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THE STATE OF PIPELINE SAFETY AND SECURITY IN AMERICA

WEDNESDAY, MAY 1, 2019

House of Representatives

Subcommittee on Energy

Committee on Energy and Commerce

Washington, D.C.

The subcommittee met, pursuant to call, at 10:00 a.m., in Room 2123, Rayburn House Office Building, Hon. Bobby L. Rush [chairman of the subcommittee] presiding.

Members present: Representatives Rush, Peters, Doyle, McNerney, Loebsack, Butterfield, Welch, Schrader, Kennedy, Veasey, Kuster, Kelly, Barragan, O'Halleran, Blunt Rochester, Pallone (ex officio), Upton, Latta, Rodgers, Olson, McKinley, Griffith, Johnson, Bucshon, Flores, Hudson, Walberg, Duncan, and

Walden (ex officio).

Staff present: Omar Guzman-Toro, Policy Analyst; Zach Kahan, Outreach and Member Service Coordinator; Rick Kessler, Senior Advisor and Staff Directory, Energy and Environment; John Marshall, Policy Coordinator; Lisa Olson, FERC Detailee; Tuley Wright, Energy and Environment Policy Advisor; Mike Bloomquist, Minority Staff Director; Jordan Davis, Minority Senior Advisor; Peter Kielty, Minority General Counsel; Mary Martin, Minority Chief Counsel, Energy and Environment and Climate Change; Brandon Mooney, Minority Deputy Chief Counsel, Energy; Brannon Rains, Minority Staff Assistant; and Peter Spencer, Minority Senior Professional Staff Member, Environment and Climate Change.

Mr. Rush. [Presiding] The subcommittee will now come to order.

The chair now recognizes himself for 5 minutes for the purposes of an opening statement.

I want to thank all the witnesses who are attending this very important hearing today on pipeline safety and security. And I want to welcome all of our distinguished panelists that will be appearing before us today on two separate panels.

I also want to express my disappointment and my deep-seated concern that we will not be hearing from one of the agencies responsible for oversight of pipeline safety, TSA, who actually presides over some of the most disturbing outstanding issues that need to be addressed by the members of this subcommittee.

While we did invite TSA to appear before us today, so that the members of this subcommittee could address many of the issues that were spelled out in a December 2018 GAO report, TSA declined to send a witness. And frankly, I find it to be unacceptable and it will be addressed as we move forward. TSA needs to answer the questions that we have, that members of this subcommittee have and want to get answers to.

In the meantime, I look forward to engaging with the panelists that are present with us today, examining the state of pipeline safety and security as it currently stands before

the nation.

I have the pleasure of representing portions of Will County, Illinois, as part of the First Congressional District of Illinois. And Will County has the dubious distinction of accounting for 8 percent of all the pipelines in my State, and officials there were able to provide my office with critical insight into how pipeline safety and security protocols play out on the local level.

As we all know, local communities are always the ones most directly impacted when something goes wrong with America's pipeline, as we have, unfortunately, witnessed far too often in areas extending from the Merrimack Valley in Massachusetts to Aliso Canyon and San Bruno in California.

From county first responders, who are usually the initial actors on the scene, to local emergency management agencies, who are required to participate and carry out emergency preparedness exercises to plan and prepare for disasters, local agencies play a huge role in helping to mitigate disasters, and they are not always provided with the adequate funding or resources to do the job which we require of them.

Many times when private companies are mandated by federal law to comply with consent decrees, they pull in local resources, such was the case with a recent spill in Romeoville, Illinois.

Will County officials were required to contribute many hours of manpower and staff in order to help Enbridge meet its court-ordered decree, but they were not compensated any money for this huge responsibility that they had to accept.

While there is the Hazardous Materials Emergency Preparedness, HMEP, Grant Program, it appears that there are some severe limitations upon this program. The HMEP or TAG program operates with limited and unpredictable levels of funding and has burdensome restrictions on how that money may be utilized.

I look forward to today's hearing and to a robust discussion on both sides of the issue of this outstanding priority issue that is before us.

And with that, I yield back the balance of my time. And now, I recognize my friend and colleague, my friend from Michigan, Ranking Member Upton.

Mr. Upton. Thank you, Mr. Chairman, and also my friend for sure.

This is an important hearing as we begin our work to reauthorize the nation's pipeline safety laws. I want to thank you for making this a bipartisan effort, for working with us to select the witnesses, and prepare for the hearing. We have a great track record when we work together from the very start, especially when it involves public safety.

Throughout my time in Congress, I have especially prioritized pipeline safety. It is personal, as we had to deal with a bad pipeline accident in my home State. I recall the 2010 oil spill in the Kalamazoo River, not too far from my district, which led to the passage of the Upton-Dingell pipeline safety bill in 2012. And in response to the Kalamazoo spill specifically, we cut down on the incident reporting time, 24 hours now, and we upped the financial penalty for violations.

In 2016, we came together again to pass another bipartisan pipeline safety bill, which is now set to expire in October. I am proud of the work that we accomplished with that bill, particularly the language that I was able to include requiring mandatory annual inspections for certain pipeline crossings, such as the Enbridge Line 5, which crosses the Straits of Mackinac at a depth of more than 250 feet below the surface of the water, that was built some 60 years ago.

Mr. Chairman, as we turn to this upcoming reauthorization, I am grateful for the commitment from you to adopt the same bipartisan formula that worked so well the last two times as we did pipeline safety.

I am confident that today's hearing will provide us with a good start. We have two panels offering a diverse range of views, including the Administrator of PHMSA, the Commissioner

from the Ohio Public Utility Commission, and a representative from the GAO, representatives of oil and gas pipeline operators, and pipeline safety advocates. As one can tell from the witness lineup, an effective pipeline safety and security program requires communication and cooperation among a wide array of stakeholders.

Today's hearing will also allow members to examine GAO's recommendations to address significant weaknesses in TSA's Pipeline Security Program management. I will confess that I was most disappointed to learn that, while TSA was invited to participate in today's hearing, they officially declined to appear. And I guess you could say, like the Alamo, we are going to remember that.

We know from the committee's oversight that TSA staffing issues are a major limitation. TSA has some 50,000 employees. Only a handful -- actually, it is a handful plus one.~~,~~ S~~s~~ix ~~--~~ are assigned to pipeline safety. That is not very good.

Strengthening cybersecurity for pipelines is an issue that I care deeply about, and I believe that Congress does need to act in both the House and the Senate. I have introduced a bill, H.R. 370, the Pipeline and LNG Facilities Cybersecurity Preparedness Act, that would help address some of the vulnerabilities outlined in the GAO report. And although my bill

is more focused on DOE's role, as the sector-specific agency for energy, I am committed to getting it over the finish line, and I am open-minded about ways to strengthen cybersecurity through our pipeline safety reauthorization bill. And I know that we can make it bipartisan.

So, at the end of the day, we cannot separate pipeline safety from pipeline security, and we cannot allow agencies to carry out a turf war over jurisdiction, especially if they are going to refuse to come before this important committee.

With that, Mr. Chairman, thank you again for holding the hearing, and I yield back.

Mr. Rush. I want to thank the gentleman.

The chair now recognizes the chairman of the full committee, Mr. Pallone, for 5 minutes for his opening statement.

The Chairman. Thank you, Mr. Chairman.

There are millions of miles of pipeline transporting natural gas, oil, and other commodities across the country. And when a pipeline fails, it can be destructive, and even deadly. Late last year, a failure in Massachusetts' Merrimack Valley caused one death, 21 injuries, and damaged over 130 homes. In February, a gas field explosion at a residence in Dallas, Texas, killed a 12-year-old and injured his family. And these tragic events underscore the need for a strong federal safety pipeline program.

And I want to welcome Skip Elliott, Administrator of the Pipeline and Hazardous Materials Safety Administration, pronounced PHMSA, to the committee. Administrator Elliott, I wish you success in your effort to manage an agency notorious for its inability to meet congressionally-mandated deadlines and carry out its mission in an efficient and effective way. And certainly, there are dedicated career staff at PHMSA who work hard to make our pipelines safer, but there are too many outstanding mandates from the 2011 and 2016 pipeline safety reauthorizations that PHMSA has failed to finalize, and that is unacceptable.

As part of the 2011 reauthorization, Congress required the use of automatic or remote-controlled shutoff valves on newly-constructed transmission pipelines to limit damage when a rupture occurred. The National Transportation Safety Board recommended use of this technology 25 years ago, after a pipeline explosion in my congressional district in Edison, New Jersey. I was in Congress then, and yet, here we are still discussing the same issue.

The 2011 law also required operators to install leak detection systems on hazardous liquid pipelines, but eight years later PHMSA still has not finalized the rule. And in what I consider to be the most important provision of the 2016

reauthorization, Congress gave PHMSA emergency order authority to address imminent industrywide safety hazards that pose a threat to life or significant harm to property or the environment. Yet, PHMSA has failed to implement this, too.

And it is not all PHMSA's fault. The prescriptive cost-benefit analysis required by the '96 reauthorization hamstrung the agency. If we want PHMSA to finalize more rulemakings, we must remove or adjust this overly-burdensome requirement.

We also need to restore the mechanisms for citizens to pursue legal action to compel PHMSA to fulfill its statutory duties. If the federal government can't or will not carry out its mandated responsibilities, citizens should have the right to take legal action.

In the aftermath of the 2010 San Bruno pipeline explosion that killed eight people, San Francisco sued the federal government for having abjectly failed to enforce safety standards. Unfortunately, the court dismissed that suit because it found that the law did not permit mandamus-type citizen suits against the government, and that was never Congress' intent and it must change.

I am also extremely disappointed, as my colleague from Michigan said, that the Transportation Security Administration

Administrator David Pekoske refused to testify or even send a witness today. And on a bipartisan basis, we invited TSA to testify on its pipeline security program, which the Government Accounting Office has criticized for having significant weaknesses. I am concerned that TSA lacks the resources, expertise in energy delivery systems, and, frankly, the commitment to keep up its obligations under the law. And so, Fred, I want to thank you for pointing that out, too.

There was a serious security breach last week when someone shot at the Magellan pipeline in Minnesota, causing a release of over 8,000 gallons of diesel fuel. If TSA can't be bothered to be here to discuss this security breach and justify its performance to Congress, then perhaps it is time we look for another federal agency other than TSA to handle this critical responsibility.

And finally, I would like to thank Carl Weimer for all of his help over the years to this committee and Congress because I am told he will soon step down as the Executive Director of the Pipeline Safety Trust. Twenty years ago next month, the Olympic Gasoline Pipeline exploded in Bellingham, Washington, and that killed 18-year-old Liam Wood and two 10-year-olds, Wade King and Steven Tsiorvas. And I say their names because it is critical that we not forget these kids. Since then, Carl and

the Trust have taken the outrage of that event and used it to improve the pipeline safety landscape, to the benefit of all of us.

You know, again, the role of citizens, the role of individuals in drawing attention to what needs to be done here is very important, and I certainly want to highlight that.

The Pipeline Safety Act reauthorization has typically been a bipartisan effort, and we look forward to continue working with colleagues on both sides of the aisle to update and improve this critical federal program.

Thank you, Mr. Chairman.

Mr. Rush. I want to thank the gentleman.

The chair now recognizes the ranking member of the full committee, Mr. Walden, for 5 minutes for his opening statement.

Mr. Walden. Good morning, Mr. Chairman.

Mr. Rush. Good morning.

Mr. Walden. Thanks for having this hearing. I think it is really important that we work together to reauthorize and modernize the nation's pipeline safety program.

This is really an important hearing, and I am pleased that we are beginning this process on a bipartisan basis, Mr. Chairman, which is the tradition of the Energy and Commerce Committee on matters relating to pipeline safety and security.

The federal government, acting through the Pipeline and Hazardous Materials Safety Administration, known as PHMSA, has an important responsibility to develop and enforce regulations for the safe, reliable, and environmentally-sound operation of the nation's 2.7 million miles of pipelines.

Pipelines are among the safest and most efficient ways to transport critical fuels and feedstocks, such as natural gas and petroleum, to our homes and businesses. And simply put, the safe operation of our nation's pipeline and safety system is essential to help keep prices low for consumers and drive our economy forward in a positive direction.

PHMSA cannot do this important job by itself. It must coordinate effectively with other federal agencies, such as the Department of Energy, FERC, and TSA, and especially with the states. In fact, it is important to recognize that much of the responsibility for pipeline safety falls on the states. It is often state pipeline safety workers who are on the front lines inspecting and enforcing safety requirements. And in many cases, it is also the states' responsibilities to regulate rates and ensure the adequate investments are made in pipeline maintenance and modernization.

As Members of Congress, it is our responsibility to ensure that PHMSA and the states have enough resources and the

appropriate tools to get the job done. With PHMSA's authorization expiring at the end of this fiscal year, it is time for us to get our work done.

As we turn to reauthorization, I will remain focused on protecting public safety and consumers. These are not mutually-exclusive goals, and I am optimistic we can find bipartisan agreement, as we always have when it comes to pipeline safety.

Mr. Chairman, I hope we can get a commitment to work together on the drafting process from the very beginning. That would really be consistent with our practice from the last round of reauthorization, and I think it would contribute toward a better quality work product. So, I hope we can do that.

There are many areas where I believe we can update and strengthen the law to drive innovation and lower the barrier of entry for new technologies. New technologies for pipeline construction and integrity management can help improve efficiency and safety at the same time.

I also believe we should examine recent pipeline safety incidents and incorporate lessons learned in our work. We should also make sure to provide PHMSA with clear directions, recognizing they already have a backlog of congressional mandates. They are working on two high-priority rules for both gas and liquid

pipelines.

PHMSA must also finish its work on other important safety rules relating to pipelines valves and rupture detection, integrity management, class location, and public education and awareness. I believe PHMSA is on the right track, and I look forward to the agency completing this important work.

At this point, I will close by thanking our witnesses for appearing before us today. We are going to hear a range of perspectives to help inform our work, including PHMSA, the State of Ohio, pipeline operators, and safety advocates.

We are also going to examine the findings of a recent GAO report which raises numerous serious concerns about the effectiveness of the Transportation Security Administration's Pipeline Cybersecurity Program. As the committee of jurisdiction for energy and interstate commerce -- and let me say this very clearly -- I am very disappointed that TSA refused to provide a witness for today's hearing, and I would urge this administration in the strongest terms possible to cooperate with our committee and respond to what I believe are legitimate oversight requests relating to pipeline safety and security.

With that, Mr. Chairman, thanks again for holding the hearing, and I yield back the balance of my time.

Mr. Rush. The chair wants to thank the gentleman for his

opening statement and reassure him that our side is eager to work with him on a bipartisan basis to address all of the issues which we are recently concerned about. I want to thank you.

The chair would like to remind members that, pursuant to committee rules, all members' written opening statements shall be made part of the record.

And now, we will proceed to the witnesses' opening statements, beginning with panel one. I would now like to introduce our first panel of witnesses for today's hearing.

The individual to my left is the distinguished honorable Howard R. Elliott, Administrator for the Pipeline and Safety Materials Safety Administration, PHMSA. And next to Mr. Elliott is Mr. W. William Russell, the Acting Director of GAO. And next to him is Commissioner Lawrence Friedeman, the Public Utilities Commissioner for the great State, the Buckeye State, the State of Ohio.

And I want to say that we thank all of our witnesses for being with us today, and we look forward to your testimony.

Let me take a moment just to let you know that I will recognize you for 5 minutes to provide an opening statement. Before we begin, I would like to explain the lighting system that is before you. In front of you is a series of lights. The light will initially be green at the start of your opening statement. The light will turn yellow when you have 1 minute remaining. Please begin to wrap up your testimony at that point. The light will turn red when your time expires.

And so, with that said, Mr. Elliott, welcome, and we recognize you for 5 minutes for the purposes of an opening statement.

STATEMENTS OF HOWARD R. "SKIP" ELLIOTT, ADMINISTRATOR, PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION; W. WILLIAM RUSSELL, ACTING DIRECTOR, GOVERNMENT ACCOUNTABILITY OFFICE, AND LAWRENCE FRIEDEMAN, COMMISSIONER, PUBLIC UTILITIES COMMISSION OF OHIO

STATEMENT OF HOWARD R. "SKIP" ELLIOTT

Mr. Elliott. Thank you, Mr. Chairman.

Ranking Member Walden, Chairman Rush, Ranking Member Upton, and esteemed members of this subcommittee, thank you for the opportunity to testify here today. I look forward to updating this subcommittee on the Pipeline and Hazardous Materials Safety Administration's progress in closing open congressional mandates and in executing our broader safety mission.

Let me first say that I understand the frustrations that have been expressed regarding the outstanding congressional mandates on pipelines and hazardous materials safety. We are working hard to ensure our nation's pipeline system remains safe and finalizing the mandates remains a top priority for PHMSA.

Of the 11 remaining mandates from the 2011 and 2016 Pipeline Safety Act -- there were 61 in total -- three are tied to reports and other actions, and the remaining eight are tied to in-progress

rulemaking efforts. Those mandates from the 2011 Act, the ones that have been opened the longest, are being addressed by three of PHMSA's current rulemakings for gas transmission pipelines, hazardous liquid pipes, and rupture detection in valves.

PHMSA continues to make progress on these rules. The liquid pipeline safety rule moved out of DOT for final review several months ago. We have also completed our work on the gas transmission pipeline final rule and the valve and rupture detection rule. And these rules are both undergoing internal review at DOT.

I understand that many of you and many of our stakeholders may feel like we are not moving fast enough on our rulemakings. As a safety practitioner, I appreciate and I fully share those comments. As PHMSA Administrator, it is my responsibility to prioritize and pursue those rulemakings that will provide the greatest safety impact and have the highest likelihood of preventing events that could negatively impact people and the environment.

To that end, I refer the members of this subcommittee to my written testimony regarding details of two completed safety congressional mandates dealing with comprehensive oil spill response plans for railroads and the transport of lithium ion batteries by air. In addition, we issued a final rule to

modernize technologies for plastic pipelines that we hope will further accelerate aging distribution gas line replacements, which is one of the greatest concerns we have at PHMSA. In addition to congressional mandates, many of PHMSA's rules must also address recommendations from the National Transportation Safety Board, the Government Accountability Office, and our own safety concerns.

PHMSA is working to meet the needs of our expanding domestic energy production as well. In August of 2018, PHMSA established a new Memorandum of Understanding with the Federal Energy Regulatory Commission that eliminates unnecessary and duplicative regulatory reviews by both agencies.

Going forward, PHMSA will operate as the federal government's LNG safety authority. To date, PHMSA has issued approximately letters of determination for new LNG facilities. PHMSA has also established a team of cross-agency experts that are updating the LNG facilities safety standards that date back to 1980.

In addition, PHMSA continues to work to ensure that the agency has a full complement of field inspectors and headquarters staff to meet the demands of our safety mission. Safety is the highest priority for the U.S. Department of Transportation and for all of us at PHMSA. I am pleased to say that, while making

progress on mandates, PHMSA's oversight role is to continuing to have a positive impact on safety. Our integrity management requirements have led pipeline operators to conduct over 90,000 repairs in high-consequence areas.

Our field efforts are having an impact, too. Last year, PHMSA conducted over 12,000 days of inspections and investigations of pipeline systems. These field activities are helping to improve safety, as evidenced in the number of reported pipeline incidents which for 2018 was below the five-year average, even with PHMSA's expanded regulatory oversight of underground natural gas storage facilities.

Additionally, both pipeline-related fatalities and the net volume spilled from hazardous liquid pipelines was also below the five-year average, down 33 percent and 20 percent, respectively, although we know that even one pipeline casualty is one too many.

These facts, while notable, do not give me reason to pause during our ongoing safety mission at PHMSA. And even though we use statistics to help us measure improvements in safety, it is the vivid reminder in places like Bellingham, Marshall, San Bruno, Aliso Canyon, Merrimack Valley, and most recently, Durham, North Carolina, that serve as our motivation and commitment for working even harder to improve pipeline safety.

Thank you again for inviting me to today's hearing, and I look forward to your questions. Thank you.

[The prepared statement of Mr. Elliott follows:]

********** INSERT 1**********

Mr. Rush. I want to thank you, Administrator Elliott.

And now, the committee will recognize Mr. Russell for 5 minutes for purposes of an opening statement.

STATEMENT OF W. WILLIAM RUSSELL

Mr. Russell. Good morning, Chairman Rush, Ranking Member Upton, Ranking Member Walden, and members of the subcommittee. Thank you for the opportunity to testify today about the state of pipeline safety and security in America and TSA's pipeline security program. My statement is based primarily on our recent December 2018 report.

As you know, more than 2.7 million miles of pipelines transport oil, natural gas, and other hazardous liquids that we all depend on to heat homes, generate electricity, and manufacture products. Pipelines serve as the veins of our economy and run through both remote and highly-populated urban areas. As a result, our pipeline network is a prime target for terrorists, foreign nations, and others with malicious intent to do physical and cyberattacks. A successful pipeline attack could have dire consequences on public health and safety as well as the U.S. economy.

The Transportation Security Administration, TSA, is the lead agency to ensure the security of our pipeline network. And in our recent report, we found that TSA provided pipeline operators with voluntary guidelines to enhance the security of their facilities. Pipeline operators and industry associations also

reported they effectively coordinate and exchange security information with TSA.

That said, we identified a number of weaknesses in TSA's management of its pipeline security program, and I would like to highlight four key areas for improvement.

First, pipeline security guidance itself. It is important for TSA to ensure that its security guidelines, which were updated in 2018, March of 2018, that they clearly define how to determine the criticality of a pipeline facility. As a result, pipeline operators may not be fully reporting all of their critical facilities, so that TSA can apply appropriate oversight and ensure that any vulnerabilities have been addressed.

Second, workforce planning. TSA also needs to better evaluate the number of staff and resources that it devotes to pipeline security. For example, in our review we found the staffing was as low as one person in 2014 and has since increased to a total of six FTEs.

Establishing a strategic workforce plan could help TSA ensure that it has identified the necessary skills, competencies, and staffing allocations that the Pipeline Security Branch needs to carry out its full responsibilities, including conducting necessary reviews of pipeline companies and facilities.

Third, assessing risk. TSA uses throughput and risk to

identify the top 100 most critical pipeline operators for review, but has not updated the assessment methodologies since 2014 to account for changes in the threat environment. For example, threats to cybersecurity were not specifically accounted for, making it unclear if cybersecurity threats were considered.

Last, effective monitoring. While we found that TSA does conduct pipeline operator and facilities security oversight reviews and makes recommendations to address issues found, it has not tracked and documented the implementation of those recommendations for over five years. Until TSA monitors and records the status of pipeline operator progress to implement needed changes, it will be hindered in its efforts to determine whether its reviews are, in fact, leading to a significant reduction in risk.

We made a total of 10 recommendations to address these issues. I am happy to report that TSA agreed with all of them and has actions underway to address them, largely in this fiscal year.

In conclusion, robust security of our pipeline system is vital to our economic interests and to mitigate the risks of a malicious attack. TSA has an important role in this process, and by implementing the changes, can more effectively carry out this mission.

Chairman Rush, Ranking Member Upton, and Ranking Member Walden, this concludes my prepared remarks, and I look forward to any questions you may have.

[The prepared statement of Mr. Russell follows:]

********** INSERT 2**********

Mr. Rush. I thank the witness for his opening statement.

And now, the chair recognizes Commissioner Friedeman for 5 minutes for the purposes of an opening statement.

STATEMENT OF LAWRENCE FRIEDEMAN

Mr. Friedeman. Good morning. Chairman Rush, Chairman Pallone, Vice Chair McNerney, Republican Leader Upton, Republican Leader Walden, thank you. I appreciate the opportunity to be here this morning, as well as thanks to the other members of the subcommittee.

My name is Larry Friedeman. I am a commissioner at the Public Utilities Commission of Ohio, known as the PUCO. Each day as I pass through the PUCO's lobby, I am reminded of our mission statement. And that is, to provide adequate, safe, fairly-priced, and reliable utility services to the Ohio citizens. In short, we are to promote the general welfare by assuring the provision of essential services to all Ohioans.

Implicit in the mandates is not only the need to establish service, but, just as importantly, to maintain the provision of safe utility services over time. Pipeline safety integrity is a foundational element of utility service upon which all Ohio citizens rely, and there is no higher consideration within the context of pipeline transmission and distribution than that of public safety.

Ohio has a robust pipeline safety program dedicated to ensuring the safety and reliability of natural gas service to

Ohioans. We have 113 natural gas pipeline operators and more than 71,000 miles of transmission, distribution, and gathering lines. Ohio is one of eight states that act as interstate agents for the Pipeline and Hazardous Materials Safety Administration, PHMSA, and has done so since 1973. We have 12 interstate pipeline operators with over 8,500 miles of regulated interstate transmission lines.

While these pipelines are located within the boundaries of the State of Ohio, the PUCO does not exercise jurisdiction over them. But, pursuant to an agency agreement with PHMSA, the PUCO inspects interstate natural gas pipeline systems based on an inspection plan agreed to with PHMSA. It investigates incidents and refers any rules of enforcement identified to PHMSA for disposition.

Ohio also receives funding from PHMSA pursuant to the State Pipeline Safety Program Base Grant. This is a reimbursement-based grant authorized to support up to 80 percent of a state's cost to administer a gas pipeline safety program. In order to qualify, each state's program must comply with PHMSA requirements.

We are proud to say that for the last two years Ohio's program has received the maximum score available on those annual audits conducted by PHMSA. Yet, in 2018, notwithstanding the maximum

score, Ohio received not 80 percent, but 72.16 percent of expenses incurred.

The Ohio program has 10 inspectors, performs over 150 audits annually, and they are primarily focused on pipeline distribution facilities. Ohio has built and maintained its pipeline safety program in no small measure because of the assistance received pursuant to the PHMSA Pipeline Safety Program Base Grant. Through the years, the program has enabled the PUCO to hire, retain, and train properly its staff. The training occurs at a PHMSA training center in Oklahoma City, Oklahoma.

Now, complementary to the PHMSA-related activities, the State of Ohio has undertaken some independent initiatives that I think worth mentioning. More than a decade ago, the PUCO, in cooperation with Ohio's major natural gas utilities, embarked on a capital investment program to replace bare steel and cast iron distribution pipes. The purpose of the program is replace the pipes with upgraded materials which not only enhance the structural integrity of the system, but prolong the useful life of the system. It is not only remedial, but preventative in nature.

Since the inception of the program, Ohio's four largest investor-owned natural gas utilities have invested over $3.6 billion in replacement and have replaced over 5,000 miles of

distribution main line and more than 1 million service lines. The progress and value of the program is perhaps best manifested by the fact that, at the end of 2010, about 20 percent of the total pipeline fell within categories targeted for replacement; at the end of 2018, that percentage has been reduced to 12. It is an inescapably long program in duration, but the PUCO has ordered accelerated cost recovery to incentivize accelerated replacement rather than authorizing recovery at more typical regulatory paradigm structures.

In conclusion, I recount the Ohio State's specific activities. In addition to the PHMSA-related activities, to help demonstrate the sheer magnitude of the compelling importance and desirability of federal-state cooperation and coordination, and enhancing the structural integrity of the natural gas transmission and distribution system, deliverability, reliability, and, most importantly, safety are wholly dependent on effective pipeline safety measures. I would strongly urge the subcommittee's continuing support for safety reauthorization. And more specifically, I would urge your consideration of increasing the total reimbursement to the full 80 percent, as authorized by Congress.

Thank you so very much for your time. I would be happy to answer any questions you have.

[The prepared statement of Mr. Friedeman follows:]

********** INSERT 3**********

Mr. Rush. The chair thanks all the witnesses for their opening statements, and we have now concluded the opening statements.

We will now move to members' question. And each member will have 5 minutes to ask questions of our witnesses. We will start by recognizing myself for 5 minutes.

Administrator Elliott, there are quite a few issues that I would like to discuss with you, but, as I say, I only have 5 minutes to do so. And therefore, I will send additional questions in writing to you regarding the timeline for when PHMSA expects to complete its congressionally-mandated rulemaking. That letter, that transmittal will be coming to you soon.

And I would also like to hear back from your agency on some of its workforce issues. Specifically, I would like to hear whether or not PHMSA does, indeed, have all the sufficient number of professional staff with the right expertise to handle all those responsibilities that fall under the agency's jurisdiction, including conducting timely pipeline inspections and finalizing its rulemaking.

One timely matter that I would like to discuss with you at this time is the issue I spoke about in my opening statement. How do we get more funding and assistance to the state and local level in order to help emergency management agencies and first

responders with the resources they need desperately to fully and effectively carry out their duties? Also, is there a defined obligation on the part of pipeline operators to work with county-level emergency managers to develop and maintain an emergency preparedness plan before an event or an exercise occurs?

Mr. Elliott. Well, Mr. Chairman, thank you for those questions, and I will try to answer them in the order they were given.

Let me first start by addressing, if you don't mind, the issue of mandates. I am the Administrator. I am responsible for ensuring that we work quickly to complete the mandates. I can't attest to actions by previous Administrators. I am the Administrator now; it is my responsibility. I understand that.

But I think we have made good progress. The three rules that we have heard, going back to a Railroads, Pipelines, and HAZMAT Subcommittee meeting last June, really made it clear from both sides of the aisle that we need to move these mandates.

As I indicated in my comments, I went back to the staff and I said, "We need to do better than we are doing now." And I looked at the oil spill plan for railroads because that was close to being done and was a very, very important rule, as well as the prohibition of lithium batteries in passenger aircraft, which was another great concern.

But the pipeline bills were equally important. We finished our work on the liquid pipeline rule. And again, as I had mentioned, that has been over at OMB now for about 50 days, and we are hoping to get a response back fairly soon.

The two other rules that were of greatest concern, the gas transmission pipeline, we have completed our work there. It has been done for a while and it is going through the internal review process at DOT. We have been very responsive to questions that are coming back from the Office of the Secretary. So, we are being as responsive as we can to respond.

The one bill that I think seems to have obtained the most, and probably rightfully so, the most focus is the rupture and automatic valve rule. And that wasn't in a final rule stage. That one was in a Notice of Proposed Rulemaking. So that one, agreeably, has languished the most. Our team has finished the writing of that Notice of Proposed Rulemaking. That, too, is also being reviewed by the Secretary's Office.

So, all three of those we really hope to see two final rules completed and a Notice of Proposed Rulemaking moving forward. We have several other mandates behind that that we are working equally hard on.

To address the question about staffing, we have 581 employees at PHMSA. About 310 are assigned to the pipeline side. I have

mentioned before it is tough for us to compete with industry to hire good, qualified, as you said, pipeline engineers.

Interesting, I was in Atlanta yesterday, and my Director of Human Resources was over at Virginia Tech trying to figure out how we can create a better recruiting bed at colleges and universities that put out good engineers. I think part of the problem is we need to make people more aware of the important safety mission of PHMSA, because I think once they understand that, we are going to be more attractive to be in a place to hire. But, right now, we have done a great job in filling the gaps, the voids that we had in our hiring, and it has given me a better position to see how effective are we with the current staff.

I especially appreciate your comments about emergency responders. In my 40 years in the railroad, I was responsible for emergency response. And during that time, I lived in New Jersey and was actually the part-time emergency management coordinator for the town that I lived in in south Jersey. So, I fully appreciate the fact that we need to do more to help emergency responders. And you are absolutely correct, it is a responsibility of the oil and gas industry to make sure that they work with emergency responders, especially on drills and exercises.

Mr. Rush. I want to thank you. And I want to just remind

you that we will be submitting additional questions for the record.

The chair now recognizes Mr. Upton for 5 minutes for the purposes of asking questions.

Mr. Upton. Well, thank you, Mr. Chairman.

And again, I want to appreciate the testimony that you all provided us today. I know that we have a good number of questions.

I particularly want to thank Mr. Elliott, the Administrator, for his personal review of the nation's pipelines. I know you have been to Michigan a number of times. You have met with Republicans and Democrats, as we all care about these issues. And I just really appreciate your hands-on experience and your willingness to come and help us here.

It is been clear for a long time that pipelines are really the safest way to transport oil and gas as it relates to incidents. But, of course, as you said in your testimony, it just takes one bad issue to really blow up and make a mess, a big mess of things in a major way.

As you heard in my opening statement, yes, we are disappointed that TSA is not here. And I guess some could suggest that TSA has really increased by sixfold their inspectors, because it has gone from one to what I thought was six, but I am now told that it is now less than a handful; it is actually four. Is that

correct?

Mr. Russell. That is correct.

Mr. Upton. So, there I was giving them the benefit of the doubt that it was a handful plus one, but it is actually less than a handful of folks around the country, which I don't think is a very good trend.

This committee has worked a long time on cyber protections. God help us if somebody gets into one of these systems and does something bad, that would really pose a problem. We are all aware of public events the FBI and others have talked about. But I guess I want to refer this to Mr. Russell, as the GAO.

In your report, what type of emphasis has TSA, knowing that they have these massive resources to look at the potential for a cyberattack on any of our pipelines, what have they done to address that, knowing that, in fact, there are published incidents of collusion? Let me put it that way. State-sponsored.

Mr. Russell. That is correct. So, as DNI Coats recently acknowledged in the last intelligence assessment, you have nation states with the full capability to do harm to our pipeline network. And as you mentioned, with TSA's resources, it was six when we concluded our report in December. So, if it is down to four, that is, as you mentioned, less than a handful.

And one of the concerns that we found in our review was the

pipeline security officials did not necessarily have the requisite expertise and skills when it came to cybersecurity. And that is one of the things that we recommended that TSA try to account for when it does its workforce plan, as part of one of our recommendations.

Mr. Upton. On page 6 of the GAO report, it says, and I will quote this to you, "Our analysis of TSA's data found that at least 34 of the top 100 critical pipeline systems TSA deemed highest risk indicated that they had no critical facilities." Can you dive a little deeper into that? What are they missing? Where should they be?

Mr. Russell. Sure. So, the way it works now is it is a voluntary process. So, the pipeline operators --

Mr. Upton. Should it be mandatory?

Mr. Russell. One of the first steps, I think, and where we went with the recommendation, was for TSA to clarify their guidelines first, to make it more clear what is the definition of a critical facility. And that is what we found, is that there is some confusion around that, such that a full third of the top 100 most critical pipeline operators had not identified any critical facilities, which, then, affects which reviews that you do.

Mr. Upton. I am sorry to interrupt, but what wouldn't be

critical? I mean, we had this Kalamazoo Enbridge line that went in the Kalamazoo River. It was a billion dollars for Enbridge to clean that up. They didn't report it for what turned out to be a couple of days, and it was a pretty major -- in Michigan, so, you know, it crosses your hand here. But a billion dollars, just a small -- I mean, what is not critical that they would look at?

Mr. Russell. Well, these are self-reported, so it is up to each of the pipeline operators to self-identify what is their critical facility. And that brings it around, I think, to one of the other points in the opening statement, around the recommendation followup. So, as TSA does their corporate security reviews, they may ask questions of the pipeline operators, hey, it looks like you may have a critical facility here. That may even be a recommendation. But if they don't go back to follow up to see if it is implemented, then you are continuing to have that risk.

Mr. Upton. Knowing that my time is expired, let me just make a quick comment, not a question. And that is, for that particular pipeline, good news, it was completely replaced, replaced at the new standards that this committee pushed through. I want to say it was about $4.5 million per mile as it crossed the State. But we took care of it the right way.

Thank you very much for your testimony.

Mr. Russell. Sure.

Mr. Upton. I yield back.

Mr. Rush. The chair now recognizes Mr. Peters from the great State of California for 5 minutes.

Mr. Peters. Thank you, Mr. Chairman. Thank you for having this hearing today.

I had a couple of questions, maybe to follow up on the issue of resource constraints. I heard requests over the years for the increased use of technology to expedite gas pipeline inspections and safety monitoring. It might be a little bit of a double-edged sword with respect to cyber, but I will get to that with Mr. Russell.

But, Mr. Elliott, are there technologies that you think need to be incorporated so that industry and regulators can better evaluate pipeline safety, particularly given the resource restraints we see at TSA?

Mr. Elliott. Congressman, thank you for the question. The short answer is yes. If I can elaborate, I will tell you that in my year and a half as the Administrator of PHMSA, but backed by many years in the rail industry, where we saw technology move in leaps and bounds, I have seen the same thing in the use of technology to help quickly expand the capabilities of in-line

pipeline inspection technology.

One concern that I have with that is, even as good as it is, it is still not perfect. And much of the in-line inspection tools that are in place today -- and again, the level of sophistication is amazing -- really focus on three purposes. One is to extend the usable life of the infrastructure. The second actually is to help reduce the amount of actual physical inspections that have to be done, thereby reducing cost. And the third is an absolute tangible improvement in safety.

At PHMSA, we focus on trying to encourage the research and development both with the dollars that we have that go into R&D and what we encourage industry to do, to really focus, first and foremost, on the absolute safety value there. One of the criticisms we get is PHMSA's inability to move quickly to get out of the way of industry to implement this new safety technology. And I would agree with that. I think our special permitting process is a bit slow. Part of the language that we are trying to look at in reauthorization will help speed that up. But I do think that technology will continue to expand at a rapid pace and will continue to improve pipeline safety.

Mr. Peters. And you think that is something that is being taken care of by industry? Or do you think that Congress needs to take action?

Mr. Elliott. Congressman, I do believe that is something that industry is taking care of themselves, because it benefits the ability to, as I have mentioned, to extend the life of the infrastructure and help reduce inspection cost. I will tell you that, as PHMSA, we spend our R&D dollars more on what we consider to be step-change R&D, maybe not the safe R&D. For example, one of the R&D efforts that recently has been successful in dollars that we put is the ability to locate plastic pipe. Distribution lines are going more to plastic pipes. You can't use the same technology to locate the pipes. So, we would like to see more industry dollars go to some of that more step-change safety that is not really being focused on as much.

Mr. Peters. I didn't hear you mention, explicitly mention, leak detection as one of the purposes, the objects of the technology, but I assume that would be covered as well?

Mr. Elliott. Yes, I do think -- and again, in my time I have been relatively impressed, at least in the leak detection capabilities that exist in control rooms. But probably more to your point, there is more that I think that can be done to identify smaller, some of those imperceptible leaks which tend to plague the industry. I think the larger releases, the systems seem to do a very good job. But you are probably correct, both with the in-line inspection capabilities that might identify issues before

they ever turn into a leak -- all of that I think with time will continue to reduce the likelihood of both large-scale leaks and small leaks.

Mr. Peters. Okay. Thank you.

Mr. Russell, in terms of lethality and cost of recovery, are pipelines in America more at risk from a cyberattack or a physical attack?

Mr. Russell. I think there are definitely physical security concerns, as we have seen with environmental groups and others that cause damage. But the cyber threat is one that is ever emerging and ever evolving. And I think that is one where we thought there is more that could be done.

Mr. Peters. Let me ask you this, because I have a minute left.

Mr. Russell. Yes.

Mr. Peters. As industry continues to deploy technology, how should the government make sure that, from a cyber perspective, our citizens are protected? Because, I mean, technology is the point where bad actors tend to try to make those inroads. What do you think is the role for the government, either administrative or the Congress, to make sure that we protect our citizens from a cyberattack?

Mr. Russell. Sure. I think it boils down to robust

oversight. So, do pipeline operators understand what their operating systems are, their control systems --

Mr. Peters. Right.

Mr. Russell. -- data systems, the industrial control systems that would be the point of attack? And have you adequately protected those? Anything that government can do to put out a framework -- so, for example --

Mr. Peters. I have got 4 seconds left. So, I appreciate the answer. I would say let's continue to work on that together. Thank you for showing up. And when you say "oversight," and we have the TSA not showing up, obviously, that frustrates the purpose, the ability of us to do oversight. So, I just note that for the record as well.

And I yield back.

Mr. Rush. The chair now recognizes the gentleman from Ohio, Mr. Latta, for 5 minutes.

Mr. Latta. Thanks, Mr. Chairman, and thanks very much for holding today's hearing. It is very, very important that we have this hearing.

And I want to thank our panelists for being with us today.

I would also like to, again, welcome Commissioner Friedeman for being with us today. He comes from northwest Ohio, not too far from where I am from. And so, we appreciate you being here,

making the effort.

If I could start my question with you, if I may, Commissioner Friedeman, as you mentioned in your testimony, Ohio is only one of eight states that acts as an interstate agent for PHMSA, which comes with considerable additional responsibility. Will you inform the subcommittee about Ohio's working relationship with PHMSA?

Mr. Friedeman. Yes. Thank you for the question, Representative Latta.

I think if you were to ask the commission staff anecdotally, they would characterize the relationship as professional, mutually-respectful, cooperative, as well as productive. I mean, there is an acknowledgment of a shared accountability, I believe, in terms of the interstate pipeline and the assumption of responsibilities associated with the inspection. It enables the commission staff, frankly, to leverage in terms of funding in a way, again, to train, retrain, and retain good, qualified individuals, which then serves to benefit Ohio, and exemplary in terms of the compelling need to address these same situations nationally. So, it is a very positive relationship.

Mr. Latta. Thank you very much.

Administrator Elliott, what could Congress do to help drive innovation and foster an environment where operators can

incorporate new technologies and best practices?

Mr. Elliott. Congressman, thank you for the question.

I think perhaps the best way is just continued support, and perhaps even a greater thirst for understanding how the oil and gas pipeline industry applies technology and innovation. Again, as I had mentioned earlier, it is a fairly constant drumbeat for us at PHMSA to encourage the pace at which that gets put into place. But I do believe that the more that people understand what is in place, and what more can be done, there might be some additional encouragements that can be brought to bear.

Mr. Latta. Let me followup. Would more data and information demonstrating the capabilities of new technologies operating in real-world situations be helpful to PHMSA as it pursues updates to inspection and maintenance/repair critical in these regulations?

Mr. Elliott. Yes, I think we have a large thirst for good, reliable data. We maintain a lot of that already, but I think, Congressman, the only way we are going to continue to get better is to continue to seek information/data that is going to allow us to continue to improve our safety mission.

Mr. Latta. Thank you.

Commissioner Friedeman, I understand that Ohio has a good, accelerated pipeline replacement program. Would you talk a

little bit about the commission's role to ensure that pipeline rates are adequate to allow for pipeline replacement and modernization?

Mr. Friedeman. Yes, sir. Thanks again for the question.

The commission needs to remain cognizant of the fact that the costs associated with the capital investment concomitant to the implementation of the program are essentially allocated socially across rate base. So, as I alluded to in my opening statement, there is a means by which we, the commission, not only incentivized accelerated replacement, but accelerated recovery. Now associated with that accelerated recovery is an annual audit where the commission could revisit the expenses and the prudence, and the various criteria by which we can appropriately balance the costs associated with the investment against the benefits derived from the investment.

Mr. Latta. Thank you.

Mr. Russell, if I could go to your testimony when you found -- you said, on page 5, "We found that TSA's Pipeline Security Branch had issued revised Pipeline Security Guidelines back in March of 2018, but TSA had not established a documented process to ensure that revisions occur and fully capture updates to supporting standards". But you go down, you get right into "reflect the dynamic threat environment and to incorporate

cybersecurity principles".

I am concerned because in this subcommittee and this full committee we hear a lot about the attacks that occur out there. And how much is TSA taking these threats on the cyberattacks that are occurring on the pipelines out there to make sure that these guidelines get in place?

Mr. Russell. Right. So, they were able to update them in March 2018, as you mentioned. Part of that update was to include more guidance for the pipeline operators on cybersecurity issues. Why we think it is very timely and needed for them to have a process to continue to update that is, about a month after the guidelines came out, there was a new set of an updated framework from NIST that included some additional provisions around supply chain risks and some other things that are important to also incorporate. So, our concern is that we want TSA to have a process, so you don't wait another six or seven years to, then, incorporate those standards into the Security Guidelines.

Mr. Latta. Thank you very much.

Mr. Chairman, my time is expired and I yield back.

Mr. Rush. The chair thanks the gentleman.

The chair recognizes the chairman of the full committee, Mr. Pallone, for 5 minutes.

The Chairman. Thank you, Mr. Chairman.

Obviously, we are beginning the process of developing legislation to reauthorize the Pipeline Safety Act. And first, we have to understand the current state of affairs and what work remains incomplete from previous reauthorizations. But, unfortunately, as I noted in my opening statement, numerous congressional mandates from the 2011 and 2016 reauthorizations have not been finalized by PHMSA.

So, I wanted to start with Administrator Elliott. I would like to ask you for updates on some of these outstanding mandates. First, what is the status of the rulemaking on emergency order authority that was included in the 2016 Pipes Act?

Mr. Elliott. Mr. Chairman, thank you for the question. As you may recall, we submitted an Interim Final Rule for the emergency order authority, which we believe gives us the intended authority that Congress was looking for. We have since, after further public review and comment, have made some modifications to that specifically about the timelines that industry may have to do an appeal to that process. We have completed our final rule language, and it is currently over at OMB.

The Chairman. Okay. Now what is the status of the rulemaking mandated in the 2011 Act to expand integrity management beyond high-consequence areas?

Mr. Elliott. Well, really, that falls into two rules that

we are working on, the liquid safety rule, which I had mentioned in my comment there is some integrity management aspects there. We have finished our work there, and that also is at OMB.

The other component is in the gas transmission rule. When I first came to PHMSA about a year and a half ago, that gas transmission rule was affectionately referred to as the "mega rule". It had gotten so big, I don't know how it could have ever moved. So, we split it into three parts, the mandate section, another section of the bill that deals with integrity management, some damage prevention, and the third part is gathering lines. We have completed our work on the mandate section, and we are actively working on the second section of that that deals with some additional integrity management work.

The Chairman. And then, lastly, what is the status of the rulemaking mandated in the 2016 Act to regulate underground natural gas storage facilities?

Mr. Elliott. Right. We have completed our work with that, and that is also being reviewed by the Office of the Secretary.

The Chairman. Now I know, Administrator Elliott, that you inherited many of these delayed mandates, but the fact remains that your agency is behind schedule, obviously. So, we hope we will begin to see major progress this year.

And I wanted to shift briefly to Bill Russell from GAO.

Your December 2018 report highlighted troubling weaknesses in the Transportation Security Administration's pipeline security program. And in your report, you found that the TSA Pipeline Security Branch had not calculated relative risk among the top 100 critical pipeline systems using its risk-ranking tool since 2014, and that the risk-ranking tool did not include current data. So, my question is, can you please elaborate on these findings and how GAO's recommendations address the shortfalls you identified in TSA's risk-ranking tool?

Mr. Russell. Right. So, the risk-ranking tool is critical because that really shapes which companies, which pipeline operators TSA is going to review with the limited resources that they have. So, what we saw is some shortcomings in how they thought about the threats that were encountered. Obviously, from 2014 to now, there have been evolving threats. One of the questions we had was the extent to which some of the cybersecurity issues had been factored into that initial risk assessment. Another one had to do with just the safety of the pipeline system. So, for example, a pipeline network may be more vulnerable if, for example, PHMSA has identified some age and safety issues. Was that factored into the risk ranking in order to prioritize reviews? So, we had four different recommendations to try to get at some of these issues.

The Chairman. I mean, you know I am very concerned, obviously, as many of us are here, that TSA is working with outdated information, which can have dire consequences for a program focused on the security of the country's pipeline network. And again, it is unacceptable that TSA refused to testify at this hearing or explain how it is responding and reacting to the troubling findings in GAO's report. But I certainly appreciate what GAO is doing and your ongoing efforts to do oversight of this.

So, thank you, Mr. Chairman.

Mr. Rush. The chair now recognizes Mr. McKinley, my friend from West Virginia, for 5 minutes.

Mr. McKinley. Thank you, Mr. Chairman.

I will go back, the title of this hearing says it is the "State of Pipeline Safety and Security in America". The state of pipeline safety and security in America. So, I am just curious, if we look back -- I have got a chart here that says that, in the last 10 years, we are now transporting nearly 40 percent more material through our pipelines, gas and fuel oil, and whatever, a 40 percent increase on that.

Also, we have seen that, since 1999 to today, last year, the number of incidents have not varied much. I guess back to an earlier comment, someone said, if there is just one, it is

a problem. And I don't think anyone would disagree with that. But I think the reality is, when you are transporting 614 million cubic feet of material, that there is a chance, just like in an airplane, with 737 Max and others, there is going to be a chance of something going wrong. But, over nearly 20 years, we virtually had no increase in incidents. We were 275; we dropped to 233, 258, 264, 278, 303. There were 286 last year. So, it is essentially the same, and we are transporting tremendously increase in product.

So, I am curious on this. How would you grade, Mr. Elliott, how would you grade your performance? Is it the fact that there are any, this is a "C" or a "D"? Or how would you give it a grade in overall safety and security of America with our pipeline system?

Mr. Elliott. Congressman, thank you for that very important question. Before I assign a grade, I will tell you we can never ever do enough. We will constantly strive every day, at least while I am in the Administrator's chair, to improve the safety, not only of pipeline safety. And a lot of people forget we also have the responsibility of surface transportation safety, which is 1.2 million shipments of hazardous materials a day, in addition to the 2.7 million miles of pipeline that we have.

But if I were to give a grade, I would give us a "C," because

I think we are doing well, but we are never doing good enough. I think some of the comments that we had earlier, I do think that we will continue to see great advancements in safety through technology, innovation, research and development. But, from my perspective, I think it is going to be constantly working with the highly professional team at PHMSA to make sure that each and every day that we are out working with operators and members of the public to make the transportation of energy products by pipeline as practical and safe as possible.

Mr. McKinley. Thank you.

Mr. Russell, how would you grade it? Because you have got an outside view of it. Given the increased traffic, virtually no increase in number of incidents, but there are incidents. And as I said before, I don't like that, either. But how would you grade it?

Mr. Russell. I think, overall, based on our most recent report, it is clearly needs improvement, whether it is taking care of some elements in the Pipeline Security Guidelines that the pipeline operators rely on to help manage their processes, being a little bit more diligent on just following up on the common-sense recommendations that the pipeline security folks at TSA make to those operators.

Mr. McKinley. Well, if I could, let me follow up with that

a little bit.

Mr. Russell. Sure.

Mr. McKinley. Because I interpret what you are saying is maybe more regulations. So, I am curious, because I have got the Atlantic Coast Pipeline. I think we have heard about that. There are 67 permits that had to be granted, 67, for FERC, FAA, the Federal Communications Director, and NOAA, the National Park Service, the Corps of Engineers in Huntington, Pittsburgh, Norfolk, Wilmington. I could go on and on. Sixty-seven different permits to be able to -- do you think the increased regulations -- I am not talking about doing away with any of them -- but increasing the number of regulations, is that going to give us more safety and security of our pipeline?

Mr. Russell. Well, I will say, for the TSA role, there isn't a regulation. It is a voluntary-based system. So, I think our point is just making sure that that process works as effectively as possible, in the absence of a regulation.

Mr. McKinley. I will think about that a little bit. Thank you.

And I yield back.

Mr. Russell. Sure.

Mr. Rush. The chair now recognizes Mr. Doyle for 5 minutes.

Mr. Doyle. Thank you, Mr. Chairman, and thank you for

holding this hearing today.

This conversation is particularly important to my district of Pittsburgh. Pennsylvania's energy mix has rapidly transformed in recent years due to the Marcellus Shale. And as a result of the natural gas boom, Pennsylvania is experiencing a buildout of infrastructure from pipelines to the Shell cracker plant in Beaver County, just outside my district. This can be a great resource, but only if we ensure that the pipelines meet stringent safety and environmental standards, so that we are protecting the health and safety of the people of Pittsburgh as well as the country.

Mr. Elliott, Carnegie Mellon University in my district is a world-class center for robotics, which can play a vital role for monitoring the safety and security of pipelines and protecting the environment. How does PHMSA take into account new and emerging technology, and how do you ensure the performance standards reflect the most effective technology available?

Mr. Elliott. Well, Congressman, thank you, and I appreciated visiting the gas transmission work going on in your district last week.

As I mentioned, PHMSA provides R&D dollars to help ensure that we are staying current with the most cutting-edge. One of the ways that we do that is on a biennial basis -- and we are

actually thinking now to do it more often -- we hold an R&D forum where we allow colleges and universities, and others that are involved in pipeline research and development, to come in, and we kind of spell out what we are looking for, where we think we need to see research and development progress in the pipeline, especially the pipeline safety area. And then, from that forum, we receive applications for R&D, some of it actually including robotics that you mentioned about. And then, based on the best applications, we will provide the funds that we have to pursue that R&D. I wish we could do more, but we do the best we can.

Mr. Doyle. Let me ask you, several pipelines are under construction in Pennsylvania right now. Late last year, it was reported that energy transfer in Sunoco had amassed more than 800 state and federal permit violations while building two pipelines, the Rover and Mariner East 2, across Pennsylvania and Ohio. I have concerns that the two pipelines, despite being under construction, have polluted waterways with gallons of drilling fluid and created sinkholes in backyards. Can you please describe some of these violations?

Mr. Elliott. Well, Congressman, thank you for the question, and we continue to work very closely with our state partners in Pennsylvania that have been doing most of the oversight there. And I will tell you, yes, I think we have at PHMSA a concern,

based on our dialog with the state pipeline office, about perhaps a lack of professional construction methods that are being used. So, I think we wholly support the actions that are being taken at the state level to enforce perhaps a more rigid construction standard.

The work that I did for many years in the railroad industry -- and Pennsylvania was one of the big states that we worked in -- I also oversaw all of the environmental aspects of the railroad. And I will tell you that I have a great concern any time there is any kind of impact to the environment, whether or not it is hazardous substance or whether or not it is material that basically is a byproduct of directional boring, which was some of the case we had here.

Mr. Doyle. Right.

Mr. Elliott. So, I agree with the aggressiveness that the state oversight is providing here.

Mr. Doyle. Studies have shown, since 2010, at least two critical detection systems designed to help operators avoid costly accidents only were detecting right away spills roughly 12 percent of the time. In fact, random observations from the public were nearly four times more effective in detecting leaks. Given that PHMSA studies have shown that industry leak detection can be unreliable, what is PHMSA doing to incorporate modern leak

detection standards into its rulemaking, and when can we expect action on that?

Mr. Elliott. Well, Congressman, again, thank you for the question. And we have incorporated some additional leak detection language within both our liquid and gas rulemakings. But I will also say that it is our intent, I think, to continue to see progression in the technology and the actions by the operators that will identify the potential for any kind of small leak. The larger leaks, typically, are the ones that the industry will quickly identify through their control rooms. It is those small leaks that propagate and may go unnoticed for many days. I think that is where technology is going to be most useful, to find areas of likely release and get in and correct that long before it can ever harm the environment.

Mr. Doyle. Thank you.

Mr. Chairman, thank you. I yield back.

Mr. Rush. I want to thank the gentleman for yielding back.

The chair now recognizes the gentleman from Virginia, Mr. Griffith, for 5 minutes.

Mr. Griffith. Thank you very much, Mr. Chairman.

I am going to pick up with Mr. Doyle's questions. But, first, I want to thank you for mentioning Virginia Tech, which is in my district, and I hope that you all were successful in

finding some folks there who are willing to work for you. There is a lot of good people. So, I know that it was a worthwhile trip.

Mr. Doyle was already picking up on it, and there are a lot of new technologies coming out. One that I have looked at that I think has some real potential is fiberoptic, you know, placing that out there to track leaks.

We have a couple of pipelines coming through Virginia, one of which comes through my district and comes very close to Virginia Tech. And a lot of people are concerned about the safety, and the small leaks, as you said, are where the new technologies can go. But what is PHMSA doing to remove any regulatory barriers -- and let me know if you think there are some -- and incentivize the adoption of new technologies? Because we have got this big gas pipeline coming through, and it appears to me that FERC is not requiring that they use some of these new technologies to make sure that these facilities are completely safe. And even if it is just a small gas leak, what is small today, as you know, can be big tomorrow and can cause a problem not only to the environment, but to the people who live near that pipeline.

Mr. Elliott. Congressman, thank you for the question. I think one of the items that I have been most impressed with is we have seen advancements in technology. And I do believe that,

as we see new construction and complete replacement of pipelines, I do think that you are going to see -- and some is available today and some will continue to be available -- that the pipeline installation process will include systems that will self-report the health of the pipeline above and beyond what happens today with in-line inspection technology.

So, I think the combination of several things, continuing use of integrity management systems by the operators, the continued expansion of technology and in-line inspection technology, and then, the continued use of self-diagnostic capabilities with new and totally replaced pipeline. I do think that in the not-too-distant future we will probably see new constructed pipeline that will be able to self-report on a regular basis its real-time health.

Mr. Griffith. So, here is my concern and the concern my constituents have. And I know they were trying to sell product, but some folks came in with their fiber optics and they were able to show how they can detect based on the temperature change. If you just lay that fiberoptic on top of the pipeline, you can tell if there is a small leak. You can also tell if somebody is trying to do physical harm to the pipeline, for whatever reasons, because they in real time can see if somebody is driving up or walking up to the pipeline, if somebody starts digging near

the pipeline. They can see all of that.

And yet, the pipe is not in the ground yet. The technology appears to be ready. And FERC doesn't seem to be requiring it. Do you all work with FERC to say, hey, this is new technology? It is not that expensive, and when you are talking about a pipeline that is going to be in the ground for decades and near a lot of communities, I think people would sleep a lot better in my district if they knew that that was there. And it is not. There is no plan for it. The pipe is not in the ground yet in a large part of my district. What can we do to encourage the operators to do that? And what can you all do to work with FERC to say, hey, this is something that really ought to be done?

Mr. Elliott. Well, we will continue to have dialog with FERC on a regular basis, and we will discuss that. But I think one of the other things that we can do in the regular dialog that we have with the oil and gas operators is to continue to push the use of new technologies that will minimize leaks and releases of pipelines. We can have that conversation with them.

Mr. Griffith. I certainly hope that you will. And there are some new people in FERC. So, I don't want to say that they are all like this, but I will tell you, at one point a few years back, we had three Congressmen from our region who asked for additional hearings and we got nothing. And that is very

discouraging. It doesn't seem like they are very open to input. I hope you have a different experience.

That being said, I have got a few more seconds. What is your favorite new technology on pipeline safety? You have got to have one that you are just like, hey, that is pretty neat.

Mr. Elliott. To me, I actually think it is the ability to locate non-metallic pipeline that is becoming so prevalent in natural gas distribution systems in major metropolitan areas, because I think that has the greatest opportunity to create safety. I know in the incident that occurred in Durham, North Carolina, where a directional boring machine tapped into a distribution line -- I just think that the ability to be able to more accurately identify non-metallic pipeline is probably my thing.

Mr. Griffith. I appreciate that. Thank you.

And I yield back.

Mr. Rush. The chair now recognizes Mr. McNerney from California for 5 minutes.

Mr. McNerney. Well, I thank the chairman for that.

And I thank the witnesses this morning.

Administrator Elliott, on September 9th of 2010, I was on the San Mateo Bridge when the San Bruno explosion occurred. Two of my three children live in peninsula just south of San Francisco.

Also, the Aliso Canyon leak, which was incredibly dangerous, and we were very lucky that there were no explosions with that, occurred in California. Near my district we have three large natural gas storage facilities, including the MacDonald Island, which is 82 billion cubic feet.

So, are the inspections by the California Public Utility Commission and the federal authorities for these facilities, and the high-pressure transmission pipelines, doing enough to keep our communities safe? Are they doing enough?

Mr. Elliott. Congressman, I do believe that the work being performed is adequate. I, first, want to say, when I first came to PHMSA, it was the discussion of San Bruno and the eight fatalities that occurred there, and that Aliso Canyon was the worst natural gas release we have ever had in this country. So, those resonate very much.

We are so dependent upon the use of our state partners to oversee certain operations. And 80 percent of the pipeline system in the U.S. today falls to the oversight of our state partners. I think, as I said earlier, there is always more we can do. We always need to strive to get better. We need to work more closely with our state partners to make sure that we are being as forward-thinking as possible. But I would have to say that, at this point in time, I do think the work is adequate.

Mr. McNerney. Well, we clearly have our complaints about the pace of PHMSA's rulemaking, but are we being too demanding about the safety of our constituents? Is that part of the problem?

Mr. Elliott. No, I mean, you can never not take into account the absolute importance of the safety of your constituents. And as I had mentioned earlier, we have every reason to continue to focus on improving and completing those mandates, so the safety value of those rules can get out and be in place.

Mr. McNerney. What is the holdup in these rulemakings? I mean, is industry dragging its feet or you don't have enough personnel? Do you need more resources from Congress? I mean, what is the holdup here?

Mr. Elliott. As I had mentioned before, I understand it is my responsibility, as the Administrator today, to complete these mandates, going back to 2011 and 2016, and we work on that every day. For most of the mandates that have been brought to our attention as being most important, the liquid, the gas, the rupture detection valve rule, we have completed our work on those, and they are going through the necessary review before they can be published as a final rule, except for the rupture and automatic valve rule, which is a Notice of Proposed Rulemaking. So, granted, we have got a ways to go on that, but it has got the

greatest attention at PHMSA, sir.

Mr. McNerney. Thank you.

Mr. Russell, I have introduced some good cybersecurity bills in Congress and in a number of others in previous Congresses. Your example of the TSA's criteria for determining pipeline facility criticality as a potential for mass casualties or significant health effects, it is very concerning that the pipeline operators interpret this differently. What more can the TSA do to provide more clarity to operators of whether the facilities qualify and the additional steps that are necessary to make the infrastructure more secure?

Mr. Russell. Thank you for the question. Certainly, TSA did update the guidelines in 2018. So, that is a good thing, to make them more current. But it is really some of those key terms. What does mass casualty mean? How does that translate to the area you are operating in? Again, issues around the criticality, what exactly does that mean? So, I think either a glossary or more specificity around some of those key terms is what we are proposing that TSA try to do.

Mr. McNerney. Good. Thank you.

Commissioner Friedeman, how do you deal PHMSA's shortage of personnel? Is that a factor affecting your capability to do your job?

Mr. Friedeman. Not that I have been informed from our staff, recognizing, however, that there is an assessment on basically an operator's proportionate throughput that offsets any shortfall relative to funding. So, there is a budgetary opportunity on the part of the commission to address some of the issues inferentially that you are talking about.

Mr. McNerney. Okay. Thank you.

Mr. Chairman, I yield back.

Mr. Rush. The chair thanks the gentleman.

The chair now recognizes Mr. Johnson of Ohio for 5 minutes.

Mr. Johnson. Thank you, Mr. Chairman.

Mr. Friedeman, welcome today from the great State of Ohio. We may have covered some of this ground already, but I want to dig in a little deeper. I really appreciate you being here to discuss how the Public Utilities Commission of Ohio best keeps our pipeline systems functioning and safe. Ohio's safety program has received the maximum score available, as you know, on PHMSA's audits over the last two years, which I think demonstrates how seriously PUCO takes pipeline safety.

Now I appreciated that in your testimony you reiterated PUCO's mission statement, which focuses on reliability and safety, but also affordability. And I am sure each of these issues were taken into consideration when Ohio developed its

accelerated pipeline replacement program.

So, I know Congressman Latta got into this a little bit, but can you talk a little bit deeper about the program's importance and your commission's replacement program and your commission's role to ensure that pipeline rates are adequate and just to allow for pipeline replacement and modernization?

Mr. Friedeman. Yes, sir. Thank you for the question. Thank you for the comments relative to the PUCO.

As I had indicated previously, the costs associated with the investments are obviously socialized across ratepayers. So, there is a need to balance, once again, to attempt to achieve the equilibrium between benefit and cost. And that is really something that is, I think, inherit in the nature of the recovery mechanism that we use relative to using a rider, rather than waiting for a rate case. So, that enables the commission to review on an annual basis.

Mr. Johnson. What are some of the balancing factors? I mean, when you talk about your philosophy of balancing quality and safety with cost and acceleration, what are some of the factors that you use to balance all of that out?

Mr. Friedeman. Well, obviously, one of the key considerations is bill impact, recognizing again that affordability is a function -- affordability across all

ratepayers. That is, from the highest perspective, the consideration relative to the social costs associated.

In terms of the implementation of the program itself, there is a recognition that bare steel cast iron non-cathodically-protected infrastructure is subject to deterioration over time. So, basically, the staff, in conjunction with, in cooperation with the utilities in the State, identified pipelines that fall within the bucket targeted for replacement. And it was a very methodical approach that was started over a decade ago, and I believe that the various utilities are at various stages of completion, but that all four of the major investor-owned utilities are intending to complete their programs by 2033. And to the credit of other utilities, not those of the big four, they are beginning to adopt the same process, or at least express an interest in doing so, recognizing, I think, the benefits to be derived.

Mr. Johnson. Okay. All right. Well, thank you.

Administrator Elliott, as you know, PHMSA's state partners oversee more than 80 percent of the nation's pipeline infrastructure, especially the gas distribution pipelines that connect our homes and businesses to the main transmission system. Can you talk a little bit about state programs and the methodology that PHMSA uses to distribute pipeline safety grants?

Mr. Elliott. And, Congressman, thank you for the question. There are all but two states that participate in the state program with PHMSA. Alaska and Hawaii are the two. So, on an annual basis, PHMSA will work with the state to receive information about their current inspection program, about the goals that they have achieved, about the staffing that they have. We take that information, and then, we will conduct a review of the state program, looking very much at the same information, the adequacy of the program. Is staff adequately trained? Are they meeting their goals?

And then, with the dollars that are allocated to PHMSA as part of our state-based grant, we look at the dollars that the state has projected that they have for the state program. Then, we add those dollars, and then, factor in the score. And that ultimately provides the funding to the state.

It has been mentioned before that, while PHMSA can fund up to 80 percent, over the last few years it has hovered more closely to about 70 percent. And actually, one of the things that we have done -- we recognize the importance of funding the state programs. Occasionally, we will get a question about, well, what do you do for poor-performing states? And one of the answers is we can reduce the amount of funding, but, to me, that is counterproductive. Why would you reduce the amount of funding?

So, we try to keep the funding as robust as possible. But, in the last few years, we have actually taken some unused funds at PHMSA and moved it over to the state-based program to put in as much dollars as we can for the program.

Mr. Johnson. Okay. Well, thank you.

And I apologize for going over, Mr. Chairman. Thanks for the indulgence. I yield back.

Mr. Rush. The chair now recognizes Ms. Kuster from New Hampshire for 5 minutes.

Ms. Kuster. Thank you, Mr. Chairman.

And thank you to all of you for being with us today.

I want to dive right into an accident that was very close to home in the neighboring community. In September of 2018, an accidental release of high-pressure gas caused an explosion just across the border from my district in Lawrence, Andover, and North Andover, Massachusetts, referred to as the Merrimack Valley incident. Over 130 structures were damaged as a result of the accident. More than 20 individuals were injured and, very sadly, one person lost their life.

So, what we have learned is that the tragic accident could have been completely avoided. And it is imperative, in my view, that Congress work to identify additional safety measures that can help prevent these types of accidents. So, I want to address

Mr. Elliott. My understanding is, in 2011, the Pipeline Safety, Regulatory Certainty, and Job Creation Act required the use of automatic or remote-controlled shutoff valves on transmission pipelines, but, to date, PHMSA has not implemented this mandate, despite the NTSB finding that the use of the automatic shutoff valves is effective in preventing and reducing the severity of pipeline explosions. So, my question is, why has PHMSA not implemented this mandate over eight years since this bill was signed into law?

Mr. Elliott. Thank you for your question, and we continue to feel for the Rondon family and the loss of their loved one in the incident up in Massachusetts.

You are correct that the requirement for automatic shutoff on transmission lines is part of the rupture detection and valve rule. In this case, we were dealing with a gas distribution line. And so, the rules didn't necessarily apply there.

But let me just expand what I think needs to be done or what we can do there. And I think it is important to say --

Ms. Kuster. And is there any sense of urgency?

Mr. Elliott. Congresswoman, I think there is a significant sense of urgency. I think this is a case, too, where the importance between PHMSA and the state partners actually works as intended. This was, in every sense of the word, a monumental

failure on the part of the operator. We set the minimum standards, federal standards, for pipeline safety. States can, and have for many years -- and it has been over 50 years that states have been allowed to oversee their intrastate process -- but the states had the ability where, if it is not in conflict with the minimum federal regulations, to apply their own regulations to strengthen what the federal government has in place. And that is exactly what happened in Massachusetts. If you recall, the State legislature included specific language that now requires a professional engineer to sign off on the plan, in the belief that doing that would have prevented this incident.

The minimum federal requirements are very clear. They require qualified individuals and a qualification process at every step of the process. So, we believe that the federal standards, if they had been adhered to in the Merrimack Valley incident, would have prevented this. But this is a good case where the State felt they needed to go above and beyond the federal standards.

I think, going back to your original question, I think there will be a lot further discussion about the importance of automatic shutoff valves not just on transmission lines, but on gas distribution lines.

Ms. Kuster. So, what is the holdup from instituting this

requirement?

Mr. Elliott. Right. Well, as I had mentioned before, the rupture detection and automatic valve rule is probably one that has languished the longest at PHMSA. It is in a Notice of Proposed Rulemaking stage. We have finished our work on it. And I have committed that we will move that not only into the Notice of Proposed Rulemaking, so we can get it out to get public comment, but, then, move it to the final rule as quickly as possible. It is still on schedule to become a final rule before the end of the year.

Ms. Kuster. Can I ask you, do you know what percentage of new pipeline infrastructure has automatic shutoff valves? Is this accepted technology now and it is being installed?

Mr. Elliott. I do not know specifically, but I can determine that, and I will as quickly as possible get back to you with that information. But I don't have the specifics of that.

Ms. Kuster. And what is your sense of the timeline for when Congress can expect, and the public, the American public, for the mandate for the automatic shutoff valve to be implemented?

Mr. Elliott. Well, again, that rule, even though it is in a Notice of Proposed Rulemaking stage, we still have it on the books to be completed in this year. That may be a bit aggressive, but we are going to work as hard as we can at PHMSA to move that

bill forward.

Ms. Kuster. I appreciate that, and I urge you, the urgency of now to protect our constituents. So, thank you.

I yield back.

Mr. Elliott. Thank you, Congresswoman.

Mr. Rush. The chair thanks the gentlelady.

The chair now recognizes the gentleman from Indiana, Mr. Bucshon, for 5 minutes.

Mr. Bucshon. Thank you, Mr. Chairman.

I think you can see the bipartisan frustration with delays in action from federal agencies. This is, not blaming anyone here, but this is kind of a frustration not only in this area, but across the board where congressional intent, determined and passed into law sometimes decades before, has not been carried out. And it is a frustrating problem, and it sounds like you are doing the best, Mr. Elliott, at least at PHMSA to resolve some of those frustrations.

I also want to say that, just as technology evolves in our own personal lives -- you know, no one would go out and buy a computer with 20-year-old technology -- we shouldn't be putting pipelines in the ground with 20-year-old technology. As Mr. Griffith pointed out, there is new technology, including fiber optics, that, in my view, if we are putting new pipeline in the

ground and technology exists, we should find a way to utilize that, because we wouldn't buy a computer for ourselves with 20-year-old technology. It makes no sense. This happens across the government, and it is very frustrating. I understand that there are stakeholders and there are costs involved in new technology, but we need to be more nimble in this process, especially as it relates to something as critical as pipeline safety,

So, with those opening comments, Mr. Friedeman, I have a question. This has been addressed a little bit. But I understand over the last several years states have implemented mechanisms to accelerate the replacement of pipelines. That is a positive thing. In your testimony, you explain how these campaigns have helped rapidly modernize Ohio's aging infrastructure with over 5,000 miles of distribution main lines and more than 1 million service lines being replaced since the inception of the program nearly a decade ago.

How do you at the state level balance the need for these investments with, ultimately, the cost that is borne by the ratepayers? It is a difficult balance, I understand.

Mr. Friedeman. Yes, sir, it is a difficult balance. I think it is a qualitative as much as it is a quantitative assessment.

Mr. Bucshon. Yes.

Mr. Friedeman. As I indicated previously, there is a sensitivity relative to affordability, an acknowledgment that affordability is not a constant across all ratepayers. And then, it is very difficult, as you suggest, to assign a quantitative value to that. It is a consideration. It is a variable that goes into the decisionmaking process. I can't be more specific than that. I am sorry, I hope that is responsive --

Mr. Bucshon. No, that is. I mean, it is a difficult process as it is in southern Indiana, you know, and the State of Indiana, where we have the need for updating pipelines and other infrastructure. And then, of course, people like me hear back from our constituents about that, and I think sometimes maybe we don't, as a society, give as much information about the process to everyone, so that people understand. I think most people understand, if you have more safe and updated pipelines, that may necessitate in the short run, or even in the long run, higher rates to cover the capital improvements that have been made. And I think sometimes the frustration that I hear is that that understanding of that is not projected as well as it could be maybe to the ratepayers. And I am sure you guys do a great job of trying, doing your best to do that. But I would encourage everyone to try to project that to the ratepayers, because we

hear about it.

We also hear about unfunded mandates from the federal government, and specifically, EPA and a number of other agencies that are blamed for that. But, many times, again, it is just a frustration.

Mr. Russell -- and I have about a minute -- as you know, risk-based decisionmaking is the best way to approach complex problems like cybersecurity, especially when you are dealing with 2.7 million miles of pipelines. Is it true that TSA is not attempted to understand the relative risk of a safety instant among the nation's most critical pipelines? Would you say that that is true or not true?

Mr. Russell. I think, for their older risk assessment, the one that was done in 2014, one of the observations was not factoring in maybe some of the PHMSA safety data that would get at the age of a system and how that might affect the system's vulnerability. And that is one of the things we would like to see them take on.

Mr. Bucshon. Okay, great. And then, the last thing I will say is I am still struggling, me personally, to understand why the TSA, as the agency of record on some of these things -- and I suspect that has happened over time -- but I think someone mentioned that maybe we should revisit the jurisdictional issues

related to pipeline safety as part of our reauthorization. I just want to throw that out there.

Thank you. I yield back.

Mr. Doyle. [Presiding] The gentleman's time has expired.

The chair recognizes Mr. O'Halleran for 5 minutes.

Mr. O'Halleran. Thank you, Chairman and Ranking Member, and to all our witnesses before us today for joining our conversation on how Congress can ensure the pipelines of today do not harm our citizens, our economy, and environment of tomorrow.

I believe Congress has a duty to legislate; the agencies have a duty to carry out the laws and implement regulations in the spirit of the statute. In this vein, Mr. Chairman, it is my hope that we, as a committee, can continue working in a bipartisan fashion, as we have in the past, to reauthorize the Pipeline and Hazardous Materials Safety Administration's pipeline safety program.

Administrator Elliott, I thank you for appearing before our committee today to provide perspective regarding pipeline safety issues. However, given TSA's role overseeing their pipeline security program, and with the growing threat of cyberattacks facing our nation, I find it troubling that TSA neglected to send a representative to appear before us in this vein. Hiding from

the GAO report's negative findings is not the way to do this. Sooner or later, the TSA will have to let the American people know why they have not met their duty. And I just, having been involved in public safety in the past, I just can't imagine why this type of process is not addressed in an appropriate way.

Administrator Elliott, I appreciate the diligent, behind-the-scenes consultation you described in your testimony before our agency issues a rulemaking. However, since you became Administrator, which specific new actions and processes have you put into place to ensure these rulemakings are done in a timely fashion?

Mr. Elliott. Well, Congressman, thank you for the question, and especially with regards to security. I think Ranking Member Upton said it best. At PHMSA, we understand you can't separate safety and security, and even though we have the safety function, the professional men and women of PHMSA that are out doing the inspections, I think it is worth mentioning, also are trying to, where they can, identify security concerns and convey that back to the industry and our colleagues at TSA.

With regards to what we are doing to try and expedite the rulemaking process, besides focusing on the sheer importance of moving the mandates, which I can guarantee we focus on every day, one of the things we have done that may have had, or will have,

the best outcome is, you know, PHMSA really is two modal administrations in one. And we have actually just started to complete the work of basically bringing all the rulemaking activities into one single entity within PHMSA. And that's going to allow us to be more agile, more responsive to rulemakings, both on the pipeline and the hazardous material surface transportation side. It basically gives us the same ability to bring new resources together to form a single entity that is going to allow us to do work quicker and more efficiently, and again, as we say, flex more, depending on where the regulatory need is going to be. So, that is probably the most important thing we have done, other than focusing on mandates each and every day, sir.

Mr. O'Halleran. I thank you.

Section 30, Mr. Elliott, of the 2011 Pipeline Safety Act requires development of protocols to consult with Indian tribes that have hazardous material pipelines within their jurisdiction, and we know many of them do. How would you describe the agency's protocols to work with tribes on a pipeline near a reservation boundary and with the spill response zone entirely within the reservation?

Mr. Elliott. Congressman, thank you for the question. Actually, I think it is good, and I will explain why. It was

last year, in 2018, that one of the senior field members of the pipeline team actually prepared a protocol that sets out how we are going to communicate with tribal authorities before we go in to do inspections, typically, with oil and gas operators. That is kind of independent of what the operators do, but we feel that it is absolutely necessary to make sure that we provide the communications, and more importantly, the respect to the tribal leadership about the pipelines that operate underground within their territories. But I think, more importantly, to also create a stronger link between the tribal leadership and the PHMSA representatives, so they know who to call.

Mr. O'Halleran. Thank you, Mr. Elliott.

Mr. Chairman, as a citizen -- forget the fact that we are here in Congress -- but, just as a citizen, it really perturbs me that an agency of government does not appear before the oversight committee.

Thank you very much.

Mr. Doyle. The gentleman yields back.

I think both sides of the aisle and this entire committee shares your thoughts on that.

The chair now recognizes Mr. Walberg for 5 minutes.

Mr. Walberg. Thank you, Mr. Chairman.

And thanks to the panel for being here.

Administrator Elliott, thank you for being here, and thank you wearing that amazing blue tie. With a Buckeye at the other end of the table, we appreciate a Wolverine representation there.

[Laughter.]

I don't know if anybody else noticed, but I did. And after the 10 years football drought we have had, we will take anything.

Mr. Elliott, as you know, one of the challenges for states in colder climates like Michigan is inspecting pipelines for potential cracks, leaks, and not having to shut off or disrupt gas flow, especially in winters like last winter with the polar vortex that we experienced. That is why I am excited about the development of new technologies like robotic smart pigs for in-line inspections that could be used to help make pipelines safer. Other developments in recent years include drones for mapping and detecting leaks, software solutions to help analyze pipelines, and, as Mr. Griffith mentioned, fiberoptic cable technologies.

My question is, how does PHMSA work with operators or other technology innovators to develop and identify potential technologies for further attention in its regulatory processes? And secondly, what could Congress do to help drive innovation and foster an environment where operators can incorporate new technologies and best practices?

Mr. Elliott. Well, Congressman, thank you for the question. With regards to my tie, while it is not the beloved cream and crimson of my Hoosiers, at least it is Big 10 colors.

Mr. Walberg. Thank you.

Mr. Elliott. You are welcome.

With regards to how we can continue to foster accelerated growth in technologies, especially technologies that provide greater safety, as I mentioned earlier, I think there are two important ways to do that. One is the absolute responsibility of PHMSA, and not only me, but the staff -- I get the opportunity to talk to a lot of oil and gas executives, and it is probably one of the first points that I always make about the importance of safety technology and how we need to continue to invest, again, not so much in safe R&D, but, basically, some of the step-change safety that will help, I think, get us this next level of safety.

But I think the second part is from the congressional point of view. I think, again, have this great thirst to understand, I mean to ask industry to come in and be very specific about their paths to more aggressive implementation of this safety technology.

I came from the railroad industry where we have seen tremendous improvements in technology and R&D, all designed to eliminate causes of incidents that will create catastrophic

incidents, rail incidents. And I have seen the same thing in the pipeline incident.

But I think the one thing that is missing is the ability to communicate that effectively to those people, both on the regulatory side as well as the congressional side, to fully understand what is going on, and then, to provide good recommendations about how all that good work can be --

Mr. Walberg. How the program is helpful?

Mr. Elliott. Yes.

Mr. Walberg. Thank you.

Mr. Friedeman, as we have heard today, while PHMSA still has mandates for the 2011 reauthorization unfinished, they have made the most of the resources they have to bring these complex technical rulemakings close to the finish line. However, as you noted in your testimony, states can play an important role in taking some of the burden off of PHMSA by assuming safety authority over interstate gas pipelines. Like Ohio, Michigan is one of only eight states that act as interstate agents and perform inspections. Can you describe how your relationship with PHMSA has impacted the overall safety and integrity of Ohio's pipeline system?

Mr. Friedeman. In my discussions with the safety team at the commission, once again, anecdotally, that relationship I

think is perceived by staff to be very productive, to be mutually-respectful. And I believe there is, in becoming an interstate agent, an assumption of responsibility and an acknowledgment of the responsibility to promote the welfare of the citizens of Ohio. I would commend the State of Michigan for doing the same. I would believe that there is that same assumption of responsibility and acknowledgment at play there.

I think, given the activities within the State of Ohio that I, hopefully, described today, you can appreciate the sheer magnitude of pipeline activity nationally. I mean, it is absolutely remarkable. There are in excess of 2 million miles of distribution, transmission, and gathering lines.

In order to accept the charge of a regulator or responsibility of a regulatory to promote general welfare and the delivery of adequate and reliable service, and safe service, I think the magnitude underscores the compelling need of the parties to act in a cooperative and coordinated fashion. Again, I believe that the relationship between PUCO and PHMSA is a clear demonstration of what can be accomplished through that coordination.

Mr. Walberg. Okay. Thank you.

I yield back.

Mr. Rush. [Presiding] The chair now recognizes the

gentleman from North Carolina, Mr. Butterfield, for 5 minutes.

Mr. Butterfield. Thank you very much, Chairman Rush. Thank you for holding today's hearing.

This topic is a very timely one for my district, as two people tragically lost their lives, and others were seriously injured, as a result of an explosion originating from a natural gas line in Durham, North Carolina, that occurred on the morning of April 10th of this year. I just received a news break just a few moments ago that there is yet another gas leak in the 500 block of Duke Street there in Durham. We don't know the extent of it. The news reports are that no one has been injured, and that is a good report.

But, Mr. Chairman, the explosion in Durham demonstrates just how important the safety and security of our pipelines are and how the work of this subcommittee to reauthorize the federal pipeline safety program is critically important.

And let me thank the three witnesses. But I will first address this question to the Administrator. Do you have any knowledge of the Durham explosion that I made reference to a moment ago?

Mr. Elliott. Congressman, yes, I do.

Mr. Butterfield. Can you elaborate on it for me, if you could?

Mr. Elliott. Congressman, we were saddened to learn of the second loss of life from this incident.

When incidents occur -- and we are very thankful that in the State of North of Carolina we have a very good pipeline partner -- but what we typically do anytime that there is a fatality, serious injury, or significant evacuations, we will dispatch members of our Pipeline Accident Investigation Division to go in and assist the state. And I need to underscore that, assist the state, because they have the predominant oversight.

We know that, when we arrived, it was still kind of being treated as a fire scene and that other agencies were there as well. We worked with our state partners, and I do know that one of the problems in helping, that has prohibited us from basically understanding the specific point of damage with the distribution line is the damage to the building and the asbestos-containing material and the debris. So, they have actually had to do an asbestos cleanup.

We know that they are getting close to being able to do the excavation of the actual distribution line that was hit by the boring machine. Our accident investigation team will be there again to assist the State. And then, once that area is uncovered, then that piece of pipe will go to, typically, go to a laboratory for analysis. So, we will continue to work with the State to

assist in the investigation in any way we can.

Mr. Butterfield. But, based on you investigation thus far, do you believe that there could have been anything done to avoid this explosion?

Mr. Elliott. Well, you know, this was a case where the excavation putting in the fiber optics had done the one call. The lines had been marked. But I think one of the determinations we are going to have to make is whether or not this was an area where the operator would have been required to do an excavation, to hand dig, and look to make sure that the directional boring didn't strike the distribution line. So, I think we will know more after the investigation is complete, Congressman.

Mr. Butterfield. Thank you.

Mr. Chairman, I yield to my friend from Iowa, if he wants to consume some of my time. If not, I will yield back.

Mr. Loebsack. Go ahead.

Mr. Butterfield. I yield back. Thank you.

Mr. Rush. The chair recognizes Mr. Olson for 5 minutes.

Mr. Olson. I thank the chair for holding this very important hearing to Texas 22.

And welcome, to our three panelists, to the first panel.

My first question is for Administrator Elliott. As you might know, I represent one of the fastest-growing communities

in the country. Our pop base in Texas 22 is booming. In some areas, we have thousands and thousands of families who are living on a land that used to be rice, sugarcane farms, and cattle operations. That has made big changes for flood control, like Hurricane Harvey, but it has also put a challenge on pipeline safety. Clearly, there are pipelines all across Texas that used to be under wide-open spaces that are now under families' feet and schools. My district has that problem, that situation, over and over and over.

I would like to ask you about how inspections and, quote/unquote, "class location rules" change as land above pipelines changes. Am I correct that there has been a rule in the works since 2013? And will you work closely with Congress to make sure you all are taking it seriously?

Mr. Elliott. So, Congressman, thank you for the question. With regards to how class location evolves with the increase of population, as you know, there are several class locations. And as new growth occurs near a pipeline, then there are certain restrictions, and it is the responsibility of the operator to determine that growth. Are there now buildings and populations? And then, they have the responsibility to do several things. One of them is to reduce the pressure of the pipeline that is now going through this high-consequence area, part of the class

location.

Mr. Olson. One question for you on your workforce. At breakfast this morning with a lead in the energy operations, somebody in touch with the pipeline industry. And they are concerned because they admitted they poach your people. Your people, our best and brightest, they can pay them a lot more than you can pay them.

Mr. Doyle and I have a bill that addresses this for FERC by addressing them to have higher pay than the normal federal level. Would that be something you would like to have? Have a little weapon to keep them? Because, again, they admitted these are great people; we want them in our employ; and so, we are poaching off of PHMSA.

Mr. Elliott. Well, certainly we are in competition with industry. And when we do hire pipeline inspectors who typically have engineering degrees, and after we put them through some of the best possible training, they even become more marketable to industry folks. So, we are always looking at ways, Congressman, to find new sources of recruiting. I mentioned a little earlier, our HR Director has actually been tasked to go into colleges and universities that have engineering programs and, basically, do a better job of selling the safety mission of PHMSA, because I think that is attractive to a lot of folks.

We continue to look at ways to incentivize individuals that want to come to work for PHMSA. One of the most alarming things to me, for example, we had 10 job offers out for pipeline engineers. Sixty percent turned that offer down for various reasons. Many of those are actually because they had better offers elsewhere.

So, I guess that is a long way of saying we probably would encourage any help we could get to better incentivize pipeline --

Mr. Olson. So, it would be okay with more money, not the restrictions that are placed right now, something like the SEC has to regulate securities and exchange. Would you be okay with more money to pay these people?

Mr. Elliott. I would be happy to see that, but I will work with whatever tools I have.

Mr. Olson. Yes, sir, that is our toolbox to give you.

The last questions is, Commissioner Friedeman of Ohio, as Texas 22 grows, we know that a lot of new pipe is being built, especially for local distribution lines. You described in your testimony how one phase is replacing older existing lines. Can you talk about how pipeline technology has changed in recent years and what this means for safety and spill prevention?

Mr. Friedeman. I think inherent in the replacement program

is that, first of all, it is an inevitably long duration because of the scope of the activity required. And the natural consequence of that is technological advancement as the program evolves. An illustration of that would be the composite material in plastic. So, there is a certain remedial nature when you have an accelerated main replacement program that identifies pockets and susceptibility. When you replace old infrastructure with new infrastructure, not only are you mitigating the risk associated with leakage, but what you are doing is replacing it with technologically-improved composite material at the time, which should, then, extend the useful life beyond that which was historical. So, there is just an inherent benefit to a well-coordinated program.

Mr. Veasey. [Presiding] I thank you.

I yield myself 5 minutes.

Mr. Elliott, I wanted to ask you, in your testimony you reiterated that, "The mission of PHMSA is to protect people and the environment by advancing the safe transportation of energy products and other hazardous materials that are essential to our daily lives." And most of the time, we do pretty well at achieving this mission, but incidents are too frequent, and everybody knows that we have to do better.

Last year, February the 23rd, Linda Rogers was just 12 years

old when she was killed by a natural gas leak and an explosion in her family's home in the district that I represent in Dallas. And we know the difference between transmission and distribution of natural gas, and the different approaches to safety that are obviously required for each of those. But, after this explosion, more than 300 nearby homes were evacuated due to the quantity and severity of the natural gas leaks discovered in the residential neighborhood, and reports show that more than 2 dozen homes across the north Texas and central Texas area have blown up since 2006 because of leaking from natural gas pipelines. And tragically, nine people have died and at least 22 others have been injured badly.

I appreciate you making clear in your testimony that completing the hazardous liquid rule, which includes installing a leak detection system, is one of your highest priorities. Do I have your commitment on making leak detection systems a priority in this rule?

Mr. Elliott. Yes.

Mr. Veasey. Beyond a rulemaking effort, there are recent pipeline industry-recommended practices addressing pipeline safety systems, leak detection, and integrity management systems that have been developed by the American Petroleum Institute in response to recent disasters. What are you doing to incorporate

industry-recommended practices into your regular scheme?

Mr. Elliott. Congressman, thank you for the question. And we are very aware of the tragic incident in Dallas with Atmos Energy. And, similarly, we had sent inspectors and investigators to work with the Texas Railroad Commission. We continue to work with them on some of the ongoing concerns.

But we will, with regards to the mandates, we will continue to work to complete those that will bring the greatest safety value to not only protecting people, as you said, as well as the environment.

Mr. Veasey. Do you have any programs or efforts to collect and promote industry best practices?

Mr. Elliott. And again, yes, and to that, we regularly will look at industry standards that have been in practice for a while that have shown tangible safety benefits. And we will, then, through incorporation, make those regulations. We have several of those that we are working on now, working on the language, and several of those deal with pipeline safety.

Mr. Veasey. Thank you.

And just kind of switching gears, I wanted to ask, as you know, in today's pipeline technology, we have a lot of technology that is being used for leak detection, different things like that, to make sure that the transmission of natural gas is being done

safely. What is being done, because we have talked a lot about it on the grid, but you don't hear it a lot as it relates to pipelines, like hacking, the technology actually being compromised as it relates to transmission of natural gas through pipelines?

Mr. Elliott. Well, I think, as some of the discussion today has pointed out, you cannot separate safety and security. And while we work every day to improve safety, we understand we also have a responsibility, where we can, to help improve security. And one of those areas, actually, that is ongoing now is we are trying to understand, Congressman, how we can go into major pipeline control rooms that control these operations, some of them many thousands of miles in length, and perhaps be a little better armed to ask the pipeline control room operators questions about their SCADA security systems. Are they adhering to best practices within the cybersecurity realm? Again, we don't profess to be the security organization, but I think we can probably do a better job of ensuring that we ask the right questions to help understand that they are, in fact, doing that.

Mr. Veasey. Do you feel that the people that are actually providing the technology, the technology that is being provided to the pipelines, that those companies are being vetted enough and that whatever they are providing to these pipelines is secure

enough to make sure that any sort of hacking isn't taking place, and that those companies aren't somehow complicit with that?

Mr. Elliott. Yes, it is certainly outside of my real area of expertise, but I can tell you, again, I fall back on my railroad experience, because we had the same issue with dispatching of trains and the concerns about cybersecurity and positive train control.

And I will tell you, I have every reason to believe that the vetting of companies that are involved in providing that kind of SCADA system, cybersecurity link -- I have no reason to believe that the oil and gas industry do not adequately vet those companies.

Mr. Veasey. Thank you very much. I appreciate you.

Now I yield 5 minutes to the gentleman from North Carolina, Mr. Hudson.

Mr. Hudson. Thank you, Mr. Chairman.

Mr. Elliott, good to see you again. Thank you for being here with us today to examine ways to increase the safety of our constituents and all Americans.

While pipelines are the safest means of energy transportation, unfortunately, there are from time to time instances of failure. In these moments, it is critical our first responders are trained and prepared to handle these dangerous

situations. Back home in North Carolina, some local and small fire stations don't have the budget to send their first responders to specific emergency pipeline safety. Last year, we had over 70 emergency responders take free online classes to receive pipeline emergency response training.

By using technology, we are creating safer communities. In recent years, technology has been developed to internally scan pipelines to find issues and detect leaks before they become a problem. I know a lot of the questions today have surrounded technology, but do you want to just, more generally, add more detail to what PHMSA is doing to encourage pipeline operators to continue innovating and incorporating the most cutting-edge technologies and best practices?

Mr. Elliott. Congressman, thank you for your question. And the first part of the discussion, I don't think we can ever do enough, especially in rural areas with volunteer fire service companies, to do enough in industry, whatever it may be, to train our emergency responders enough. We did that religiously in the rail industry, and I know the pipeline industry has similar practices. But that is something I totally support.

Again, I go back to the topic about technology and innovation, I guess my one area -- and I don't necessarily consider it a concern, but I think it is where we have to focus more --

that is through the oil and gas pipeline industry. It is, again, to move away from what I consider to be safe R&D and to move into some of the more research and development work that will deliver further safety enhancements.

You know, we have talked about, and I very rarely anymore talk about the fact that the pipeline industry has a rate of 99.997 percent safety. Having come from a heavily-regulated industry, I am of the belief that we are not necessarily going to be able to regulate that last little bit of safety. It is going to come through adherence to certain regulatory items like integrity management, I think adherence to very comprehensive safety management systems that are less driven by regulations, but more by the safety culture of the company. And I think continuing to drive and invest more in technology and R&D, again, that is more step change than some of the traditional in-line inspection R&D that is going on today. I think that is where we can have some of the best investments and advancements in safety.

Mr. Hudson. I agree with you on that. Would you support a pilot program or an alternative process that would allow PHMSA to work more closely with pipeline operators on some of this newer, safer technology?

Mr. Elliott. Absolutely. I mean, one of the criticisms that we have heard, rightfully so, from industry is we are too

slow in allowing new safety technology to come to pass. As I have mentioned, we have to be absolutely sure that this new technology does, in fact, deliver not only the ability to extend the life of the infrastructure and to be a surrogate for physical inspection, but it has to deliver safety value. And sometimes it takes us a little longer to understand that. I think our special permit process is good, but I think there are ways we can improve the ability to move good technology into the application process faster than we are able to do it today.

Mr. Hudson. Appreciate that.

Do you have any recommendations for Congress on ways to encourage more early-stage R&D to supplement the work that PHMSA is doing today?

Mr. Elliott. I mean, I do the best I can, so I will take whatever encouragement Congress can offer to provide greater investment and focus on R&D.

Mr. Hudson. Well, I would just ask that maybe take that back and think about it. We would appreciate any advice that you have for ways we can partner with you, because I think we all agree, both sides of the aisle, we want these innovative technologies. We want to continue to move in the direction that you are describing where we continue to be on the cutting edge of safety and move as quickly as possible to keep our communities

safe. So, if you would take that back as homework, and we would love to have any feedback you might bring back to us.

Mr. Elliott. That is the kind of homework I appreciate. Thank you.

Mr. Hudson. Okay. Thank you.

And with that, Mr. Chairman, I will yield back.

Mr. Veasey. Thank you, Mr. Hudson.

And now, I yield 5 minutes to the gentlelady from California, Ms. Barragan.

Ms. Barragan. Thank you.

Thank you for being here today, gentlemen.

Are any of you familiar with the 2015 oil spill in Santa Barbara? Yes, Mr. Elliott?

Mr. Elliott. Yes.

Ms. Barragan. This was the Refugio State Beach spill.

Mr. Elliott. Yes, the Plains issue?

Ms. Barragan. All American Plains. Can you tell me how something like this happens and where the pipeline safety program that PHMSA, where do they fall into the picture of this spill?

Mr. Elliott. Well, Congressman, thank you for the question. And undeniably, this was a significant impact. Matter of fact, I just sat through a briefing that NOAA provided last week that actually showed kind of the impact from the point of origin, where

the oil came underneath the highway and down the embankment, and then, out into the coast.

I do have to preface my remarks by saying, as you know, it is currently being litigated in the Department of Justice and involved in others. But I will tell you this: that from the PHMSA point of view, we really see this as a case where our integrity management rules and the responsibilities of this operator were not adhered to, and were not adhered to in a pretty significant way.

Ms. Barragan. Well, there were multiple violations, right? And they weren't fixing what had to be fixed, isn't that right?

Mr. Elliott. That is generally correct, yes.

Ms. Barragan. How are the American people supposed to trust pipeline companies who can't do the right thing, and then, end up having a spill where you have the California coastline, just marine life, people, economy, and a huge impact? How are the American people supposed to trust when a company tells us day-in and day-out, hey, we are going to come in; we are going to put this in; it is going to be safe; nothing is going to happen?

We hear the statistics on how safe it is. And then, you see these examples where there are constant violations and they are not doing the right thing. People start asking, where is the oversight on this? I think it is hard for the American people

to trust these pipeline companies. And it is hard as well when you hear that, since that time, there hasn't been a lot done, and there have been all these delays that are happening.

And so, when you think about the President trying to open up new California coastline, and the coastline in general, to drilling, it is a huge concern, rightfully speaking, after you take a look at what has happened.

Let me ask, the Trump administration's requested budget for PHMSA is roughly 8 percent less in 2020 than it was in 2019. How will that impact the pipeline safety program, and does it open us up to have more incidences of what happened in Santa Barbara, if we are putting less money into it than more?

Mr. Elliott. Well, thank you for that question, very important points. I want to comment about what needs to be done for operators that don't follow the requirements. I think it is true in any case, and at least from my experience in a year and a half at PHMSA, that there is a spectrum. There are some extremely good, conscientious operators, and we are very thankful that they are there. And I understand the issue of public trust. All it takes is one operator to kind of dispel that trust.

I think here, anyway, the process is working probably as it should, in that there were a number of parties to the investigation against Plains, and even criminal investigation

and penalty. And again, I can't really get into it, but some discussion is ongoing about what the impact will be to Plains with regards to a settlement.

But in regards to --

Ms. Barragan. The budget cuts. Is the 8 percent budget cut going to make it more likely, less likely -- I mean, how is it going to impact the pipeline safety program?

Mr. Elliott. You know, I worked in my prior career to make sure that every dollar we have is effective in allowing us to conduct our safety mission. And I really see that we are able to do that at PHMSA. It is --

Ms. Barragan. Mr. Elliott, I only have 10 seconds left. Is an 8 percent cut in the budget going to help safety and the pipeline safety program, yes or no? Is it going to help it?

Mr. Elliott. So, I will make sure that there is no degradation in PHMSA's ability to conduct its safety mission with the dollars that are provided to us, whatever that may be.

Ms. Barragan. Well, I don't have a lot of confidence in that, but thank you for responding.

Mr. Elliott. I understand.

Ms. Barragan. I yield back.

Mr. Veasey. Thank you.

And now, I would yield 5 minutes to the gentlelady from

Washington, Ms. McMorris Rodgers.

Mrs. Rodgers. Thank you. I thank the chairman for the time.

And I appreciate all the witnesses being here. I think it has been a really important discussion, a discussion both on current standards and regulations and how we are doing as far as meeting those standards, but also looking at how do we do this in a smarter way, and embracing innovation and technology and the solutions that are before us. Because we all want to make sure that we are keeping our communities safe and our shorelines safe from these kinds of situations.

I wanted to ask, Mr. Elliott, I just wanted to ask, coming from a rural area, I wanted to dig a little deeper into how do you approach pipelines in highly-populated areas versus the rural areas, where there is less people and development. And we have class location requirements for pipelines located in areas where we have seen recent population growth. I just wanted to hear a little bit more about how do you go about the rural versus the more populated. And my colleague here from Texas talked about his growing area, too.

Mr. Elliott. Well, thank you for the question. And certainly, there is an important dichotomy between oil and gas pipelines in populated versus rural areas. I really believe that

it falls back to the absolute importance of adherence to the pipeline and safety, the Pipeline and Hazardous Materials Safety Administration's integrity management rules that require pipeline operators to have an absolute adequate understanding of all the operations within their network, whether or not it is a high-consequence area or a rural area, to make sure that that line is operating in as safe a fashion as possible, and that they are doing the appropriate inspections to ensure that any concerns that might be due to weld issues or lack of cathodic protection or corrosion are found and addressed long before they are ever an impact. And I think that our integrity management rules have been extremely effective over the years in making sure in holding operators accountable for understanding the health of their pipeline throughout their network, regardless of whether or not it is rural or high populated.

Mrs. Rodgers. And would you also speak just to, what are the procedures that you have in place to determine the risk? Because whether it is rural or a growing area, or what happened on the California coast, what are the procedures that are in place to address the --

Mr. Elliott. Again, that all, for the most part, falls back to the operator and the application of their integrity management system. But one of the items that we do at PHMSA, I mean, we

do our own risk assessment to make sure that we adequately work with operators to do inspections of gas and oil pipeline systems, both in rural and high-density areas. Again, with limited resources, we use kind of a risk analysis. We look at the past history of the operator. We look at past incidents of problems with that pipeline. That helps us set our inspection process to look at these lines.

Mrs. Rodgers. Would you update me on the review? I understand there has been a review underway since 2013 on the class location requirements.

Mr. Elliott. So, the class location rulemaking that we are working on, we put out an Advance Notice of Proposed Rulemaking to seek comment about whether or not industry could use certain integrity management tools in lieu of having to take additional steps in the higher-level class locations, the high-density areas. In other words, can some of this technology and sophisticated in-line inspection capability replace the ability to have to reduce certain pipeline pressures?

And I think it was mentioned earlier, and rightfully so, I mean, some of the growth is basically expanding so rapidly that it is difficult to basically take some of the steps that are currently part of the class location program. So, we are working through a Notice of Proposed Rulemaking that will help us

understand more fully can we somehow apply additional integrity management inspection process to higher class locations as we see population growth.

Mrs. Rodgers. Okay. I had one more question, and this was to Mr. Russell, but I, too, am frustrated that TSA is not here. And I guess I will ask this final question on the record.

Thank you very much. I have run out of time. I yield back.

Mr. Veasey. Are there any more questions?

If not, that concludes our first panel. I would like to thank our witnesses for joining us today to testify on this very important issue.

And at this time, I ask staff to prepare the witness table such that we may begin our second panel shortly.

Thank you. Thank you, Participants.

Mr. Veasey. We will now hear from a second panel of private sector stakeholders. Those witnesses including Mr. Carl Weimer, executive director for Pipeline Safety Trust, Mr. Andrew Black, president and CEO of Association of Pipelines, and Ms. Christina Sames -- Ms. Christina Sames, vice president, operation and engineering services, American Gas Association.

We want to thank our witnesses for joining us today. We look forward to your testimony and at this time the chair will recognize Mr. Weimer for five minutes to provide his opening

statement.

STATEMENTS OF CARL WEIMER, EXECUTIVE DIRECTOR, THE PIPELINE SAFETY TRUST; ANDREW J. BLACK, PRESIDENT AND CEO, ASSOCIATION OF OIL PIPELINES (AOPL); CHRISTINA SAMES, VICE PRESIDENT, OPERATIONS & ENGINEERING, AMERICAN GAS ASSOCIATION (AGA)

STATEMENT OF MR. WEIMER

Mr. Weimer. Good afternoon. I would like to thank Chairman Rush and Ranking Member Upton for inviting me to speak today on pipeline safety and for -- I would also like to thank this committee for continuing this bipartisan effort to protect people and the safety of America, as you always do.

Before we get into various pipeline safety issues, let me give you a brief overview of where we stand today regarding the safety of pipelines in this country.

While everyone testifying today supports the goal of zero incidents, we still have a long way to go to reach that goal. According to PHMSA data, since the PIPES Act was signed less than three years ago, there has been over 1,700 reportable pipeline failures.

Over those failures, nearly 800 are considered significant incidents under PHMSA's definitions and the number of significant incidents had been increasing over the past decade.

For the past 15 years, the emphasis in reducing pipeline

incidents has been focused on performance-based integrity management programs in high consequence areas.

Unfortunately, it would appear that these integrity management programs have not yet lived up to their promise as significant incident rates within high consequence areas continue to climb for hazardous liquid and gas transmission pipelines.

The pipeline safety system that Congress has created also plays a part in PHMSA's inability to get things done. One large barrier to getting better regulations in place is the cost versus benefit analysis that Congress has uniquely created for PHMSA.

With a large pipeline system where the probability of a failure is low but the consequences can be huge, it is nearly impossible to pass regulations under the current cost benefit rules.

If you are really interested in longstanding issues such as effective leak detection, automated shutoff valves, regulation of over 400,000 miles of totally unregulated gathering lines, then the cost benefit language in the statute needs to be fixed.

PHMSA's penalty authority also results in civil penalties that are economically insignificant to many operators and are much smaller than those imposed by some states.

The wording in the statute for criminal penalties also does not align with the better wording for PHMSA's hazmat operations

and creates a very high bar to prove. We have provided suggested changes to the statute that can give PHMSA more flexibility and penalty assessment in the ability to bring criminal charges on companies in the rare cases where that is warranted.

As currently written, the pipeline safety statutes do not prohibit the release of gas or hazardous liquid from a pipeline.

Under current PHMSA rules as determined by recent court rulings, an operator can cause a significant incident without necessarily having violated a safety regulation.

In other words, under PHMSA's rules, an operator has to have a plan for operating and testing their pipeline but they don't necessarily have to have a plan that works.

To close that loophole, we ask that you add language to make clear that the intent of the statute is to avoid releases of gas or hazardous liquids.

In the PIPES Act, Congress asks GAO to produce important reports on the integrity management program for both natural gas and hazardous liquid pipelines after the new PHMSA rules, which they have been working on since 2010, are published.

Since those rules have yet to be published and may be delayed further, these important reports are not yet due. The current integrity management rules have been in place for over a decade, are well understood, and NTSB has done a study on its

effectiveness. So we ask that Congress direct GAO to produce these important reports as soon as possible instead of waiting for the proposed rules.

Congress should also ignore industry calls for a relaxation of class location rules because of integrity management is in place until the GAO reports are done and the number of incidents under integrity management show a downward trend.

Also in the PIPES Act Congress directed PHMSA to make it clear that the Great Lakes, coastal beaches, and marine coastal waters are considered unusually sensitive areas.

This mandate has yet to be accomplished. The need to do this came as a surprise to us since, clearly, these are unusually sensitive.

We were also surprised to learn that PHMSA does not currently have a way to define and map all such areas. Congress should also ask GAO to do a study of whether PHMSA's definitions and identification of such areas along with commercially navigable waterways are consistent with other environmental regulations and whether PHMSA currently has GIS data layers that allow the agency and the industry to know where such boundaries are. Users of this data are to ensure that pipeline operators are accurately identifying these areas.

Congress should also mandate that such areas be made public

so state and local governments, along with the public, can ensure that PHMSA and pipeline companies are considering these important areas.

I see that my time is about up so I want to thank you again for asking me to testify today and I stand ready to help answer any questions and work on reauthorization.

[The prepared statement of Mr. Weimer follows:]

**********INSERT 4**********

Mr. Veasey. Thank you, Mr. Weimer.

Mr. Black, you are now recognized for five minutes.

STATEMENT OF MR. BLACK

Mr. Black. Thank you, Mr. Chairman, Ranking Member.

I am Andy Black, president and CEO of the Association of Oil Pipelines. AOPL represents liquid pipeline owners and operators transporting crude oil, refined products like gasoline, diesel, jet fuel, and home heating oil, and industrial products like propane and methane.

We have over 55 member companies which deliver over 21 billion barrels annually over a 215,000-mile network of pipelines. I am also testifying on behalf of the American Petroleum Institute, which represents all facets of the oil and natural gas industry including exploration and production, refining, marketing, and pipeline and marine transportation.

Pipelines are the safest way to deliver the liquid energy we all need and use every day. No other mode of transportation is as safe for the American people or the environment as pipelines.

And pipelines are getting safer. Over the last five years, pipeline operators have reduced the number of liquid pipeline incidents impacting people and the environment by 20 percent.

This is government data publicly available from PHMSA. PHMSA data also shows pipeline incidents caused by incorrect operation impacting people and the environment are down 38 percent

over the last five years and pipeline incidents caused by corrosion, cracking, or weld failures impact people and the environment are down 35 percent over that period.

Member companies of AOPL and API work hard to improve pipeline safety. We are transparent about where we are doing well and where we can do better.

The statistics I just shared come from the performance report we develop jointly each year analyzing pipeline safety data. We use this analysis to guide our industry wide pipeline safety programs focusing on key safety issues as we strive towards the goal of zero incidents.

Through this strategic effort, the pipeline industry has addressed key safety recommendations from Congress, PHMSA, the NTSB, and issues identified through analysis of safety data.

Recent safety accomplishments include developing new best practices for finding and fixing cracking in pipelines, managing leak detection programs, responding to pipeline emergencies, and applying safety management systems to pipelines.

API also just released an updated best practice for inspecting and performing maintenance on pipelines using the latest inspection technologies and analytical techniques.

Harnessing technology to advance pipeline safety is a theme we are pursuing across industry and we recommend Congress adopt

as well. For example, high-tech tools can travel inside a pipeline scanning it like an MRI or an ultrasound at the doctor's office.

Pipeline operators have the opportunity to find issues early, perform preventative maintenance, and keep pipelines operating safely.

The problem is federal regulations can't keep pace with fast-moving technology innovations. Outdated PHMSA regulations sometimes conflict with the latest knowledge and techniques.

Congress can do more to allow PHMSA and pipeline operators to improve safety by harnessing technology and innovation such as creating a pilot program to test pipeline safety technologies and approaches. We were thrilled to hear Administrator Elliott say "Absolutely" when asked if he was interested in authorizing a voluntary information-sharing program encouraging joint stakeholder problem solving, requiring regular PHMSA and stakeholder review of pipeline safety research and development advances, improving the approval process for alternative safety technologies, and encouraging voluntary discovery, disclosure, correction, and prevention of pipeline safety violations.

Next, protecting public safety and the environment from attacks on pipelines is a top reauthorization priority for us. Pipelines are the safest way to deliver the energy American

families and consumers use every day at their industrial facilities. Recent attacks on pipelines by turning valves or attempting to damage the pipeline itself are dangerous.

Members of the public, surrounding communities, and the environment are put in danger by attacks on pipeline facilities that could easily result in a spill.

Congress should deter future attacks against pipeline facility by closing the loopholes in the scope of criminal federal liability and in federal pipeline safety law put by previous Congresses on a bipartisan basis.

AOPL and API also recommend improving PHMSA programs and regulations by easing hiring and retention of PHMSA inspectors, which we discussed on the first panel, improving due process in enforcement proceedings, tailoring requirements to pipeline operating status, adjusting incident reporting requirements for inflation, and incorporating the latest best practice on inspection repair and tank maintenance.

I look forward to answering any of your questions on these proposals, our pipeline safety performance record, or the action operators are taking to improve pipeline safety further.

Thank you.

[The prepared statement of Mr. Black follows:]

2604 **********INSERT 5**********

Mr. Rush. [Presiding.] And now the chair would like to recognize Ms. Sames for five minutes.

STATEMENT OF MS. SAMES

Ms. Sames. Chairman Rush, Ranking Member Upton, and esteemed members of the committee, thank you for the invitation to be here.

I am Christina Sames, vice president of operations and engineering at the American Gas Association. Prior to AGA, I worked for the Pipeline Research Council International, which is a research consortium, and also spent 12 years within PHMSA's Office of Pipeline Safety where I worked on everything from regulations on damage prevention to unusually sensitive areas and initiative like, well, community assistance, the pipeline mapping program, and moving damage prevention forward.

AGA represents more than 200 local energy companies that deliver natural gas to 74 million natural gas customers. Natural gas pipelines deliver gas through 2.5 million miles of pipeline including 2.2 million miles of local distribution pipe.

The gas utilities distribution pipelines are the last critical link to the delivery chain that brings natural gas from the well head to the burner tip.

AGA's members live in the communities they serve and interact daily with both customers and regulators to oversee pipeline safety locally. Our customers are our neighbors, our friends,

and our family members.

The industry uses a variety of tools to ensure the integrity of their distribution systems. This includes prescriptive and risk-based regulations along with voluntary actions.

A key risk-based regulation used by operators is distribution integrity management, a regulatory process that allows an operator to develop a unique safety plan specific to that system's operating characteristics and risks to determine how best to mitigate those risks and to prioritize the work that needs to be done. The process strengthens the systems and improves safety. Upgrading distribution pipeline systems is important to safety and reliability. We currently have 43 states and the District of Columbia that have expedited pipeline replacement programs and over the past 20 years the amount of cast iron and bare steel in use has declined dramatically, replaced by modern pipelines which increase system safety and reliability.

The distribution industry has proven it can simultaneously increase delivery and improve safety. PHMSA data shows the distribution incidents have declined as the mileage and consumers have increased.

But while we have come a long way, recent tragic incidents demonstrate more needs to be done. The April 10th incident in

Durham, North Carolina was caused by third-party excavation damage, which continues to be the primary cause of distribution incidents.

The tragic incident in Merrimack Valley was unprecedented. Why the NTSB is still investigating, they have stated the cause was over pressurization of a low-pressure gas distribution system.

Post incident, AGA immediately brought together industry experts and published a shared InShare technical paper capturing leading practices to prevent over pressurization.

AGA created a board-level task force to escalate our existing pipeline safety efforts and determine what more can be done. We hosted a crisis leadership and communications summit and developed a technical paper that covers the skills required to perform engineering work on a natural gas system.

AGA's member safety efforts exceed expectation and regulations. The AGA board adopted a commitment to enhancing safety that lists specific activities above and beyond regulation. We participate in peer reviews, bench marking activities, safety summits, and other industry programs to enhance safety.

Relative to reauthorization, AGA asks the subcommittee to consider three high-level principles. Preserve industry

engagement and pipeline safety rulemaking by upholding the PHMSA regulatory process. Support flexibility in rulemaking by recognizing that the gas distribution system differs and avoid one-size-fits-all regulations. Don't obstruct pipeline safety replacement programs via new mandates that delay pipeline replacement or require a replacement faster than work can be accomplished safely, reliably, without compromising quality.

Our full statement covers several pipeline safety reauthorization topics. We would like to highlight how integral PHMSA's gas pipeline advisory committee process is to the pipeline safety rule making.

Providing stakeholders supporting vital roles which includes input from subject matter experts actually accelerates rulemaking and their implementation.

We also support the GPAC cost benefit analysis process. To the best of AGA's knowledge, not one single rulemaking has been held up by this process.

More importantly, cost benefit analysis protects the public as regulatory costs are ultimately borne by the customers.

Thank you for the opportunity to participate. I look forward to your questions.

[The prepared statement of Ms. Sames follows:]

2699 **********INSERT 6**********

Mr. Rush. As chair, I want to thank all of the witnesses for their opening statements. This concludes our opening statements and we will move now to member questions and I will start by recognizing my friend, Mr. Doyle, for five minutes.

Mr. Doyle. Thank you, Mr. Chairman. I appreciate the courtesy.

Pittsburgh has had a record amount of rain over the past year that has caused flooding and landslides throughout our region. As recently as September of 2018 a landslide in neighboring Beaver County caused a pipeline to explode and one house was completely destroyed and 30 more homes had to be evacuated.

We know that extreme weather will continue because of climate change. Mr. Black and Ms. Sames, how does the industry take into account extreme weather events and earth movements and how does industry plan to adapt as we are seeing more and more of this severe weather?

Mr. Black. Pipeline operators face requirements today to be aware of that operating environment. Earth movements, any change. So there is a current requirement right now for that pipeline operator to have understood what stress might be placed on a pipeline by land movement.

We have a practice in information sharing among our industry

and we'll bring pipeline operators together to tell stories about incidents or near misses or precautions that were taken based on that information.

If the climate continues to change, pipeline operations right now continue -- will continue to be faced with those requirements and ongoing practices to assess that operating environment.

Mr. Doyle. Ms. Sames?

Ms. Sames. Congressman Doyle, I am actually from the Pittsburgh area originally. I am very familiar with all the rain you have had along with other areas of the country.

So we look at a variety of things. We are looking at new flood mapping that is coming out. We are monitoring the weather. We are putting sensors on our lines to look for ground movement.

We have been doing this for a while in areas where we have seismic activity but we are looking at it now for other areas because we are seeing changes, and with changes you have to adapt.

So operators are not including this more in their distribution integrity management plans.

Mr. Doyle. Mr. Weimer, how about you? What should be done to properly address climate adaption and resiliency?

Mr. Weimer. Yes, thanks for the question.

Clearly, the pipeline operators are supposed to be -- have

control of their pipeline and under integrity management they are supposed to look at risks and find out how to mitigate those risks. I think as we have seen with changing weather, whether it is river scours that caused two releases into the Yellowstone River in your area in the Midwest, there has been a number of big failures because of ground movement flooding.

In Texas, there has been failures because of wet soil. When the NTSB looked at integrity management they thought it was working pretty well for things like corrosion but it wasn't working very well for some of these other threats that are harder to find.

So I think we need to get a better handle and the industry is working on some of that. We also need to think about it when we are siting pipelines. You know, it doesn't make much sense to put a pipeline on the side of a hill that can fail.

So some of the routing of some of those pipelines needs to be considered, too.

Mr. Doyle. How about -- you know, Pennsylvania has a history of coal mines where we were a coal-producing state and we have many abandoned mines throughout our state.

So subsidence is also a concern for energy infrastructure. How is subsidence and geological formations taken into account?

Ms. Sames. Well, the one good thing with distribution lines

is many of them are plastic, which means they have a little bit more flexibility to move with the ground. It only goes so far, which means that where you have a sudden change, a sudden drop, a sudden sink hole, which you do experience in Pennsylvania and a few other areas, you're focusing on emergency response -- how do you quickly shut off the gas to that area when there is -- when there is a subsidence that is so fast and so dramatic that it causes the pipeline to break.

Mr. Black. Thinking about your question, Congressman, on rivers, the industry updated a recommended practice on waterway crossings to address the river scour issue. What once was a recommended practice just about calm coastal areas has now been upgraded to address the river scour issues.

Pipeline operators have to take those responsibilities seriously and do.

Mr. Doyle. Okay.

Mr. Chairman, thank you so much. I appreciate the courtesy you have shown me and I will yield back.

Mr. Rush. I thank the gentleman for yielding the chair.

The chair now recognizes Mr. Upton for five minutes.

Mr. Upton. Well, thank you again, Mr. Chairman, and I thank the panellists for waiting. Aren't you glad we don't have three panels, right?

A couple of questions. Ms. Sames, to follow up on what you just said, and I was going to ask about new technologies as we look -- you know, as we look at this next bill and there has been some questions raised about, you know, sort of like plastic and paper, plastic and steel. So, you indicated that plastic is emerging volume wise, I guess you could say, in a lot of new pipelines.

Can you talk a little bit about the advantage or disadvantage and where do you think plastic is as it relates to steel? What hurdles might be there and help us?

Ms. Sames. In case it's not obvious, you start talking technology with by background I start getting really excited.

So plastic now takes -- accounts for more than 50 percent of the distribution pipe. That is increasing because we are replacing the cast iron and bare steel.

Mr. Upton. And that is primarily in gas because oil really doesn't work, right?

Mr. Black. Still coated steel. Yes, Congressman.

Mr. Upton. I am sorry to interrupt. Go ahead.

Ms. Sames. That's fine. So some of the benefits of plastic, and it only goes up to a certain size, which is why you see on the liquid lines and the interstate lines really coated steel.

But on plastic -- on distribution we use a lot of plastic because it is flexible, it is easier to insert, it is not subject to corrosion. So there's a lot of benefits that we see with it.

And the product has come a long way since the initial -- the initial products back in the '60s and '70s. So we are seeing a shelf life of -- lifespan of these plastics -- these newer plastics -- they are predicting well over a hundred years. That is pretty darn good.

The down side of plastic is --

Mr. Upton. What's the cost difference between --

Ms. Sames. Definitely cheaper.

Mr. Upton. Substantial? Is it substantial?

Ms. Sames. Mm-hmm. Right. Right. So the customers are bearing that cost benefit, which is why you see bills so low right now between the cost of natural gas and being able to use plastic. It is a lot cheaper.

The one down side with plastic is an issue that we continue that struggle with, which is third-party damage. The Durham incident, third-party damage again.

So if you all could find a way to stop the telecoms, the water, and sewer lines from hitting us, I would greatly appreciate it.

Mr. Upton. Mr. Black, do you want to comment on it at all

or not?

Mr. Black. We are excited about the technology advances. They're not in plastics and the liquids but they are about inline inspection technologies, leak detection technologies. We have encouraged Congress to direct PHMSA to implement a pilot program allowing for real-world testing of technology and applications. We think that will give them more information that they need so that they can update regulations to advance technology.

Mr. Upton. In the last Congress, both Mr. Black's and Ms. Sames' organizations submitted letters of support for our action to strengthen DOE's cybersecurity program for pipelines. We appreciated that.

This bill has now been introduced -- reintroduced as H.R. 370, Pipeline and LNG Facilities Cybersecurity Preparedness Act. Can you continue to support that? I don't know if you have taken another look at it. It really hasn't changed. But we would -- let me just say we would welcome your written support for this a second time.

Ms. Sames. We do support that bill. It gives DOE a great coordination role, which I think is very much needed. So yes, you continue to have our support.

Mr. Black. We are glad to support that bill to help it get through the committee process. Cybersecurity is important. We

encourage all of Congress to work on this -- a holistic approach with energy, transportation, and intelligence-related committees.

An important goal is not having duplication and conflicting sets of guidance that could set operators back.

Mr. Upton. Great. Thank you. I yield back.

Mr. Rush. Thank you for yielding. The chair recognizes himself for five minutes.

Mr. Weimer, so good to see you again before the subcommittee. You have provided your expertise to the members of this subcommittee on pipeline safety, reauthorization efforts, and we certainly appreciate you being here once again with us.

In your testimony, you stated that since the year 2010, despite all the high-profile pipelines incidents, congressional interest, NTSB and GAO recommendations, PHMSA is incapable of producing new safety rules mostly due to the unique and overly burdensome cost benefit requirements that the agency must adhere to.

Why do you call the cost benefit requirement for PHMSA unique and how does it contribute to an agency's inability to implement significant new rulemaking even when they are directed to do so by law?

Mr. Weimer. Thank you for the question, Chairman Rush.

Yes, I am on the gas advisory committee for PHMSA and we have another board member who is a law professor at the University of Arkansas who is on the gas advisory committee. I am on the liquid advisory committee.

Both of these committees often focus on the cost benefit. It was put into the statute in the mid-90s and PHMSA, just because of timing efforts, was one of the few places where the cost benefit requirements landed.

We don't have a problem with cost benefit. We think it makes sense to consider the costs versus the benefits and that is already required under executive orders.

We are not talking about that. We are talking about the uniqueness in the statute where the industry can, because of the Administrative Procedures Act, can legally challenge that and the cost benefit is -- the only place we know of it is in the PHMSA statute.

Other places like EPA and some other agencies have mention of cost benefit. But it is not -- they don't have to justify the cost the way PHMSA does.

Even a former administrator, just two administrators back has recently said that one of her frustrations as administrator was trying to get rules passed because of the cost benefit statute, and you see it slowing things down because PHMSA doesn't always

have enough data to justify the cost because they have to get that data from the industry.

So the industry comes forward with any rulemaking and says things are going to cost billions and billions of dollars and PHMSA really can't argue with that. Good information to know.

The committee should certainly take that into consideration. But it shouldn't be the only way you can get a rule passed.

Mr. Rush. What kind of corrective strategies would you recommend that the Congress take?

Mr. Weimer. Well, I think in our testimony we provided some red line version of what cost benefit language got put into the statute in the '90s and we recommended that that be removed to make it more of an even playing field with just about every other statute we see.

Mr. Rush. You feel very strongly about the need for enacting minimum standards for the 435,000 miles of natural gas gathering lines traversing our nation.

What are the dangers, in your opinion, of leaving those lines unregulated?

Mr. Weimer. Thank you for that question. Yes, it is pretty amazing. As the shale plays have turned out in this country, especially in places like Pennsylvania, you know, rapidly there

was hundreds of thousands of miles of new gathering lines put in.

A lot of those shale plays have pressures coming out of the ground at much higher pressures. So the pipelines going in are larger and much higher pressure. They are basically the same as gas transmission pipelines that are already fairly well regulated.

These pipelines run right past homes. Even in rural areas they run past clusters of homes. Were it failed, it would be the same as a failure of a gas transmission pipeline and in most places they are completely and totally unregulated.

So, you know, to prevent failure so people don't show up in front of this committee again with the latest failure minimum standards for these gathering lines need to be enacted.

Mr. Rush. My time is up. I certainly want to thank you very much.

The chair now recognizes Mr. Latta from Ohio for five minutes.

Mr. Latta. Thank you, Mr. Chairman, and thanks to our panel of witnesses today for appearing.

Mr. Black, if I could start with you. You said something kind of interesting that we talk about in this committee a lot.

Energy and Commerce is a great committee. We have very broad

jurisdiction. We think it is the best committee in Congress -- not only think, we believe it.

But you said something that we really believe, because what we see in this committee are technologies and inventions that are really five to 10 years out and so one of the things we have to be careful when we are, you know, working on legislation is to make sure that we are not hindering the progress out there in the community.

And you have mentioned that -- on, you know, making sure that the federal regulations, you know, keep pace in what you're all doing out there. But what I would like to do is -- my first question I would like you to go, if you would further expand on your testimony and comments regarding a pilot program to test cutting-edge safety technologies.

And would you tell us about what those new technologies are and are available out there and how they might offer the opportunity for further improvement for pipeline safety?

Mr. Black. I will give you one example. Pipeline integrity management regulations are almost 20 years old. That is before the iPhone. We had smart pigs then but they weren't nearly as smart as they are now. Right now, there is improved technologies of travel inside the pipeline collecting data.

At the same time that we now have terabytes of data on

pipeline features whereas we didn't before, we also have better analytical techniques to know what that increased information tells us. Yet, the PHMSA regulations are almost 20 years old and are not up to date.

So the latest know-how and techniques on prioritizing risks in pipelines is not what PHMSA is requiring operators to do. Repair criteria updates are not in what we understand would be the next hazards liquids rule that is moved.

We can see PHMSA needing real-world experiences from a controlled environment by selecting pipeline operators to test any new technologies. It could be leak detection technologies. It could be scheduling repairs and maintenance under new analytical techniques.

If they can gather information like that, they can have more confidence to update regulations in the manner that they should with equivalent or better level of safety, maybe they won't be so slow.

Mr. Latta. Well, I assume you have discussions with PHMSA on a frequent basis. When you bring this up to them, what do they say about upgrading those regulations that bring this new technology out?

Mr. Black. Well, they know that it's important to us that integrity management regulations be updated. You have heard

Administrator Elliott say that he is open to pilots.

We hope this would be an issue that they would work on. They also have the special permit process which has been cumbersome and slow and only allows one operator to get a waiver for an equivalent level of safety or better.

It may be ill-suited to pipeline integrity management regulations. But it is something that we need to consider with them.

The industry just released API-recommended practice 1160. That is all about performing maintenance and repairs on pipelines and as the administrator said they have a goal -- we all have a goal in avoiding spending resources on issues that aren't high priority and making sure that we are on high priority.

Whatever it takes, whether it is congressional action or a pilot program or a repair permit or a rulemaking we need to update those regulations.

Mr. Latta. Thank you.

Just continuing on this topic, we know that the technology is ever changing and adapting. But, again, what do you -- how do we get to that point of working with the agency to make sure we get those technologies out there?

Mr. Black. Well, we found the model in the motor carrier statute at the Department of Transportation. They have the

authority to do this pilot program, and if Congress directs them to do that and creates that authority, hopefully, that is something that they will create.

We also have rich exchanges on research and development advances. They are funding research and development. We are funding research and development.

The collaboration between the two is episodic and not as good as it should be. One of our proposals is that Congress direct PHMSA to review its research and development programs and have us do it within the entities that Mr. Weimer was describing -- the liquid and gas pipeline advisory committees.

If you put that in the statute that that is something that PHMSA should be doing, we believe that will maybe force more regular and frequent and fast discussions of R&D advances because we share the same goal -- zero incidents, improving pipeline safety and technology.

Mr. Latta. Thank you.

Mr. Chairman, my time has expired and I yield back.

Mr. Rush. I want to thank the gentleman for yielding back.

Mr. Walberg is -- no, I am sorry. Mr. Olson is recognized for five minutes.

Mr. Olson. I thank the chair, and welcome to the second panel.

I want to start by thanking each of your organizations for your performance -- of pipeline performances during Hurricane Harvey.

Hurricane Harvey hit southeast Texas in late August of 2017. Parts of my home received five feet of rain over two days. The largest petrochemical complex in the world is along the Houston Ship Channel, which is 52 miles long.

It is America's largest exporting port for the last 10 years. All that product comes from Eagle Ford, Permian Basin, somewhere else. It got there without a major spill -- major incident.

So thank you, thank you, thank you. Hurricane Harvey shows how safe you guys are.

Our first question is for you, Mr. Black and Ms. Sames. As they mentioned on the first panel, Texas 22 is booming. One example -- our population, we think, will be over one million in the next Census. It has grown almost 30 percent in the last 10 years.

As the population keeps increasing, people are moving to areas that were rural before. There were pipelines there, and so with all that traffic flowing to the Port of Houston, the port of Freeport, coming from the west Permian Basin flows through Fort Bend County. Can't get there without Fort Bend County.

So can you all please talk about how the industry works with

new communities as they are built around existing pipelines? How to make sure that first responders and others know what the risks are?

Mr. Black.

Mr. Black. Well, you are certainly right, Congressman, that not only is the population of that area in your district growing but the benefits within Texas of increased oil and gas production are helping Houstonians and others have benefit from lower prices, more availability to U.S. and North American supplies.

It is important for us to expand pipeline capacity to help feed those needs and to make sure that the public along the existing route is aware of pipelines that are there.

We are ready to work with anybody that is constructing a pipeline to make sure that they are safely not threatening the pipeline. The "call before you dig" program and public awareness programs are very important.

Mr. Olson. Ms. Sames, your comments, ma'am?

Ms. Sames. Well, in addition to what Andy said, there is also the Pipeline Informed Planning Alliance document that helps to -- helps communities as they are building around existing pipelines. There is a lot of great practices in there.

It was a collaborative effort that included, you know, the Pipeline Safety Trust, the oil industry, the gas industry,

emergency responders, governors, cities. I lost count of how many. It is a good document and it really provides guidance around how communities can build safely around these existing pipelines -- these larger existing pipelines.

Simple things like if you're building a school near an existing pipeline put the parking lot near the pipeline, not the school, but also make sure that there is a good exit so that when people -- if something happens in that small stretch that they have an escape route. It is things like that that are within the document. Hopefully, they will consider it.

Mr. Olson. I thank you, too, because pipelines provide green space all over Fort Bend County and Brazoria County. A park right by my house, the biggest park my hometown of Sugar Land has, is built over an existing pipeline. The markers are all along the park. But it's a park and people are there. They're flying kites. They've got this little dirt bike trail. That is because a pipeline is there. That land is available. It would have been taken up but that pipeline gave us green space. So thank you for that.

I want to get back to the staffing issues I talked about with PHMSA in the first panel. You know, they can't function without the right agents, the right people in place, and sometimes, I mentioned, they get poached because their people

are so good.

Mr. Doyle left, but he and I have a bill to give FERC a sort of waiver to keep employees, pay them higher than average federal salary. That has happened for the SCC. Would you support that going through PHMSA, having that have more financial resources to keep the people they've got?

Mr. Black. I will tell you about the proposal that we have made to the Congress on this and the committee. We understand that if PHMSA had Schedule A hiring authority for its inspectors, they would be able to better attract and retain pipeline operators.

From what we have learned about the federal personnel process, that would help. It is in all of our interests for PHMSA to be able to have quality inspectors on the job. I haven't studied your bill. I am happy to do that. But the spirit of being able to have PHMSA maintain quality inspectors is one we support.

Mr. Olson. Thank you. One final comment, and this is a question for you, Mr. Black. Are the Horned Frogs going to beat the Sooners this year in football?

Mr. Black. Well, as a TCU grad, they should every year. Yes, sir.

[Laughter.]

Mr. Olson. Okay.

Mr. Rush. The gentleman from Michigan, Mr. Walberg, for five minutes.

Mr. Walberg. Thank you, Mr. Chairman. Thanks to the panel.

Mr. Black and Ms. Sames, I think you share some of the frustrations regarding PHMSA's inability to comply with congressional mandates relating to pipeline safety rulemakings.

In your view, what is keeping PHMSA from complying with deadlines on their significant rulemakings?

Mr. Black?

Mr. Black. Congressman, we believe there was a strategic mistake by the last administration to lump many large complex issues into a few mega rulemakings. The rulemaking process is not build for that.

We believe that they should have separated them out. The administrator has acknowledged that and that is what they are doing. We don't believe cost benefit requirements are what delayed those rules.

Now, certainly, if a proposal is overly broad it deserves to be reviewed further. We think the American people, who ultimately pay the cost of regulations, deserve to know that the benefits outweigh the costs and we think cost benefit analysis improves regulations.

Lastly, some of the proposals that we have seen to remove cost benefit from the PHMSA statute risks, number one, later -- longer delays because the Office of Management and Budget might return something to PHMSA that hasn't had cost benefit analysis.

And, two, I would hate to end the requirement that a risk benefit analysis and a cost benefit go before the public advisory committee that Carl and our industry reps are on. Those are great discussions to improve regulations.

We think, to answer your question, it has been mistakes of just lumping too many things in mega rules. That is why they were delayed. They are recovering now.

Mr. Walberg. Ms. Sames, any additions there?

Ms. Sames. I fully agree with Mr. Black. But in addition, just an observation. It is my opinion, my observation, that PHMSA's staff -- technical staff -- are pretty darn good at moving things forward after the advisory committee meets.

It appears that something is occurring after it leaves their technical office to that rulemaking. I don't know exactly what it is but --

Mr. Walberg. Does OMB add to the delays?

Ms. Sames. I am sure that there is some with OMB. But it appears that there may be things beyond PHMSA within the

department that may also be holding things back a little bit. I don't know where the obstacle is.

But I can tell you that the industry is very frustrated. We like certainty. How often do you have the industry sending in letters to the secretary asking for them to move a rulemaking forward? And we have been doing that.

Mr. Walberg. Thank you.

Ms. Sames, in your written testimony you highlight that every natural gas distribution system is different in terms of design, use, age, location, external risks, operating history, current operating conditions, et cetera, et cetera.

Could you please talk about how, as a result of these differences, prescriptive regulations that take basically a one-size-fits-all approach might not be the best idea?

Ms. Sames. Thank you for the question.

Distribution lines are really different from the interstates and the liquid. You have -- for example, on distribution you have plastic. You have steel. You have coated steel. You have bare steel. You have all of these different materials that were put in over the ages.

You also have different pressures and different sizes. It's just very unique compared to everything else.

So when you get a prescriptive regulation it doesn't take

any of that into account and I will give you an example. Atmospheric corrosion surveys are done every three years. Now, if you are in a desert environment you may not need an atmospheric corrosion survey every three years.

However, if you are along the ocean you probably need it more frequently, which is why it is important to have not only those prescriptive regulations but also the risk-based regulations that we get through integrity management. That kind of balances things out of it.

Mr. Walberg. Okay. On the first panel I asked about the role of states like Michigan, which have robust inspection programs themselves, play in pipeline safety -- specifically, their coordination with PHMSA.

Has this model helped your Michigan utilities meet higher safety standards at low regulatory burden as they invest in transitioning away from the old cast iron or steel distribution pipes?

Ms. Sames. I think it has because the local inspectors know the environment. They know the operators. They're spending a lot of time with the distribution operators and that allows them to collectively move safety forward in a way that is the lowest cost to the customers.

The members that I have they are all publicly traded

utilities for the most part, which means that their rates are going through the commissions and it really is a partnership -- how do you improve safety, how do you do things the right way at the lowest cost to the customer and the least burden.

Mr. Walberg. And they should have a better grasp on the situations?

Ms. Sames. Correct, because they are there. They live and work in the same communities that we are serving.

Mr. Walberg. Thank you. I yield back.

Ms. Sames. You are welcome.

Mr. Rush. The chair now recognizes the gentleman from Virginia, Mr. Griffith, for five minutes.

Mr. Griffith. Thank you very much. I appreciate it, Mr. Chairman.

Mr. Black, earlier you indicated that, you know, there were concerns about a tax on pipelines and I share that, and I understand you also have indicated in speaking with Mr. Latta that, you know, one of the things we can do is to have voluntary compliance and so forth.

But one of my concerns is, as you heard me on the previous panel, is we got pipelines going in the ground, you know, as we speak or in the process. They are not in the grounds yet. Once we get them in the ground we are not going to put new technology

-- you know, we are not going to say "Dig it up" five years from now and put in the new technology.

And so the concern is why aren't the companies putting those pipelines in the ground now, putting in the technology? And, again, there may be others.

But, you know, I had a demonstration of what could be used with the fiber optics and, of course, you'd have to have some broadband in the area so we'd have to work on that.

But the fiber optics that will tell you if somebody is -- if there is a leak that just occurs naturally or if somebody is making an attack on a pipeline that's underground they can see it, you know, live action and get out there and do something about it before the harm you indicated, which I agree with you, could be harm to the community.

You know, it's not just about stopping the pipeline. There could be an environmental risk. There's a risk of explosion or fire or whatever. So if the industry is not already doing it, it seems to me that would be smart.

In fact, as a recovering attorney, let me posit that because that technology is out there the gas companies might very well be at risk of having not used the best equipment and may have some liability damages in the future.

So why aren't they doing it? And that makes me worry that

voluntary doesn't work and that we may need to have, you know, regulatory that says, you know, if there's something out there that increases public safety we ought to do it.

What say you?

Mr. Black. We are excited about leak detection technology development. I know operators are talking with vendors about technologies to see, sniff, and hear signs of small leaks, which are the hardest ones to detect.

That can include acoustic smart balls, fiber optic cables. I have heard of copper cables with conductors. PHMSA conducted a study on leak detection technologies as a result of a mandate from Congress.

We heard what you alluded to on the first panel. Sometimes the claims of performance -- we are not sure yet about how they will do road tested. So operators have having those conversations right now and hoping to be able to have confidence in those technologies.

I am aware of several pilot programs, not in a DOT pilot but in a company sense, where they're testing some of those new technologies. We think the pilot program will help an operator work with PHMSA and try and implement, hey, this is how we want to do for leak detection -- are you okay on that.

Mr. Griffith. So here's -- but here is the problem with

my constituents, and there is two coming through Virginia. One comes directly through my district. Another one is a little bit further north.

Okay, great. You do a pilot project. Wouldn't it make more sense to go ahead and put that in the ground now? Because they're not -- once the pilot project comes back and says yes, it works, they're not going to dig up the corridor over hundreds of miles and suddenly put down that technology that works.

So aren't we -- if we had something that already could do that and you said, well, the new stuff doesn't work any better than the old stuff, I would say, okay, let's wait and see or -- but we don't have anything that will give us that detection and at least with the one technology, and again, I admit there are others that are probably out there, it changes the temperature of the gourd.

They can tell immediately if there's a leak out there and it would seem to me that the companies would want to do this and put it down in advance and then if you needed the software upgrades down the road you might be able to do that a whole lot easier than -- I mean, the ditches are dug right now and they are laying the pipe. Why aren't they doing it, and that is what calls into question for me voluntary versus us having some regulations.

Now, if it's going to take us 20 years to get the regulations

that isn't going to work either. I am not sure there is an answer to that, Mr. Black. Let me go to Ms. Sames for something different because you have referenced it, I think. But the finalizing of the rulemaking on the automatic shut off valves and remote controlled shut off valves which, to me, makes a lot of sense and I think that's the one you're asking them to hurry up and get it done.

But can you explain for the public the difference between the transmission and distribution systems and what considerations need to be made on these auto shut offs for each of those?

Ms. Sames. Sure. So automatic and remotely controlled valves we are putting them on our intrastate transmission. I can't speak to the interstates. But we are putting them on our intrastates where we have what I will call consistent pressure.

The problem with automatic shut off valves is they sense a pressure drop, which means that if you have pressure fluctuations in the line, it is going to shut off and now you are shutting off customers, which is why they tend not to work as you get further downstream.

You have too many pressure fluctuations because people are turning on their stoves. They are turning on their furnaces. They are using more natural gas, which is sucking the gas from the system which is dropping the pressure.

We are very supportive of them in many instances where you don't have those pressure fluctuations.

Mr. Griffith. Well, how about the -- and I know you said it was -- you were doing intra but how about that 42-inch pipe coming through my district? Wouldn't that work better there?

Ms. Sames. I cannot speak to that one, sir.

Mr. Griffith. Yes, ma'am. I appreciate it.

I yield back, Mr. Chairman. Thank you.

Mr. Rush. I thank the gentleman, and I want to thank all the witnesses for your patience and for your participation in today's hearing and I want to also remind members that pursuant to committee rules you have 10 business days to submit additional questions for the record, which will be answered by the witnesses who have appeared before the subcommittee, and I ask each witness to respond promptly to any such questions that you may receive.

And this -- we have a unanimous consent request to enter into the -- the following into the record the following information: a letter from the American Public Gas Association, a letter from the Interstate Natural Gas Association of America, a letter from the National Association of Regulatory Utility Commissioners, a letter from the Alliance for Innovation and Infrastructure.

Without objection, so ordered.

[The information follows:]

**********COMMITTEE INSERT 7**********

Mr. Rush. And the chair now adjourns this committee.

At this time, the committee stands adjourned. Thank you.

[Whereupon, at 1:24 p.m., the committee was adjourned.]