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**TESTIMONY OF
THE PIPELINE SAFETY TRUST**

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**Presented by:
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**BEFORE THE

UNITED STATES SENATE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION**

**FIELD HEARING ON

PIPELINE SAFETY: AN ON-THE-GROUND LOOK AT SAFEGUARDING THE PUBLIC**

**JANUARY 28, 2013
ROBERT C. BYRD UNITED STATES COURTHOUSE
CHARLESTON, WV**

Good morning, Chairman Rockefeller and members of the Committee. Thank you for inviting me to speak today on the important subject of pipeline safety. My name is Rick Kessler and I am testifying today in my purely voluntary, uncompensated role as the President of the Pipeline Safety Trust. My involvement and experience with pipeline safety stems from my years as one of the primary staff members on such issues in the House of Representatives and my subsequent work with the Pipeline Safety Trust.

The Pipeline Safety Trust came into being after a pipeline disaster over thirteen years ago - the 1999 Olympic Pipeline tragedy in Bellingham, Washington that left three young people dead, wiped out every living thing in a beautiful salmon stream, and caused millions of dollars of economic disruption. While prosecuting that incident the U.S. Justice Department was so aghast at the way the pipeline company had operated and maintained its pipeline, and equally aghast at the lack of oversight from federal regulators, that the Department asked the federal courts to set aside money from the settlement of that case to create the Pipeline Safety Trust as an independent national watchdog organization over both the industry and the regulators. We have worked hard to fulfill that vision ever since, but with continuing major failures of pipelines, such as the one in Sissonville, West Virginia that brings us here today, we question whether our message is being heard.

Born from a tragedy in Bellingham, but also riding on the facts and emotion of other tragedies in places like Edison, New Jersey; Carlsbad, New Mexico; Walnut Creek, California and Carmichael, Mississippi, we have testified to Congress for years about the improvements needed in federal regulations to help prevent more such tragedies. For years we have talked about the need for more miles of pipelines to be inspected by smart pigs. We have pleaded for clear standards for leak detection, requirements for the placement of automated shut off valves, closing the loopholes that allow a growing mileage of pipelines to remain unregulated, and for better information to be available so innocent people will know if they live near a large pipeline and whether that pipeline is maintained and inspected in a way to ensure their safety.

So here we are again after the very recent failure of a pipeline in Sissonville which completely destroyed three homes, damaged other homes, caused extensive damage to an interstate highway, and once again terrorized a community. This recent failure falls too soon after a spate of significant failures over the past few years in Michigan, California, Pennsylvania, Montana, and

Utah. Many of these failures had common themes and common solutions that could have prevented or at least minimized their impacts. We have been asking for action on these issues in previous hearings following previous tragedies for years now. Last year, Congress passed the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, which began to move the regulators and the pipeline industry in the right direction on some of these issues, but the speed of review, rule making, implementation and enforcement of the needed changes was not sufficient to prevent the tragedy in Sissonville. It is our sincere desire not to be back in front of this committee again in the future saying the same things after yet another tragedy.

The vision of the Pipeline Safety Trust is simple. We believe that communities should feel safe when pipelines run through them, and trust that their government is proactively working to prevent pipeline hazards. We believe that local communities who have the most to lose if a pipeline fails should be included in discussions of how best to prevent pipeline failures. And we believe that only when trusted partnerships between pipeline companies, government, communities, and safety advocates are formed, will pipelines truly be safer.

Clearly trust in pipeline safety has now been lost in the community around Sissonville, so add those people to people in Michigan, California, Pennsylvania, Montana, Utah and elsewhere, where people now question whether the industry, regulators and legislators are really doing all they can to keep people and the environment safe.

In my testimony today I will focus on areas that are pertinent to natural gas transmission pipelines like the one that failed in Sissonville. Since much of the pertinent information about the Sissonville failure, such as whether or not it had been previously inspected, what type of inspection was used, whether the failure site was within a high consequence designation, and the type of valves upstream and downstream of the rupture site, has not yet been released, specific conclusions related to this failure would be premature. I will also review areas addressed by the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, and needed safety areas that bill failed to address. These are the issues I would like to speak to today:

- Response times to pipeline ruptures
- Expanding and clarifying integrity management requirements
- Inadequate federal and state resources

- Non-regulated and under-regulated Gathering Lines
- Poor facility response planning (hazardous liquids)
- Lack of clear jurisdiction for new pipeline approval and routing decisions
- Pipe replacement programs (cast iron, bare steel, faulty plastics)
- Quantifying natural gas leak significance
- Depth of cover at river crossings
- Diluted bitumen study constraints

Response times to pipeline ruptures – One of the critical issues related to any type of pipeline rupture is how quickly the pipeline operator can identify that a rupture has occurred and then act to shut the pipeline down to minimize any further effects of the pipeline failure. In a perfect world, built in leak/rupture detection systems would alert a pipeline controller of a rupture immediately and allow for the quickest response to shut down the pipeline.

Unfortunately, as the final report - **Leak Detection Study – DTPH56-11-D-000001**, which was recently provided to this Committee by PHMSA shows, for all leaks on natural gas transmission pipelines less than 16% are initially identified by the current leak detection systems. Even for the larger major releases that should be more easily identified with such systems less than 50% of these failures are initially identified by current leak detection systems. What this means is that someone other than the pipeline controller, such as local residents or emergency response personnel, or field employees with the pipeline company are the ones that initially identify the pipeline failure, and precious time is then lost as this failure identification is then relayed to the control room.

Once a failure has been identified, the pipeline operator still needs to be able to shut down the valves on either side of the failure site so the natural gas roaring into the local community is minimized as much as possible. In the case where the natural gas ignites, such as in Sissonville, the closure of these valves is what can halt the blowtorch effect on the neighborhood and allow emergency responders to access the area to do their jobs. The types of valves in these critical locations, and how far apart they are spaced, play an important role in how quickly the fuel will stop flowing into the community. The final report on automated valves - **Studies for the Requirements of Automatic and Remotely Controlled Shutoff Valves on**

Hazardous Liquids and Natural Gas Pipelines with Respect to Public and Environmental Safety - that PHMSA recently provided this Committee provides the following cost effective strategy for reducing the consequences of natural gas pipeline failures such as occurred in Sissonville.

“For natural gas pipelines, adding automatic closure capability to block valves in newly constructed or fully replaced pipeline facilities may be a cost effective strategy for mitigating potential fire consequences resulting from a release and subsequent ignition provided...”

“The leak is detected and the appropriate ASVs and RCVs close completely so that the damaged pipeline segment is isolated within 10 minutes or less after the break, and fire fighting activities within the area of potentially severe damage can begin soon after the fire fighters arrive on the scene.”

Unfortunately, as was seen in the recent Sissonville failure, and even more dramatically in the 2010 San Bruno tragedy, the leak detection systems combined with the associated valves were not capable of meeting the timeline in this cost effective consequence mitigation strategy. While these leak detection and valve issues have been talked about for years, current federal regulations do not require such automated valves, and it appears adequate leak detection systems for natural gas pipelines are many years off and will only be developed if adequate funding is provided for ongoing research and development. We join with the NTSB in calling for new regulations to require these automated valves at a minimum in all High Consequence Areas¹. The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 fell well short of these requirements by only requiring such valves for new or fully replaced pipelines. This shortcoming of the 2011 Act should be corrected to ensure that people living along existing natural gas transmission pipelines, such as in San Bruno and Sissonville, are afforded this additional protection also.

One other issue that Congress should keep a careful eye on relates to the development of a performance-based response time for companies to respond to and shut down pipelines in significant events such as Sissonville. The recent GAO report alludes to such a standard in its recommendations, which in part state:

“evaluate whether to implement a performance-based framework for incident response times.”

We certainly agree with GAO that the first step is to improve the incident response data available so such decisions can be made based on clear facts. In submittals to PHMSA on this issue, and at

¹ NTSB recommendation P-11-011, 9/26/2011

numerous public meetings, the Interstate Natural Gas Association of America (INGAA) has tried to create a starting point for such a standard response time discussion by repeating its findings and commitment of:

“In populated areas, INGAA members have committed to having personnel on scene within one hour to coordinate with first responders and isolate failures.”²”

As the recent valve study provided to you by PHMSA, and mentioned previously states, to effectively mitigate potential fire consequences from natural gas pipeline ruptures the failed pipeline segment needs to be isolated within 10 minutes. While it is true that a good deal of the damage from such pipeline failures occurs in the first minutes after failure, there is also clear evidence from places such as San Bruno and Edison that faster isolation of failed lines can reduce fire consequences and reduce the terror that citizens within the area experience. This often needlessly prolonged terror is rarely figured into the equations for such response times to shut down pipelines, but talk to anyone that lives through one of these events and you will realize that the terror has ongoing personal effects for years. Getting operators on site to isolate the ruptured site within an hour means that it will frequently be well over an hour before firefighters can safely enter the area. For firefighters waiting to get access to a potentially growing fire scene, and for those who live and work in the areas at risk, particularly hard to evacuate populations, that hour would be interminable. We do not believe one hour is a fast enough response time, and we urge Congress to keep a careful eye on this response time discussion.

Expanding and clarifying integrity management requirements – The Pipeline Safety Trust has testified at numerous Congressional hearings on the need to expand integrity management processes for hazardous liquid and gas transmission pipelines beyond the current limited requirements of High Consequence Areas. Integrity management programs have shown value by being responsible for the identification and repair of thousands of flaws in pipelines over the past decade. Unfortunately these programs are only required on around 44% of hazardous liquid pipelines and 7% of natural gas transmission pipelines. This leaves thousands of people in more rural areas without the clear safety benefits that integrity management programs provide.

We are thankful that in the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 Congress asked PHMSA to study the expansion of integrity management beyond High

² Interstate Natural Gas Association of America, 11/2/11, comments on ANPRM for Safety of Gas Transmission Pipelines, Docket# PHMSA-2011-0023

Consequence Areas, and we are also encouraged that PHMSA has already undertaken two significant Advanced Notices of Proposed Rulemakings to get this process started. Many progressive companies recognizing the value of integrity management programs have already moved to include all of their pipeline mileage under these programs, and the Interstate Natural Gas Association of America has publicly supported the expansion of integrity management to all miles of gas transmission pipelines.

While the Pipeline Safety Trust has been very supportive of the integrity management programs and would like to see them expanded, it is also clear that the program needs to be reevaluated to ensure that it is working as originally planned. There are a few areas within the integrity management programs that we believe need to be reassessed to ensure they are moving safety forward as intended. We understand that PHMSA is already preparing for a review and update of the integrity management program for transmission pipelines, and NTSB has also questioned whether regulators have clear evaluation metrics to effectively inspect and enforce such performance-based regulations. The most well publicized example of an issue that undermines proper integrity management related to the San Bruno tragedy where a lack of proper records led to incorrect assumptions about the type and quality of pipe in the ground. While much effort has been put into this record verification issue, there are other concerns with the integrity management program that still need to be addressed.

For example, also in the San Bruno tragedy, and perhaps in the recent Sissonville failure also, the use of Direct Assessment as a tool to inspect these large transmission pipelines has come into question. From the record of the development of the original integrity management program for natural gas transmission pipelines, it is clear that direct assessment was included as a way to appease the industry and help them avoid the large cost of retrofitting their pipelines so they could use the most up-to-date and effective internal inspection devices. Engineers from within regulatory agencies have shared concerns with us that the use of Direct Assessment is often done incorrectly, and is rarely as effective as the other approved integrity management inspection methods. We hope that a complete and thorough review of the use of Direct Assessment is undertaken soon, and that clearer criteria are developed for when and how it can be used. We support the NTSB recommendations that address this point by calling for hydrostatic pressure tests for all older pipe, and that all pipe be configured to accommodate inline inspection devices³.

³ NTSB recommendations P-11-014 & P-11-017, 9/26/2011

One further piece of the integrity management program that we think needs to be reviewed is the repair criteria. Pipelines that do not fall under the integrity management rules have a fairly conservative safety factor built into the design and operation, to account for the fact that once put in the ground there are no current requirements that they be inspected using the best inspection technologies. The repair criteria under the integrity management program reduce this safety factor because it was assumed that companies would be regularly inspecting their pipelines and would catch any problems before they reach a critical state. As seen in many failures in recent years this is a dangerous assumption, so we believe the repair criteria within the integrity management programs need to be reviewed and probably tightened to ensure a sufficient safety factor is maintained, since to date integrity management assumptions have not always been accurate.

We are concerned that PHMSA has not issued proposed rules on the Advanced Notices of Proposed Rulemakings (ANPRMs) to update both natural gas and hazardous liquid pipeline safety requirements. The Trust, industry, and other stakeholders spent many hours developing comments to respond to the ANPRMs on pipeline safety needs, especially in the area of integrity management. We hope Congress ensures that PHMSA acts in a timely manner on these important regulatory issues concerning integrity management.

Inadequate federal and state resources - For years the Pipeline Safety Trust has served on one of PHMSA's technical advisory committees, has helped with PHMSA workgroups on specific pipeline initiatives, and has had a great deal of interaction with PHMSA staff at all levels of the organization. All these interactions have confirmed our belief that this small agency is critical to pipeline safety, but is not as effective as it could be because of a lack of financial and personnel resources. The same issues also apply to state regulators who actually have more inspectors on the ground. For these reasons we support PHMSA's 2013 budget request⁴, which would provide additional funding to support the needed increase in inspectors and analysts, an Accident Investigation Team, an increase in state funding, greater research and development, and the development of the much needed National Pipeline Information Exchange to help ensure adequate and accurate information is being collected to make good safety decisions. We hope this Committee, as the Senate committee that has the clear understanding of pipeline safety needs, will work with your colleagues to obtain this critical funding.

⁴ U.S. Department of Transportation, Budget Estimates, Fiscal Year 2013
<http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/FY%202013%20PHMSA%20BUDGET.pdf>

Non-regulated and under-regulated Gathering Lines – With the huge increase in natural gas production in states such as West Virginia and Pennsylvania, thousands of miles of under-regulated or completely unregulated gathering lines have recently been installed and more are on the way. No one really knows how many miles of gathering lines are out there or where they are located or how many have releases because up until recently no one ever tracked them. For example, the March 2012 GAO report⁵ on unregulated gathering pipelines stated “out of the more than 200,000 estimated miles of natural gas gathering pipelines, PHMSA regulates roughly 20,000 miles.” While in years past these gathering lines were smaller and lower pressure, many of the new gathering lines now being used in formations such as the Marcellus Shale are the same size and even higher pressure than the pipeline that failed in Sissonville. Yet unlike the Sissonville transmission pipeline, the majority of these gathering lines in rural areas, which may have riskier safety profiles than the Sissonville pipeline, are completely unregulated by the federal government.

For the most part the 20,000 miles of gathering lines that do fall under PHMSA regulations are the gathering lines that lie within more populated areas. Again many of these “regulated” gathering lines in these populated areas are the same size and pressure as the transmission pipelines that failed in San Bruno and Sissonville, yet are not afforded equal level of pipeline safety protection. For example a transmission pipeline running through a town would be required to undertake the important integrity management inspections to help ensure its safety, yet a gathering line that has the exact same risk profile running through that same town is currently not required to ever undertake any form of the important integrity management inspection and risk analysis.

While the development of various natural gas shale plays around the nation has arguably been a boon to our energy supplies and economy, because of this serious loophole in the pipeline regulations it has also increased the risk to thousands of people in these same areas. This is a loophole that needs to be closed as soon as possible before we have to gather for another hearing after a tragedy along one of these under-regulated or completely unregulated gathering pipelines.

Similarly, there are numerous unregulated hazardous liquid gathering lines with characteristics

⁵ GAO, Collecting Data and Sharing Information on Federally Unregulated Gathering Pipelines Could Help Enhance Safety, Report #GAO-12-388, March 2012

similar to regulated hazardous liquid lines. PHMSA needs to adequately regulate these gathering lines. Congress should consider elimination of the term “gathering” line for hazardous liquids. Doing so would ensure that all oil gathering lines are regulated, as the State of Alaska has done for its oil pipelines.

Poor facility response planning (hazardous liquids) – The NTSB in its report on the Marshall, Michigan spill of nearly a million gallons of oil into the Kalamazoo River made numerous recommendations targeted at improving facility response planning for hazardous liquid pipelines⁶. We support all of the NTSB recommendations and hope they will be acted upon as quickly as possible. As we have testified to this committee previously, the review and adoption of such response plans is a process that does not include the public. In fact PHMSA has argued that it is not required to follow any public processes, such as those under the National Environmental Policy Act, for the review of these plans. If the Enbridge pipeline spill in Marshall, Michigan and the BP Gulf tragedy have taught us nothing else it should have taught us that the industry and agencies could use all the help they can get to ensure such response plans will work in the case of a real emergency.

It is always our belief that greater transparency in all aspects of pipeline safety will lead to increased involvement, review and ultimately safety. There are many organizations, local and state government agencies, and academic institutions that have expertise and an interest in preventing the release of fuels to the environment. Greater transparency would help involve these entities and provide ideas from outside of the industry. The State of Washington has passed rules that when spill plans are submitted for approval the plans are required to be made publicly available, interested parties are notified, and there is a 30 day period for interested parties to comment on the contents of the proposed plan⁷. We urge Congress to require PHMSA to develop similar requirements for review and approval of spill response plans across the country, and that PHMSA’s review and approval of facility response plans for new pipelines be an integral part of any environmental reviews required as part of the pipeline siting process.

To encourage greater public education and awareness regarding these response plans, Section 6 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 required PHMSA to

⁶ NTSB recommendations P-12-001, P-12-002, P-12-009, P-12-010, 7/25/2012

⁷ Washington Administrative Code 173-182-640

“provide upon written request to a person a copy of the plan.” In April of 2012, three months after the 2011 Act became law, the Pipeline Safety Trust requested a few of these facility response plans from PHMSA. We received an acknowledgement of our request within 2 weeks, but nine months later we are still waiting to receive the plans requested. In the State of Washington if we request such a facility response plan it is normally delivered to us on a CD within the week. While we certainly understand that PHMSA is understaffed, such long delays in filling information requests does little to accomplish the Congressional intent for public education and awareness, and makes us wonder how long others are waiting for information also.

Lack of clear jurisdiction for new pipeline approval and routing decisions –

Nearly everyone agrees that the people living along the rights-of-way of the pipelines in this country can serve a very valuable function as the eyes and ears for pipeline safety along those routes. Unfortunately, too often the lack of any clear routing process and overly aggressive tactics by right-of-way agents sour the relationship before it even gets started, leaving too many property owners disgruntled and no longer willing to cooperate on safety issues.

For interstate natural gas transmission pipelines FERC provides a predictable siting process that provides communities potentially impacted by proposed pipelines valuable information about the proposal and ways to have their concerns heard and hopefully addressed. For all hazardous liquid pipelines, and for intrastate natural gas pipelines there is no such predictable process or information source. Some states have developed their own processes, while others have not, allowing smaller and smaller pieces of the decisions to fall on cities, counties and townships that often lack much knowledge regarding the issues associated with pipelines. This mish mash of routing authority often leads to a high degree of frustration from property owners and local governments who will be impacted by these decisions, and we suspect does not lead to the best routing decisions. Throw into the mix the often early threat of eminent domain and it is easy to see why these routing decisions too often become news stories about gymnasiums full of angry people that ultimately undermine trust in pipeline safety.

While the problem is clear and being repeated more frequently because of our new sources of gas and oil, we hope that Congress will use its investigative powers to commission a comprehensive study on this important issue to help find a solution. The study should at a minimum look at the shortfalls of the current system, compare the outcomes from the FERC process to the outcomes

that fall outside of FERC authority, and consider which federal or state agencies are best equipped to help make these routing decisions for the various different types of pipelines. The study should also discuss any added benefits such cohesive route planning may produce in the form of lessening impacts by encouraging pipeline companies to better share infrastructure and rights-of-way, and in comprehensive environmental analysis allowing public review of potential alternatives.

Pipe replacement programs (cast iron, bare steel, faulty plastics) – Section 7 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 required the Secretary to conduct a survey every two years “to measure the progress that owners and operators of pipeline facilities have made in adopting and implementing their plans for the safe management and replacement of cast iron gas pipelines.” After years of knowledge of the problems associated with this old cast iron pipe, and continued failures causing death and community destruction, this survey, which PHMSA has posted on their website, serves as a good way of shining a light on the operators who have taken this problem seriously and those who may not have. This was a great first step but could be expanded to be even more effective.

Cast iron pipe is not the only type of pipe in the ground that has clearly known deficiencies. There are some types of plastic pipe that also have been identified as in need of replacement, and older bare steel pipe that lacks the important protective coating of more modern pipe also poses a threat. These types of pipe should also be added to the survey to provide a measurable metric of how well pipeline companies are doing to address these potential problems.

While the Pipeline Safety Trust’s main concern is the replacement of these types of problematic pipes for safety reasons, we also realize that paying for these replacement programs is a complicated equation. Many of the companies that have these pipes operate as regulated monopolies with a guaranteed rate of return, so the success of replacement programs often also lies with how state utility commissions approve rates for these replacement programs. We certainly support companies getting a fair return on safety investments, but the mechanisms to provide that return have to be carefully crafted to ensure the ratepayers are not paying for more than their fair share or for replacing things just to increase the rate of return with no real safety benefit.

Quantifying natural gas leak significance – With recent failures and deaths from leaking natural gas distribution systems the public has come to question the safety of the very common small leaks, which both regulators and industry acknowledge. New technology has also been developed that allows a person to drive through a neighborhood and see these small leaks all around. Recent information estimates that between 1.4% to 3.6% of all natural gas could be lost during transport, storage and distribution⁸. A 2009 article in the Pipeline & Gas Journal⁹ regarding just the cast iron pipe portion of the pipeline network stated:

A significant source of natural gas losses from distribution systems is cast iron distribution pipes. U.S. cast iron distribution mains are estimated to have leaked 9 billion cubic feet (Bcf) of natural gas in 2007. This equates to \$150 million worth of gas, assuming the average U.S. distribution price in 2007, or \$50 to \$115 million if gas were valued between \$3 and \$7 per thousand cubic feet (Mcf).

We are surprised that more information has not been developed to clarify the quantity and significance of such leaks. Often such small leaks do not represent a safety hazard, but it only makes common sense that the loss of such a potentially large amount of gas is a significant waste of a non-renewable natural resource. Furthermore, methane (the main constituent of natural gas) has a far more potent negative effect on climate change than carbon dioxide, so the real quantity of natural gas leaking from these pipelines is important to understand along with what efforts to correct these leaks may be cost effective. We hope that Congress will ask for a study to better quantify these leaks, and discuss the impacts they have to safety, user rates, resource conservation, and climate change. Following such a study, Congress should consider requiring PHMSA to monitor and address significant natural gas leak problems from pipelines, compressor stations and storage.

Depth of cover at river crossings - –Section 28 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 requires the Secretary to “conduct a study of hazardous liquid pipeline incidents at crossings of inland bodies of water with a width of at least 100 feet from high water mark to high water mark to determine if the depth of cover over the buried pipeline was a factor in any accidental release of hazardous liquids.” That study has been

⁸ Robert W. Howarth · Renee Santoro · Anthony Ingraffea, 2011, Methane and the greenhouse-gas footprint of natural gas from shale formations - http://www.psehealthyenergy.org/data/Howarth_Climatic_Change_Shale_Methane1.pdf

⁹ Pipeline & Gas Journal, New Measurement Data Has Implications For Quantifying Natural Gas Losses From Cast Iron Distribution Mains, September 2009 Vol. 236 No. 9, Carey Bylin, Luigi Cassab, Adilson Cazarini, Danilo Ori, Don Robinson and Doug Sechler

provided to this Committee, and concluded that depth of cover at river crossings was a factor in at least 16 incidents since 1991. A recent Wall Street Journal article¹⁰ provides a good overview of this problem along just one section of one river:

“The U.S. Geological Survey found severe scour last year at 27 sites surveyed along the Missouri River from Kansas City to St. Louis, with the riverbed deepened in places by nine to 41 feet. Other unpublished USGS research found more severe scouring upstream.

Of the 55 oil and gas pipelines that cross the Missouri—which runs 2,300 miles from Montana to St. Louis—at least 24 have sections that lie 10 feet or less beneath the riverbed, within the range of scour observed on the river, according to federal records obtained via a Freedom of Information Act request. During recent inspections, operators discovered at least two of those pipes, in Platte County, Mo. and near Boonville, Mo., were exposed but didn't break.

Federal law requires operators to bury pipelines a minimum of four feet beneath waterways. Many river engineers say that standard is grossly inadequate. A congressional research report this year said the 4-foot minimum “appears to be insufficient to prevent riverbed pipeline exposure.”

PHMSA already has a rulemaking in progress where they could address these findings. It is our hope that PHMSA in its rulemaking will develop clear standards that required companies, when geologically feasible, to use horizontal directional drilling (HDD) to place these pipelines at a depth under such river crossings to avoid future failures.

Depth of cover is not only an issue at such river crossings. Every year pipelines are struck and damaged, often leading to serious consequences, because of a lack of sufficient cover. Federal regulations require that hazardous liquid and gas transmission lines “must be installed with a minimum cover,” but the regulations do not require that that level of cover be maintained. In some parts of the country normal erosion has led some pipelines to be at very shallow depth or even exposed, making them an easy target for plowing and various forms of excavation. While certainly excavators have a responsibility to call before they dig near such pipelines, the current depth of cover regulations need to be analyzed to determine if a change is warranted. An additional benefit of extending integrity management principles to more rural areas is that the assessment of foreseeable risks of third party damage to pipelines in agricultural areas from lack of cover will be made a necessary component of an adequate risk assessment by the operators, requiring them to undertake mitigative and preventative actions.

¹⁰Wall Street Journal, Floods Put Pipelines At Risk, Jack Nicas, December 2, 2012

Diluted bitumen study constraints - Section 28 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 requires the Secretary to “complete a comprehensive review of hazardous liquid pipeline facility regulations to determine whether the regulations are sufficient to regulate pipeline facilities used for the transportation of diluted bitumen.” PHMSA has contracted with the National Academy of Sciences for that review, which is due out next summer. Because of the high profile nature of the Keystone Pipeline proposed to carry this diluted bitumen, many people are already voicing concerns about the industry membership in the NAS review committee, as well as the fact that it appears the committee will not be doing any new research, just relying on existing information, a majority of which comes from industry.

The 2010 Enbridge spill of diluted bitumen into the Kalamazoo River in Michigan made clear that when diluted bitumen gets out of a pipeline it presents a difficult challenge to clean up because so much of it is prone to sinking. We had hoped that the diluted bitumen study that Congress required would be broad enough to also answer questions about the need for greater cleanup preparedness and technologies along pipelines that carry this unique material, but PHMSA’s contract with NAS does not cover these problems. For these reasons we hope that Congress will pay careful attention when the report is released next summer, and ensure follow up of any questions left unanswered.

Thank you again for this opportunity to testify today. The Pipeline Safety Trust hopes you will closely consider the ideas and concerns we have raised today. If you have any questions about our testimony, the Trust would be pleased to answer them and, of course, we stand ready to work with you and your colleagues on improving this country’s pipeline safety laws that are so important to ensuring the well-being of millions of Americans and the healthy environment that is their birthright.