



**WRITTEN STATEMENT OF  
THE HONORABLE HOWARD “SKIP” ELLIOTT  
ADMINISTRATOR  
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION  
  
BEFORE THE U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,  
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS  
MATERIALS  
HEARING ON PIPES ACT OF 2016 IMPLEMENTATION: OVERSIGHT OF  
PIPELINE SAFETY PROGRAMS**

**June 21, 2018**

**I. Introduction**

Chairman Denham, Ranking Member Capuano, thank you for the opportunity to testify before the Railroads, Pipelines, and Hazardous Materials Subcommittee today.

The mission of the Pipeline and Hazardous Materials Safety Administration – PHMSA – is to protect people and the environment by advancing the safe transportation of energy and other products that are essential to our daily lives. After working for decades in the freight rail industry, a great deal of it working to improve public safety, I believe that safety is the result of effective, smart regulations that hold operators accountable for their systems – but I also know that it takes more than just regulations to improve safety performance.

PHMSA’s mission, and my objectives, are inextricably linked to the Secretary’s goals of safety, infrastructure, and innovation. While PHMSA executes its authority granted by Congress to oversee the safety of the pipeline industry, we also want to focus on finding innovative solutions to industry challenges; accommodate the fast pace of new and promising safety technology; ensure that our Nation’s pipeline infrastructure can continue to provide safe, reliable energy; and improve our oversight to hold all operators accountable.

During my railroad career, I responded to, and often visited again afterwards, the sites of more derailments and other man-made and natural disasters than I can remember. To inspire commitment, as for many other things, there is no more effective means than first-hand observation. I remember many of those scenes, often in unsettling detail, and they are the reason why I left retirement in Florida to take the job as PHMSA's Administrator. But few of those tragedies I encountered in the railroad affected me any more deeply than a visit I made in April of this year to the site of a pipeline leak and resulting explosion that happened over 19 years ago in Bellingham, Washington.

As you may recall, on June 10, 1999, a ruptured gasoline pipeline leaked into two creeks and floated downstream until it found an ignition source. An 18-year-old young man fishing in the creek collapsed from fumes and drowned. And two 10-year-old boys playing on the bank were caught in the explosion. As I listened to those who witnessed the incident unfold replay the events of that afternoon, the most heartbreaking detail was the concern of one boy that his mother not see how badly he was burned, completely unaware that it was so bad that he would not survive the next day. Tragedies like Bellingham underscore the criticality of PHMSA's safety mission. Our goal – which I believe is attainable – is zero pipeline incidents, and I know that when regulators, industry, and the public collaborate, we can find new paths forward to achieve that goal.

## **II. The Office of Pipeline Safety's Mission**

PHMSA's Office of Pipeline Safety is responsible for the regulation and oversight of our Nation's energy pipeline systems. I want to take a moment to thank all our federal and state inspectors who are at the front lines of pipeline safety, supporting our oversight responsibility and enforcing our regulations. PHMSA's staff of 250 pipeline inspectors and investigators is complemented by over 300 state pipeline inspectors who oversee intrastate pipeline safety on behalf of the Secretary of Transportation.

Since Congress authorized over one hundred additional full-time positions in 2015, and six more in FY 2017 to help inspect underground natural gas storage facilities, PHMSA has established an aggressive hiring strategy to reduce a backlog of unfilled vacancies and ensure that PHMSA has the personnel needed to carry out necessary inspections and accident investigations.

The Office of Pipeline Safety's vision is straightforward: invest in our workforce – like our safety inspectors. Promote innovation. Strengthen oversight. And work with Congress and stakeholders to develop policies that advance the safe transportation of energy products and hazardous materials through America's pipeline system.

I would be remiss if I failed to thank all of our stakeholders – especially the public – for the success of the national Call-Before-You-Dig number, 811. Over the past 10 years, since 811 was

established, incidents caused by excavation damage – a leading cause of pipeline injury and death – have fallen 40 percent.<sup>1</sup> This decline would not be possible without the incredible outreach work of PHMSA, our state safety partners, and the public taking the time to call 811.

### **III. Mandates and Rulemaking**

PHMSA has already made significant progress closing our Congressional mandates. Of the 42 mandates from the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, PHMSA has eight mandates outstanding. And, there are six outstanding mandates from the 19 identified in the Protecting Our Infrastructure of Pipelines Enhancing Safety Act of 2016.

Closing these mandates is a top priority, and I understand that the remaining mandates are critical to advancing pipeline safety. As members of the Subcommittee may be aware, of the 14 outstanding mandates from the 2011 and 2016 Acts, six are tied to reports and other actions,<sup>2</sup> and eight are tied to in-progress rulemaking efforts. PHMSA will continue to concentrate our efforts on the path forward, which means not just pushing to finalize our rules, but also coming up with innovative alternative approaches that can meet the safety goals of the mandates without solely relying on regulations and the rulemaking process.

As PHMSA Administrator, I plan to focus on three main rulemaking efforts – the safety of hazardous liquid pipelines, the safety of gas transmission and gathering pipelines, and pipeline rupture detection and automatic shutoff valves – in order to close the majority of PHMSA’s open mandates, while also achieving the highest impact to pipeline safety.

#### **Gas Rule**

PHMSA has also made significant progress working toward the final gas transmission and gathering pipeline rulemaking efforts, which we believe will help close two very important open mandates<sup>3</sup> related to expanding integrity management requirements for gas transmission pipelines and requiring operators to confirm the maximum allowable operating pressure of certain pipelines. These changes are expected to allow operators to assess more pipelines in more areas and better understand their systems’ conditions.

When finalizing the “Safety of Gas Transmission and Gathering Pipelines” NPRM, the rulemaking was under review for nearly 2 years.<sup>4</sup> I believe a large cause of these delays was that the rule became too big and unwieldy. Accordingly, PHMSA has made the strategic decision to

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<sup>1</sup> PHMSA All Reported Incident 20 Year Trend data, <https://www.phmsa.dot.gov/data-and-statistics/pipeline/pipeline-incident-20-year-trends>

<sup>2</sup> Pipeline Safety Act of 2011: 5(e) IMP Expansion and Class Location Replacement, 6(a) Public Awareness and Education, 15 CO2

<sup>3</sup> 5(f) IMP Expansion and Class Location Replacement, 23 (c-d) Determination of MAOP and Testing Regulations

<sup>4</sup> From March 12, 2014, to February 29, 2016

split the initial proposed rule into three more manageable rulemaking actions. This split may help us to move each individual, smaller rule forward more quickly; and, most importantly, prioritize Congressional directives on gas pipelines.

### **Hazardous Liquid Rule**

I also understand the importance of moving forward PHMSA's long-awaited Safety of Hazardous Liquid Pipeline rulemaking that dates back to the 2011 Act. This rulemaking would amend the Pipeline Safety Regulations to improve protection of the public, property, and the environment by closing regulatory gaps where appropriate, and ensuring that operators are increasing the detection and remediation of unsafe conditions, and mitigating the adverse effects of hazardous liquid pipeline failures. This rule is one of my highest priorities and with the intention to complete this rule as quickly as possible. I have had several substantive discussions with Departmental leadership, and I feel optimistic that, moving forward, we will get a final rule out quickly.

### **Valves and Rupture Detection Rule**

Perhaps our biggest gap in both mandates and safety is our Shutoff Valve and Rupture Detection rule. We are currently developing a notice of proposed rulemaking to address this critical issue. The Shutoff Valve and Rupture Detection rule would meet the goals of several Congressional directives by proposing revisions to the Pipeline Safety Regulations related to newly constructed or entirely replaced natural gas transmission and hazardous liquid pipelines to improve rupture mitigation and shorten pipeline segment isolation times in high consequence and select non-high consequence areas. The proposals will also address recommendations from the National Transportation Safety Board and are necessary to reduce the serious consequences of large-volume, uncontrolled releases of natural gas and hazardous liquids.

### **Regulatory Reform**

While PHMSA works to complete its regulatory agenda, the agency is also committed to reviewing the effectiveness of our regulatory program by conducting a comprehensive evaluation of current, in-progress, and planned regulations.

PHMSA is working within the Department of Transportation as part of a One-DOT approach to ensure that the regulatory budget meets the President's "two-for-one" Executive Order.<sup>5</sup>

As part of our regulatory reform agenda, PHMSA has identified opportunities to reduce regulatory burdens on public and private sector stakeholders. The agency is confident that the regulatory amendments we have identified as a part of our regulatory reform will fit the requirements of the executive order.

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<sup>5</sup> Executive Order 13771 January 30, 2017, Reducing Regulation and Controlling Regulatory Costs

Our role as the nation's pipeline safety regulator is to establish minimum safety standards and develop rules that prioritize safety and balance resources. I want to emphasize that while the executive orders have focused on reducing regulatory burdens, it is not about sacrificing safety. Rather, it is about improving the way we *achieve* safety. I believe that our regulatory review efforts can help us simplify complex rules to make compliance less burdensome to operators without compromising safety.

In fact, PHMSA's review will help to ensure that its regulations are right-sized – which can allow operators put additional resources where they will have the maximum safety impact, such as greater investment in safety research and development and technology-based safety enhancements.

As always, our focus is ultimately on safety performance. It is the responsibility of the oil and gas industry to understand and manage the risks of their systems. The current regulatory climate gives us all a unique opportunity to work together to optimize our regulations for safety. As PHMSA Administrator, I will continue to push industry to not wait, but to invest in and accelerate their pipeline safety efforts now, making substantive safety improvements best suited to their systems and without specific direction from regulations.

### **Recently Completed Mandates: Underground Storage and Others**

PHMSA has made progress on several Congressional directives, such as developing minimum standards for underground natural gas storage facilities. For example, last December, PHMSA published an interim final rule, which established minimum regulations in this area. In addition, PHMSA's Training and Qualifications Center in Oklahoma City (TQ) has already developed a program to ensure that federal and state inspectors can provide effective oversight in this area.

The TQ Center provides training for federal and state inspectors to understand how to apply the federal regulations and incorporated industry standards. The training includes classroom training, hands-on labs, and online training to keep inspectors current on updated regulations and practices.

The course instructs inspectors about the function and operations of underground natural gas storage; how to conduct an inspection of underground natural gas storage facilities; and how to evaluate an underground storage facility's operations, maintenance, and emergency response processes, including integrity and risk management.

The distance learning course went online in February of this year, and the first instructor-led class for federal and state inspectors was conducted in April. We have two more courses scheduled for this year, and both are already full.

In addition to our federal inspectors, the new course also serves our state partners. We have inspectors from Alaska, California, Illinois, and Kansas signed up to complete training as well.

We have also taken other steps to improve safety and address Congressional directives, including issuing the interim final rule for Emergency Order Authority in October 2016. Additionally, PHMSA issued an advanced notice of proposed rulemaking to solicit public comment on the marking of identification numbers on cargo tanks, and published an advisory bulletin to clarify the regulatory requirements that may vary depending on the operational status of a pipeline.

For transparency, PHMSA regularly updates its public website on the status of final rules.

#### **IV. Enhancing Safety**

##### **Alternative Actions**

But while some on the PHMSA staff work through the rulemaking process, others are aggressively pursuing our core safety mission of conducting comprehensive inspections, investigations and public and industry outreach. I have challenged the PHMSA staff to look past simply clearing our mandates through regulations and to look for other, innovative ways to improve safety, and we've already implemented processes outside of regulations that will result in tangible safety benefits.

I have not hesitated to issue Corrective Action Orders when PHMSA identifies safety concerns in pipeline systems, pushing operators to address issues before they lead to problems. PHMSA has also developed advisory bulletins to alert operators of more widespread safety concerns.

One way that we've seen advisory bulletins and collaboration result in widespread improvements is in enhancing the integrity of river pipeline crossings. After flooding caused a significant oil spill into the Yellowstone River in 2011, PHMSA published three advisory bulletins related to pipeline crossings of inland water bodies and has proactively focused on pipeline integrity at river crossings to encourage operators to use new technologies to better build and monitor these lines. Operators have since opted to install over 50 pipelines at greater depth to ensure that the lines are unaffected by flooding, while others are performing real-time monitoring of rivers.

##### **Training and Qualifications Center**

I mentioned PHMSA's Training and Qualification Center earlier, and have had the opportunity to visit the Center several times in person to witness the innovative ways they are making the important training that inspectors require more accessible and effective.

PHMSA's Training Center offers 58 on-site and distance-learning courses and provides classroom training to an average of over 1,700 state and federal inspectors from around the country annually. They have also been pulling out the stops to handle the increased training needs stemming from the increase in new federal and state inspection personnel. The Center is

conducting simultaneous instructor-led courses to increase capacity and exploring new learning approaches, curriculum improvements, and delivery efficiency to ensure relevancy.

A noteworthy commentary on the Training and Qualification Center's dedication to quality is the full accreditation they recently received from the International Association for Continuing Education and Training (IACET). The 15-month intense accreditation process consisted of a thorough audit and review of their operating practices related to training development, documentation, and delivery. Accreditation from IACET validates the Center's professional training efforts and allows PHMSA to issue continuing education credits to its students.

## **Grants**

The financial support that we provide to our stakeholders through grants is another vital piece of the PHMSA safety mission.

Our State pipeline inspection partners oversee more than 80 percent of the Nation's pipeline infrastructure – much of it gas distribution pipelines – through certification with PHMSA. The State Base Grant program offered by PHMSA supports state pipeline safety programs by reimbursing a portion of each state's program expenses for a given calendar year based on their performance. Last year, we reimbursed \$50.5 million to our state partners.

The consistent grant funding that we provide helps state programs purchase equipment and hire and maintain pipeline safety inspectors. As pipeline infrastructure continues to increase, this grant system is critical for our state partners to continue to inspect and oversee our nation's pipeline systems.

PHMSA's Technical Assistance Grants (TAGs) provide funding for technical assistance related to pipeline safety issues to local communities and non-profit organizations, where they make direct impacts to pipeline safety at the grassroots level. The TAGs can be used for engineering or other scientific analysis of pipeline safety issues and is also used to promote public participation in official proceedings. Since the program's inception in 2009, PHMSA has awarded almost \$8 million for 178 individual technical assistance projects. We issued a Notice of Funding Opportunity for the fiscal year 2018 TAG grants in May and expect to award \$1.5 million in grant funds, up to \$100,000 for each recipient.

PHMSA's 811 One Call Grant Program provides funding to state agencies in promoting damage prevention awareness, including changes with their state underground damage prevention laws, related compliance activities, training and public education. This grant program is for states that have a certification or agreement with PHMSA to perform pipeline safety inspections. Last year, we awarded \$1 million across 26 state agencies to assist in these efforts.

PHMSA recently restructured its grants program to improve program effectiveness and efficiency. We streamlined our Notices of Funding Opportunities, consolidated grants forms and

formats, and condensed the grants review processes. We are also in the process of reducing grants management systems that will save the agency money and centralize grants management functions.

And I am pleased to say that the PHMSA will soon award its fiscal year 2018 Underground Natural Gas Storage Grants – the first grant designed to support states’ inspection and enforcement of underground natural gas storage facilities. The grants will be used to reimburse up to 80 percent of the costs a state incurs for inspectors, equipment, and safety activities for the oversight of underground storage facilities.

These awards signal the beginning of PHMSA’s underground storage partnership with states and show our support for their efforts to protect the public from underground natural gas storage incidents, such as the one that occurred in Aliso Canyon, California, in 2015.

## **Research and Development**

Of course, a key component of using innovation to drive safety beyond minimal federal regulations is a robust Research and Development program, and I am very proud of all the ways our R&D program supports new technology to further improve pipeline safety. Since its inception, PHMSA’s R&D program has worked on implementing a collaborative and coordinated research strategy with stakeholders who share PHMSA's safety goals, and last year, PHMSA implemented additional safeguards against conflicts of interest in our R&D program, closing a mandate<sup>6</sup> from the PIPES Act of 2016.

PHMSA’s pipeline R&D program is consistent with the Department’s strategic goals of safety, infrastructure, innovation, and accountability and consistent with the DOT Five-Year Transportation Research, Development, and Technology Strategic Plan. The program’s focus is addressing safety challenges that maximize impact. Our program sponsors research on projects that can provide near-term solutions that will improve safety, reduce environmental impacts, and enhance the reliability of the Nation’s pipeline transportation system.

Since 2002, we have invested nearly \$93 million dollars in 270 R&D projects. Among them, 22 patent applications and 28 new pipeline technologies have since hit the market, including above-ground, radar-based pipeline mapping and a nondestructive testing method for pipelines that cannot accommodate traditional in-line inspection tools.

Our research program funding strategy is driven by our R&D Forum, which is held periodically to generate a national research agenda focused on current technical gaps and challenges facing future research. The Forum includes representatives for the public, government, and industry, allowing all of our stakeholders to help identify the best direction of the program.

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<sup>6</sup> Section 22 Research and Development



Specifically, our stakeholders identify technology and knowledge gaps within topic areas, which allow us to incorporate those gaps into our research solicitations. When all of our stakeholders work together to develop a consensus, we reduce research program duplication, leverage resources more efficiently, and ensure that our research agenda is aligned with the current needs of pipeline safety.

Our R&D program also takes a far-reaching view with our Competitive Academic Agreement Program (CAAP program), which funds academic research to provide tomorrow's pipeline safety workforce with an early opportunity to contribute safety solutions. The CAAP program, launched in 2013, funds university students to explore academic research focused on high-risk and high-pay-off solutions.

The program helps validate proof of concept for theories and theses that can be developed and further investigated by our core research program – but it also serves to expose the next generation of engineers to pipeline challenges and solutions, ensuring that the pipeline workforce can keep up with the growing needs of our nation's expanding pipeline infrastructure.

## **Damage Prevention**

Pipeline safety is a shared responsibility and working with all of our stakeholders is at the heart of what PHMSA does. The Office of Pipeline Safety does its work by collaborating where possible to address serious pipeline safety issues and improve performance, and I think this is really illustrated by two recent strides that PHMSA has made toward improving safety.

The PIPES Act of 2006 mandated that PHMSA establish criteria to determine the adequacy of state enforcement of damage prevention laws. Through our implementation of this mandate and working with states, PHMSA has seen an improvement in how states implement their damage prevention laws.

Last year, PHMSA determined that 28 states had inadequate enforcement, and 24 states<sup>7</sup> had adequate enforcement of their state one-call damage prevention laws. Last month, PHMSA sent determination letters to state damage prevention law-enforcement programs for 2017. The number of states with inadequate enforcement procedure dropped from 28 to 16, an impressive 43 percent reduction. PHMSA will keep working with states to further close the gap and so that we see further reductions next year.

## **Inspections**

Finally, I want to talk about the vital work that our inspectors – both federal and state – do to further safety through targeted oversight. We are in our sixth year of fully implemented “integrated inspections,” a risk-based, data-driven approach where each inspection is specifically

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<sup>7</sup> Includes DC and PR

designed to look at the risk profile of individual pipeline operators and focus on the greatest risks to safety. To roll out this new way of doing things, PHMSA has improved its inspection software and developed new training for inspectors.

However, our inspection process is adaptable – whether we have an emerging safety concern or receive new mandates or recommendations, we alert our inspectors to focus on those specific safety issues as a part of their general integrated inspection. This ensures that our inspectors are conducting inspections that are not just targeted to the operator, but to prevailing system-wide safety issues and concerns as well.

The work of our inspectors underscores the fact that we are proactive and do make tangible safety gains without waiting for rulemaking. Risk mitigation is generally viewed as a defensive function; but this kind of innovation gives us an offensive weapon to pursue safety improvements. In addition, our inspectors are meeting the PIPES 2016 mandate to provide timely inspection feedback to operators and keep them informed of any potential safety issues that they find, an important piece of the inspection process, that gives operators the safety information they need as quickly as possible.

### **Safety Management Systems (SMS)**

The common thread that runs throughout every aspect of PHMSA's safety mission is a Safety Management Systems (or SMS) approach. SMS looks to prevent accidents and incidents from ever occurring as opposed to solely responding to yesterday's accident. To be effective, SMS requires PHMSA to move beyond the role of being just a regulator – to push operators to identify and target their own risks, and to encourage a company-wide culture that makes safety the number one priority, always.

For an SMS culture to permeate through all levels and areas of the pipeline industry, we need ways to share and analyze data, allowing all of us to see emerging trends to inform best practices. Just over a year ago, PHMSA established the Pipeline Safety Management System Working Group to tackle that problem – to identify SMS implementation performance metrics to measure both progress and challenges. The working group is made up of members of our gas and liquid pipeline advisory committees, and similarly includes representatives from each of our stakeholder groups.

Our Pipeline Safety Management Group will continue to work to encourage operators to implement SMS and support industry efforts to develop new SMS tools. We all share the same goal of zero pipeline incidents, and I believe that the more we collaborate, the safer our nation's pipelines will be.

## **V. Conclusion**

I believe that first-hand experience is the best way to fully understand the impact of an event, which is why I've tried to personally visit as many of our own regional offices, pipeline facilities, construction sites, R&D centers, and incident sites as I can.

I've worked hard to get out of the office and meet with safety advocates to understand their needs and objectives. I've also met with many operators to engage their leadership and encourage them to address our own needs, such as better communication in emergencies and more open collaboration for SMS.

Of all my travels as Administrator, by far the most striking was the trip to Whatcom Falls in Bellingham, Washington, where I saw the pristine environment and heard the story of that tragic afternoon in June, 19 years ago. Adding that to my own experiences from 40 years in the railroad industry reinforced my steadfast commitment to doing everything possible to prevent these events from ever occurring again. There are many paths towards safety, and I know that we can ask the right questions now to get ahead of problems before they lead to incidents, and certainly before they become tragedies.