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Testimony of
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SUBCOMMITTEE ON SURFACE TRANSPORTATION AND MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY

COMMITTEE ON ENERGY AND COMMERCE, SCIENCE AND TRANSPORTATION

US SENATE

HEARING ON

PIPELINE SAFETY: ASSESSING THE SAN BRUNO, CALIFORNIA EXPLOSION AND OTHER RECENT ACCIDENTS

September 28, 2010

Good afternoon, Chairman Lautenberg, Ranking Member Thune and Members of the Subcommittee. 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, role as the Vice President of the Pipeline Safety Trust. My involvement and experience with pipeline safety stems from my years as staff for the House Energy and Commerce Committee on such issues, starting in 1994 after a natural gas explosion in Edison, New Jersey –all too similar to what just occurred in San Bruno, California —destroyed a whole apartment complex and left 1 person dead and many, many people homeless.

The Pipeline Safety Trust came into being after another pipeline disaster - 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 their pipeline, and equally aghast at the lack of oversight from federal regulators, that they 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 been trying to fulfill that vision ever since, but the spate of recent disasters makes us question whether our message is being heard.

Born from a tragedy in Bellingham, but also riding on the emotion and facts 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 in response to such tragedies 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 automatic and remotely controlled valves, closing the loopholes that allow some 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 most recent tragedies in Marshall, Michigan, and San Bruno California asking again for the same things we have asked for in previous hearings following previous tragedies. While we were pleased to see some of our recommendations included as part of legislation recently introduced by Senators Boxer and Feinstein, we hope this time Congress and the Administration will pay close attention and provide a strong, comprehensive solution to pipeline safety instead of offering a Band-Aid for a broken bone. It is our sincere desire not to be back here again in the future saying the same things after another tragedy.

Overview

The availability of natural gas, oil and other fuels are vital to our economic well being and transporting those fuels through pipelines is without a doubt the safest way to move these highly dangerous substances. So the question isn't whether pipelines are a safe mode of transportation compared to other ways to move fuel, the real question is whether they are as safe as they could and should be and the secondary question is whether they are being regulated in the most efficient, effective and protective manner they could or should be.

Unfortunately, the answer to both questions is: no.

Today we will keep our testimony to the lessons that should be learned from the Marshall, Michigan and the San Bruno, California disasters. While bills have already been introduced to address some of the issues coming out from these most recent incidents Congress should not lose sight of the fact that there are other issues not related to these incidents that can have significant effects on those in more rural areas from Alaska to the Dakotas, and from New Mexico to Nebraska. We have provided information about these other issues in previous testimony to this committee this past summer, and we hope all that testimony will be reviewed to ensure a comprehensive pipeline safety bill emerges.

Today we would like to focus on seven areas. They are:

- **Requiring remote or automatic shut off valves for gas transmission pipelines and emergency flow restricting devices on hazardous liquid pipelines**

- **Enhancing requirements for accommodating internal inspection devices or "smart pigs"**

- **Developing and implementing enhanced standards and requirements for leak detection on hazardous liquid lines**

- **Making more pipeline safety information publicly available**

- **Continuing implementation and funding of Technical Assistance Grants to Communities and boosting the Pipeline Safety Information Grant Program**

- **Making public awareness programs meaningful and measurable**

- **Ensuring adequate distribution and promotion of the Pipelines and Informed Planning Alliances report on recommended practices that local government can adopt to provide greater safety when development is proposed near transmission pipelines**

<u>Requiring remote or automatic shut off valves for gas transmission pipelines</u>

Sixteen years ago, when I first began working on pipeline safety, we were debating a requirement for remote or automatic shutoff valves on natural gas pipelines in the wake of the Edison, NJ accident and the two and a half hours it took to shut off the flow of gas that fed the fireball due to the lack of a remote controlled shut off valve. It is both puzzling and sad that we have to again debate the benefits of requiring remote or automatic shut off valves after another tragedy, this time in San Bruno, California.

In 2010 it is unacceptable that the only way to shut off a large pipeline spewing fire into a populated neighborhood is to find someone with a key to a locked valve, have him or her drive to the valve and operate it manually. In good weather in San Bruno that method took an hour and a half to shut off the flow of fuel. How long would that method take after an earthquake? We ask that you direct the Secretary of Transportation to immediately begin a study to

determine the type, placement, feasibility and phase in period for installation of more up-to-date valves, and that a rule-making for such installation is accomplished by December 31, 2012.

For liquid pipelines in 1992, 1996, 2002, and 2006, Congress required OPS to "survey and assess the effectiveness of emergency flow restricting devices…to detect and locate hazardous liquid pipeline ruptures and minimize product releases"[1] with the first such requirement having a deadline in 1994 (16 years ago!). Following this analysis, Congress required OPS to "prescribe regulations on the circumstances under which an operator of a hazardous liquid pipeline facility must use an emergency flow restricting device."[2] (emphasis added)

OPS/PHMSA never issued a formal analysis on emergency flow restricting device (EFRD) effectiveness. Instead, in its hazardous liquid pipeline integrity management rule,[3] OPS rejected the comments of the NTSB, the US Environmental Protection Agency, the Lower Colorado River Authority, the City of Austin, and the Environmental Defense Fund and chose to leave EFRD decisions up to pipeline operators after listing in the rule various criteria for operators to consider. Such an approach to EFRD use does not appear to meet Congressional intent, partly because the approach is essentially unenforceable and not protective of important environmental assets such as rivers and lakes including those not considered High Consequence Areas.

Congress needs to reiterate its previous mandates to PHMSA on EFRD use on liquid pipelines and ensure they are followed to mitigate the extent of future pipeline releases.

Enhanced requirements for accommodating internal inspection devices or "smart pigs"

In San Bruno, we've learned that because of the old construction practices, this more than half a century old pipeline could not accommodate internal inspection devices, known as "smart pigs." Clearly, smart pigs represent the best available technology for assessing the true condition of a pipeline. Again, this is another debate that should have been settled years ago, but in consideration to much lobbying by the pipeline industry, lesser and cheaper forms of technology were allowed to be substituted for the best available technology. While the cause of the San Bruno failure is still unknown, it is clear that problems on pipelines like the one in San Bruno would have a far better chance of being identified early enough to prevent tragedies if in-line inspection was required. Isn't it finally time to require operators to present the Secretary with plans by a date certain for upgrading, at a minimum, the segments of their lines in High Consequence Areas to be able to accommodate these devices to help prevent future disasters like San Bruno?

[1] See 49 USC 60102(j)(1).

[2] See 49 USC 60102(j)(2).

[3] See 49 CFR 195.452(i)(4).

Developing and implementing enhanced standards and requirements for leak detection on hazardous liquid lines

In its hazardous liquid transmission pipeline integrity management rule, PHMSA requires that operators have a means to detect leaks, but there are no performance standards for such a system.[4] This is in contrast to the State of Alaska, for example, which requires that *all* crude oil transmission pipelines have a leak detection system capable of promptly detecting a leak of no more than 1% of daily throughput.[5] PHMSA listed in the integrity management rule various criteria for operators to consider when selecting such a device. Again, such an approach is virtually unenforceable and not protective of important environmental assets such as rivers and lakes including those not considered High Consequence Areas.

The recent Enbridge spill in Michigan and the Chevron pipeline release near Salt Lake City are examples of what can go wrong when a pipeline with a leak detection system has no performance standards for operations. In both those incidents the pipelines had leak detection systems as required by regulations, but neither system was capable of detecting and halting significant spills.

The Trust's position is that Congress needs to direct PHMSA to issue performance standards for leak detection systems used by hazardous liquid pipeline operators by a date certain to prevent damage from future pipeline releases.

Continuing to Make More Pipeline Safety Information Publicly Available

Perhaps the key issue regarding increasing public awareness and education is to ensure that the information in which the public already has an interest is easily available.

Over the past two reauthorization cycles, PHMSA has done a good job of providing increased transparency for many aspects of pipeline safety. In the Trust's opinion, one of the true successes of the 2006 PIPES Act has been the rapid implementation by PHMSA of the enforcement transparency section of the Act. It is now possible for affected communities to log onto the PHMSA website (http://primis.phmsa.dot.gov/comm/reports/enforce/Enforcement.html) and review enforcement actions regarding local pipelines. This transparency should increase the public's trust that our system of enforcement of pipeline safety regulations is working adequately or will provide the information necessary for the public to push for improvements in that system. PHMSA has also significantly upgraded its incident data availability and accuracy, and continues to improve its already excellent "stakeholder communication" website.

One area where PHMSA could go even further in transparency would be to create a web-based system providing public access to basic inspection information about specific pipelines. An inspection transparency system would allow the affected public to review when PHMSA and its state partners inspected particular pipelines, what types of inspections were performed, what

[4] See 49 CFR 195.452(i)(3).

[5] See 18 AAC 75.055(a)(1).

was found, and how any concerns were rectified. Inspection transparency should increase the public's trust in the checks and balances in place to make pipelines safe, and make clear inadequacies that need to be addressed. Just as Congress required PHMSA to institute Enforcement Transparency in PIPES, The Trust hopes you will require similar Inspection Transparency this year.

There is also a need to make other information more readily available. This includes information about:

• **High Consequence Areas (HCAs).** These are defined in federal regulations and are used to determine what pipelines fall under more stringent integrity management safety regulations. Unfortunately, this information is not made available to local government and citizens so they know if they are included in such improved safety regimes. Local government and citizens also would have a much better day-to-day grasp of their local areas and be able to point out inaccuracies or changes in HCA designations.

• **State Agency Partners.** States are provided with millions of dollars of operating funds each year by the federal government to help in the oversight of our nation's pipelines. While there is no doubt that such involvement from the states increases pipeline safety, different states have different authority, and states put different emphasis in different program areas. For example just this past weekend the New York Times reported that ***"the California Public Utilities Commission, which oversees most of the state's gas pipelines, told federal regulators several years ago, in documents, that it "rarely" fines any gas pipeline operation for violations***." The story[6] went on to say ***"Records show that Michigan, Illinois, Arizona, Colorado, New Jersey and Missouri rarely issue fines. And even when other states issue fines, collections are uneven. In places like Ohio, Georgia and Kentucky, records show, half or less of all fines are paid***".

Each year PHMSA audits each participating state program, yet the results of those program audits are not easily available. We believe that these yearly audits should be available on PHMSA's website and that some basic comparable metrics for states should be developed. Citizens have a right to know what the priorities of their state pipeline safety agencies are, and how well they are using that inspection and enforcement authority.

• **Emergency Response Plans.** The recent Gulf of Mexico tragedy shows that it is crucial that these types of spill response plans are well designed, adequately meet worst-case scenarios, and use the most up-to-date technologies. While 49 CFR §194 requires onshore oil pipeline operators to prepare spill response plans, including worst case scenarios, those plans are difficult for the public to access. As has been made clear by the huge Marshall, Michigan spill, those federal plans are not public documents, and they certainly were not created with involvement and expertise of local government and interested citizens.

The review and adoption of such response plans also misses a great opportunity to educate and increase awareness among the public. Currently the process is closed to the public. In fact, PHMSA has argued that it is not required to follow any public processes, such as NEPA,

[6] http://www.nytimes.com/2010/09/25/us/25pipeline.html?pagewanted=2&_r=1&hp

for the review of these plans. If the Gulf tragedy has taught us nothing else, it should be 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 awareness, involvement, review and ultimately safety. That is why we believe Congress should make citizen right to know provisions a priority for inclusion in this pipeline reauthorization. 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 complete 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 plan. We urge Congress to require PHMSA to develop similar requirements for the adoption of spill response plans across the country, and that such plans for new pipelines be integrated into the environmental reviews required as part of the pipeline siting process.

Increasing Awareness and Education by Continuing Implementation and Funding of Technical Assistance Grants to Communities

Over the past year and a half, PHMSA has finally started the implementation of the Community Technical Assistance Grant program authorized as part of the Pipeline Safety Improvement Act of 2002 and clarified in the PIPES Act. Under this program, more than a million dollars of grant money has been awarded to communities across the country that wanted to hire independent technical advisors so they could learn more about the pipelines running through and surrounding them, or be valid participants in various pipeline safety processes. After the rash of pipeline tragedies from Texas to Michigan to California this year we suspect that many communities may be more interested than ever in finding out more about the pipelines in their midst.

In the first round of grants, PHMSA funded projects in communities in seventeen states from California to Florida. Local governments gained assistance so they could better consider risks when residential and commercial developments are planned near existing pipelines. Neighborhood associations gained the ability to hire experts so they could better understand the "real" versus the imagined issues with pipelines in their neighborhoods. And farm groups learned first-hand about the impacts of already-built pipelines on other farming communities so they could be better informed as they participate in the processes involving the proposed routing of a pipeline through the lands where they have lived and labored for generations. All of the examples of local government implanting the PIPA recommendation we mentioned earlier were funded through these technical assistance grants. Overall –despite the unacceptably long delay in implementation-- we view the first round of this new grant program as a huge success.

However, ongoing funding for these grants is not clear, so the Trust asks that you ensure the reauthorization of these grants to continue to help involve those most at risk if something goes wrong with a pipeline. We further ask that you consider doubling the cap on the amount of an individual grant to $100,000, removing the limitation on funding sources for the grants,

ensuring funds do not go to pipeline operators, and –most importantly-- do whatever is necessary to ensure that the authorized funds are actually appropriated.

Making public awareness programs meaningful and measurable

Since the San Bruno disaster people in that neighborhood have asked why they had no idea they had such a pipeline in their midst. That is a good question since federal regulations require pipeline operators to have a program that includes "***activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations."*** *Similarly in Marshall, Michigan it appears that emergency response personnel had little knowledge of a large oil pipeline in their community***.** It is becoming increasingly clear that the implementation of these required programs has not been effective.

The Pipeline Safety Improvement Act of 2002 required pipeline operators to provide people living and working near pipelines basic pipeline safety information, and gave PHMSA the authority to set public awareness program standards and design program materials. In response to this Congressional mandate, PHMSA set rules that incorporated by reference the American Petroleum Institute's (API) recommended practice (RP) 1162 as the standard for these public awareness programs. According to RP 1162's *Foreword* (page iii) of API recommended practice, the intended audiences were not represented in the development of RP 1162, though they were allowed to provide "feedback." The omission of representatives from these audiences from the voting committee reduces the depth of understanding the RP could have had regarding the barriers and incentives for such programs, and undercuts the credibility of the recommended actions. The public awareness program regulations--49 CFR § 192.616 and 49 CRF § 195.440—mandate that operators comply with RP 1162. In essence, this amounts to the drafting of federal regulations without the equal participation of the stakeholders the regulations are meant to involve. With non-technical subject matter, such as this recommended practice deals with, it is difficult to justify excluding the intended audiences from the process and allowing the regulated industries to write their own rules.

This public awareness effort represented a huge and important undertaking for the pipeline industry, and as such the effectiveness of it will evolve over time. We were happy that the rules included a clause that set evaluation requirements that require verifiable continuous improvements. While we understand that the initial years of this program have been difficult, we have been disappointed in some of these efforts as they were clearly farmed out to contractors to meet the letter of the requirement instead of the intent of the requirement. Recently, the National Transportation Safety Board cited the failure of these programs in the investigation report of a deadly pipeline explosion in Mississippi that killed a girl and her grandmother. And again, the recent disasters in California and Michigan have well publicized the failure of the current industry developed system to adequately inform those it was meant to.

An evaluation of the first five years of this program is due this year, and API has been working on an update of this recommended practice for some time now. One of the draft proposals from API is to remove the requirement to measure whether the programs have led to actual changes in behavior. We hope that Congress will make clear that the intent of this program is to change the behavior of the intended audiences to make pipelines safer, not to count how many

innocuous brochures can be mailed. After tragedies like the one in San Bruno we should not have people asking why they didn't know about the pipelines in their neighborhoods, and we should not have emergency response professionals surprised to find out they have large dangerous pipelines in the jurisdictions.

Ensuring adequate distribution and promotion of the Pipelines and Informed Planning Alliances report on recommended practices that local government can adopt to provide greater safety when development is proposed near transmission pipelines

Section 11 of the Pipeline Safety Improvement Act of 2002 included a requirement that PHMSA and FERC provide a study of population encroachment on and near pipeline rights-of-way. That requirement led to the Transportation Research Board's (TRB) October 2004 report Transmission Pipelines and Land Use, which recommended that PHMSA "develop risk-informed land use guidance for application by stakeholders." PHMSA formed the Pipelines and Informed Planning Alliance (PIPA) in late 2007 with the intent of drafting a report that would include specific recommended practices that local governments, land developers, and others could use to increase safety when development was to occur near transmission pipelines.

Most large pipelines were placed in rural areas years ago, but as the populated areas around our cities expand it has led to a growing encroachment of residential and commercial development near large high-pressure pipelines. This increases the risk to the pipelines from related construction activities, as well as to the people who ultimately live and work nearby if something should go wrong with the pipeline.

After more than two years of work by more than 150 representatives of a wide range of stakeholders, the draft report and the associated 46 recommendations are finally due to be released any minute. This will be the first time information of this nature has been made widely available to local planners, planning commissions, and elected officials when considering the approval of land uses near transmission pipelines. We fully agree with the sentiment of Congress in the Pipeline Safety Improvement Act of 2002 that,

> ***"The Secretary shall encourage Federal agencies and State and local governments to adopt and implement appropriate practices, laws, and ordinances, as identified in the report, to address the risks and hazards associated with encroachment upon pipeline rights-of-way…"***

A recent statewide survey of local government planning directors conducted by the Pipeline Safety Trust showed that to successfully implement these needed "practices, laws, and ordinances" will take a good deal of well targeted education and promotion by a wide range of stakeholders outside of the pipeline industry and PHMSA. In order to make this effort successful, the Trust asks that this year Congress authorize, just as was authorized in PIPES for the successful promotion of the 811 "One Call" number, $500,000/year to promote, disseminate, and provide technical assistance regarding the PIPA recommendations.

Across the nation neighborhoods are being built closer and closer to dangerous pipelines just like the recently impacted neighborhood in San Bruno was. Only if Congress gives PHMSA the resources it needs, along with a clear mandate, will the information local governments need to

start considering these best land use practices near pipelines start to be instituted in time to prevent future San Brunos.

Conclusion

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 and move a comprehensive pipeline safety reform and reauthorization bill forward soon. 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 reauthorizing the pipeline safety laws that are so important to ensuring the well-being of millions of Americans and the environment that is their birthright.

For any bill to be comprehensive we hope you will also review of testimony to you from June of this year and include the important fixes necessary to address these other outstanding issues:

- **Expanding the miles of pipelines that fall under the Integrity Management rules.**

- **Moving forward to address unregulated pipelines and clarifying regulations of gathering and production pipelines**

- **Continuing to push state agencies on damage prevention**

- **Implementing expansion of Excess Flow Valve requirements**

- **Correcting the pipeline siting vs. safety disconnect, and ensuring PHMSA's ability to provide adequate inspections when pipelines are being constructed**