selected 21 communities and organizations to receive funding through the agency’s TAG program. Grants, totaling \$1 million, were used to foster open communication between the public and pipeline operators on pipeline safety and environmental issues, and perform other important tasks. Examples of such projects include the use of geographic information systems for enhanced pipeline monitoring and public awareness campaigns to promote the sharing of information between pipeline operators and landowners.

Each technical assistance grant recipient must provide a report to PHMSA within one year of its award demonstrating completion of the work as outlined in its grant agreement. PHMSA is thoroughly overseeing this process and will evaluate the expected outcomes of each

grant recipient. PHMSA's Community Assistance and Technical Services Managers will offer their technical support to communities and organizations as well to address pipeline safety questions that may arise during the course of the grant agreement period.

4. PHMSA's Pipelines and Informed Planning Alliance Advances Smart Growth along Pipelines in Our Communities.

In addition to the grants, PHMSA has conducted other activities to inform the public and engage public interest and participation in all of its initiatives. We funded publicly accessible, internet broadcast viewing of two pipeline events sponsored by the Pipeline Safety Trust, including a focus on safer land use planning. We have made one grant and may make others to professional associations of county and city government officials to represent the public in the Pipelines and Informed Planning Alliance (PIPA). PIPA is an initiative organized by PHMSA to encourage the development and use of risk-informed land use guidelines to protect pipelines and communities.

A companion effort is helping communities understand where pipelines are located, who owns and operates them, and what other information is available for community planning. Following the passage of the PIPES Act, PHMSA worked with the Department of Homeland Security (DHS)/Transportation Security Administration (TSA) to resolve concerns about sensitive security sensitive information. Vital information that communities need for land use, environmental, and emergency planning around pipelines is now publicly available through PHMSA's National Pipeline Mapping System (NPMS). We continue to work with states, industry, and other stakeholders to make the NPMS information more accurate and useful.

**C. PHMSA Has Addressed the Additional Regulatory Enhancements and Undertook Congressional Required Studies.**

In addition to the programmatic authorizations already discussed, Congress provided PHMSA with the authority to address narrow, but significant, gaps in its safety regulations. The

gaps related to regulating low stress pipelines, effective response to emergency disruption of pipeline operations, regulation of direct sale natural gas pipelines, and the coordination of pipeline security responsibility. PHMSA has addressed all of these additional regulatory initiatives in the PIPES Act.

Low Stress Pipelines. Under the direction of the PIPES Act, PHMSA took action to regulate rural low-stress hazardous liquid pipelines to the same standards as other hazardous liquid pipelines. Low stress pipelines operate at or below 20% specified minimum yield strength. PHMSA had already regulated low stress hazardous liquid pipelines that were in populated areas or that crossed commercially navigable waterways. The PIPES Act stressed that PHMSA needed to regulate all low stress line including those rural low stress lines that could pose a threat to unusually sensitive environmental areas. On June 3, 2008, we published a Final Rule, Low Stress I, as phase one of a two phase process to complete the regulatory mandate in the PIPES Act. Low Stress I brought under safety regulation those rural low-stress pipelines that pose the greatest risk to environmentally sensitive areas, particularly low stress lines that are 8 5/8 inches or greater in diameter and located in or within a 1/2-mile of an unusually sensitive area. With Phase I accomplished, PHMSA is now working on issuing a notice of proposed rulemaking for Low Stress II. Low Stress II will bring the remainder of the unregulated low stress pipelines under our safety regulation.

Emergency Waiver of Pipeline Safety Requirements. The PIPES Act provided authority allowing PHMSA to waive compliance with certain federal pipeline safety requirements without notice and opportunity for a hearing if needed to address an emergency involving pipeline transportation. In the wake of hurricane Katrina, Congress recognized that in an emergency, it would not be feasible to provide for notice and opportunity for a hearing, as provided for other

waivers. PHMSA issued a final rule on January 16, 2009, to process emergency special permits when necessary to address an actual or impending emergency caused by a natural or manmade disaster.

Clarify Regulation of Direct Sale Natural Gas Pipelines. PHMSA issued an advisory bulletin on May 13, 2008, advising operators that the PIPES Act eliminated the exception of direct sale natural gas pipelines from the definition of an interstate gas pipeline facility and that PHMSA is now responsible for regulatory oversight and enforcement of these lines.

OIG Recommendations Regarding Pipeline Security Annex. After the OIG completed its statutorily required report to Congress on DOT actions to implement the pipeline security annex between DOT and the DHS, PHMSA addressed all three recommendations in the report. We finalized the action plan for implementing the annex. We formalized each agency's security roles and responsibilities and helped develop a Pipeline Security Incident Response Protocols plan for responding to potential terrorist actions. We coordinate efforts to minimize duplicative security inspections and we have almost daily communication with DHS concerning pipeline safety events and security incidents.

In the PIPES Act, Congress also requested that PHMSA undertake certain studies to attend to specific concerns brought to light by certain natural disasters and the aging infrastructure of the pipeline system. We appreciate the opportunity to show Congress that we are working diligently with our stakeholders and other governmental departments to address petroleum capacity, leak detection, and internal corrosion concerns, as well as to determine appropriate risk assessment intervals. PHMSA has conducted and reported to Congress on all the required studies.

Petroleum Capacity Market Study. On June 1, 2008, PHMSA submitted to Congress a final report on the domestic transport capacity of petroleum products by pipeline and to reduce the likelihood of shortages of petroleum products or price disruptions due to shortages of pipeline capacity.

Leak Detection Systems Study. On June 23, 2009, PHMSA submitted to Congress a final report describing the capabilities and limitations of leak detection systems used by hazardous liquid pipeline operators. The report also discusses ongoing investment by PHMSA and research to improve the sensitivity of leak detection technology, particularly for hazardous liquid operators. As we stated in the report, PHMSA has adequate oversight to evaluate the leak detection capability of individual operators and has exercised authority as needed to compel systems upgrades where warranted.

Internal Corrosion Control Regulations Study. On June 23, 2009, PHMSA submitted to Congress a final report of its thorough review of the federal pipeline safety internal corrosion control regulations, accident history, research findings, and consensus standards to determine if such regulations are adequate. In our report to Congress, we found that existing regulations are generally sufficient to achieve safety and environmental protection goals but that we were also considering other near and long-term actions to further reduce the risk of internal corrosion.

Seven-Year Risk Assessment Study. In November 2007, PHMSA reported to Congress on its review of the GAO report on the seven-year assessment interval and sent Congress legislative recommendations necessary to implement the conclusions of that report. PHMSA reviewed its experience with gas transmission operators' implementation of integrity management and the GAO report on this subject. We recommended that Congress amend the law to provide us the authority to promulgate risk based standards for determining pipeline

reassessment intervals. As a risk-based, data-driven organization, we continue to believe that a scientific basis is the best way to determine safety decisions and the allocation of resources. We have demonstrated that PHMSA and its state agency partners have the ability, experience, and training to review the adequacy of engineering justification that would be presented to us by operators seeking to vary the reassessment interval. In January 2008, we held a public meeting on the technical basis for making decisions on assessment intervals. The bottom line is that we believe these decisions should be made on a case-by-case basis, one operator at a time, and segment by segment, so that relevant operating characteristics can be considered along with individual operator performance.

## **II. BUILDING ON A SOLID FOUNDATION**

As we continue to advance pipeline safety, we believe we have a solid foundation to build on. We have accomplished a great deal, but much remains to be done to implement the promise of the PIPES Act. We are committed to completing the two remaining initiatives authorized by PIPES Act – completing the notice of proposed rulemaking to regulate low stress pipelines this year, and taking the next step to implement federal enforcement of third party excavation damage to pipelines.

We have accomplished many goals with our state partners; however, we need to make sure that our state partners continue to receive the resources they need to implement not only damage prevention initiatives but the distribution integrity management program. We hope that the grant programs to states and communities supported and funded in the PIPES Act receive continued support.

PHMSA also intends to update its enforcement strategy and penalties to deter future non-compliance and incentivize better performance. We continue to make full use of the increased civil penalty authority granted in the Pipeline Safety Improvement Act of 2002. It is evident



from the comparable periods before and after the PIPES Act, PHMSA has doubled its proposed pipeline safety civil penalties, and the average per case has more than tripled. Specifically, between 2004 and 2006, we proposed \$10 million in civil penalties, with an average proposed civil penalty of \$57,000; and, between 2007 and 2009, we proposed \$19 million in civil penalties and an average proposed civil penalty of \$183,000. Furthermore, the average penalty proposed per individual violation<sup>1</sup> has increased from approximately \$16,000 in 2002 to an average of approximately \$100,000 today. As a result, in major cases we are now limited by the cap of \$100,000 per violation/\$1,000,000 series in our penalty provisions. As integrity management programs take hold, we intend to ensure operator accountability through strong, effective enforcement.

We look forward to seeing our integrity management programs continue to mature and yield results. With this in mind we will continue to look at performance measures and ways we can improve the data that we collect. Having more, and better, data will help us make risk based informed decisions along the way as we look to see what other regulatory gaps need to be strengthened or closed. We will also continue to monitor the effectiveness of integrity management programs and the need for additional regulatory enhancements.

With the anticipated increase in transportation of new products with properties like ethanol, hydrogen, carbon dioxide, and potentially other bio-fuels, we are working to ensure a solid regulatory framework to prevent accidents and ensure safety. We currently regulate pipelines transporting ethanol blends and to the extent new biofuels are developed in the future that will involve pipeline transportation, PHMSA is committed to taking whatever steps are necessary to ensure that such transportation will be conducted safely. We coordinate with other

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<sup>1</sup> Each Notice of Probable Violation case usually contains multiple individual violations.

federal agencies to forecast the transportation implications from the inception of marketing new fuels, as part of a systemic oversight process. We coordinate with other countries to benefit from their experience. We continue to work with individual operators, identifying safety concerns that must be satisfied, both with the infrastructure and with the surrounding community. For example, ethanol poses very unique emergency response challenges, and PHMSA is responsible for helping communities prepare. We collaborate with the pipeline industry, the renewable fuels organizations, and others like emergency responder organizations and the National Commission on Energy Policy, to investigate and solve technical challenges.

In closing we look forward to working with Congress to address these issues and to reauthorize the pipeline safety program. PHMSA very much appreciates the opportunity to report on the status of our progress with PIPES Act implementation and I am committed to full compliance. Thank you. I would be pleased to answer any questions you may have.

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