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REAUTHORIZATION OF THE PIPELINE SAFETY ACT

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

MAY 11, 2000

Printed for the use of the Committee on Commerce, Science, and Transportation

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

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REAUTHORIZATION OF THE PIPELINE SAFETY ACT

THURSDAY, MAY 11, 2000

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 9:30 a.m. in room SR–253, Russell Senate Office Building, Hon. John McCain, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. JOHN McCAIN, U.S. SENATOR FROM ARIZONA

The CHAIRMAN. Good morning. I am pleased to call to order this full Committee hearing to address the critically important issue of pipeline transportation safety. In our effort to reauthorize and improve Federal pipeline safety programs, today's hearing is designed to obtain input from public safety advocates, the National Transportation Safety Board, the Department of Transportation and its Inspector General, industry, and others interested in promoting pipeline safety. During this hearing, we will be told that statistically, pipeline transportation is perhaps the safest form of transportation, and statistically this may be true. But statistics are little comfort to those who have experienced the tragic consequences of the pipeline accidents that do occur.

This morning, we will hear of the enormous loss of three families who lost their sons as a result of a pipeline accident last June in Bellingham, Washington. While enduring the tragic loss of their beloved boys, a tragedy almost impossible to bear, these parents have demonstrated continued strength and courage.

Over the past year, each has turned their personal tragedy into a crusade to improve pipeline safety so that others will never experience the kind of loss they have endured. I commend each of them, Mr. and Mrs. Frank and Mary King, Ms. Marlene Robinson and Mr. Bruce Brabec, and Ms. Katherine Dalen. The Committee looks forward to hearing from you shortly.

In March, this Committee held a field hearing chaired by Senator Gorton in Bellingham, Washington, during which 18 witnesses provided information and expressed views on the Bellingham accident. Today's hearing will not repeat that testimony. Instead, each witness has been asked to direct their testimony to a broad range of pipeline safety issues, including the three pipeline safety bills that have been introduced in the Senate.

I am committed to moving a comprehensive pipeline reauthorization bill through the legislative process as soon as possible. We

must act to help improve pipeline safety and prevent future tragedies like that which occurred in Bellingham. I also want to thank Senator Murray and Senator Gorton for all their hard work on this issue. I look forward to hearing from today's witnesses, and am eager to hear their suggestions on what actions Congress should take to improve pipeline transportation safety.

Senator Gorton.

STATEMENT OF HON. SLADE GORTON,
U.S. SENATOR FROM WASHINGTON

Senator GORTON. Thank you, Mr. Chairman, not only for holding this hearing but for your commitment to reauthorizing the pipeline safety act during the course of this year's Congress.

I think all of us share one feature in common, and I include the three witnesses from the Senate and the House as well as you and Senator Wyden and myself. This was not an issue to which we paid a great deal of attention before the tragedy in Bellingham last year.

Now we are paying a great deal of attention to the subject, and it behooves us to do more than pay attention to it. It behooves us to take action, and so we need to hear from those in the federal government who are responsible for pipeline safety to a certain extent about what went wrong, but to a far greater extent as to what measures they propose both internally and through our reauthorization to see to it that the federal safety role is more effective than it has been in the past.

We also need to hear from those who represent States and local communities that often have not only the desire but the ability to provide more significantly for the safety of their citizens. As to their role, we need to consider what role should be played by private organizations, by citizens organizations themselves in helping both to oversee safety measures and with respect to publicizing problems and helping reach those solutions and, of course, we need to hear from the industry itself as to how and why accidents like this happen and what industry proposes to do to see to it that pipelines are operated more safely in the future.

Obviously, these pipelines are necessary to our transportation and to our industrial democracy, but they need to be managed and conducted and supervised in a way that does not threaten the lives and security of people who live in their vicinity, and we need to dedicate ourselves to doing all we can to ensure that the kind of tragedy that took place in Bellingham last year does not take place in any other place in the United States at any other time.

The CHAIRMAN. Thank you. Senator Wyden.

STATEMENT OF HON. RON WYDEN,
U.S. SENATOR FROM OREGON

Senator WYDEN. Thank you, Mr. Chairman. I very much appreciate your holding this hearing. Fire experts in my home state of Oregon believe that a tragedy like the one in Bellingham could strike in my home state as well.

We are especially concerned in Oregon about the line from Portland to Eugene. Much of this line has been lying in moist soil for decades. When you have that kind of situation the pipe corrodes,

so this is a very, very serious safety problem. I appreciate your convening this hearing, and the leadership of Senators Murray, Gorton, and our witnesses. I would just wrap up my comments with two areas that I am especially interested in, Mr. Chairman.

First, I think this is ultimately a public right-to-know issue. The citizens of this country have a right to know where exactly these lines are, and that means with clear maps, with understandable markings, and certainly that ought to be part of any reform package.

Second, as part of a public right-to-know program, the results of pipeline tests ought to be available in an understandable format. I am of the view, Mr. Chairman, that especially because of our Committee's jurisdiction, that this ought to be available online so that people with a click of the enter button can get access to this information.

The second point I would make, and Senator Gorton I know has been working in this area, is, we need to come up, as we deal with this sort of regulatory side, with a partnership between the state and the federal government. There is clearly a need for a role for both bodies. Determining exactly what that role ought to be is something that I think we can deal with in a bipartisan kind of fashion.

I am very pleased you are holding this hearing, Mr. Chairman. The stakes for folks that I represent, more than 3 million Oregonians, are very, very high, and we need to act and act promptly, and I thank you.

The CHAIRMAN. Thank you, Senator Wyden. Senator Breaux.

STATEMENT OF HON. JOHN B. BREAUX,
U.S. SENATOR FROM LOUISIANA

Senator BREAUX. Thank you, Mr. Chairman, for having the hearing. I think that the information we find will be interesting and informative also, I think very helpful in making sure we do everything we can to eliminate to the greatest degree possible the potential for serious accidents related to the transmission of fuel through pipeline systems. One serious accident is one too many. I think the goal obviously should be, and we all would agree, to eliminate the possibility of serious accidents involving transmission lines throughout this country.

I would note a couple of things, however, though, in the area of transportation-related injuries. I think the pipeline systems in this country have one of the best records of any of the various systems that we have. When you compare marine-related transportation accidents to pipeline accidents, when you look at 40,000-plus people who are killed on our highway transportation systems, you see that the transportation of natural gas and gasoline is, in fact, an industry that has an outstanding record. Again, one serious accident is one too many, and one tragic loss of life is something that we ought to try to do everything that we can to eliminate.

I think the final point I would make is that I think this is an area where there indeed has to be a national role. You cannot have 50 different rules and regulations and 50 different standards regulating something that is interstate in nature. We have to make sure the federal system is strong enough and is doing an adequate

job, but I think it would be a serious mistake to allow 50 different states to oversee or supersede the federal responsibility in this area, and hopefully we will have some good discussion about it.

I thank you.

The CHAIRMAN. Thank you, Senator Breaux. I want to welcome our congressional witnesses appearing before the panel, or appearing before the Committee today. We know you are very busy, and we appreciate the opportunity of hearing from you. We will begin with Senator Murray. Welcome, Senator Murray.

[The prepared statement of Senator Hollings follows:]

PREPARED STATEMENT OF HON. ERNEST F. HOLLINGS,
U.S. SENATOR FROM SOUTH CAROLINA

I would like to thank the Chairman for convening this hearing on the reauthorization of pipeline safety programs. Any map showing the nation's pipelines is clear evidence of the importance of safe pipelines to the nation. The question is not whether pipeline safety programs should be reauthorized but rather what is the best way to maintain the safety of the interstate pipeline system.

It is my pleasure to welcome Senator Murray to the Committee this morning. I look forward to hearing her testimony on her legislation, S. 2004, which specifies requirements for strengthening safety and environmental standards. Senator Murray has been a leader in moving the reauthorization of pipeline safety programs forward, and I will continue to work with her on this important issue.

Additionally, I would like to extend my condolences to the families from Bellingham, Washington, who have agreed to come testify today about their experiences. I appreciate their efforts on behalf of their sons to improve pipeline safety for all of us, and I look forward to hearing from them this morning.

As many of you know, in June of 1996, a liquid pipeline ruptured where a corroded section of the pipeline crossed the Reedy River at Fork Shoals, South Carolina. The rupture released almost a million gallons of fuel oil into the Reedy River and surrounding areas. NTSB investigated the accident and found that the estimated cost for clean-up and settlement with the State of South Carolina was $20.5 million. Fortunately, no one was injured in the accident, however it is important that this type of accident be prevented in the future. I understand that OPS is working on new corrosion guidelines and hope that Administrator Coyner and Chairman Hall will comment on the adequacy of existing corrosion standards.

Three bills have been introduced in the Senate this Congress. Senator McCain and Murray have drafted proposals, and I have introduced the Administration's bill by request. We are here today to solicit opinions about the pending legislation from those who are most informed about pipeline safety. I look forward to hearing their comments and critiques of the existing pipeline safety programs and provisions in the legislative proposals.

As far as a critique of the existing pipeline safety program, I want to share my concerns about the delays in issuing congressional mandates. The Office of Pipeline Safety has not issued final rules on outstanding items from our 1992 and 1996 reauthorizations. The rules on environmentally sensitive and high density areas should have been completed by now, although I understand that they are expected this year. The rules on operator qualification and periodic inspections are not final either. I hope that Administrator Coyner will comment on the status of these rules, it would certainly help to advance the cause of pipeline safety if we could understand why these rules are not in place or if additional standards need to be enacted.

Further I am curious about what new regulations may be appropriate at this time. There are many new initiatives being proposed in the three pending bills and I have a number of questions. What is the appropriate level of authorization for funding? I note that the pipeline safety budget proposal for FY 2001 represents an increase of 29 percent over the current level. If that funding request is not met, how will the Office of Pipeline Safety implement existing requirements and standards? If new requirements and standards are imposed in a reauthorization bill, does the Office of Pipeline Safety have adequate resources to carry out those new directives? I want to make sure that we are not only providing appropriate direction for the pipeline safety program, but appropriate expectations and resources.

I look forward to hearing the witnesses' comments and their views on pipeline safety issues.

[The prepared statement of Senator Inouye follows:]

PREPARED STATEMENT OF HON. DANIEL K. INOUYE, U.S. SENATOR FROM HAWAII

I would like to thank the Chairman for convening this hearing today. Pipelines are an integral part of our transportation network, facilitating large movement of both gas and liquid throughout the United States. I was pleased to see that the overall pipeline accident rate declined last year, but have concerns because the average spill amount increased. While I recognize that pipelines are the safest way to transport hazardous materials, there is still much that can be done to ensure that pipelines are safer for people living near them and safer for the environment.

It is my pleasure to welcome Senator Murray to the Committee this morning. I look forward to hearing her comments on this important issue. She has been a strong advocate for increased vigilance on the subject of pipeline safety. Her legislation, S. 2004, lays out many options for strengthening safety and environmental standards.

Today we will hear from several very distinguished panels about gas and liquid pipelines. I would like to welcome all of the witnesses to the Committee this morning. I appreciate the commitment to pipeline safety that each of you have, and recognize that some of you are testifying before the Committee today as a result of very personal experiences. I want to thank all of the witnesses for their participation, and I look forward to working with all of you as we craft a constructive authorization bill.

As we begin the process of reauthorizing the pipeline safety programs housed in the Office of Pipeline Safety, we have the responsibility for ensuring that transportation is efficient, clean, and safe. Three bills have been introduced in the Senate this Congress. While I support S. 2004, introduced by Senator Patty Murray, I am interested in learning the witnesses's views of all the pending bills.

I look forward to hearing from Administrator Coyner about pending rulemakings as a result of congressional mandates from the 1992 and 1996 legislation authorized by this Committee. I would like to see the Office of Pipeline Safety move ahead to implement outstanding mandates. Clearly some of these directives have languished much too long and I would be interested to know their current status.

On that subject, I would like to hear about personnel levels at OPS and whether or not they are sufficient to carry out legislative requirements. I see that your FY 2001 budget request is a 29 percent increase over this year's enacted appropriation. In addition, your grants to states and local entities is increased by 52 percent in your budget request. I understand that there will be additional needs for personnel and funding as research and development, inspections, and information gathering is expanded. I look forward to hearing how these demands will be met if your funding levels remain constant and what an increase in funding will permit. I want to work to ensure that the pipeline safety program gets the level of support needed to be effective.

I will listen carefully to the testimony today. I look forward to hearing about the differences between the provisions in the pending legislative proposals and the program in use today.

[The prepared statement of Senator Lott follows:]

PREPARED STATEMENT OF HON. TRENT LOTT, U.S. SENATOR FROM MISSISSIPPI

I would like to congratulate the Chairman for holding this hearing and his commitment to reauthorize the Pipeline Safety Act.

Congress is reviewing the DOT's pipeline safety program in the emotional aftermath of a tragic pipeline accident in Bellingham, WA. Today we will hear from the families of the victims. It is very fitting that they should be here to remind us of the seriousness of our efforts. We will also hear from the Office of Pipeline Safety & the pipeline industry about their proposals to prevent future pipeline tragedies. My home state of Mississippi has a large pipeline presence, and I commend the Chairman for his attention to this issue.

Oil and natural gas pipelines are of fundamental importance to all Americans. Pipelines are essential to the basic infrastructure of our economy. Millions of Americans depend on the fuels and raw materials transported by pipelines. Americans would not have the productivity or the quality of life we have without pipelines. Pipeline transportation of oil and gas is not only convenient and economical, it is usually very, very safe.

As Congress considers reauthorization of the Pipeline Safety Act, we must look at the whole picture. Measures to increase safety must be well coordinated to pre-

vent unnecessary conflicts with the interstate movement of materials due to the different regulatory efforts.

Reauthorization efforts must aim to provide for the continued safe operation of this essential infrastructure system. The basic responsibility for interstate pipeline transportation lies with the federal government. While there are certainly local concerns that need to be addressed in some fashion, only the federal government can bring consistency to rules that govern the operation of pipelines crossing state lines.

There is a potential for good bipartisan legislation. It is Congress's responsibility to ensure that both the safety and integrity of the entire pipeline system is upheld.

I look forward to hearing from today's witnesses.

STATEMENT OF HON. PATTY MURRAY, U.S. SENATOR FROM WASHINGTON

Senator MURRAY. Thank you very much, Mr. Chairman. I really appreciate you holding this hearing, and the personal interest you have taken in this very critical issue. I also want to thank all of the members of the Committee. I have had the opportunity to talk with most of them over the past several months about this issue to raise the awareness of pipeline safety, and I appreciate the time all of them have taken to talk to me about this issue.

Mr. Chairman, I am very pleased that this Committee is now focusing on pipeline safety. I have been pushing for this for a long time, and I am grateful that this day is finally here. At the same time, I wish we did not have to be here today. I wish we did not have to worry about pipeline safety, and I truly wish that June 10, 1999 was just another quiet summer day in the city of Bellingham instead of a black mark in our memory. On that day, a gasoline pipeline in Bellingham ruptured, spilling more than 275,000 gallons of fuel. That pipeline disaster resulted in the deaths of three young people and left thousands of people in my State wondering about the safety of the pipelines near their homes.

Mr. Chairman, my twin sister teaches just a few blocks from where that accident occurred, and I can assure you that she, the other teachers, the students, the parents, and all of the community members are still touched every day by this accident. It has truly changed their lives.

We cannot undo what happened in Bellingham. It will never be the same, but we can take steps to reduce the changes that another community will suffer from a pipeline disaster, and I know, Mr. Chairman, we can pass a strong pipeline safety bill this year. Today is an important step in the legislative process, and we are here today to see this through to the end. If this Committee does not pass a pipeline safety bill this year it will have missed a tremendous opportunity to protect the people we all represent.

There are 2.2 million miles of pipelines running across this country. They run near our schools, homes, and communities. They do perform a vital service. They bring us the energy we need to fuel our cars and heat our homes, but at the same time they are not as safe as they could be. We have a responsibility to pass a bill this year that will protect families from the dangers of unsafe pipelines. That is why, back in January, I introduced my own pipeline safety bill, the Pipeline Safety Act of 2000, and I want to thank the Members who cosigned that bill with me, Senators Inouye, Gorton, Wyden, Lautenberg, and Bayh.

I went door-to-door, Mr. Chairman. I met with a number of Senators and House members, and I showed them graphic pictures of

what happened in my State, and I showed them the statistics of how pipelines were affecting the people in their own States. I worked with administration officials, including Transportation Secretary Rodney Slater, who was very responsive to the tragedy in my State, and who has been a partner in improving pipeline safety. I have also worked with and heard from safety officials, citizen groups, and industry representatives.

In March, as was stated, Senator Gorton and I participated in a field hearing in Bellingham hosted by this Committee, and last month I spoke at a national conference on pipeline safety here in Washington, D.C., hosted by the National Pipeline Reform Coalition, Safe Bellingham, and the Cascade Columbia Alliance. That conference proved that people all across this country are following this issue very closely. They understand the problem and they are calling for action.

Mr. Chairman, I want to be clear, we cannot wait any longer, and we certainly cannot let this year pass without improving our Nation's inadequate pipeline safety laws. While it may be true that transporting hazardous liquids through pipelines is safer than transporting them on barges and trucks, there are several areas where existing laws are not doing enough to protect the public. The danger posed by aging, corroded pipelines is not going away. In fact, it is getting worse.

Since 1986 there have been more than 5,700 pipeline accidents. There have been 325 deaths and more than 1,500 injuries, and there has been almost $1 billion in environmental damage. On average, there is one pipeline accident every day, and 6 million hazardous gallons are spilled into our environment every year.

In the 4 months, in just the 4 months since I introduced my own pipeline safety bill, at least 20 States have experienced pipeline accidents. Let me repeat that. In just the last 4 months, at least 20 States have had pipeline accidents. I do not want another community to go through what the people of Bellingham, Washington have gone through. We can make pipelines safer today.

Along with the bill that I introduced in January, I am pleased that Senator Hollings has submitted the administration's proposal, and that Senator McCain has also offered a measure to improve our Nation's pipelines, and I am proud, Mr. Chairman, to be a cosponsor of your bill.

While none of these bills are perfect, I hope when your Committee marks up pipeline legislation this month and will improve on the bills before you. Certainly, when this bill hits the floor I will do everything I can to work with the members of this Committee to make sure that we pass an effective bill.

I am pleased that all of the current proposals touch on five key areas of pipeline safety. First, these bills recognize the need to improve pipeline inspection and accident prevention practices. Second, they recognize the need to develop and invest in new safety and inspection technology. Third, they expand the public's right to know about the problems with pipelines. Fourth, they recognize that States can be better partners in improving pipeline safety and, finally, these bills increase funding for new State and Federal pipeline safety programs.

I am proud to say we are making progress. Having the administration, the Chairman of this Committee and Senator Hollings fully engaged on this issue increases the chance we will do the right thing and pass pipeline legislation this year. During the Committee process, I hope we can all work together in a bipartisan manner to improve pipeline safety.

Mr. Chairman, I know it is an election year, and we often find ourselves being partisan at times like this, but pipeline safety is not a partisan issue. It is something we can do this year in a bipartisan way. As you see from the panel before you, on behalf of all of our constituents, in my State the whole political spectrum has come together to support pipeline safety. I hope that this Committee and this Congress will follow that example, and I look forward to working with the members of the Committee in that effort.

Pipeline safety reform can become an accomplishment of the 106th Congress. We can do this.

Mr. Chairman, before I close I want to thank you so much for lending your support and helping us move closer to pipeline safety. I also want to thank all of the people who are going to be testifying today, the administration witnesses, the industry representatives, and those who are here from the environmental and community advocate communities. I especially want to thank our Governor, Gary Locke, and I want to ask unanimous consent to admit his statement to the record. He has been a strong worker on this as well.

I especially want to mention Mayor Mark Asmundson, who is here from Bellingham. I can think of no one who has worked harder than he has on behalf of his community, not just for the families that were affected, but to make sure that this does not occur anywhere else, and I especially want to thank the families of the victims. Mr. Chairman, they have gone through so much, and they are working so hard to make sure that no other family has to endure what they have been through.

I know that it was not easy for them to come here today, but their strength and their courage reminds all of us what we have to do, and now it is up to the Senate to match their courage by passing a meaningful pipeline safety bill this year.

Thank you, Mr. Chairman.

[The prepared statement of Senator Murray follows:]

PREPARED STATEMENT OF HON. PATTY MURRAY,
U.S. SENATOR FROM WASHINGTON

Thank you, Mr. Chairman. Thank you for holding this hearing, and thank you for your leadership on this issue. I'd also like to thank the members of this Committee. I've met with many of you over the past few months as I've tried to raise awareness about pipeline safety, and I appreciate the time you have taken to consider pipeline safety reform.

Mr. Chairman, I'm pleased this Committee is now focusing on pipeline safety. I've been pushing for this day for a long time, and I'm grateful it is here.

At the same time, I wish we didn't have to be here today. I wish we didn't have to worry about pipeline safety. I wish June 10, 1999 was just another quiet summer day in the city of Bellingham, Washington—instead of a black mark in our memory.

On that day, a gasoline pipeline in Bellingham ruptured—spilling more than 275,000 gallons of fuel. That pipeline disaster resulted in the deaths of three young people, and left thousands of people in my state wondering about the safety of the pipelines near their homes.

Mr. Chairman, we can't undo what happened in Bellingham. It will never be the same. But we can take steps to reduce the chances that another community will suf-

fer from a pipeline disaster. Mr. Chairman, we can pass a strong pipeline safety bill this year. Today is an important step in the legislative process, and we have to see this through to the end.

If this Committee does not pass a pipeline safety bill—this year—it will have missed an opportunity to protect the people we represent.

There are 2.2 million miles of pipelines running across the country. They run near our schools, homes and communities. They perform a vital service—bringing us the energy we need to fuel our cars and heat our homes.

At the same time, they are not as safe as they could be. We have a responsibility to pass a bill this year that will protect families from the dangers of unsafe pipelines.

That's why back in January I introduced my own pipeline safety bill—the Pipeline Safety Act of 2000. And I want to thank the members who have signed on as co-sponsors—Senators Inouye, Gorton, Wyden, Lautenberg, and Bayh.

I went door-to-door and met with a number of other Senators and House members. I showed them the graphic pictures of what happened in my state, and I showed them the statistics of how pipelines were affecting the people in their own states.

And I worked with Administration officials—including Transportation Secretary Rodney Slater—who was very responsive to the tragedy in my state and who has been a partner in improving pipeline safety. I've also worked with and heard from safety officials, citizen groups, and industry representatives.

In March, Senator Gorton and I also participated in a field hearing in Bellingham—hosted by this Committee. Last month, I spoke at a national conference on pipeline safety here in Washington, D.C. It was hosted by the National Pipeline Reform Coalition, SAFE Bellingham, and the Cascade Columbia Alliance. That conference proved that people all across the country are following this issue closely. They understand the problem, and they are calling for action.

Mr. Chairman, I want to be clear. We cannot wait any longer, and we certainly cannot let this year pass without improving our nation's inadequate pipeline safety laws.

While it may be true that transporting hazardous liquids through pipelines is safer than transporting them on barges and trucks, there are several areas where existing laws aren't doing enough to protect the public.

The danger posed by aging, corroded pipelines is not going away. In fact, it's getting worse. Since 1986, there have been more than 5,700 pipeline accidents, 325 deaths, 1500 injuries, and almost $1 billion in environmental damage. On average there is 1 pipeline accident every day, and 6 million hazardous gallons are spilled into our environment every year.

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Along with the bill I introduced in January, I am pleased that Senator Hollings has submitted the administration's proposal. Senator McCain has also offered a measure to improve our nation's pipelines, and I'm proud to be a co-sponsor of his bill.

While none of these bills are perfect, I hope when your Committee marks up pipeline legislation later this month you will improve on the bills before you. Certainly when this bill hits the floor, I will do everything I can to work with the members of this Committee to ensure we pass an effective bill.

I'm pleased that all of the current proposals touch on five key areas of pipeline safety:

First, these bills recognize the need to improve pipeline inspection and accident prevention practices;

Second, they recognize the need to develop and invest in new safety and inspection technology;

Third, they expand the Public's Right To Know about problems with pipelines;

Fourth, they recognize that states can be better partners in improving pipeline safety; and

Finally, these bills increase funding for new state and federal pipeline safety programs.

I'm proud to say that we are making progress. Having the administration, Senator McCain, and Senator Hollings fully-engaged in this issue increases the chance that we will do the right thing and pass pipeline legislation this year.

During the Committee process, I hope we can all work together in a bipartisan manner to improve pipeline safety. I know it's an election year, and we often find ourselves being partisan in times like this.

Pipeline safety isn't a partisan issue. It's something we can do this year in a bipartisan way on behalf of all of our constituents.

In my state, the whole political spectrum has come together to support pipeline safety. I hope this Committee and this Congress will follow that example, and I look forward to working with the members of this Committee in that effort.

Pipeline safety reform can become an accomplishment of the 106th Congress. Put simply, Mr. Chairman, we can do this. Mr. Chairman, before I close I would like to thank you for lending your support and helping us move closer to making pipelines safer.

I would also like to thank those who will be testifying today—administration witnesses, industry representatives, and those here from the environmental and consumer advocate communities.

But I'd especially like to thank the families of the victims. They have gone through so much, and they are working to make sure no other family has to endure what they have been through.

I know it wasn't easy for them to come to here today, but their strength and their courage remind us of what we must do. Mr. Chairman, now it is up to this Senate to match their courage by passing a meaningful pipeline safety bill this year.

Thank you.

The CHAIRMAN. Thank you very much.

Mayor Asmundson of Bellingham, where are you? Thank you for being here, sir, and thank you for your outstanding work, and thank you for taking the time to join us at this hearing, and if you would like to join the families when they come up for a brief statement we would be glad to hear from you.

Senator Murray, we thank you, and thanks to you and Senator Gorton and others we will lend every effort to try to mark up a bill and get it through at least the Senate, and I hope through the Congress, before the end of this year. Due to you and Senator Gorton and the families and others, this issue has been made one of highest urgency, thank you.

Congressman Metcalf, thank you for being with us.

STATEMENT OF HON. JACK METCALF, U.S. REPRESENTATIVE FROM THE STATE OF WASHINGTON

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

The CHAIRMAN. We are going by age on this.

[Laughter.]

Mr. METCALF. I would like to extend my sincere thanks to you for your recent efforts to improve pipeline safety. The legislation you have introduced, combined with today's hearing, has already dramatically raised the awareness level of this issue in Congress.

I would also, of course, like to thank Senator Gorton, Senator Murray, and Congressman Inslee for their work, and particularly to thank Congresswoman Dunn, who is not here today, for her input. It has been almost a year since the tragic pipeline accident that claimed the three lives of the people in our State. Since that time, more and more concerned citizens throughout Washington and around the Nation have clamored for additional protections from the network of pipelines which criss-cross the United States.

Early this year, I introduced H.R. 3558, the Safe Pipelines Act of 2000, to address many of the concerns raised by the Bellingham explosion and by previous accidents. Under my legislation, number 1, pipelines will be required to be inspected both internally and with hydrostatic tests. Pipelines with a history of leaks will be specifically targeted for more strenuous testing.

Number 2, all pipeline operators will be tested for qualifications and certified by the Department of Transportation. The results of pipeline tests—this is number 3—and inspections will be made available to the public and a Nation-wide map of all pipeline locations will be placed on the Internet, where ordinary citizens can access it.

Number 4, all pipeline ruptures and spills of more than 40 gallons will be reported to the Federal Office of Pipeline Safety, and number 5, States will be able to set up their own pipeline safety programs for interstate pipelines, provided that the States have the resources and expertise necessary to carry out the programs, and the State standards are at least as stringent as the Federal standards. In addition, the bill requires studies on a variety of technologies that may improve safety, such as external leak detection systems and double-walled pipelines.

My bill has been cosponsored by the entire Washington Statehouse delegation, and I thank them for that, as well as Congressman Dennis Kucinich of Ohio, and John Lewis of Georgia. I am working with the House Committee on Transportation and Infrastructure to pass my legislation this year. Pipeline safety legislation has also been proposed by Senator Murray and Senator Gorton, as you know, by the administration, and most recently by the distinguished Chairman of this Committee.

There are excellent provisions on all three bills, and I hope we can work together to pass quality legislation. The tragedy in Bellingham was not the first deadly pipeline accident, and it will not be the last unless we can come together in a bipartisan way to bring meaningful improvements to our pipeline safety regulations.

I thank you, Mr. Chairman, for this opportunity.

The CHAIRMAN. Thank you very much, sir.

Congressman Inslee, welcome.

STATEMENT OF HON. JAY INSLEE, U.S. REPRESENTATIVE FROM THE STATE OF WASHINGTON

Mr. INSLEE. Thank you, Mr. Chairman.

Mr. Chairman, it goes without saying that our pipeline safety standards in this country have the consistency of Swiss cheese, and I personally appreciate your efforts, because my people are very concerned about that. This pipeline that exploded runs right through my neighborhood, and I think some of your efforts on campaign finance reform are going to be important in our efforts ultimately to reform the safety standards. These issues are related in the public's mind, and accurately so, and I just want to tell you I appreciate your efforts, because I think it will help not only on this safety issue but on many others in the American economy.

I have two comments about our responsibilities, and two comments about what I would hope is in our eventual legislation we pass. First, comments on our responsibilities.

I think we are at a very, very unique moment legislatively. This opportunity to pass comprehensive, meaningful legislation may not come again until there is another tragedy of this dimension, and that increases the burden on us to be comprehensive in our approach. We cannot simply do something this year thinking we are going to do the next step next year. We have really got to touch

all the bases this year. It has got to be meaningful and comprehensive.

The second thing I would like to say, and I think it is very important we draft this legislation, we cannot punt to an agency. We cannot defer to an agency. We cannot seek further clarification from the agency. We have done that for the last 20 years in this country, and we have sadly deficient standards as a result.

The agencies have had the ability to do the things all of us have suggested in this legislation for years, probably 50 to 75 percent of it, but it simply has not happened, and I think, while it may be easy for us sometimes to leave some of the definitional aspects to an agency, we cannot allow that to happen here. We have to do the heavy lifting in Congress to make specific requirements in regard to this industry.

Two points about the legislation, and I have spent a lot of time trying to educate myself about this since this tragedy, and the parents have done a good job educating me, the mayor has done a good job educating me, and there is a couple of points that I would like to share with you that I have learned.

The first has to do with the necessity of a very clearly defined testing regimen for pipelines, and what I have found, that if we in Congress do not have a very specific internal and hydrostatic testing requirement, we are going to miss about 50 percent of the potential failures of pipelines, and let me tell you what I mean by this.

What you are going to hear a lot about if you have not already is these efforts to find corrosion failures, and there is, broadly speaking, about three different traumas or failures of pipelines. There is corrosion, there is trauma, and there is seam failure, and we, in all of these approaches, talk about internal inspections using what are called smart pigs, which are very good tools at finding two out of those three types of failures.

They are good at finding corrosion, and they are good at finding trauma, but they are wholly inadequate at finding seam failure. Seam failure—these are welded seam pipes, longitudinally along the length of the pipeline, and what Mr. Metcalf and I have proposed in our House legislation is to require the only type of test which is currently available to find that type of seam failure, and that is a hydrostatic test.

Mr. Chairman, I want to tell you what happened in Bellingham when they did this, and I want to take my hat off to the local folks in Bellingham, because after this failure they used their local leverage to force the pipeline company to do something they did not want to do and, in fact, the Federal agency at the time did not want them to do, and that is to require a hydrostatic test of the line before reopening, and you know what happened when they did it, when they filled it with water and they pressurized it? It blew up. It blew up a second time, and that was a failure that only this hydrostatic test was capable of finding.

That failure could have occurred 5 years from now, and imagine how we would feel 5 years from now if we had another explosion in Bellingham and we had not done this well-recognized, technologically simple test, and that is why we feel very strongly that we ought to have a hydrostatic test component of our testing regimen,

unless we can find some other technology that can find those seam failures.

And you will learn, when you talk to your staff, there is a type of pipe called a pre-1970 ERW pipe, electrically resisted welded that has a history of these failures, and it is in the ground all over this country. I encourage you to ask your experts about that.

The second issue, I would suggest the Committee give very strong thought to having a Federal certification standard, a true Federal certification standard for at least some of the operators for these pipeline systems. Let me tell you why I think that is so important. In other industries, where we have improved safety, we have a Federal certification standard for the humans, not just the steel but the humans, and the humans could be as much a problem in this accident in Bellingham potentially as the pipe in a sense.

We do it in the trucking industry, where we do not allow trucking companies to decide who drives the trucks. We have a governmentally operated certification standard. In the airline industry we do not just let the airlines decide who flies the airplanes. We have a federally authorized certification system, if you will.

We need a federally certified system of who makes the operational decisions on these pipelines, and what I have learned about these things is, one of the problem is the surges that can occur. You know, these pipelines can go for years and have no problems, but if an operator makes a mistake and closes a valve at the wrong time you get these pressure surges. These surges go back up the line, they find the weakest point in the line, and then they blow up, and I would urge you to look very carefully at our ability to improve not just the steel but the humans involved in the system, and I hope that you include a Federal certification standard eventually in the bill you pass.

I want to thank you again, Mr. Chairman, for your efforts, and members of the Committee, and I want to applaud the efforts of the parents and the local officials here.

The CHAIRMAN. Well, I thank you, and I thank all three of you for being here. I know you have other commitments. If you would like to stay please do so. We appreciate your time before the Committee, and I want to assure you again of our commitment to trying to see legislation enacted before the end of the relatively brief time remaining. Thank you very much. I thank the panel. If it is agreeable to the members of the Committee, since the family members came from a long distance away, I would like to have them come next, if that is agreeable to the members of the Committee on both sides.

We would like to call Mr. and Mrs. Frank and Mary King, Ms. Marlene Robinson, and Mr. Bruce Brabec, and Ms. Katherine Dalen, all of Bellingham, Washington, and Mayor Asmundson, you are welcome to join the panel, and Senator Murray, you are welcome to join us here on the dias if you would like.

Mayor, why don't we begin with you, and then we will move on to the family members, and we thank you again for everything you have done on behalf of the families, and your incredible effort in trying to be of assistance in this very difficult and tragic situation.

Welcome, mayor.

STATEMENT OF MARK ASMUNDSON, MAYOR, CITY OF BELLINGHAM, WASHINGTON

Mr. ASMUNDSON. Thank you very much, Mr. Chairman. It is a surprise and a pleasure to have the opportunity to speak with this Committee today. I, along with Senator Murray and the Congressmen you have heard from, am very grateful the Committee has taken this step of a full Committee hearing on this issue. I will try to be very brief.

Like probably everyone else in my community I was completely unaware of the nature of the dangers that were posed by a fuel pipeline passing through our city. Since this tragic accident and the incredible experience that I had of attending in one week funerals for three boys of families who I have known for years, I was determined to find out what in the world was going on, and how did this occur, and I can assure you that what I found out was very startling.

What I learned, in fact, was that the more I knew about pipelines, liquid fuel pipelines, the more I was concerned. I was not less concerned. I was not more comforted. I was more concerned because the reality is that historically the pipeline regulation in this country has been wholly inadequate to meet the needs of communities.

The Office of Pipeline Safety has failed to comply with congressional mandates to meet requirements that have been specifically and explicitly set forth in legislation, but I believe that as a result of the very, very excellent work that has been done by our Senators in our State, by the members of our congressional delegation, by the family members, by the very motivated community, that the Office of Pipeline Safety has paid very close attention to what happened in Bellingham and in fact has done a good job at this date.

But doing a good job after an accident just really does not cut it, and this is the year, this is the time when the members of this Committee and the Congress of the United States can make a fundamental difference.

There was an article in *Time Magazine* about 2 months ago which I found very disturbing. I am sure some of you are aware of it. It was the cover article, and it was talking about how effectively the only way to get anything to happen in Congress was through the passage of lots of money around through lobbying efforts, and you know, I read that, and I thought, I know it is not true.

In fact, my immediate reaction was, I am going to write a letter to the editor of *Time Magazine,* because I have been involved with our Senators and with our congressional delegation, and the U.S. Senate Commerce Committee staff on this issue, and the city of Bellingham has no big money to pass around, and the National Pipeline Reform Coalition has no big money to pass around.

We do not have any money to pass around. These families have no money to pass around, and yet this bill that was introduced by Senator Murray and the response by the members of the Senate and the members of the House to this issue, with no money, with no influence, with people of no stature, has been incredible, and it has been the right reaction.

This Committee acting to definitively and constructively and seriously address the inadequacies of pipeline safety in this Congress will be the best demonstration of the Year 2000 that the interest of the public, that the safety of the public, that the protection of the environment is the priority of our elected representatives. We have no power. We have no money. But we have the right idea, and we care about the right things. Your response proves that your thoughts are in the same direction, and your purposes are the same.

This is the year. This is the chance. We need substantive improvement. The administration recognizes it. Senator McCain, you recognize it. Thank you for your bill. Senator Murray recognized it. Senator Gorton. They have been wonderful in support of and in understanding the inadequacies of the system we have in place today. The integrity rule proposed by the administration is a good step in the right direction. As Senator Murray said, these bills are good. They might need a little adjustment here and there, but that is why we come together in the Committee to work these things out.

But this is the year to make positive steps, to make a difference. There is nothing in it for Bellingham. We suffered our loss, and we continue to mourn our dead, and the scars of this fire through a mile and a half of our city will be there for decades. All we want is that no other community and no other families go through this experience again, and I hope that no other mayor and no other Member of Congress and no other Senator ever has to attend three funerals for children in one week, as I had to.

I love these people. They had wonderful children. We do not have any extra people in Bellingham. We could not afford to lose them. You can make sure that no one else experiences this loss through substantive and real change. Now is the time.

Thank you so much for the opportunity to speak with you today.

The CHAIRMAN. Thank you, mayor, for your very eloquent statement, and I have visited your beautiful city in the past, and look forward to visiting it again in the future.

Mr. ASMUNDSON. You will be more than welcome.

The CHAIRMAN. Thank you. We would like to welcome Mr. and Mrs. Frank and Mary King, our first family members of the panel. Thank you for being here today, and whichever one would like to go first, please do so.

STATEMENT OF FRANK AND MARY KING, BELLINGHAM, WA

Mrs. KING. Thank you, Mr. Chairman. A Mother Remembers. The silence is deafening. No one says a word. The phrase, "Mom, I'm home," will never be heard. No baseball and bat await by the door. Gone are footballs, basketballs, and more. The school bus drives by. My child is not there. I remember his smile and his head of blond hair. His friends stop to see me; they've all grown so tall. Just 1 year ago, they all seemed so small.

My son forever is 10 years old. My arms seem so empty without him to hold. "Just rebuild your life" is repeatedly said. But how would they know? Their child is not dead. It's a parent's worst nightmare multiplied by ten. To know you will never see your baby again. There must be a reason to endure all this pain, to keep

going forward with nothing to gain. But to make this world better in memory of three is a hope we hold onto, and know it can be.

Mr. KING. My wife wrote that poem. It is not something that she got out of a book. It is something that came from her heart. I want to show you some pictures of this little man. There is a picture of Wade King when he was about 8 at his sister's wedding. He has an older brother and an older sister. One is 26 and one is 28. Of all the pictures I have ever seen of that little boy, it is the most beautiful picture I have ever seen of him.

I am sure that those of you here who are at this meeting who have children, or who have grandchildren, can imagine what it must have been like, standing out in the front yard for 45 minutes to half-an-hour with Steven Travas and my son burned over 90 percent of their body. They had no skin from their ankles up.

I have got three sets of these pictures that I will give to you, Mr. Chairman. This is a picture of my son, or of San Francisco's baseball stadium, that was taken on 4 June. His birthday was on 5 June, 5 days before this accident happened, and it is a picture of the scoreboard and it says, Happy 10th Birthday, Wade King. You're awesome.

And here is a picture of Wade as it came up on the scoreboard, and he saw it. He could not believe it. And here is a picture of Wade as he sits by the computer in his house.

I will give these pictures to you.

I stood out in the front yard with these two little boys for about 45 minutes, trying to keep them calm after getting them out of the woods. You need to understand that the skin was literally dripping off their fingers.

The CHAIRMAN. Mr. King, I am not sure that is necessary.

Mr. KING. These boys were medicated, flown to Harbor View Medical Center where my wife and I, his brother, his sister, numerous nieces, nephews, relatives were able to watch him die. I cannot imagine a worse death for children. They virtually swelled up from the inside out, until their hearts stopped. It is the bravest act I have ever witnessed.

I can only tell you a few things about what I miss about my son. I miss seeing him on the couch the first thing in the morning with his chubby little fingers on the remote control going from cartoon to cartoon, and probably from MTV. I miss sitting on the couch with my arm around him watching baseball, football, and basketball games. I miss him standing at the top of the stairs after he has read books with his mother saying, dad, it is time to put me to bed. It is time to say my prayers.

I miss saying his prayers with him at night every night. The little boy virtually squeezed me when he said his prayers. I miss him saying, and God bless everyone else that I know. I miss him saying, ending his prayers with, please help me be a good, kind, loving, giving, sharing boy, a 10-year-old that always wanted to be more than what he was.

I miss my little man's unconditional love. He was my little buddy.

My wife lost her job. My daughter used to call him Shorty. My oldest son, every time he saw him, it uplifted his personality. The reminders of him are around us forever. You know, we drive by a

baseball field and there is little kids out playing baseball. We go to the grocery store, there is another mother or father with their 10-year-old son. We cannot get away from it, that our son will be no more.

I have been asking this question ever since Jim Hall from the NTSB and Kelly Coyner from the RSPA, or Office of Pipeline Safety, came out to Bellingham to view the accident scene. Why has Olympic Pipeline been allowed to continue to operate when they have five operators pleading the Fifth Amendment, and the NTSB cannot find out why this accident happened?

I find it unconscionable that we can put Susan MacDougall in jail for not wanting to say anything about anybody. I find it unconscionable that we can bomb Iraq to tell them to get out of Kuwait, but we cannot shut a pipeline company down until we find out why the accident happened.

I have written to Vice President Gore. I have written to the President. Patty Murray and Slade Gorton have gotten all my letters. Jay Inslee, Jack Metcalf have gotten all my letters. I finally got a letter from the President yesterday basically telling me that we are really sorry. This company needs to be shut down.

You here in the Senate and those of you who are in the House of Representatives are under an illusion that there is a regulatory agency called the Office of Pipeline Safety. It is an illusion. They feel they have no authority——

The CHAIRMAN. Mr. King, we are going to have to interrupt your testimony while the three of us go and vote. We had Senator Hutchison go over and back, and I want to hear the end of your testimony so we will have to take a brief break while we go to vote.

[Recess.]

The CHAIRMAN. The hearing will resume. I would like to thank the witnesses for their patience. I apologize for this interruption. We had a vote on the floor which required our attendance, and now we will resume with you, Mr. King.

Mr. KING. Let me start over. The Senate and the House is under an illusion that the OPS is a regulatory agency. They have by their guidelines far-reaching authority over the pipeline industry and they do not seem to react at all. I want to read you a regulation out of their own regulation book. It is 195.6. It is on page 149.

It says, operator assistance in investigation. It says, if the Department of Transportation investigates an accident, the operator involved shall make available to the representative of the Department all records and information that in any way pertain to the accident and shall afford——

The CHAIRMAN. Mr. King, I would like to interrupt you again and tell you we have two more panels of witnesses here. It is already 10:30 this morning. I am going to have to ask you to make your testimony as concise as possible. We have two other family members and two other panels, and we need to get the hearing completed. I would appreciate your being concise in your comments so we have time to hear from the other witnesses.

Mr. KING. Let me just explain to you, Mr. McCain, what I would like to see in your bill. I believe that all pipeline operators should be fined for a spill. What I proposed was fining them $1,000 per barrel for the first 5 years every time they have a spill, $5,000 in

the next 5 years per barrel, $10,000 for every year after that. The fine is nonnegotiable. It should be paid within 30 days of a spill.

If a spill is caused by a third party, the pipeline operator will be responsible for paying the fine. The pipeline operator can then go after the third party. There are no exceptions. If the spills are underreported by more than 15 percent, the fine will be triple based upon the correct amount of the spill, 3,000, 15,000, or 30,000.

The second thing is, I would like to see the Office of Pipeline Safety have the ability—in fact, it should be a law that in case of a death or in case of a spill that exceeds 2,000 barrels the entire system be shut down until such time as at least all the causes of the accident are known. The OPS would probably still want to be able to keep them shut down if they were a hazard.

And third, I would like to see protection for pipeline employees, so that they could become whistleblowers. Apparently pipeline companies can retaliate against employees who want to come forth with information.

The CHAIRMAN. Does that complete your testimony?

Mr. KING. Yes.

The CHAIRMAN. Thank you very much, Mr. and Mrs. King. Thank you for being here.

Ms. Robinson.

STATEMENT OF MARLENE ROBINSON AND BRUCE BRABEC, BELLINGHAM, WA

Ms. ROBINSON. On June 5 of last year my 18-year-old son Liam graduated from Seeholm High School. His graduation present from us was his first heart shell whitewater kayak. Friends in Oregon were bringing it up for him later in the month, and he was so excited.

He pored over river kayaking books for the next 5 days waiting for the kayak's arrival. He had just started working at a local outdoor sports store to help pay his way through Western Washington University, where in September he would begin his first year of college. He had just finished a series of swing dance lessons with his friend Jane, and the two of them had signed up for tango lessons for the summer.

Liam never got to see his kayak. He never got to go with Jane to any more dance lessons, or attend college. Five days after graduation, on the morning of Thursday, June 10, Liam called me at work to check in. He had gone into work but had been given the day off when it was discovered the shop had too many employees scheduled for the shift.

It was a beautiful sunny day. I did not ask Liam what he was going to do. I wanted him to have the sense of freedom a day like that gives. He was 18 years old, 6 foot 2, strong and capable, and he deserved that sense of freedom.

As it turned out, Liam decided to do the thing that made him happiest. He went fly fishing. He went to his favorite place, Whatcom Falls Park, a pristine piece of nature not 5 minutes from downtown. He never had a chance to protect himself. He was fishing in a steep gorge when the 270,000 gallons of gasoline spilled down the creek.

The oxygen in the gorge was replaced by a 35-foot wall of hydrocarbon fumes. Liam was overcome within seconds. He fell into the foot-deep creek and he drowned. A short time later, the gasoline and fumes exploded, sending the fire ball down the creek that killed Wade and Steven and every other living thing for a mile-and-a-half along that creek.

Whatcom Falls Park will never be the same. The creeks that were burned are destroyed forever, the deep humus and vegetation burned down to rock that cracked open in the heat, the leafy canopy formed by huge trees gone. We humans now go about the enormous task of building new creeks, trying to mimic the complexity, efficiency, and mystery of nature.

Our community will never be the same. Children are still afraid to go to sleep at night. Parents are afraid that no matter what they do, their children are not safe. Emergency workers are left with horrible memories of a day and night filled with fear, uncertainty, and death.

We sitting at this table will never be the same. We lost two beautiful, much-loved 10-year-old boys and an 18-year-old young man who had much to give and a whole lifetime yet to live. We are joined in our grief by our families, our friends, and our community. Just carrying on from 1 day to the next has become a task requiring enormous self-discipline.

My question to you is, what have you lost in your home States, and what are you willing to lose still, because though we have the ability, we lack the means and the will to keep the Nation's communities safe from pipeline accidents. We in Bellingham are now painfully aware of the danger that pipelines pose to every community in this Nation.

We have learned that what happened in Bellingham was not an isolated incident. The Federal Government has allowed the pipeline industry to be largely self-regulated. This has led to a pattern the last 20 years of fuel transportation accidents throughout the country.

The pipeline industry will never have as its bottom line the health and safety of communities. It is up to communities themselves, and therefore the public representatives and Government agencies to ensure that pipelines are safe. The technology exists for pipelines to be safe. What we did not know before the pipeline ruptured in Bellingham but have learned at the price of our son's life is that what is lacking is adequate safety standards, regulation, and enforcement.

The Federal Office of Pipeline Safety has woefully and over a long period of time failed in its mandate. We know that had OPS addressed these issues adequately in the past, our town would not still be reeling from loss. We are working to make sure that no other community has to suffer a similar loss.

I no longer have any children to protect. Nothing I do or say about this issue can bring Liam back. I do, however, consider it my privilege and obligation to do what I can to protect the children of our community and other communities. I need to impress upon you that it is not enough to make minor changes in pipeline safety regulation and to once again hand over the reins to OPS.

Before June 10, none of us in Bellingham had any idea that we needed to be experts in fuel transportation safety. We frankly did not even know that we had a gasoline pipeline running through the very heart of Bellingham under streets, past houses, schools, and parks. We thought we had a Federal agency called the Office of Pipeline Safety, and we had faith that that agency was doing its job. We no longer have that faith.

I urge this Committee to do what is necessary to protect the citizens of this Nation from further avoidable and predictable tragedies caused by inadequate regulation oversight and enforcement. At this point I would also like to say that we have some specific information about the failures of OPS that we would like to submit for the record, if we may.

The CHAIRMAN. Without objection. *

Ms. ROBINSON. I am convinced we need two things. We need a Federal Office of Pipeline Safety that is staffed by committed expert servants who have the safety of communities as their bottom line, and we need strong, independent, well-funded regional advisory councils to ensure that over time we do not return to business as usual.

Our children's deaths were not trivial. They were not an acceptable risk. We easily have the capacity to protect our communities from the kind of accident that killed our children and has killed all too frequently and needlessly in other States. What I need from you, what every community in this country needs from you is action that will finally guarantee us an Office of Pipeline Safety that truly protects the safety of the citizens across the Nation, and that will include citizens and local and State governments as effective partners in the national oversight of pipeline safety.

Our children are gone, and gone needlessly. We will not rest until Congress passes a bill that ensures pipelines are safe for all children and all communities across the Nation.

I thank you for all that you are doing and all that you will do to help us reach our goal.

The CHAIRMAN. Thank you very much.

Mr. Brabec.

Mr. BRABEC. I am Bruce Brabec. I am Liam's stepfather, and I want to thank you for the opportunity to speak today. We believe that the loss of our children has made it necessary for our voices to be heard often in these discussions about improving pipeline safety, and I know we had an opportunity in Bellingham, and we appreciate this second opportunity to speak to the Committee.

I think it is pretty clear that our families are here to tell you that stronger pipeline safety regulations are very necessary. The stakes are quite high. When things go wrong, they go very wrong, and what happened in our community and to our families is an example, a testament to how deadly and serious the consequences can be, and from what we have learned we know that the risks to our Nation have grown. This is not a problem that is just in Bellingham. It is not a problem that is just for the State of Washington, but it is at a national level that these risks have grown.

* The information referred to was not available at the time this hearing went to press.

We have learned that many pipelines were installed many, many years ago. Since then, communities have grown much larger, such that we have many aging pipelines in heavily populated areas. We do not have a situation with an accident waiting to happen any more. We have those accidents, and we have those tragedies.

The current standards are inadequate, and the regulatory agency at the Office of Pipeline Safety has been ineffective. One example of this that we know is that just the poor record that OPS has in responding to the safety recommendations from the National Transportation Safety Board, and as our awareness of the issues has gone up our confidence in the regulations and our confidence in the job of OPS has gone down, and so it is real evident and clear that stronger regulation is needed.

Many important changes are being considered by you. We are aware of the different proposals from the different bills, and also a lot of information that you have heard, or that you will hear today, as well as you have heard in individual meetings, and we believe that many changes, many of these changes you are hearing about are necessary.

We especially have come to believe in the regional advisory councils, that they are needed. This is similar to those that were set up after the EXXON VALDEZ oil spill in Alaska, and this would partner industry, Government, and community in overseeing safety planning and compliance.

Another thing that I know that we are very interested in seeing is the whistleblower protection, and in timely response and action by the Office of Pipeline Safety to NTSB recommendations, and we also believe that stronger fines and penalties are necessary. We do need to motivate the financial bottom line to become one of a safety bottom line.

These are only a few of the many changes that are proposed in the bills and that we know you have heard about, and again I want to say these and many others are necessary to improve the safety and to help bring attention and solution to the problems before you that you have become aware of and that we have become aware of, so that more families do not have to join ours to come here to tell you about our losses and to push for safer standards.

I wish that Liam could be here to speak with you. He cannot be, but he did leave us many messages. One that I would like to share with you, Liam was a fly fisherman, as you have heard, and this is one of his fly reels, and in a sense he left this with us unknowingly, but he left it as a message for those of us who know him. Particularly Marlene and I know that this represents the beautiful life of our son. He was a very avid fisherman from a very young age, and so it is something that really represents his joyfulness, his love of nature and the outdoors, and this kind of sound from a reel is a very familiar sound, and so we have this to kind of—to use as sort of—to help us with memories, but this sound is also a bittersweet one, because this is the reel that he was using when he was fishing on Whatcom Creek on June 10.

This reel represents lots of things for us. When he collapsed into the water, he held onto his rod and reel, and they were held underwater and they did not get destroyed in the explosion, but the creek, did, as you have heard become really a creek of gasoline, and

this reel was saturated with gasoline, and since a friend of ours has cleaned it and it has been sitting in the open air since then, too, but you can still smell the faint smell of gasoline on it.

So for us, this is, like I said, a beautiful reminder of our son, but it is a chilling reminder of the way he died, and I think it sort of speaks to the importance of the issue for life, for nature, and that is the message from Liam.

Sunday is Mother's Day. Liam and I have not been able to plan, which we enjoyed each year to do, how we are going to honor Marlene on that day. We have not been able to spend time thinking of what kind of gift we might give Marlene, and how we might surprise her with something really special that would convey the love and appreciation for her as a mother.

She will not get another card written by Liam, which every one of them has been saved. She will not get another one that she can save long into the future. Mother's Day is really just going to be one more day for us. It is going to be another one of missing Liam and another one of missing the future that we should have had together.

We cannot have Liam back, we know that, and we cannot have that future with Liam. What we want now to be able to do, though, is to make a difference so that other families do not have to feel this kind of loss that all three of our families are feeling.

I want to thank you again for the opportunity and the attention to our testimony. We need you to make serious changes to improve pipeline transportation safety for Liam, for Steven, for Wade, and for a safer future for our families and all of our communities.

Thank you.

The CHAIRMAN. Thank you very much.

Ms. Dalen.

STATEMENT OF KATHERINE DALEN, BELLINGHAM, WA

Ms. DALEN. Excuse me. I forgot that Sunday was Mother's Day.

The CHAIRMAN. Can you move the mike a little closer so we can hear you?

Ms. DALEN. Usually people do not have too much trouble hearing me. OK. I wish to thank the Honorable Members of the U.S. Senate Committee, to thank you and Senator Murray, Senator McCain, for asking me to speak again.

As you may be aware, and this complicates the Mother's Day thing, too, I guess, 11 months ago today my son, Steven Travas died as a result of the burns suffered in the gas explosion at Whatcom Creek, where he was playing, an explosion and fire that claimed the lives of two other children. Because it was so close to my home it might well have claimed other members of my family, in fact, because the spill was over ¼ million gallons. It might have destroyed many more lives. It might well have destroyed the town of Bellingham. Unfortunately, though it sounds a bit extreme, it is not. The whole town of Bellingham, all of its residents were in jeopardy of losing their lives.

Steven's death has changed my life and the lives of each of the members of my family. Missing him at every moment, thinking of him at every turn, and dreaming nightly of his tender involvement in our lives is a constant reminder of that horrible night of June

10 when we stood as a family at his bedside, gazed at his burned face, and watched him slowly die.

The loss of his lust for life and our loss, the loss of his natural ability to make friends, his sweet song, his curious mind and quick humor sends waves of grief and longing through our very souls. It is upon occasion quite overwhelming. How precious life is. The value of those who live and love is well beyond any attempt to calculate. It is a blessing that some of us can learn how precious life is from the experiences of others while our own families can remain safely in our love, in our protection.

It was shocking to us that our little one was killed while he played, but it is not upon reflection surprising that the accident happened. What adds to our frustration is the fact that his death was not only preventable, but predictable. It was an accident waiting to happen. It was an accident waiting to happen. It might have happened to anyone.

So many of us are unaware of the dangers behind our homes and in our parks and schoolyards. Many, many of the people of this Nation seem to be unaware that the potential for such devastation runs through their backyards. There is not a State in this Union that does not have pipes actively engaged in transporting volatile fuels running for miles within its borders.

I have heard recently that some folks in Spokane, Washington, are unaware of the pipes carrying volatile fuels that run through their beautiful town, by their children's schools, and through their yards. According to Senator Murray's statistics, since 1984 the industry that killed my son Liam and Wade has had 6,107 accidents, killing some 408 people. In Texas there have been 1,654 accidents, injuring 2,190 people, killing 46, and causing nearly $138 million in property damage.

In Washington State, the state I have lived in almost all of my life, there has been approximately $11 million of property damage and five deaths, and it might not be over.

These are not acceptable statistics. Deaths are not acceptable liabilities. My child's death, the deaths of Liam Woods and Wade King are not acceptable. More must be done. Action must be taken now. We need no more lessons. The pipeline industry has not proven capable of regulating or watch-dogging itself. We must take responsibility. It is time to take charge of the safety and sanctity of our families, our homes, our communities, our lives.

The corporate wolves must not be left in charge of the hen house. They do not have the right to profit at the cost of the lives of our children, at the cost of our environment, and in addition to the work you are already doing to change pipeline regulation, I ask that you implement a mandatory fine system and activate a citizens' advisory board both on a Federal level and on a regional level.

I ask that you protect whistleblowers and demand that OPS reassess their priorities, reestablish citizen and congressional trust, and get the wolves out of the decisionmaking process. Let the death of my child and of Liam and of Wade leave a legacy to the children and parents of this Nation.

The CHAIRMAN. Thank you very much.

Senator Breaux.

Senator BREAUX. I just want to thank all the panel members who have given very eloquent testimony, and for their efforts in this regard. I think you all are to be commended, and we thank you for what you are doing. I know it is very difficult, but it can and will make a difference. Thank you.

The CHAIRMAN. Senator Gorton.

Senator GORTON. If I may, Mr. Chairman, I would like to ask Mark a question. Mark, you have had almost a year of dealing very first-hand, close and personal with this issue. What authority do you think ought to be granted to communities like yours, municipal corporations, and what authority do you think ought to be delegated to states in connection with pipeline safety? Would you feel more comfortable with a greater degree of authority with the State of Washington, for example, than you do with the present system?

Mr. ASMUNDSON. The answer to that is, Senator, I would feel more comfortable with a greater degree of authority for the State of Washington or other states that are qualified and interested in participating in maintaining the safety of our pipelines.

If I could expand real briefly, I would say that while it is very important that we not have a balkanized patchwork system of regulation involving pipelines, it is important there be Federal consistency. These pipelines sometimes cross many, many states. There still can be a very meaningful partnership established between the Federal regulatory agency that gives a significant and consequential role to the states in the development of the pipeline integrity plans that are currently being proposed in the administration bill. I think that is a change that needs to be made, to give the states significant participation in the ultimate approval of the integrity program for individual pipelines.

That was not a brief answer, I am sorry, but I guess I am saying yes, there is an important role for the states, but it can be accomplished without undermining the important interstate commerce needs of this transportation medium.

Senator GORTON. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Hutchison.

STATEMENT OF HON. KAY BAILEY HUTCHISON, U.S. SENATOR FROM TEXAS

Senator HUTCHISON. Thank you, Mr. Chairman. I, like everyone in this room, have been very touched by the testimony and your willingness to travel here to try to make sure that no parent will ever have to suffer what you have. That is a uniquely American trait, that those who suffer tragedy want to try to help others never have to feel that pain, and I do appreciate that.

I think Chairman McCain's bill is a very good bill, a very good beginning to address this issue, and as the Chairman of the Subcommittee that deals with pipeline safety I do want to pass a bill this year that will improve federal oversight and the community's right to know where these pipelines are and what is going on.

I think the mayor has made some very good points. We want to make sure that as we are strengthening the regulations, that we do not do something that would make the situation worse, and shutting down pipelines is not the answer, because I do not want more fuel transported on the freeways and on the train tracks, so

we need to make our pipelines safe, and do the job that they are meant to do in order to enhance safety for everyone.

So, Mr. Chairman, I think you have a very good bill. I will work with you, and let me just finish by saying that your Senators from Washington have both talked to me as the Chairman of the Subcommittee. They both have been so concerned about this issue, and I really appreciate their efforts in this regard. They are not just talking, they are actually doing something.

Senator Gorton, as my designee, held a hearing in Washington that I think was very beneficial, trying to get the input from the community, and I think he did an excellent job of that, so I really want to say, I think we are all committed to doing something that will address many of your concerns, and I will stand ready to work with the Chairman and the two Washington Senators to make that become an accomplishment.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator Murray.

Senator MURRAY. Thank you very much, Mr. Chairman, and thank you to all of the family members who have worked so hard and traveled so far, and have given us all such compelling messages today that I think will be very helpful to this Committee as we move forward with the legislation, and we move it through Congress, and I personally want to thank you.

And Mrs. King, I just want to thank you for writing that very compelling poem as well. As a mother, it really touched my heart. You talked about holding onto a hope, and I think that because you have held on to that hope, we are here today, and because you have held on to that hope we are closer to making pipelines safer, and so I do not want you to surrender that hope, because all of us are depending on you to keep that.

So again, thank you to all of you for being here today.

The CHAIRMAN. I also want to thank you for being here. We are deeply moved by the tragedy, and we renew our motivation to try to see legislation passed, so that we will never have a repetition of this hearing again.

We thank you for being here. God bless.

Our next panel will be the administration witnesses, the Hon. Kelley Coyner, Administrator, Research and Special Programs Administration, U.S. Department of Transportation, the Hon. Kenneth Mead, Inspector General of the U.S. Department of Transportation, and the Hon. John A. Hammerschmidt, a member of the National Transportation Safety Board. Please come forward.

Ms. Coyner, we will begin with you. Thanks for appearing here today.

STATEMENT OF HON. KELLEY COYNER, ADMINISTRATOR, RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Ms. COYNER. Thank you, Chairman McCain, for holding today's hearing and for the opportunity to speak to the Committee today about this very important issue, pipeline safety. I am the Administrator of the Research and Special Programs Administration which oversees the Federal pipeline safety program. I would like to sum-

marize my statement and submit the full statement for the record, if I may.

The CHAIRMAN. Without objection.

Ms. COYNER. Our mission is to ensure the safe, reliable, and environmentally sound operation of the Nation's pipeline transportation system. We strive to protect people and the environment from threats posed by pipelines. The tragic deaths of three young people in Washington State last June reminded each of us that we must be vigilant in our work to improve pipeline safety.

Since the 1996 reauthorization of the pipeline safety program we have continued to address the leading causes of pipeline failure, and to work to reduce the impact of pipeline ruptures if they occur. The four leading causes of pipeline failure are outside force damage, corrosion, human error, and material defects. We are taking aim at each of these challenges within the program and are addressing them in the administration's Pipeline Safety Communication Protection Act of 2000.

Outside force damage poses the foremost threat to pipeline integrity and, more importantly, to people. We have compiled and shared information about the best ways to protect pipeline from outside force damage, conducted public education campaigns, as well as beginning to implement a new grant program to address this area. We have made progress. Accidents by outside force damage are decreasing.

The second leading cause of pipeline failure is corrosion. This summer, we will issue new state-of-the-art standards for preventing and detecting corrosion. Our research efforts will work to develop more sophisticated tools to detect corrosion problems.

Another leading cause of pipeline failure is human error. Our operator qualification rule issued last fall requires pipeline operators to ensure safety workers are trained and tested to ensure that they are capable not only of handling their usual job but emergency conditions, as well. We are also addressing operator fatigue as another potential factor in pipeline accidents.

The fourth leading cause of pipeline failure is material defects. To address this, RSPA leads an interagency work group on performance and safety of plastic pipe. In addition, the administration's proposal provides research and development initiatives that will help improve tools that detect material defects in pipes.

The administration's legislative proposal, the Pipeline Safety and Community Protection Act of 2000, reflects what we know is needed for pipeline safety. First, comprehensive, integrated periodic testing and measures to address the problems detected by such testing, second, a strong community right to know, third, a strong State role in the oversight of pipelines, and fourth, research and development for better monitoring and detection tools. Finally, fifth, stronger enforcement tools.

The administration's proposal would mandate the completion of a rulemaking on integrity testing. We recently proposed the first in a series of rules requiring operators of hazardous liquid lines to establish comprehensive testing programs to maintain the safety of their pipelines. This approach would require internal inspections, pressure testing, or other best achievable technology to be performed on a periodic basis. It would also require the placement of

appropriate valves and other safety protection devices as necessary, based on the testing results.

We believe communities have a right to know about pipelines, their safety records, and what is being done to prevent pipeline failures. We propose to make it easier for residents, businesses, and Government officials to get information about pipelines. Pipeline incident reports and safety related condition reports would be made available to the public. Maps, pipeline safety programs, and other information would be made available to State and local emergency response authorities and local officials.

Mr. Chairman, we have a long history of working with States to protect pipeline safety. Our proposal would expand the State role and increase the authorization and funding of State efforts. States could enter into agreements with the Department to participate in the oversight of interstate liquid lines. States would be reimbursed up to 100 percent for costs to monitor new pipeline construction and investigate incidents. States could also participate with us in standard inspections.

Improving the data we have about pipelines is key to preventing pipeline failures. The administration proposal provides for the creation of a national repository of information about precursors of pipeline failures. The proposal also reduces the reporting requirement for hazardous liquid pipeline releases to 5 gallons.

There are some who will disregard strong safety efforts and violate the law. The administration's proposal would strengthen enforcement provisions not only of the Federal Government, but also for citizens to ensure the pipeline operators follow safe practices. The proposal also provides for criminal sanctions against those who willfully cause third party damage to pipelines.

The administration's proposal gives us the tools we need to be responsive to recommendations issued by the Department's Inspector General and by the National Transportation Safety Board. We must remain vigilant in our work to protect the American people and our environment by working together to pursue the key safety initiatives and by securing the necessary resources and funds so that we can improve safety and make a difference.

The pipeline explosion in Bellingham last year took the lives of three young people, forever changing that small community. Secretary Slater and I are committed to working with you and other members of the Committee and the Senate to enact pipeline safety legislation as soon as possible. We will work with you to ensure that this kind of tragedy does not happen again.

[The prepared statement of Ms. Coyner follows:]

PREPARED STATEMENT OF HON. KELLEY COYNER, ADMINISTRATOR, RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Thank you Chairman McCain and Senator Hollings for holding today's hearing and for the opportunity to speak to the Committee today about this very important issue—pipeline safety. My name is Kelley Coyner and I am the Administrator of the Research and Special Programs Administration (RSPA).

Within the Research and Special Programs Administration (RSPA), the Office of Pipeline Safety (OPS) is charged with regulating the safe and environmentally sound operation of the Nation's natural gas and hazardous liquid pipeline systems. Pipelines transport natural gas to 60 million residential and commercial customers. They also transport 60 percent of the crude oil and petroleum products that fuel our industry, our economy and our households. We have responsibility for over 2 million

miles of pipelines involving approximately 2,400 operators, a number that has grown 10% since February 1997. Our regulations cover the design, construction, inspection, testing, operation, and maintenance of pipeline systems. We achieve compliance with our regulations through a partnership with state agencies, which assume regulatory and enforcement functions primarily as they apply to intrastate pipeline transportation, while the Federal government assumes these responsibilities for interstate pipelines.

Our mission is to ensure the safe, reliable, and environmentally sound operation of the Nation's pipeline transportation system. Consistent with the Department's Strategic Plan, we strive to eliminate pipeline-related deaths, injuries, and property damage, and reduce pollution to the environment. This year we set a new goal of reducing pipeline incidents caused by outside force damage by 25 percent over the next three years, five times higher than our previous goal. Other top priorities are reducing to zero the incidents caused by non-compliance with pipeline regulations and working with operators to reduce threats to pipeline integrity.

Over the past 30 years, there has been a steady decline in the overall number of pipeline incidents. While the rate of decline has slowed in the past decade, it remains moving in the right direction. Also on the decline is the number of oil pipeline spills to water. This is important because when pipelines spill into water, the results can be far-reaching, long-term, and significant. Of greater concern is the increasing number of fatalities—most, but not all, of which occur in gas distribution systems. The tragic consequences of the pipeline incidents in St. Cloud and Bellingham—to name only two—underscore the need for unremitting attention to the potential impact of pipeline transportation on people's lives. We are committed to improving the pipeline safety and environmental record.

Since the reauthorization of the pipeline safety program in 1996, we have continued to work to address the leading causes of pipeline failure and to reduce the impact of pipeline ruptures. Sadly, as the tragic deaths of three young people in Washington State reminded us last June, our work is far from done. Today I will describe the progress that has been made in tackling the key threats to pipeline safety in the United States and will outline the key issues that should be addressed in the reauthorization of the pipeline safety program.

The four leading causes of pipeline failure are (1) outside force damage, (2) corrosion, (3) human error, and (4) material defects. The Department of Transportation's Office of Pipeline Safety has taken aim at each of these challenges, which are addressed by the Administration's proposed Pipeline Safety and Community Protection Act of 2000.

Damage Prevention

The foremost threat posed by pipelines to safe and livable communities is incidents relating to outside force damage. Outside-force damage, including the failure to fix previously caused outside force damage, is the number one cause of pipeline incidents, accounting for half of those that result in fatalities. This kind of damage can be caused by excavation near pipelines and by natural forces such as flooding, mudslides, lightning, and heavy rains.

In 1999, Secretary Slater set a goal of eliminating 25% of excavation-related incidents over the next three years, and the Department will continue to provide strong Federal leadership to achieve this goal. We have seen some progress. In 1991, the Department received 202 reports of incidents caused by outside-force damage. By 1999, that number had declined to 117, or 42% of the earlier level. This progress is encouraging, but more work remains because the consequences of even a single incident can be so severe.

One of the Department's key damage prevention efforts is Dig Safely—a national public education campaign that Secretary Slater announced in June 1999. Our state partners in this campaign indicate that they are beginning to observe a decline in excavation-related damage.

In another damage prevention effort, the Office of Pipeline Safety convened 160 stakeholders from all areas of the excavation and underground facility communities and from state and local government. The result of this effort is Common Ground, a compendium of best practices in one-call systems and damage prevention programs throughout the country. We are implementing a new grant program to assist communities in reducing damage to underground facilities by implementing these best practices.

The Administration's legislative proposal provides for integrated testing to identify and locate damage to pipelines more quickly and efficiently. The proposal provides for research and development partnerships among government, industry, and academia to accelerate the introduction of new tools to avoid damage to these vital underground structures. The proposal also strengthens the Department's and citi-

zens' authority to take enforcement action against those who ignore pipeline safety regulations and cause damage to pipelines.

Corrosion Detection and Prevention

The second leading cause of pipeline failure is operator's failure to address corrosion problems at their facilities. We have made some progress on preventing corrosion through the adoption of improved inspection technologies such as "smart pigs," the sensing devices that travel inside a pipeline and detect damage. While statistical analyses indicate the rate of incidents may be beginning to decline, we think that we can further improve our corrosion control standards.

We are currently working with the National Transportation Safety Board and state agencies to develop new standards for corrosion prevention, control, and detection. We expect to issue a proposed rulemaking for liquid pipelines by the end of this year and for natural gas pipelines next year. The integrated testing provision in the Administration's proposal would require operators to identify corrosion faster and more efficiently, and the research provision would enhance technology for corrosion prevention and detection.

Human Error

Another leading cause of pipeline failure is human error. Human error is different from excavation-related damage, which can be caused when someone strikes a pipeline while digging. Human error refers to pipeline failures caused by lack of appropriate operator training, operator fatigue, and similar factors that can cause an operator to perform inadequately or inappropriately on the job.

Our operator qualification rule, issued last fall, requires pipeline operators to develop and maintain a written qualification program to assess the ability of each worker. While this rule goes far in addressing some causes of human error, we also are looking at operator fatigue as another potential factor in pipeline incidents. RSPA is actively involved in a DOT-wide initiative addressing the issue of operator fatigue to increase safety across transportation modes, including pipelines.

Material Defects

The fourth leading cause of pipeline failure is material defects. Such defects include faults in pipe material, manufacturing processes that cause defects, and welding technology that contributes to pipeline failures. The use of plastic pipe is increasing, and there is a need to collect information about the performance and reliability of plastic pipe. To address that need, RSPA is leading an interagency workgroup comprised of state, federal and industry partners that is investigating the development and application of advanced materials, including pipe strength and the long-term performance of plastic pipe. This workgroup will develop a database of all types of plastic pipe failures to detect trends with particular types of plastic pipe or pipe fittings.

The Administration bill provides for research and development partnerships that will help improve the tools that detect material defects in pipes.

Legislative Proposal

While I plan to spend the balance of my time discussing the Administration's proposal, I want to acknowledge the other proposals before the Committee and express the Administration's interest in working with the Committee, other Members of Congress, and other stakeholders to enact pipeline safety legislation this year.

As you know, in January, Senator Murray introduced S. 2004, the "Pipeline Safety Act of 2000." In April, Senator Hollings introduced the Administration's proposal by request, S. 2409, "The Pipeline Safety and Community Protection Act of 2000." Also in April, Chairman McCain introduced S. 2438, the "King and Tsiorvas Pipeline Safety Improvement Act of 2000." What is most striking about the three bills is the degree to which they agree on fundamental principles. For example, all three bills reflect a desire to improve the public's right to know about pipeline activities in their communities. Similarly, all three bills address a need to improve the integrity of pipelines and to strengthen the tools available for enforcement of pipeline safety standards. This is not to say that there are no differences among the bills. Nevertheless, most of the differences among the three bills are in the approach, rather than in the specifics of the goal. With that in mind, I would like to explain the approaches taken in the Administration's bill.

Pipeline Safety and Community Protection Act of 2000 (S. 2409)

On April 11, Vice President Gore announced the Pipeline Safety and Community Protection Act of 2000. This proposal reflects the lessons we have learned in pipeline safety and includes provisions on integrated testing, community right to know, part-

nerships with states, research and technology for better monitoring tools, and stronger enforcement. The proposal reflects several key principles:

- Integrated Testing—Successful pipeline protection must be based on an integrated, comprehensive use of information available to operators and regulators.
- Community Right to Know—Communities have a right to know an operator's safety record and what operators and government are doing to protect them from pipeline incidents.
- State Partnerships—State governments have a key role to play in the safety of pipelines.
- Research and Development for Better Monitoring Tools—We need to improve and create innovative inspection and monitoring tools to identify defects more quickly and efficiently.
- Stronger Enforcement—The existing enforcement provisions need to be updated to provide stronger sanctions for violations by operators and those who cause third-party damage to pipelines.

Integrated Testing

We recognize the need for a comprehensive safety program that will enable operators to assess and address all threats to pipelines. We recently proposed a rule to require operators of hazardous liquid pipelines to establish comprehensive programs to assess the condition of their pipelines and to use all available information—including the results of these assessments—to develop and carry out actions to maintain the safety of their pipelines. The proposed rule would require operators to integrate results of the testing with other information about risks that might impact the safety of their pipelines to more accurately identify areas where safety may be at risk.

This is a comprehensive approach to safety and testing that would require internal inspections, pressure testing, or other best-achievable technology to be performed on a periodic basis. The proposed rule clearly defines the criteria for analyzing the inspection or testing and would require specific measures for preventing and managing the consequences of pipeline failures.

The Administration's proposal mandates the completion of the integrated testing rulemaking. Under the proposal, we would quickly require large operators of hazardous liquid pipelines to provide additional protection in populated or unusually environmentally sensitive areas. The proposal would also require us to extend the rule within two years to small liquid operators and natural gas transmission lines. Within three years, we would be required to decide whether we should extend the regulations to other areas.

Community Right to Know

The Administration's proposal would make it easier for residents, businesses, and government officials to get information about pipelines in their communities. Pipeline operators would have an affirmative duty to carry out a continuing program of public education. Pipeline incident reports and safety-related condition reports would be made available to the public, and additional information such as maps and pipeline safety programs, would be made available to state and local emergency response authorities. Descriptions of the actions pipeline operators are taking to ensure pipeline safety also would be provided to local officials.

State Partnerships

We have a long history of working with states to protect pipeline safety, and the Administration's proposal would extend our partnership with states and authorize increased federal grants to support state safety efforts. The Office of Pipeline Safety and state agencies have collaborated on initiatives such as the Risk Management Demonstration Program, the National Pipeline Mapping System, and many of our damage prevention efforts. With their support, OPS continues to add state repositories to the National Pipeline Mapping System, make progress on the development of the risk-based approaches to pipeline safety, and remove barriers to state action on damage prevention. Each year, OPS and state partners hold national and regional meetings to promote information exchange on pipeline technology, inspection techniques, operational problems, significant incidents, and innovative approaches for strengthening the pipeline safety program. RSPA's 2001 budget requests a 30% increase in funding for state programs.

The legislative proposal would take the states' regulatory role even further—states could enter into agreements with the Department to participate in oversight of interstate pipelines. The Department would be authorized to reimburse up to 100

percent of a state's costs in monitoring new pipeline construction or investigating incidents. All states will be encouraged to be active in damage prevention, local preparedness and community right-to-know activities. This is a balanced approach that addresses states' concerns about participating in the oversight of interstate pipelines, without abdicating federal responsibility for the interstate transportation of energy products.

Data Improvement

This proposal also will improve data on pipeline safety. The proposal calls for the creation of a national depository to collect information about the precursors of pipeline failures. This data is vital to ensure we are all focused on the right issues—and that we can measure our progress in addressing those issues. Additionally, the proposal reduces the threshold requirement for reporting hazardous liquid pipeline releases. Current regulations require operators of hazardous liquid pipelines to report any release greater than 2,100 gallons. Under the proposal, operators of hazardous liquid pipelines would be required to report any release greater than five gallons.

Research and Development for Better Monitoring Tools

The proposal calls for better and more innovative inspection and monitoring technologies. Internal inspection technology has improved, but still more improvement is needed. The bill calls for continued support for research partnerships with government, industry, and academia so that together, we can leverage our resources and our ability to develop innovative inspection tools and monitoring technologies. With better monitoring tools, we can better prevent and detect pipeline failures and protect lives and the environment.

Stronger Enforcement

Finally, the Administration proposal would strengthen both the Department's and citizens' enforcement authority by providing the pipeline regulatory program with the enforcement tools available to other public health and environmental statutes. The proposal strengthens the ability of citizens and local communities most directly affected by pipelines to seek penalties for violations of federal law in a judicial enforcement action. In addition, the proposal enables the Department to seek criminal sanction against the most egregious violators, including third party operators that damage pipelines.

Conclusion

The pipeline explosion that occurred in Washington State last year took the lives of three young people and forever changed the community of Bellingham. It is my hope that, working together, final legislation—influenced by important lessons learned from that tragic event—will be enacted as soon as possible.

The CHAIRMAN. Thank you. Mr. Mead.

STATEMENT OF HON. KENNETH M. MEAD, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION

Mr. MEAD. Yes, sir. Thank you, Mr. Chairman. After listening to the families, I feel obliged to say that I think the Committee's leadership on this issue, as well as Senator Murray's and the families' is very important. The families have gone through a terrible tragedy, and yet they are providing leadership on what I believe is a very important national issue.

I also want to express our appreciation to Administrator Coyner for being responsive during the course of our work. I have five points, Mr. Chairman. I will be brief. First, RSPA's action toward completing pipeline-safety mandates is at least 5 years behind congressional completion dates. The 1992 Pipeline Safety Act established mandates to increase pipeline safety, especially in sensitive areas where a pipeline rupture would be the most dangerous—such as densely populated areas, critical habitats, public drinking water supplies, areas such as that.

Instead of new safety regulations, our review found delays: delays in defining sensitive areas, delays in preparing maps show-

ing location of pipelines, and delays in the issuance of standards for pipeline inspections.

Last month, a notice of proposed rulemaking was issued. That is 5 years after the statutory due date. The proposed rule, though, only applies to hazardous-liquid pipeline operators. It gives them another 7 years to fully comply, which is too long in our opinion. Then they get 10 more years before a reinspection is required.

The proposed rule does not address at all inspections for over 300,000 miles of natural-gas transmission pipelines. We understand proposed rules covering that area will come out sometime this year or early next.

Second, RSPA has completed some very good research on expanding the capabilities of internal inspection devices, called "smart pigs." A smart pig looks like a torpedo. It travels inside a pipeline searching for corrosion, mechanical damage, and metal loss.

Roughly 90 percent of hazardous-liquid pipelines have a configuration that can accommodate smart pigs, but there is a need to make these pigs even smarter. The current technology has limitations in detecting stress-corrosion cracks, seam well deficiencies, and longitudinal mechanical damage.

RSPA also needs to look to technology to inspect pipelines that cannot accommodate smart pigs due to the pipeline configuration. While most hazardous-liquid pipelines can use smart pigs, we found that, incredibly, RSPA does not have estimates of natural-gas pipelines that can be pigged. That is important because natural-gas transmission pipelines account for nearly 300,000 miles of pipeline, which is the majority, so it is important that the Office of Pipeline Safety find out how many miles of these pipelines can be pigged. One of the largest natural-gas pipeline companies told us only about 15 percent of their pipeline could accommodate pigs.

The most widely used method for inspecting these pipelines—subjecting the pipe to high pressure—is called hydrostatic testing. You have heard about it before today. While there are benefits from that type of testing, Mr. Chairman, you should know that that type of testing can harm or weaken a pipe, and it does not determine the extent or severity of defects. That is why research into smart pigs is needed, and if a pipe cannot accommodate a smart pig, some alternative effective technique should be used.

Third, Ms. Coyner mentioned accident data. The current accident data are inaccurate too often and do not provide adequate information. Let me give just a couple of examples. RSPA data show that "Other" was the leading cause of accidents 37 percent of the time for hazardous-liquid pipelines in 1999. That was an increase from 29 percent, for the prior year during which "Other" was again the leading cause of accidents.

These numbers are going in the wrong direction, leaving RSPA with increasingly nonspecific data.

We also found that 9 of 44 accidents in 1998 were incorrectly reported as caused by "Other," when in fact they were actually caused by outside force damage.

Finally, on the data point, accident reports for natural-gas transmission lines have only four causal categories to report the cause of the accident. Three are specific, and the fourth is for "Other," so natural-gas operators put into the "Other" category things like in-

correct operation by operator personnel, or failed weld. I believe those categories need to be tightened up, and they can be tightened up soon.

Fourth, pipeline inspectors and industry pipeline operators need more specialized training. RSPA's training program does not provide safety inspectors with state-of-the-art skills and expertise in either how to use pigs or interpret the results of pig inspections. This places RSPA in a position of having to rely on a report generated by the pipeline operator or the smart-pig vendor. That is not acceptable for an independent oversight organization. It is like having an FAA inspector who is qualified to inspect Piper Cubs inspect a 777. I think that needs to change.

Finally, several of the reauthorization bills seek to expand the State's role in the inspection of interstate pipelines. We believe there should be considerably greater, not less, State involvement in the inspection of these pipelines. There is precedent for this, not just in the pipeline area but also in the motor-carrier area, where Congress just enacted legislation. However, we do recognize a major distinction between a much greater role for the states in pipeline inspections and giving the states discretion or license to establish rules for pipeline safety.

Different safety rules from state to state for interstate pipelines could themselves cause problems, however well-intentioned they might be. Frankly, I think this issue of the states setting their own protocols for pipeline safety has probably been fueled by the delays in implementing the laws which you established in 1992, as well as the delays in implementing NTSB safety recommendations.

That concludes my statement.

[The prepared statement of Mr. Mead follows:]

PREPARED STATEMENT OF HON. KENNETH M. MEAD, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION

Mr. Chairman and Members of the Committee:

We appreciate the opportunity to be here today to discuss the reauthorization of the Department of Transportation's pipeline safety program.

The nation's pipeline infrastructure includes roughly 2.2 million miles of pipe, including 156,000 miles of hazardous liquid transmission pipelines, 325,000 miles of natural gas transmission pipelines, and 1.7 million miles of natural gas distribution pipelines. These pipelines carry vast quantities of natural gas, petroleum products, and other materials to fuel our commercial and consumer demands. Pipelines are a relatively safe way to transport energy resources and other products, but they are subject to forces of nature, human actions and material defects that can cause potentially catastrophic accidents.

Following the deadly pipeline explosion and fire in Bellingham, Washington in June 1999, Senator Patty Murray requested the Office of Inspector General to review the Research and Special Programs Administration's (RSPA) Office of Pipeline Safety (OPS). Our March 2000 audit report identified needed improvements in OPS's oversight of the Nation's pipeline infrastructure. My testimony today will address four issues:

- RSPA has not implemented Congressional safety mandates related to defining environmentally sensitive and high-density population areas, identifying pipelines in these areas, or requiring increased pipeline inspections. Critical safeguards required by Congress for hazardous liquid and natural gas pipelines are at least *5 years* overdue and could take as long as 7 additional years for just large hazardous liquid pipeline operators to complete these inspections.
- Pipeline safety research and development must be expanded to improve the capabilities of internal inspection devices—referred to as "smart pigs." Previous OPS research has concluded that smart pigs can detect certain defects in a pipe-

line before failures occur, but they have limited capabilities to pinpoint stress corrosion cracks, longitudinal mechanical damage, and defects in seam welds and pipe materials.

OPS also must expand research to develop new inspection technologies for pipelines that cannot accommodate a smart pig. Roughly 11 percent of all hazardous liquid pipelines cannot accommodate the use of smart pigs and OPS lacks statistical data on the miles of natural gas pipelines that can accommodate a smart pig. For those pipelines that cannot accommodate a smart pig, operators must rely on visual inspections and hydrostatic pressure testing to check the condition of the pipe. However, visual inspections can only look for evidence of leaks at the surface, and hydrostatic tests stress the pipe material and can cause microfractures or crack defects harmful to the pipe.

- Pipeline accident data collection improvements are needed to enable OPS to focus its resources on the most important safety issues and to measure safety program performance. We found that pipeline operators are incorrectly using the "Other" causal category to report the causes of accidents. In fact, the leading reported cause of hazardous liquid accidents for 1999 was "Other." In the case of natural gas accidents, we found "Other" was being used to describe accidents caused by incorrect operation by pipeline personnel, equipment malfunctions, or failed pipes and welds because these causes are not included on the accident form. OPS should modify its accident report forms to include additional categories identifying the causes of pipeline accidents and thereby reduce the use of the "Other" category.
- Pipeline inspectors are not adequately trained on either the use of high-tech instruments or the interpretation of test results. Incorrect operator decisions contributed to 16 hazardous liquid pipeline accidents in 1999. Specialized training is essential for pipeline inspectors to make more comprehensive safety assessments and to ensure pipeline operators are qualified to do their job, thereby reducing the probability and consequences of serious accidents.

First, RSPA has Yet to Implement 1992 Congressional Safety Mandates. In 1992, Congress established mandates intended to increase pipeline safety by requiring pipeline operators to conduct increased inspections in areas where consequences of a pipeline rupture would be most severe. RSPA's actions toward completing the mandates are at least 5 years behind the Congressional completion dates.

Congress mandated that OPS define the criteria to identify high-density population areas for natural gas and hazardous liquid pipelines and environmentally sensitive areas for hazardous liquid pipelines, and to develop an inventory of pipelines in these areas by October 1994. The definition for an environmentally sensitive area has not been established, and until it is, OPS cannot develop an inventory of pipelines located in these areas. The 1992 Act also established a 1995 deadline for the Secretary to prescribe standards for periodic pipeline inspections and the use of smart pigs, or an equally effective alternative method.[1] Although smart pigs can detect certain types of defects in a pipeline before it fails, OPS has not established requirements for the Congressionally mandated increased inspections including the use of smart pigs.

A Notice of Proposed Rulemaking published in April 2000 addressed periodic pipeline inspection standards (using either a smart pig or an equally effective method), but only for large hazardous liquid pipeline operators.[2] The proposed rulemaking requires operators to complete baseline inspections to determine the existing condition of their pipelines within at least 7 years of the effective date of the final rule. OPS plans to issue the final rule by September 2000, allowing operators until 2007 to complete baseline assessments. This timeframe is too long. The American Petroleum Institute stated earlier this year that 95 to 98 percent of the mileage of large hazardous liquid pipelines operators can currently accommodate a smart pig to perform the baseline inspection. Furthermore, the 10-year timeframe for subsequent pipeline re-inspections to determine deterioration is also too long. OPS does not address natural gas pipelines in its current rulemaking. OPS needs to aggressively pursue the development of regulations for increased inspections on these pipelines in high-density urban areas.

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[1] The Accountable Pipeline and Safety Act of 1996 (Public Law 104–304) amended the Pipeline Safety Act of 1992 by removing the requirement for periodic inspection standards and giving the Secretary the discretion to determine if mandatory periodic inspections are necessary.

[2] Large hazardous liquid pipeline operators are defined in the Proposed Rulemaking as operators of pipelines of 500 miles or more.

Second, Enhancements are Needed in Pipeline Safety Research and Development. Pipeline operators need advanced technologies to locate defects and monitor pipelines before a failure occurs. Early detection of serious defects in a pipeline reduces the risk of catastrophic accidents. RSPA's current pipeline research and development (R&D) program has resulted in improved defect detection by internal inspection devices. However, RSPA's research and development program now needs additional emphasis in three areas:

- Improving the capabilities of smart pigs to detect pipe defects such as stress corrosion cracks and seam weld deficiencies or irregularities,
- Enhancing technologies to detect the severity of pipeline corrosion, and
- Developing inspection and monitoring technologies for pipelines that cannot accommodate smart pigs. Roughly 11 percent of all hazardous liquid pipelines (2 to 5 percent of the large ones) cannot be 'pigged', but OPS does not know what percentage of natural gas transmission pipelines cannot accommodate a smart pig.

We note Congress' strong support in the reauthorization bills for expanding research and development programs on inspection technologies. We support its efforts to advance pipeline technologies that will enhance pipeline safety.

Third, the Collection of Pipeline Accident Data Needs Improvement. OPS must have accurate accident data to focus its inspection and research resources and to measure safety program performance. In order to do this, accident reports should use precise categories that identify the causes of pipeline accidents. OPS accident forms currently use up to seven categories including "Other" to summarize the cause of an accident. Data for hazardous liquid accidents list "Other" as the leading cause of accidents. This category increased from 29 percent in 1998 to 37 percent in 1999. However, because there are only 3 specific causal categories on the natural gas accident form, operators of natural gas transmission lines use the "Other" category to report such causes as "Incorrect Operation by Operator Personnel" and "Failed Weld."

OPS should expand accident categories to encompass the most frequent accident causes now being grouped together as "Other." One of RSPA's goals is to reduce "Outside Force Damage" accidents by 25 percent over the next 3 years. However, with the category "Other" being used so often, RSPA cannot accurately measure how well it is doing. For example, our examination of hazardous liquid accident reports found 9 of 44 hazardous liquid pipeline accidents in 1998 were incorrectly categorized as caused by "Other" when they should have been classified as "Outside Force Damage." The limitations of the current accident reporting were recognized in both a 1998 National Transportation Safety Board (NTSB) report and 1999 American Petroleum Institute report that recommended accident reporting be revised to request more comprehensive data.

Last, Specialized Training is Needed for Pipeline Inspectors and Operators. Pipeline inspectors are not trained on either the use of current state-of-the-art technology or the expertise in smart pig data analysis. The data obtained from smart pig inspections are an important indication of a pipeline's condition. In addition, incorrect operator decisions contributed to hazardous liquid pipeline accidents. Specialized training is essential for pipeline inspectors to make more comprehensive safety assessments and to ensure pipeline operators are qualified to do their jobs, thereby reducing the probability and consequences of serious accidents.

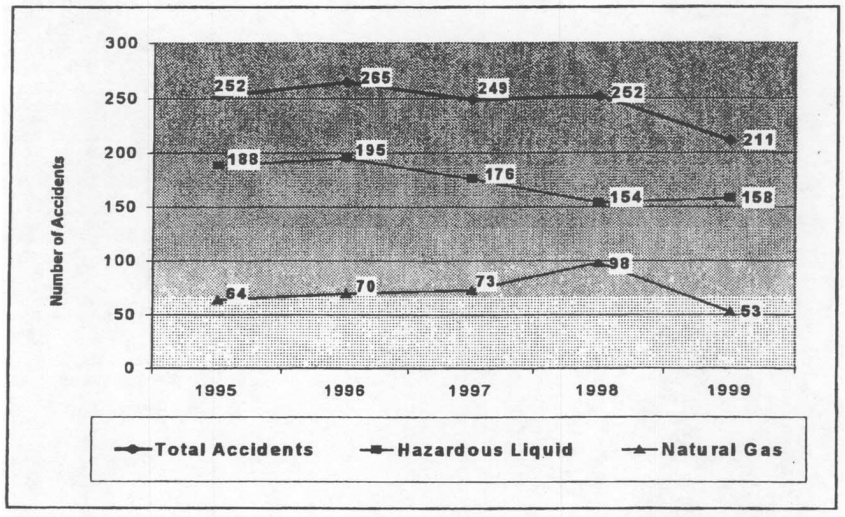
Our review of the OPS inspector training curriculum noted its lack of training on smart pig technology and how to interpret smart pig data. Since the use of smart pig technology is expected to grow, we recommend OPS inspectors be trained to interpret results from smart pig inspections. The OPS inspector would then possess the knowledge to independently assess a pipeline's condition and could quickly make safety improvement recommendations, rather than wait for interpretational reports as they currently do.

Better pipeline operator qualifications can also improve safety. Incorrect operator decisions contributed to 16 hazardous liquid pipeline accidents in 1999. We support reauthorization provisions requiring operators to submit their training plans to the Secretary for approval. This issue warrants close monitoring to assure the process does not focus on the paper record without assurance that the individuals have the necessary knowledge and skills. We also agree with provisions for periodic retraining and reexamination of pipeline personnel.

Background

The pipeline infrastructure of the United States consists of roughly 2.2 million miles of pipe including 156,000 miles of hazardous liquid transmission pipelines, 325,000 miles of natural gas transmission pipelines, and 1.7 million miles of natural gas distribution pipelines. Each year these pipelines transport 617 billion ton-miles of oil and oil products and over 20 trillion cubic feet of natural gas. Pipelines are a relatively safe way to transport energy resources and other products, but they are subject to forces of nature, human actions and material defects that can cause potentially catastrophic accidents. Although the number of natural gas and hazardous liquid transmission pipeline accidents was relatively constant from 1995 through 1997, natural gas accidents increased by 25 in 1998, and then dropped by 45 in 1999.[3] Conversely, hazardous liquid accidents decreased by 22 in 1998 and remained relatively constant in 1999 (as shown in Figure 1).

Figure 1
Transmission Pipeline Accidents



The Office of Pipeline Safety administers the Department's national regulatory program to assure the safe operation of the Nation's transmission pipelines. OPS develops regulations on risk management, design safety, construction, testing, operations, maintenance, and emergency response of pipeline facilities.

Outstanding Congressional Mandates

RSPA has Yet to Implement 1992 Congressional Safety Mandates. In 1992, Congress established mandates intended to increase pipeline safety by requiring pipeline operators to conduct increased inspections in areas where consequences of a pipeline rupture would be most severe. These mandates were to establish criteria identifying high-density population and environmentally sensitive areas, inventory pipelines in these areas, and prescribe regulations for increased inspections on these pipelines, including the use of internal inspection devices. RSPA's proposed completion dates for some of the mandates are at least 5 years behind the Congressional completion dates. The following table depicts the Congressional mandates and their deadlines.

[3] The accident reporting criteria were changed in mid-1994 for hazardous liquid pipelines. Previously, operators were required to submit an accident report if property damage exceeded $5,000. OPS raised the threshold to property damage exceeding $50,000.

OPS Has Not Implemented Congressionally Mandated Standards

Congressional Deadline	October 1994	October 1995
Natural Gas Pipelines	• Establish criteria to identify high-density areas • Inventory pipeline facilities located in high-density areas	• Establish additional safety standards related to periodic inspections in high-density areas, if necessary
Hazardous Liquid Pipelines	• Establish criteria to identify high-density and environmentally sensitive areas • Inventory pipeline facilities located in high-density areas • Inventory pipeline facilities located in environmentally sensitive areas	• Establish additional safety standards related to periodic inspections in high-density areas, if necessary • Establish additional safety standards related to periodic inspections in environmentally sensitive areas, if necessary

Definition of Areas. Congress expected OPS to define environmentally sensitive and high-density population areas and to develop an inventory of pipelines in these areas by October 1994. These actions have not been done. Until the definitions are established, OPS cannot develop an inventory of pipelines located in these areas. According to OPS officials, this lengthy delay is primarily attributable to the difficulty in developing a consensus on the definition of an environmentally sensitive area among divergent groups including Federal and state governments, environmental groups, and the pipeline industry. Once these areas are defined, an inventory would identify pipelines where increased inspections may be required.

Pipeline Inventory. Currently, the inventory of pipelines in high-density and environmentally sensitive areas relies on voluntary operator submissions of pipeline location data. In March 1999, OPS developed standards for operators to submit their pipeline inventories. However, as of May 2000, pipeline operators have submitted only 10 percent of total pipeline mileage through this voluntary initiative. OPS needs to immediately initiate a rulemaking process to require operators to submit their pipeline location data.

Establishment of Inspection Standards. In most cases, smart pigs can warn of problems in a pipeline before a rupture occurs. The 1992 Act established a 1995 deadline for the Secretary to prescribe standards for periodic pipeline inspections using smart pigs or an equally effective alternative method. OPS has not yet established requirements for the increased inspections including the use of smart pigs. According to an OPS official, internal inspection technology in 1994 had only a limited capability to identify defects that could cause ruptures. However, the capabilities of internal inspection technology have improved since 1994. In April 2000, OPS issued a Notice of Proposed Rulemaking requiring operators of large hazardous liquid pipelines (those with over 500 miles of pipelines) to use this technology, or an alternate equally effective method, to inspect pipelines. OPS plans to issue final regulations for large hazardous liquid pipeline operators in September 2000.

Rulemaking Timeframes. OPS's April 2000 Notice of Proposed Rulemaking allows large hazardous liquid pipeline operators until at least 2007 (pending the effective date of the final rule, planned for September 2000) to complete baseline assessments of their pipelines. This timeframe for baseline assessments is too long. The American Petroleum Institute stated earlier this year that 95 to 98 percent of the mileage of large hazardous liquid pipeline operators can currently accommodate a smart pig to perform the baseline assessments.

Once the baseline is completed, a subsequent re-inspection is required by the April 2000 Notice of Proposed Rulemaking. RSPA's rulemaking proposes a 10-year re-inspection interval to determine any deterioration in the condition of the pipeline. This interval is also too long.

We support reauthorization provisions to expedite RSPA's completion of all outstanding Congressional mandates. As Congress intended back in 1992, these additional protections are critically needed to reduce the risk of pipeline accidents and the devastating consequences on the public and the environment.

Pipeline Research

Pipeline Safety Research and Development Should be Expanded. Early detection of serious problems in a pipeline reduces the risk of a catastrophic loss of human life and long-term damage to the environment. Pipeline operators and Federal and state inspectors need advanced technologies to locate problems and monitor pipelines before a failure occurs. High technology inspection devices could give operators and inspectors early warnings of serious problems in a pipeline and lower the risk of pipeline releases.

RSPA's current pipeline research and development (R&D) program has resulted in beneficial technical data on internal inspection devices. The research concluded that smart pigs are reliable for detecting internal pipe corrosion, certain types of external mechanical damage, and pipe metal loss, but they have limited capabilities in pinpointing stress corrosion cracks, longitudinal mechanical damage, and defects in seam welds and pipe materials. OPS's program now needs to focus on three areas:

- Improving the capabilities of smart pigs to detect pipe defects such as stress corrosion cracks, longitudinal mechanical damage, and defects in seam weld and pipe materials,
- Enhancing technologies to detect pipeline corrosion and its severity, and
- Developing technologies for internal inspection and monitoring of pipelines that cannot accommodate smart pigs.

Capabilities of Smart Pigs. Pipeline operators use several inspection methods to ensure the integrity and safe operating condition of a pipeline (including smart pigs, hydrostatic pressure testing, visual inspection, and pipe weld x-rays). Smart pigs, which travel inside a pipe, are the most reliable technology currently available to detect corrosion, metal loss, and mechanical gouges or dents, without excavating a pipe. However, they have limited ability to detect other types of serious defects, such as stress corrosion cracks, longitudinal mechanical damage, and defects in seam welds and in pipe materials. We noted that 10 percent of hazardous liquid pipeline accidents in 1999 were caused by failed pipe or welds, which might have been prevented if better inspection technology were available. OPS research should focus on expanding the smart pig's capabilities to pinpoint these types of pipeline defects before a failure occurs.

Detecting Pipeline Corrosion. While current smart pig technology can generally detect pipeline corrosion, R&D work is needed on advanced technologies to detect additional types of corrosion and the severity and extent of all types of corrosion. For example, current smart pigs have a limited capability to pinpoint stress corrosion cracking, a type of corrosion caused by temperature fluctuations and electric charges in the line. In 1999, corrosion caused almost one-fourth (23 percent) of all transmission pipeline failures and was the second leading cause of accidents. Corrosion caused the failure of an 8-inch pipeline in Lively, Texas, in 1996. A fire erupted when 5,518 barrels of liquid butane were released, resulting in 2 fatalities and the evacuation of 25 families. Property damage totaled $217,000. Although pipeline safety regulations provide standards to prevent corrosion, it is clear that OPS should focus additional research to better analyze the severity and extent of corrosion, including stress corrosion cracking, with a goal of substantially reducing the number of accidents caused by corrosion.

Alternative Inspection and Monitoring Technologies. A pipe's size, configuration, angle bends, and valve designs can prohibit a smart pig from moving inside the pipeline, and natural gas pipelines are most likely to require modifications for their use. Although there are 325,000 miles of natural gas transmission pipelines, OPS does not have specific data on the percentage of miles that can accommodate smart pigs. For hazardous liquid pipelines, a February 2000 American Petroleum Institute survey concluded that smart pigs could be used in 89 percent, or roughly 139,000 miles, of these pipelines.

Additional research is needed to identify new inspection and monitoring technologies for detecting potentially dangerous defects in pipelines that cannot be "pigged." Hydrostatic pressure testing is widely used by industry as an alternative to smart pigs, but it can be harmful to a pipe by causing tiny fractures or cracks. Furthermore, this technique provides only a 'snapshot' of a pipe's condition and does not determine the extent or severity of corrosion or other defects.

In our review of the various reauthorization bills, we noted Congress' strong support for expanding research and development programs on inspection technologies. We support legislative efforts to further research that will lead to advances in pipeline inspection technologies.

Pipeline Accident Data Collection

The Collection of Pipeline Accident Data Needs Improvement. OPS must have accurate accident data to focus its inspection and research resources and to measure safety program performance. Accident reports should use precise categories that identify the causes of pipeline accidents. OPS accident forms currently use up to seven categories including "Other" to summarize the cause of an accident. For example, in the case of natural gas accidents, we found "Other" could be used to describe accidents caused by incorrect operation by operator personnel, equipment malfunctions, or failed pipes and welds because these causes are not included on the accident form. Table 1 lists the cause categories on OPS accident forms for hazardous liquid and natural gas transmission pipelines, as well as 1998 reported accidents.

Table 1
Accident Form Causal Categories and 1998 Reported Accident Occurrences

Accident Form Causal Categories	Natural Gas		Hazardous Liquid	
	Category Applicable	Percentage Reported by OPS	Category Applicable	Percentage Reported by OPS
Corrosion	Yes	22%	Yes	26%
Outside Force Damage	Yes	37%	Yes	27%
"Other"	Yes	21%	Yes	29%
Construction/Material Defect	Yes	19%	No	
Malfunction of Control or Relief Equipment	No		Yes	6%
Incorrect Operation by Operator Personnel	No		Yes	5%
Failed Pipe	No		Yes	5%
Failed Weld	No		Yes	4%
Percentage Total:		99%*		102%*

*Totals do not add up to 100% because of rounding.
Source: Office of Pipeline Safety accident database

We found data for hazardous liquid accidents list "Other" as the leading cause of accidents. This category increased from 29 percent in 1998 to 37 percent in 1999. OPS should expand accident categories to encompass the causative factors now being grouped together as "Other." The limitations of the current accident reporting were recognized in both a 1998 National Transportation Safety Board (NTSB) report and a 1999 American Petroleum Institute report that recommended accident reporting be revised to request more comprehensive data.

One of RSPA's goals is to reduce "Outside Force Damage" accidents by 25 percent over the next 3 years. With the category "Other" used so often, RSPA cannot measure how well it is doing. Our analysis found 9 of 44 hazardous liquid accidents that occurred in 1998 were incorrectly categorized as caused by "Other" when they should have been classified as caused by "Outside Force Damage."

OPS also needs to issue new regulations that require operators to correct inaccurate accident reports they have submitted. Under current regulations, OPS is unable to correct inaccurate information from operators' accident reports without the operators' consent. For example, in eight transmission pipeline accidents investigated by NTSB between 1994 and 1998, in only one case did the operator submit an updated accident form reflecting the NTSB results, although differences existed between the results of NTSB investigations and the information originally submitted by operators to OPS. In three cases, the NTSB investigation reported a different cause for the accident, and in five cases, NTSB investigations reported $20.4

million more in property damage. As a result, the OPS accident database retained inaccurate program performance information.

We endorse including provisions in the reauthorization that require the development of a data collection plan and revisions to accident report forms and instructions that are essential for detailed analysis of accident causes.

Training of Inspectors and Operators

Specialized Training is Essential for Pipeline Inspectors and Operators. The responsibility for pipeline safety is shared among OPS, the States, and pipeline operators. Pipeline inspectors need state-of-the-art skills, expertise, and ability to make accurate safety assessments that lower the risk of pipeline failures. In addition, pipeline operators must be well qualified to be the "safe drivers" behind operation of the nation's pipeline system.

Our review of the OPS inspector training curriculum noted a lack of courses on smart pig technology. OPS estimates that operators conduct smart pig inspections on 6,500 miles of natural gas and 12,480 miles of hazardous liquid pipelines each year, which could include pipelines in high-density population or environmentally sensitive areas. For example, smart pigs are run annually through the 800-mile Trans-Alaska Pipeline, which extends through some of the most sensitive environments on the continent.

The data obtained from smart pig inspections are an important indication of a pipeline's condition. Yet, OPS does not train its inspectors on how to interpret these data. As a result, the OPS inspection force must rely on a report prepared by the pipeline operator or smart pig vendor for general information on a pipeline's present condition. We find this condition unacceptable. As the use of smart pig technology is expected to grow, we recommend the addition of an OPS training program on the interpretation of results from smart pig inspections. The OPS inspector would then possess the knowledge to independently assess a pipeline's condition and make safety improvement recommendations.

Several reauthorization provisions seek to expand the states' role in the inspection of interstate pipelines. In sharing the safety oversight role, Federal and state inspectors have a greater opportunity to leverage limited resources for increasing the number and quality of pipeline inspections. State agencies would also be able to address numerous local issues and provide a local presence to address pipeline safety. Therefore, we also support these provisions.

To ensure consistent implementation of pipeline inspection regulations, state pipeline inspectors should receive the same level of training as required of Federal inspectors. As Federal training requirements change, such as a new requirement for smart pig training, so should the states.' The safe operation of our Nation's pipelines depends on uniform educational standards for the entire pipeline safety inspection workforce. One possible way of ensuring the standards are met would be testing or certification.

Incorrect operator decisions contributed to 16 hazardous liquid pipeline accidents in 1999, resulting in 4 injuries and almost $3 million in property damage. In 1999, a Conoco Inc. hazardous liquid pipeline spilled oil and gasoline in Oklahoma, resulting in 2 injuries and $2 million in property damage, or two-thirds of the property damage for the entire year. The operator listed the cause of the accident as "Incorrect Operation by Operator Personnel."

We support reauthorization provisions to ensure pipeline operators are qualified to do their job, thereby reducing the probability and consequences of serious accidents. Reauthorization provisions that require operators to submit their qualifications programs to the Secretary for approval and require periodic retraining and reexamination of pipeline personnel would be beneficial. Operators should be subjected to stringent qualifications programs and trained to react to abnormal operating conditions when they occur. This issue warrants close monitoring to assure the process does not focus on the paper record without assurance that the individuals have the necessary knowledge and skills.

Mr. Chairman, this concludes my statement. I would be happy to answer any questions you might have.

The CHAIRMAN. Thank you very much, Mr. Mead. Mr. Hammerschmidt.

STATEMENT OF HON. JOHN A. HAMMERSCHMIDT, MEMBER, NATIONAL TRANSPORTATION SAFETY BOARD

Mr. HAMMERSCHMIDT. Good morning, Mr. Chairman, members of the Committee, Senator Murray. It is an honor to represent the National Transportation Safety Board before you today to discuss pipeline safety issues. We have submitted prepared testimony to the Committee, and I would like to limit my statement this morning to three specific areas which are of particular concern to the safety board, pipeline integrity, employee qualifications, and excavation damage.

The first topic I would like to discuss is pipeline integrity. The continued operation of pipelines with discoverable integrity problems is a recurring theme in accidents investigated by the Safety Board. In 1987, as a result of investigations into three pipeline accidents, two in Kentucky and one in Minnesota, the Safety Board recommended that the Research and Special Programs Administration, or RSPA, require periodic inspections to identify corrosion, mechanical damage, or other defects. Thirteen years later, there are still no regulations that require pipeline operators to perform periodic testing and RSPA's responses to our recommendations are in an unacceptable status.

The Safety Board is currently investigating at least five accidents with potential pipeline integrity problems. Frequently, as may turn out to be the case in the Bellingham, Washington, accident, we learn that the damage area, or the weak point, has been compromised for months or years before rupture. We believe that inspection enables prevention, and we need programs that not only provide adequate inspection, but that adequately analyze and fix the problems uncovered.

Several weeks ago, RSPA issued a proposed rule speaking to integrity issues, and that is a start. NTSB will undoubtedly participate in this rulemaking. We earnestly hope that we can see this work finished. RSPA can use its rulemaking authority to galvanize, coordinate, and accelerate industry action, and it should do so.

Turning now to the training and qualification of personnel, we have a very similar story to tell on this issue. In 1987, after several pipeline accidents in which inadequate training was an issue, the Safety Board recommended that RSPA require operators to develop training programs for pipeline personnel. Eleven years later, with no adequate action from RSPA, we also closed these recommendations as unacceptable.

Inadequate training continues to be a factor in pipeline accidents. In the 1996 Fork Shoals, South Carolina accident, the Safety Board found that controllers failed to recognize and respond to observable emergency conditions. In that accident the controller mistakenly shut down a pump station, failed to recognize the consequences of this mistake, and continued to operate the pipeline after it ruptured. Nearly a million gallons of fuel oil poured into Reedy River as a result. We asked how this could happen. The answer was largely lack of training.

I should add that training is necessary throughout the system, not just in the control rooms. We need it for inspectors, maintenance crews, and managers. On November 21, 1996, a pipeline accident in San Juan, Puerto Rico resulted in 33 fatalities and 69 in-

juries. Our investigation determined that the gas company's employees had not been properly trained to survey, pinpoint, or test for pipeline leaks, and failed to locate a reported leak before the explosion occurred.

In our subsequent accident report, the Safety Board recommended that RSPA complete a final rule on employee qualification training and testing within 1 year. Although the Board urged RSPA to amend the proposed rule to include strong training and testing requirements, last August RSPA published its final rule without the requirements sought by our recommendations. Hence, the training recommendations that were developed after the San Juan tragedy are now also in an unacceptable status.

The last area I have time for this morning in this brief statement is excavation damage, the leading cause of pipeline accidents. This issue is on the Safety Board's most wanted list. In December 1997, the Board issued 26 recommendations aimed at improving excavation damage prevention. We know that Administrator Coyner also takes this issue very seriously. Preventing excavation damage to pipeline systems is one of her top priorities.

The Administrator has already spoken to their programming efforts, of course, which involve the ongoing Nation-wide Dig Safely campaign, and the common ground report. We applaud these efforts, but think it fair to say that every avenue for improved performance needs to be pursued, and we look forward to a timely and favorable final action on our open recommendations here.

Mr. Chairman, this concludes my testimony. I would be happy to answer the Committee's questions.

[The prepared statement of Hammerschmidt follows:]

PREPARED STATEMENT OF HON. JOHN A. HAMMERSCHMIDT, MEMBER, NATIONAL TRANSPORTATION SAFETY BOARD

Good morning Mr. Chairman and Members of the Committee. I am pleased to represent the National Transportation Safety Board before you today to discuss pipeline safety issues.

I would like to start with an update for the Committee on the status of the Safety Board's investigation of the fatal pipeline accident that occurred last June in Bellingham, Washington. I would stress, however, that the Board's investigation is ongoing, and that the following information is preliminary. It may be refined and changed as the investigation proceeds.

As an initial point, I would note the National Transportation Safety Board has experienced significant procedural problems with the Bellingham investigation. The proximity of a criminal inquiry has been a serious issue for us. We have been unable to talk to employees of the operator, who fear the uncertainties of a criminal inquiry; and we have, until recently, been unable to proceed with testing of the physical evidence.

Parallel investigations, by accident investigators and criminal authorities, pose a host of complicated issues. We requested, in our own reauthorization package, a restatement of Congressional confidence in the priority presently accorded by statute to our work, and we are gratified that the House of Representatives has responded favorably.

We note similar provisions in the bill awaiting action by this Committee. National Transportation Safety Board staff is working with staff of this Committee to ensure that the uncertainties of Bellingham do not become the norm, and we earnestly request your close attention to this issue.

After a 16-inch diameter pipeline owned by Olympic Pipe Line Company ruptured, approximately ¼ million gallons of gasoline were released into a nearby creek. The gasoline ignited and two 10-year-old boys and an 18-year-old young man lost their lives. Shortly after being notified of the accident, the National Transportation Safety Board launched a team of investigators to the scene. Safety Board personnel were on scene for approximately 5 weeks.

The accident section of pipeline was originally installed in 1965 and then rerouted in 1966 to allow for construction of a water treatment plant. In 1993 and 1994, a contractor working on behalf of the City of Bellingham installed a 72-inch water line across Olympic's pipeline, approximately 20 feet south of the rupture. A new 24-inch diameter water line was also installed and connected to an existing water line 10 feet south of the rupture.

Although Federal regulations do not require internal pipeline inspections, in 1991, 1996 and 1997 Olympic inspected the section of pipe that failed last June. The 1996 and 1997 inspections had identified anomalies in the pipeline near the location of the subsequent rupture, however the pipeline was not excavated, visually inspected or repaired at those locations. The Safety Board is looking into criteria used by Olympic Pipe Line to evaluate the identified anomalies. However, Olympic personnel with direct knowledge of the decision-making process have declined to be questioned by the Safety Board.

Sections of the Olympic pipe were carefully excavated under the Safety Board's supervision and then transported to our laboratory facilities in Washington D.C. During the excavation process, the water lines that had been installed across Olympic's pipeline in the vicinity of the rupture were exposed, and indications of external damage to the pipeline were observed. Safety Board investigators have interviewed personnel from the City of Bellingham, the firm that designed the water plant modifications and managed the construction activities on behalf of the City of Bellingham, as well as the contractor who installed the water piping. However, Olympic employees who were assigned to inspect the construction activity have also declined to speak with Safety Board investigators.

Preliminary visual examination of the ruptured pipeline segment has shown that the fracture originated at a gouge mark on the surface of the pipe. Additional gouge marks and dents were found on the exterior surface of the ruptured pipe segment, and inward protrusions were noted on the inside of the pipe. Examination of a second pipe segment noted two dents.

Because of the criminal inquiry, we had not been able to test the failed pipe until now. Microscopic examination of the fracture face is underway this week to help us determine whether there are any indications of fatigue near the point of origin. Additional tests are also being conducted to determine the microstructure and characteristics of the pipe material.

Based upon a review of Olympic's computer pressure data automatically recorded during the accident sequence, our investigators also began to examine the functioning of valves at a newly-constructed pumping and storage facility near Bayview, Washington. Preliminary information indicates that a block valve on the pipeline entering Bayview Station had closed over 50 times since the facility began operating on December 16, 1998. Our investigators are still evaluating these events to determine the pressures involved and the functioning of a relief valve.

Shortly after the accident, our investigators also began to evaluate the actions of Olympic's personnel who were operating the pipeline from the Renton, Washington, control center. Based on the event logs, we know that flow within the pipeline was restarted approximately 45 minutes after the rupture occurred. The pipeline was then operated for approximately 17 minutes until the pumps shut down.

The Board's investigative staff are reviewing substantial documentation provided by Olympic, such as pressure data, design information, construction records, telephone logs and e-mail records, along with the applicable company policies and procedures related to pipeline operations and maintenance, as part of our investigation. However, we may never know what happened within the control center around the time of the accident unless we are able to interview the individuals operating the pipeline when the accident occurred. There are at least four key individuals who may have direct knowledge of the events that occurred in the control room during the accident sequence. Those individuals include two controllers who were on duty at the time of the accident, their supervisor, and a former controller now responsible for maintaining the SCADA system and acting as a relief controller. He was reportedly performing modifications to the computer programming at the time of the incident. These individuals are also critical to our investigation into human performance issues, such as training, fatigue, and ergonomics, that may be relevant with this accident. As I mentioned, these individuals and others have declined to talk with us.

Several of the issues being looked into as a result of the Bellingham accident—excavation damage, pipeline integrity, training of personnel—have been concerns of the Safety Board for many years

It is unfortunate that some of the issues we have addressed, which have been the subject of Safety Board recommendations, have not been acted on in a timely manner. Each of these issues could be accomplished without legislative action. However,

because the Department has not acted, Congressional intervention may be necessary.

Safety Issues

I would now like to discuss general pipeline safety issues. As the Federal regulatory agency for pipeline safety, the Research and Special Programs Administration (RSPA) plays a crucial role. As the Board has often stated, RSPA and its Office of Pipeline Safety (OPS) have not responded as aggressively to its mandate as we would have liked. RSPA's implementation rate of pipeline safety recommendations is about 69 percent, the lowest acceptance rate of any modal administration in the Department of Transportation. We do not think this low percentage is a result of ill-conceived recommendations. In fact, the acceptance rate of our pipeline safety recommendations issued to the pipeline community as a whole is about 87 percent. Too often, RSPA will find it difficult even to respond in a timely fashion, one way or another. We note that Section 3 of S.2438 addresses the need for timely responses to pipeline safety recommendations.

We believe that RSPA's lack of action continues to place the American people at risk. Administrator Coyner has met with our Board Members and has made a commitment to improve RSPA's response rate to Safety Board safety recommendations. As a result, we have seen more timely responses to new safety recommendations, and increased activity on damage prevention and corrosion control issues. However, we are still concerned about the lack of timely action on other issues. We feel the areas listed below are areas that require immediate action:

- pipeline integrity;
- accident data collection;
- training;
- valve automation; and
- excavation damage prevention.

Pipeline Integrity

The continued operation of pipelines with integrity problems is a recurring issue in accidents investigated by the Safety Board. In 1987, as a result of investigations into three pipeline accidents (Beaumont, Kentucky; Lancaster, Kentucky; and Mounds View, Minnesota), the Safety Board recommended that RSPA require pipeline operators to periodically inspect their pipelines to identify corrosion, mechanical damage, or other time-dependent defects that may prohibit their safe operation. Yet, 13 years after our initial recommendation was issued, there are no regulations that require pipeline operators to perform periodic inspections or tests to locate and assess whether this type of damage exists on other pipelines. Due to the length of time that had passed without final RSPA action, the Safety Board in June 1999, classified its recommendation as "Open-Unacceptable Response." We note that on April 24, 2000, RSPA issued a Notice of Proposed Rulemaking (NPRM) on this issue, and the Safety Board is in the process of reviewing it. We also note that Section 5 of S.2438 will require a pipeline integrity inspection program to be completed within 12 months after the date of enactment in unusually sensitive areas and high-density population areas.

The Safety Board is currently investigating five other pipeline accidents with potential pipeline integrity problems that occurred during 1999–2000. In these accidents, the lack of inspections or adequate corrective actions may be relevant safety issues.

Accident Data Collection

For over 25 years, the Safety Board has pointed out major deficiencies and recommended changes to RSPA's pipeline accident data collection process. In a January 1996 report, Evaluation of Accident Data and Federal Oversight of Petroleum Product Pipelines, the Safety Board concluded that RSPA's failure to fully implement the Safety Board's 1978 recommendations to evaluate and analyze its accident data reporting needs has hampered RSPA's ability to effectively oversee the Nation's pipelines.

Then, in December 1997, another Safety Board report, Protecting Public Safety Through Excavation Damage Prevention, indicated that RSPA's reporting forms are poorly designed and fail to provide necessary information. For example, the form for hazardous liquid pipelines lists just seven generic causal categories, such as corrosion, outside force damage, and other. In 1996, RSPA indicated that "outside force" damage was the leading cause of accidents; the second leading cause was "other" which may include landslides, earthquakes and floods. Although we know that excavation damage is the leading cause of pipeline accidents, it is not listed as a category. Instead, most excavation damage accidents are reported as outside force dam-

age, other, or incorrect operation by operator personnel. The Safety Board has repeatedly pointed out that RSPA's definitions of accident causes are imprecise and that distinctions between categories are vague. Such deficiencies preclude effective accident trend analysis and performance evaluation. Therefore, the Safety Board has recommended that RSPA revise the causal categories on its gas and hazardous liquid pipeline accident report forms to eliminate overlapping and confusing categories, to clearly list excavation damage as one of the data elements, and to consider developing subcategories. We note that Section 10 of S.2438 will require improved data collection within 12 months.

In an April 1998 report, Brittle-like Cracking in Plastic Pipe for Gas Service, the Safety Board noted that RSPA's accident data are insufficient to serve as a basis for assessing the long-term performance of plastic pipe. Because the Board lacked adequate data from RSPA, we had to review technical literature and contact experts in gas distribution plastic piping to estimate the frequency of brittle-like cracks in plastic piping. Based on that research, the report noted that brittle-like failures could be the second most frequent failure mode for older plastic pipe and recommended that RSPA determine the susceptibility of older plastic piping to premature brittle-like cracking.

Training of Pipeline Personnel

The Safety Board has long been concerned about the need to adequately train personnel in all transportation modes, including pipeline. In 1987, after several pipeline accidents in which inadequate training was an issue, the Safety Board recommended that RSPA require operators to develop training programs for pipeline personnel. After 11 years had passed since the recommendation was issued without final action, the Safety Board classified the recommendation as "Closed-Unacceptable Action."

However, inadequate training continues to be a factor in pipeline accidents. In the 1996 Fork Shoals, South Carolina, pipeline accident, the Safety Board found that pipeline controllers had been inadequately trained to recognize and handle emergency conditions. In that accident, the controller had mistakenly shut down a pump station, failed to recognize his mistake, and continued to operate the pipeline after it ruptured. As mentioned earlier, this action resulted in the release of nearly one million gallons of fuel oil into the Reedy River.

On November 21, 1996, a pipeline accident in San Juan, Puerto Rico, resulted in 33 fatalities and 69 injuries. Our investigation determined that the gas company's employees had not been properly trained to survey, pinpoint, or test for pipeline leaks, and failed to locate a reported leak before the explosion occurred. Following that accident, the Safety Board recommended that RSPA complete a final rule on employee qualification, training, and testing within one year.

In October 1998, RSPA published an NPRM to require pipeline operators to develop a written qualification program for individuals operating pipelines. However, it did not establish training requirements for personnel and it allowed companies to evaluate an individual's ability to perform tasks using methods such as oral examinations or observations of job performance. In January 1999, the Board provided comments to RSPA that urged them to amend the rule to include strong training and testing requirements to ensure that employees can properly perform their jobs. In February 1999, the Safety Board classified its recommendation as "Open-Unacceptable Action," because the NPRM did not adequately address those issues. In August 1999, RSPA published its final rule, which was substantially unchanged from the NPRM. We note the Section 4 of S.2438 would require reformulation of RSPA's rule along the lines of the Safety Board's recommendations for training and recurrent training. We also note that legislation proposed by Senator Murray would require qualification testing and certification, similar to requirements for aviation personnel.

Valve Automation

The Safety Board has long advocated the increased use of valve automation to protect public safety and the environment by reducing the consequences of pipeline failures. The issue was first addressed 30 years ago in a study entitled Effects of Delay in Shutting Down Failed Pipeline Systems and Methods of Providing Rapid Shutdown.

Since then, a number of other accidents have repeatedly highlighted the need to control the accidental release of product. On July 8, 1986, in Mounds View, Minnesota, gasoline spewed from a pipeline and flowed down a city street before igniting and seriously burning three people, two of whom later died. The Safety Board found that the pipeline operator could not promptly stop the release of gasoline.

On March 23, 1994, in Edison, New Jersey, a high-pressure natural gas pipeline exploded and a fire ensued. Heat from that fire ignited several building roofs in an apartment complex. The Safety Board again found that the pipeline operator's inability to promptly stop the flow of natural gas contributed to the accident's severity. In February 1995, the Safety Board recommended that RSPA expedite requirements for the rapid shutdown of failed pipeline segments. Later in 1995, RSPA held a public workshop on this subject and it is continuing to study the issue. Despite RSPA's failure to require these systems, several companies have voluntarily put in valves to rapidly shut down their failed pipelines.

In an accident in May 1996, near Gramercy, Louisiana, the pipeline company took approximately 4½ hours to manually close the valves on either side of a ruptured pipeline. Almost 500,000 gallons of gasoline were ultimately released into the environment. In September 1998, the Board recommended that the pipeline operator install more valve automation into its pipeline system. The operator has advised the Board that it is currently evaluating which existing valves to retrofit for remote control operation and is planning to install this technology into a new pipeline that may run from Kenova, West Virginia, to Columbus, Ohio.

Obviously, this technology is available and is being used. We will be waiting for too long, however, if we rely solely on voluntary efforts of industry. RSPA must require systems that limit product release after a major pipeline rupture for all operators, so that this is understood, across-the-board, as a necessary cost of doing business.

Excavation Damage Prevention

Excavation damage is the leading cause of pipeline accidents. This issue was added to the Safety Board's "Most Wanted" list of transportation issues in 1997, and in December 1997, we published a study entitled Protecting Public Safety Through Excavation Damage Prevention. As a result, the Board issued 26 recommendations aimed at improving excavation damage prevention covering such areas as:

- technology to accurately locate and mark underground facilities;
- training and educating of excavation personnel;
- use of data to evaluate programs; and
- enforcement of damage prevention programs.

Preventing excavation damage to pipeline systems is a top priority for RSPA. RSPA's efforts in the area of underground damage prevention include: an ongoing nationwide Dig Safely Campaign, a completed report on damage prevention best practices, Common Ground, and helping to establish an organization to implement and continue to develop the best practices.

State Inspection Programs

State pipeline safety programs are important to help ensure that pipeline system operators comply with minimum safety standards. In fact, state pipeline inspectors who conduct daily inspection activities represent more than 90 percent of the safety inspection workforce. Yet, Federal matching funds provided to states have consistently been below the 50 percent level authorized by the Natural Gas Pipeline Safety Act. The Board has been advised by representatives of several states that funds have not kept pace with demand, and that inadequate funds threaten the infrastructure of the Nation's pipeline safety program.

Additionally, we are concerned that while states have many more inspectors than OPS, that OPS is removing states from interstate pipeline inspection programs. State officials have advised that OPS, while previously encouraging states to act as interstate agents, is now denying their applications. In fact, states have advised the Safety Board that OPS has effectively halted this program.

For example, in Virginia, approximately 2 million gallons of petroleum products have spilled from pipelines since 1974. In an accident near Reston, Virginia, in 1993, more than 407,000 gallons of diesel fuel spilled from a pipeline into Sugarland Creek, a tributary of the Potomac River. Because of several liquid pipeline accidents that occurred in Virginia, the General Assembly passed legislation in 1994 authorizing the State Corporation Commission to seek interstate agent status from OPS, which would allow state inspectors to inspect interstate pipelines. OPS apparently originally supported this legislation, and for several years encouraged the Commission to pursue interstate agent status. Unfortunately, when the Virginia Commission was ready to accept agent status, OPS denied their application.

The OPS currently has the ability to utilize these state resources for regular inspection activities through its partnering agreements. We believe state assistance in the interstate pipeline inspection program may go a long way to improving pipeline safety. Because a single pipeline may operate in as many as 10 states, effective Fed-

eral oversight is needed to ensure that pipeline operators are meeting minimum safety standards. It is also critical that comprehensive, consistent, and effective regulatory requirements for interstate pipelines be enacted at the Federal level to protect citizens in all of the states. We believe that Congress needs to closely examine how the states are utilized, funded, and evaluated by OPS. However, for the consistent and effective application of regulatory requirements to interstate pipelines, the authority and responsibility should rest with the OPS.

Mr. Chairman, this concludes my testimony. I would be happy to answer the Committee's questions.

Senator GORTON. Thank you. Senator McCain has been required to meet another engagement. He has a long series of excellent and thoughtful questions that will be submitted to each of you, and we would like your answers for the record.

I would like to start, Ms. Coyner, by saying that Mr. Mead was highly critical of at least the procedural aspects of your proposed rulemaking, both the tardiness with which it was begun, but perhaps more significant for our purposes, with the long lead times before some or all of these rules become effective and how well they are enforced. Do you want to comment on that critique?

Ms. COYNER. I think what is important to recognize in the rulemaking is that companies have one rule in terms of their initial compliance of putting together an integrity management plan, and the integrity management plan encompasses internal inspections but a number of other steps, and so I think it is important to focus on that.

Second, it is a proposal. It was put together with the best data available, and we invite comments in terms of strengthening it. We would be delighted to be able to justify a shorter timeframe in terms of requiring internal inspections. That means that we have to be able to have a demonstrated benefit, and we also have to be able to show the availability of the actual testing devices in terms of timing, of putting together the integrity management rulemaking.

Under the statute, the first requirement is that we have to be able to define what an unusual area is. That is an environmental term not existing in any other statute, and that definition in fact was changed by Congress in 1996 in terms of what the parameters would be. It is an important but exceedingly complicated effort in terms of not only defining what would fall in that area, but also identifying where it would be on the pipeline.

That definition has been proposed. The comment period on that is closing. We chose to go forward with the actual testing requirement rule so it would be ready to go when the actual definition rulemaking is done.

Can we do more in this area? Absolutely. We have to continue to push forward to finish the other two rulemakings by the end of the year, as well as making sure that we are identifying technologies that are not used today to be able to deal with some of the issues that can meet, and others have raised, in terms of the ability to be able to pig natural gas pipelines and to deal with other issues.

Senator GORTON. Does the administration bill enhance your rulemaking capacity?

Ms. COYNER. The administration's bill does a couple of things in that regard. One is that it says that if these rulemakings for some

reason do not go forward the statute will require the standards that are proposed in the proposed rulemaking, or liquid lines, for all lines.

Second, it says that after those have been in effect for 3 years, that the Secretary will have to review them and determine whether or not they ought to apply beyond what they call high consequences areas, the places where there are people who live around the pipeline as well as unusually sensitive areas.

So in fact it is not just a strengthening of the regulatory requirement, it says if we cannot reach it one way, we are going to make sure we reach it another way.

Senator GORTON. Mr. Mead, apparently all or almost all of the recommendations that you have made are incorporated in Senator McCain's bill. Do you think Senator McCain's bill is adequate to meet the challenges that have been so graphically illustrated to us both by this accident and by the general lack of adequacy in pipeline regulation?

Mr. MEAD. I think Senator McCain's bill forms a good foundation, and it does refer to our recommendations, but I also believe that Senator Murray's bill, and the administration bill, have a number of good provisions. I do not think it is generally a good way to legislate to say this rule is going to take effect if for some reason the rule gets derailed.

But frankly, Congress contemplated the safety mandates would be in place by 1995. The law was not vague when you passed it, so I do not know what else I would recommend besides the type of provision that Ms. Coyner described.

I also think that Senator Murray's bill is particularly good in the area of encouraging states to have a role. I do not think that the states should have to get the Federal Government's permission to have a large role, but as I indicated in my statement, I draw a distinction between that and States actually enacting rules.

Senator GORTON. Given your position in the Department, are you in a position to submit to us your recommendation of what elements in each of these three bills is appropriate to make a proper overall response to this challenge?

Mr. MEAD. Yes, I am, and I will. The Inspectors General, unlike the operating administrators, do not go through OMB for clearance for our views on what the legislation should contain. You will have that by the beginning of next week.

Senator GORTON. Thank you.

Mr. Hammerschmidt, does that apply to you as well, at the Safety Board? Have you looked at all three of these bills, and can you recommend to us how they ought to be combined, or are there any inadequacies in any of them, in a prompt fashion?

Mr. HAMMERSCHMIDT. Senator Gorton, we have reviewed the different pieces of legislation, and we would like to offer the Committee, if you would like us to do so, to provide you for the record an analysis, a comparative analysis of the different bills. I cannot speak for the board. I am just one of the board members. But we would be glad to expeditiously get that information to the Committee if you would like us to.

[The informations referred to follows:]

NTSB COMPARATIVE ANALYSIS

National Transportation Safety Board (NTSB) staff met with your Committee staff to discuss Safety Board recommendations for pipeline safety improvements related to the proposed legislation. A review of our data base reveals that safety recommendations issued to the Research and Special Programs Administration (RSPA) can all be accomplished without legislative action. However, a number of critical safety issues in the proposed legislation have not been acted upon and may warrant Congressional intervention.

Since 1987, the Safety Board has urged that RSPA require pipeline operators to verify the integrity of their pipelines by mandating periodic inspection and testing. Section 5 of S. 2004 would require internal inspections at least every 5 years; the Board does not have sufficient data to recommend a specific test period at this time. Section 5 of S. 2438 would require operators to periodically inspect and test pipelines; the Safety Board suggests that the frequency of the inspections or tests required depend upon the characteristics of the pipeline and the ability of inspection or test methods to detect defects before the defects propagate to critical size. Under such a mandate, RSPA could require that pipelines with protective coating deficiencies or known corrosion conditions be inspected more frequently, and that the frequency depend on the ability of the inspection method to detect defects.

The Safety Board supports language proposed in Sections 2b and 2c of S. 2409 that would require an operator to clearly define criteria for evaluating and acting on the results of inspections, and that would also require that prompt action be taken to address integrity issues.

The Safety Board has also urged, in safety recommendations, that pipeline employees be required to be trained, tested to assess the success of training, and periodically retrained and retested, as appropriate. Training requirements in Section 4 of S. 2438 are consistent with past Safety Board recommendations. Section 6 of S. 2004 would also require testing to determine whether individuals are qualified to perform assigned functions. Such a requirement is consistent with previous Safety Board recommendations. S. 2004 requires certification by the Secretary of Transportation, which the Board has not previously recommended. Objective criteria would provide regulators with specific means to reassess the qualification of individuals after an accident and before they resume regular duties.

Most of the provisions in Section 7 of S. 2438 are consistent with past Safety Board recommendations concerning public education and emergency preparedness needs.

Finally, the Safety Board is concerned that State officials' ability to inspect interstate pipeline operators is threatened. Effective oversight is needed to ensure that pipeline operators meet minimum standards. Section 9 of S. 2438 Section 9 is consistent with the Safety Board's support for participation of State authorities in overseeing interstate pipeline activities.

Senator GORTON. I think that would be of great help to us. In fact, Mr. Mead, you anticipated my next question when you referred to Senator Murray's state participation in this. You had felt that state participation ought to be enhanced. In this particular connection, does this bill do enough? Does it adequately define the State authority and responsibility?

Mr. MEAD. Yes, but I should also say I think this is an area where funding needs to be considered as well. This is an authorizing committee. You can authorize money, but this is an important area, and we are emphasizing R&D, which costs money. We are emphasizing the state program, and I think the answer to your question is yes, but some follow-through on the funding, the R&D program and the grant program will be in order.

Senator GORTON. Thank you. Senator Murray.

Senator MURRAY. Thank you, Mr. Chairman, and I want to applaud all of you for your testimony and your work on this, and Ms. Coyner, I want to thank you and the administration for working so hard under some pretty strict timeframes we gave you to get your bill forward, and I appreciate the work you did on that.

I do have a number of questions. First of all, Ms. Coyner, in Senator McCain's bill he includes pipeline personnel qualifications that would require periodic retraining and examination. Considering the rule on operating qualification, you did issue last year——

Senator GORTON. Excuse me, Senator Murray. We now have another vote going on. What I think I will do is, I will go vote now while you finish your questioning, then John, and we will do it continuously, and I will get back as quick as I can.

Senator MURRAY. I would be happy to do that.

Considering the rule on operating qualification that you issued last year, which requires operators to submit plans to OPS to qualify their employees by 2001, and implement these plans by 2002, how do you think this requirement would supplement these plans?

Ms. COYNER. As I understand the provision in Senator McCain's bill, it would require that we review those individual plans in an affirmative way, rather than the mere compliance States that are in the rulemaking. I think that is something that we can do.

I think the main issue, though, in terms of taking on that additional review level is how do we define the roles as between the federal government and state governments in the review of those plans and second whether or not the Office of Pipeline Safety has adequate resources to perform that responsibility.

Senator MURRAY. Do you think operators could adjust their plans to meet these requirements, which I think are common sense requirements?

Ms. COYNER. I think that the issue would be the scope of coverage. The operator qualifications rule that we propose has very broad coverage in terms of the number of safety employees that are covered and the types of conditions that they have to be able to respond to. I think that the McCain deadlines may mean that we would want to do some sort of phased-in requirement in terms of the coverage, but what I would like to say, Senator Murray, is that we want to work with you to make sure that we have the right legislative requirements and regulatory requirements in place in this area.

Senator MURRAY. Mr. Hammerschmidt, in your testimony you criticized OPS's rule on operator qualification as allowing too low of a threshold in evaluating pipeline personnel's ability to perform tasks. In Senator McCain's bill he includes a section on pipeline personnel's qualifications that would require periodic retraining and examination. Do you think that would satisfy NTSB's objection to OPS's current rule?

Mr. HAMMERSCHMIDT. Well, again, Senator, I am just one of the four Board members, and I do not want to speak for the Board on that question, but as I recall, having read Senator McCain's bill, I was very impressed that his proposed language dove-tailed with some of the recommendations that we had made in the past and exhibited a very sensitive hand on the pulse of our concerns for many years, and I would answer affirmatively for myself.

Senator MURRAY. Thank you.

Ms. Coyner, in the technology section of the administration proposal, you separate technologies into two types, one dealing with outside force damage and one dealing with internal inspection, and you assign two separate timeframes one year apart to begin devel-

oping those kinds of technologies. As you probably know, Senator McCain's bill does not make any distinction between the two. Can you explain to us why in your proposal you do that?

Ms. COYNER. That reflects our current activities and the way we would be able to build on them, and second it is basically strictly a resource issue, Senator Murray, in terms of the timeframes that we have put in place.

Senator MURRAY. A resource issue from what perspective?

Ms. COYNER. In terms of, we could in fact start both of them at the same time if there were adequate resources to do that, in terms of the overall funding of the program.

Senator MURRAY. So it is just a matter of the fact that we have not put enough money forward to develop technologies, so you have separated them out from that perspective?

Ms. COYNER. I think what I want to emphasize is that the proposal in that regard was really just that, a proposal. I do not think that one is one where we believe that there's a strong reason, other than our ability to ramp up to do the work, and the resource component of it.

Senator MURRAY. So if there were more resources available you could move forward on both internal and external?

Ms. COYNER. That is right.

Senator MURRAY. I do have to say I like the provisions in your proposal that recognize the need to create public-private partnerships with industry and academia to speed up some of the development of these technologies. I hope that we do have that provision in the final product.

Ms. Coyner, I did want to ask you some clarification about a provision in the integrity management section of your proposal which says that operators cannot use testing that would, and I quote, increase environmental or safety risks.

Now, some people contend that hydrostatic testing increases environmental and safety risks because of wastewater and the level of pressure used. Wouldn't your section then allow an operator to refuse to use certain types of testing techniques such as hydrostatic testing, and if so, don't you think it is unwise, since hydrostatic testing is the most comprehensive and reliable testing method that we have at this time?

Ms. COYNER. I agree with you until the very final statement, and that is with respect to hydrostatic testing being the best available alternative. What hydrostatic testing does is, it shows you the weakest place in the pipe. It does not show you all defects in the pipe.

I think what is important is that hydrostatic testing be used in combination with other forms of testing. If there is concern that the administration's proposal and the language in it would somehow preclude the use of hydrostatic testing, I think we should work together to make sure that what is finally passed does not say that. That was not our intent.

Our intent was really to make sure that we avoid the use of hydrostatic testing as the only form of testing, or as a testing of first result, not because of the wastewater issue, though that is certainly one that is of concern, but also because of the damage that hydrostatic testing may do to a pipe.

Senator MURRAY. I understand that. I am just concerned that the language would allow an operator to say no, we are not going to do hydrostatic testing even if it is the only available method.

Ms. COYNER. We ought to work together to make sure it does not have that unintended consequence.

Senator MURRAY. Finally, the integrity management rule of your proposal requires at least 500 miles of pipeline to apply, and I understand that the proposed integrity management rule that you recently issued for comment has that same threshold requirement of 500 miles. Why did you create a minimum on this? Why do you not include all pipelines?

Ms. COYNER. In the rulemakings we currently have scheduled this year, it is our expectation that we would move forward on—we call those large and small operators, above and below 500 miles, and so what our expectation is, is that we would move forward with the small operators and with the natural gas pipelines at the end of the year. What the legislation does is, it uses the standard that we have currently proposed for large operators as the basis for applying it to all operators if we do not move forward on the rulemakings. Is that sufficiently confusing?

Basically, it says 500 miles, because that is the rulemaking that is out now, and that is the standard which we would apply across the board if there were no further rulemaking activity.

Senator MURRAY. 500 miles is a long space.

Ms. COYNER. It is not intended to mean that it would not apply to pipelines of a shorter length. It is a definition to describe a rulemaking right now that only covers the larger pipelines. What the provision is designed to do, or was intended to do, was to say the standard that applies to large operators would apply to small operators as well if there is no further action taken.

Senator MURRAY. I am going to call for a short recess. There is 2 minutes left in the vote, and I need to get to the floor and back. I do believe other members of this Committee have questions for this panel, so if we could just take a short recess, and we will be right back.

[Recess.]

Senator GORTON. Ms. Coyner, a question from Senator McCain's material here. At the beginning of the year, RSPA revoked interstate pipeline agents delegation status away from Arizona and Nevada, authority under which the States inspect interstate lines, report their findings, and the Department is responsible for enforcement, also announced its intention to revoke the status from all other states in the future.

How is this consistent with your own stated views and Secretary Slater's testimony before the Committee when he stressed the importance of federal and state partnerships?

Ms. COYNER. The issue with respect to the two states mentioned refers to the current interstate agency program which is a year, 2-year temporary program and turns on there actually being inspections being conducted in that particular State.

Senator GORTON. And there were not in those two states?

Ms. COYNER. That is correct. In terms of the scheduled inspections, however, we have repeatedly invited Arizona and Nevada to reapply for interstate agency status as recently as 2 weeks ago.

The issue at stake here is a couplefold, and we have tried to address it within the context of our legislative proposal. The states have felt very strongly that they would like to see permanent interstate agency status. There is no statutory requirement for this particular part of the program, but we would like to propose there be a statutory provision and that it include a permanent grant of interstate agency status for the purpose of inspecting liquid lines. We already have a similar program for natural gas lines.

That provision would allow a state to do a number of different kinds of inspections. Of particular interest to the two states that you mentioned would be operation and maintenance inspections. We have asked in that category that there be a coordinated work plan, and the issue here is we want to make sure that high priority issues are being addressed.

We want to make sure that intrastate lines are not being neglected, and we want to make sure that there is not a duplication of effort, but it is my view and Secretary Slater's view that there is an important opportunity to allow for a state input into the protection of pipelines as well as the inspection of pipelines.

Senator GORTON. Senator Breaux.

Senator BREAUX. Thank you, Mr. Chairman. I thank the witnesses.

I have two short areas I want to get into. The first one, in the Bellingham accident, NTSB member Hammerschmidt's testimony indicates that, based on the event logs, we know that the flow within the pipeline was restarted approximately 45 minutes after the rupture occurred. The pipeline was then operated for about 17 minutes until the pump shut down, and I note also from Mr. Hammerschmidt's testimony that back in 1995, the Safety Board recommended that RSPA, your agency, expedite requirements for the rapid shutdown of failed pipeline segments.

Now, I know for a fact in off-shore areas of the Outer Continental Shelf that there are federal requirements requiring automatic shut-off valves when an off-shore pipeline has an interruption for whatever reason. I guess my question, and they were recommending this 5 years ago, why do we not have requirements for automatic shut-off valves on gas pipelines?

Ms. COYNER. Senator Breaux, are you asking me about natural gas pipelines, or liquid?

Senator BREAUX. I am asking about natural gas pipelines. I mean, I do not understand how this line could have had a severe interruption to it and then for a substantial period of time it says here that it was restarted again, and obviously the interruption was still there, and that it operated something like 17 minutes with a major leak.

Ms. COYNER. I think it is important to note, Senator Breaux, that this was a liquid pipeline and not a natural gas pipeline, and there is important differences in terms of the use.

Senator BREAUX. There is no requirements of automatic shut-off on liquid pipelines?

Ms. COYNER. There is a difference in terms of the usage of automatic shut-off valves on liquid lines in terms of the potential for actually causing a more serious problem.

Senator BREAUX. The question is, is there a federal requirement that there be automatic shut-off valves on gasoline pipelines?

Ms. COYNER. There is not a requirement. The integrity management issue we have been discussing this morning would require that a company install those in order to protect highly populated areas and environmentally sensitive areas, balancing the possible difficulties that they pose on liquid lines.

Senator BREAUX. Mr. Hammerschmidt, you made this recommendation, or your agency did, 5 years ago. Does it disturb you that we still, 5 years later, do not have action on this?

Mr. HAMMERSCHMIDT. Yes, it is disturbing, but that is just one of many areas that have not been addressed for many more years.

Senator BREAUX. I think the lack of action speaks for itself. I am disturbed by it. In another area, back in 1987, the safety board recommended that RSPA—and neither one of you were there—recommended back in 1987 that we require pipeline operators to periodically inspect their pipelines, and yet you point out, Mr. Hammerschmidt, that now we are 13 years later and we do not have that recommendation in place. I know that is not to say that pipelines are not inspected, because companies do inspections without federal requirements.

Ms. Coyner, can you comment? I know you have the rulemaking now, but why don't we have federal requirements that interstate pipelines be periodically inspected, particularly when I would imagine that most of them in fact are being inspected?

Ms. COYNER. I think in terms of the time with which it took to address that issue, one of the things I would like to point out is, over the last 5 years in terms of the NTSB recommendations we have had almost a 95 to 97 percent acceptance rate in terms of responsiveness. I think that reflects, a change in the approach we have taken at the Office of Pipeline Safety, but also the increased allocation of resources in order to be able to address those issues.

Senator BREAUX. I appreciate that, but with the two I listed we do not have regulations yet, and it seems like the two, the automatic shut-off valves and the regular periodic inspections, have to be two of the biggest.

Ms. COYNER. On the issue of the automatic shut-off valves, the NTSB recommendation indicates that the Bellingham accident actually had to do with requiring a leak detection system. I think it is important, and particularly important for the families who are concerned here, to know that there was indeed a leak detection system on this line, and that they were subject to regulation in terms of what the standards were for that leak detection system.

Senator BREAUX. The problem is not finding out there is a leak. The problem is the fact that the pipeline continued to pump gasoline for 17 minutes after it was already interrupted.

Ms. COYNER. The requirements in terms of the automatic shut-off valves is not one that the NTSB has recommended with respect to liquid lines, only for gas lines. The rulemaking——

Senator BREAUX. I am not sure anybody has to recommend that. It seems like it is just sort of logical to be part of your office to require automatic shut-off valves.

Ms. COYNER. The issue with respect to liquid lines is not as clear as it is with natural gas pipelines. I would be glad to submit for

the record the technical documentation in that respect, or with that regard.

I think in terms of the inspections the federal government has long required a variety of different types of inspections of pipelines. You are right that we have been long in requiring the inspection by use of internal inspection devices. We have required inspection through hydrostatic testing, we have required inspection in terms of the gauges, in terms of aerial surveys, and in terms of review of different corrosion issues.

Internal inspection devices have moved a long way. We believe that now is the time to require periodic testing with those internal inspection devices, and we also think it is important to further push the envelope in terms of the technology so that we can have continuous monitoring and detection of corrosion problems, and also link them to fail-safe mechanisms that would shut off the pipelines.

Senator BREAUX. Mr. Hammerschmidt, Ms. Coyner says they do have hydrostatic testing requirements and others, and your statement says 13 years after the initial recommendations there are no regulations that require pipeline operators to perform periodic inspections or tests. She says yes, there are.

Mr. HAMMERSCHMIDT. Senator Breaux, what we are referring to are the smart pig operations that would test for pipeline integrity, and I believe we are talking perhaps apples and oranges here, but there are no regulations that address that at this point. In other words, as Mr. Mead said, running these torpedo-like devices through pipelines to detect weak places.

Senator BREAUX. That is not required?

Mr. HAMMERSCHMIDT. That is correct, and I might add, if you would indulge me, I was in fact at the Safety Board in 1987. In fact, I was on duty and on scene for an accident investigation that led to these recommendations. Actually three accidents I cited led to the 1987 recommendations, one of which was on February 21, 1986, I believe, which occurred in Lancaster, Kentucky, or as they call it down there, Lancaster, Kentucky.

The only reason I mention that is because it was the first pipeline accident investigation I had been out on, although I had been out on aviation accidents and other modal-type accidents, but this was a 30-inch transmission line basically going from Texas to the New York area. It had a rupture, and it pretty much released the gas until it expended itself, ignited, and in the process it basically incinerated an area, a rural area of about 20 acres.

And the release of the gas—it was under such pressure, I believe it was a little less than 1,000 psig, but the escaping gas left a ditch that was approximately 500 feet long, 30 feet wide, and 6 feet deep, and I remember that that was just a scene of devastation to me, and it made a real impression as to the potential devastating impacts of these pipeline accidents, especially any type of hazardous materials pipeline accidents, but in particular gas pipeline accidents.

Senator BREAUX. Thank you. Thank you, Mr. Chairman.

Senator GORTON. For any of you, can any of you tell me how many criminal prosecutions there have been under the criminal provisions of the present Pipeline Safety Act?

Ms. COYNER. Under the criminal provisions of the Pipeline Safety Act?

Senator GORTON. Yes.

Ms. COYNER. I think the answer is that there has been one subject to a particular provision, but actually that is not true. I know of at least half-a-dozen of them. There have been criminal prosecutions for falsification of records. There have been criminal prosecutions that have been brought for knowingly causing outside force damage and resulting in the rupture of the line. Those are prosecutions that have happened in recent years. I would be glad to submit those numbers.

Senator GORTON. Well, I would certainly like that.

Senator GORTON. Many of us have expressed our extreme frustration in connection with Bellingham. We are now 11 months, I gather, to the day from the time of the accident, and the people who know most about it have not said a word because they are theoretically subject to criminal prosecution.

It seems to me that these criminal provisions often frustrate our goal of greater safety, rather than to enhance it. Would any of you feel it appropriate that the Department of Transportation have the authority to grant immunity from criminal prosecution if it felt it better to be able to get prompt testimony in order to help prevent such accidents in the future?

Mr. MEAD. No, I would not feel comfortable with the federal Government being able to do that. I am familiar with the situation in Bellingham, and in a lot of these cases it is important for the Justice Department, the Department of Transportation, and the NTSB to get together very soon in the process. In some respects, there are mutually supportive things, but if you give transactional immunity to somebody who has deliberately, intentionally falsified a report, I think there is a certain trade-off, and I am not sure that I would want to make that judgment alone.

I believe the chief law enforcement officer of the United States has a role in giving out transactional immunity, plus I think that the Department of Transportation would in the end be subject to challenge that it was getting too close to the industry in granting immunity in situations like that.

The key is getting the parties involved and cooperating early to see if the Justice Department can give immunity to certain——

Senator GORTON. Is that an implied criticism of the proposition that that has not happened in this case?

Mr. MEAD. It took longer than I think it should have in this case, but it did happen. As you know, just recently the court said it would be permissible for NTSB to do testing on the pipeline, at least as I understand it.

Senator GORTON. But you still do not have the testimony of these five or six people?

Mr. MEAD. No.

Senator GORTON. Do you have any idea when a decision will be reached that will permit that?

Mr. MEAD. No, sir, I do not.

Ms. COYNER. I think that what is most important is that the NTSB be able to conduct its safety investigation, and that we need to work together with the Department of Justice and with state

prosecutors to make sure that if there is criminal activity, that that can be pursued once the safety investigation has been completed.

I am pleased to report that the Department of Transportation has begun working with the Department of Justice on policies that might guide individual U.S. Attorneys in their approach to these things.

As you know, Senator Gorton, we have had this discussion in other places. It is not a uniform policy from one U.S. Attorney to another, but we believe it is one that would benefit from discussion well before the incident ever occurs. I think that the Southern District of Florida, Tom Scott there, probably has a model for that. He has had an unfortunate number of cases, from ValuJet to other aviation cases and hazardous materials cases, and I think it is one that gives us a place to work from.

I do not think—and I would agree with everything that Ken Mead said about giving the Department the authority to grant immunity. I do not think that would be constructive, particularly when the NTSB is the lead safety investigators.

Mr. MEAD. I will tell you where a very gray area is, that I have not fully reached a conclusion on. It is not an issue of whether somebody willfully and intentionally falsified a document or a report, or something like that. Rather, it is when there appears to be a pattern of negligence, perhaps even gross negligence, and whether that should rise to the level of criminal misconduct.

I think that is a very difficult area, particularly when you are trying to balance whether it is more important to put somebody in jail under those circumstances or fine them, or more important to determine the cause of the accident.

Senator GORTON. That is what I would like to find out, if you ever actually put anybody in jail.

Senator BREAUX. Mr. Chairman, I think Mr. Mead has hit on a point. Under the Clean Water Act and other acts, the Migratory Bird Act is one of them, a person can be held criminally liable for ordinary negligence, not for having to show intentional wrongdoing or criminal wrongdoing, or even gross negligence, and what you are seeing in the Bellingham case and in others is a hesitancy on the part of witnesses coming forward to testify who may be ordinarily negligent in their actions because of the risk of criminal prosecution for ordinary negligence, and not having to even show intentional wrongdoing, or even gross negligence.

It is a problem, and it is in congressional actions that have created this problem, and that is why you see people not being willing to come up and tell the truth about what happened, because they fear being criminally prosecuted.

Senator GORTON. Senator Brownback, would you like to ask questions?

STATEMENT OF HON. SAM BROWNBACK,
U.S. SENATOR FROM KANSAS

Senator BROWNBACK. If I could, Mr. Chairman, and thank you, and I apologize. I hope I do not hit some redundancies here, and I have a statement for the record that I would like to submit as an opening statement, too.

[The prepared statement of Senator Brownback follows:]

PREPARED STATEMENT OF HON. SAM BROWNBACK,
U.S. SENATOR FROM KANSAS

Thank you Mr. Chairman for holding this hearing and for providing critical leadership on an issue that is so important to the safety and reliability of interstate pipelines.

I would first like to express my condolences to the families who lost loved ones during that horrific accident in Bellingham last June. I realize that no legislation can take away the pain you have suffered but I am hopeful that this Committee will pass a bill that will make it more unlikely for these accidents to occur in the future.

While the recent accident in Bellingham was tragic, pipelines are the safest mode for delivering energy. During the past 10 years, 11 fatalities have occurred from natural gas transmission pipeline accidents, with liquid pipelines being responsible for 23 fatalities in the same time period. On the other hand, about 20 fatalities *per year* are associated with local distribution companies. As a point of reference, more than 40,000 deaths per year are related to highway accidents.

That having been said, third-party damage is by far the leading cause of pipeline accidents that result in death and injury. In fact, for natural gas transmission lines, third-party damage represents about 38 percent of all accidents, and about 70 percent of all fatalities associated with pipeline accidents. For natural gas local distribution companies, third-party damage is an even greater problem, causing almost two-thirds of all accidents.

One of the most effective ways to combat third-party damage to pipelines is the use of one-call (or "call-before-you dig") centers, which provide excavators with information about underground utilities prior to beginning their work. One-call centers are governed by state law, and are funded by local pipelines and utilities. In 1998, Congress passed comprehensive one-call legislation as part of the Transportation Equity Act for the 21st Century (TEA–21). The bill established a federal grant program for states that work to improve the coverage and participation level of their one-call programs.

I applaud the efforts by the OPS in targeting third-party damage through its national "Dig Safely" public education campaign and by promoting damage prevention practices associated with one-call systems.

Congress should look at improving public education programs and one-call systems in order to prevent third-party damage. However, it should not involve weakening federal control over interstate pipelines.

Of the approximately 2 million miles of pipeline in the country, about 75% or 1.5 million miles are natural gas local distribution pipelines. These int*ra*state natural gas pipelines, along with int*ra*state liquid pipelines, are, for the most part, under the oversight of state pipeline safety regulatory agencies. Since the Federal government regulates all interstate commerce activities, states are only preempted from regulating about 500,000 miles of int*er*state pipe.

Some interstate pipeline transmission systems, those that carry the majority of the fuel to the eventual users, traverse more than 10 states and hundreds of localities as they transport natural gas from the wellhead to the consumer. While a large pipeline may pass through many state and local jurisdictions, it still must operate and be maintained as a single system so that the pipeline system will operate in a safe, consistent, and efficient manner.

If states were allowed to preempt federal safety standards for interstate pipelines, the actions of one state could affect gas service and deliverability to consumers in other states in which the pipeline operates. Differing state safety standards also would be disruptive to the testing, inspection and equipment replacement activities that interstate pipelines currently perform. Additionally, individual state requirements shift focus away from system-wide priorities and service considerations, as well as resources from areas where the need is greatest, *without* adding any additional margin of safety to the system. Indeed, if one state's requirements were restrictive enough, it easily would be possible for safety to actually be lessened in other states by having resources deflected away from the areas which may be most in need.

I look forward to working with Committee members in passing a bill which I hope will improve upon the 1996 Act and provide for the safe transmission and distribution of fuel across this country.

Senator BROWNBACK. I thank the witnesses, and I want to thank the first panel who I got to hear a portion of on the television, and it is a terrible tragedy the families went through, and all of our hearts go out to you, and thank you for trying to make something

right and something better or good happen out of a terrible tragedy.

I am curious about looking at the issue of inter- versus intrastate pipelines, if we could, and the regulatory regimes within each of these, and I am certain that you follow these pretty closely, but as I look at DOT numbers overall, within this area—and help me if I am looking at this correctly or not.

If you look at the pipeline totals in this country that are just under state jurisdiction, it is about 75 percent of the pipelines that are under state jurisdiction solely, is that correct?

Ms. COYNER. 75 percent are under the primary jurisdiction of the states. That means that they apply Federal standards to the intrastate lines, and they have the opportunity to have some standards in excess of that within their state.

Senator BROWNBACK. Where have we had the most pipeline problems in the recent couple of years? Has it been more in the in-state, intrastate, or interstate pipelines?

Ms. COYNER. It has been on intrastate pipelines. It depends how you define it.

Senator BROWNBACK. Well, define it by the great number of accidents and fatalities.

Ms. COYNER. That would be on intrastate lines.

Senator BROWNBACK. But with the primary source of regulation being within the state?

Ms. COYNER. Right.

Senator BROWNBACK. Has that been changing over a period of years? Has it been in the past where it was more of the interstate or intrastate, or has that been fairly consistent over, say, the past 10-year time period, do you know?

Ms. COYNER. I believe those numbers have gone up somewhat, and the reason for that is the fatalities tend to happen on local distribution systems, those gas lines that supply gas directly to a residence or a business, and they are in areas that by the very nature of where they are, there are more people close to the pipeline, and so that is a tendency where those were, where those accidents have been.

Senator BROWNBACK. So it is more of a function of locality than it is of percentage of pipelines or distances that they are covering?

Ms. COYNER. It is a function of a couple of different things. One is that if you hit—and outside force damage is a leading cause of failure. If you hit a natural gas pipeline that is serving a neighborhood, you both have a much more immediate safety hazard as well as the likelihood that there are people in the vicinity.

Senator BROWNBACK. And what percentage of the accidents are what you just described as the outside force on the pipeline?

Ms. COYNER. I think the numbers have changed somewhat. I believe there are 50 percent on local distribution systems, somewhat less on natural gas transmission lines, and 25 percent on liquid, hazardous liquid lines like the one at Bellingham.

Senator BROWNBACK. So the numbers I was looking at, the number of injuries of the in-state lines last year that you were having 31 lines, the number of injuries were under state jurisdiction, and one accident of lines under federal primary jurisdiction in 1999.

Ms. COYNER. Well, define accidents, in terms of injuries or fatalities.

Senator BROWNBACK. This is just injury.

Ms. COYNER. I think that the documentation they are looking at, sir, is really defining a seriousness of a particular accident in terms of the consequence of it.

Senator BROWNBACK. As I have looked through this, I think overall, Mr. Chairman, this is a very serious issue, and the incident in Washington is a horrifying one. I am hopeful we can move forward legislatively.

I have some real caution about the note of having—I think the state inspection is a good notion, but you are saying not state. I do not know if you put the term jurisdiction or regulatory authority. That is where I have some real pause about as we look at the overall issue here, because we all want safer pipelines. You want that, I want that, but I think an issue that I want us to be cognizant and aware of is, we have got a lot of the problems that are happening right now that the dominant regulatory entity is the State, and a lot of that, as I understand from you, is the location of it.

But as we move forward I think we would be wise not to be really giving that authority back over, or giving that authority to the States in these particular instances.

Ms. COYNER. I think what is important about what you focused our attention on is that, as we look to strengthen our partnerships with States on intrastate lines, we want to make sure that they are still focused on intrastate lines where we have the greatest problems, and I think what you have expressed is more eloquent than perhaps the way we put it, but we are certainly in agreement with you on that.

Senator BROWNBACK. Thank you. Thank you, Mr. Chairman.

Senator GORTON. Thank you, and I want to thank this panel, and we will now hear from panel number 2. Will those witnesses please come forward?

Mr. Haener, you are first on my list, from CMS Gas Transmission and Storage.

STATEMENT OF WILLIAM J. HAENER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, CMS GAS TRANSMISSION AND STORAGE COMPANY, ON BEHALF OF THE INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

Mr. HAENER. Thank you, Mr. Chairman. In addition to representing CMS Energy, I also am here to represent the Interstate Natural Gas Association, whose member companies represent the majority of the interstate pipeline in this country.

I first want to say that we do appreciate the Commission's and the Committee's interest in pipeline safety. We share your concern. And clearly, the importance of pipeline safety has been highlighted by this recent tragic petroleum pipeline incident in Bellingham, which, really, we heard about today, killed three young, innocent people. Unquestionably, it has been a tragedy, a painful experience for everyone involved, the parents that were here today, the communities. I commend the parents. It took a lot of courage to come here today. I think that is good. That is good for all of us.

And on behalf of INGAA, which is the Interstate Natural Gas Association, I can assure you that the natural gas pipeline industry is committed to safety now and into the indefinite future.

Certainly, the pipeline industry, and the natural gas, has had a very good safety record. I think the statistics show that. Now, statistics are not the end all. We are committed to continue to improve safety. We are supporting research constantly. We are always looking at new procedures and new technologies.

For the record, safety is a priority in our industry. It is not a part-time job; it is a full-time job. We do have state-of-the-art monitoring equipment that is in operation 24 hours a day. We have a combination of high-tech tools and what we call no-tech tools, which will range from periodically physically walking the pipeline, hydrostatically testing the pipeline, close-interval corrosion surveys, to smart pigs. They all have a use. And we need to have the majority of those tools available to us.

I will tell you as an engineer, there is not one tool that is going to be the end all. We need to use them all. We need to continue to improve them. We need to continue to research.

We fly the pipelines weekly. That is low-tech. But, again, there is low-tech, there is high-tech. We need the combination and will continue to support both.

I think that there is a misconception on the natural gas side. There are a number of regulations in place. They go from design regulations to reporting requirements to maintenance requirements. As an example, we are required to constantly monitor what we call class locations. This is the population that lives close to the pipeline. If the population increases, there is more people living there, we are required to change the design criteria for the pipe, which might involve taking that pipe out and replacing it with heavy-wall pipe. This is something we are required to do by law. We want annual surveys. And that is kind of a routine safety maintenance procedure that we are required to do.

We do have reporting requirements. We do have very specific design requirements that we have to meet and constantly monitor. And we do have requirements to notify the public. Annually, we have to notify the public. We look at the people along the pipeline right away as our neighbors. We visit them annually. We tell them who we are, where the pipeline is located, what to do, who to call, and whatever we can do to assist them, and we encourage them to communicate with us. If they have any concerns, if they saw somebody near the pipe, we leave them information on the pipe.

We also are required to give the local communities maps of the pipeline system, the officials, where it is. We already do this. Can we improve? I am sure we can. But I do not want to leave the impression that this is not done. These are our neighbors. We understand that and we do work with them, and are required under regulation to do that.

Certainly, we have heard about damage prevention as being a major concern from third parties. It is a major concern. It is responsible for a good portion of accidents. We do have one-call legislation, something called TEA–21, that Senator Lott sponsored several years ago. It is a good system, but we need to continue to improve that system.

While we do have a very good history of safety, we do need to continue and improve, and we do need to continue to work on legislation.

I would like to comment just on three or four things in the legislation. First, I think it is important that the pipeline integrity rules take into account the difference between liquid and gas operations. Certainly, they are both safe operations, but the medium they flow does have physical properties that are different. In terms of natural gas, it is lighter than air. It will vent into the air. It does not accumulate on the ground like liquid.

Gas is a compressible fuel. Liquids are non-compressible. They have different physical characteristics within the pipeline, and will put different kinds of stresses within the pipe. We need to recognize those in the maintenance and design criteria. So we do need separate rules and regulations so that in fact in the doing we have the safest operation under the transportation of both media forms.

In terms of Federal preemption, this is a concern. The pipeline that I am directly responsible for, the Panhandle Trunk Line Companies, operate in 13 different States. We operate it as an integrated system. We are required to. We serve many municipalities along the line. We do need one set of safety standards to operate under. We have that now. We need to continue that system.

Can we improve the regulations? Yes. We need to work together to do that. But we cannot have a situation of individual States having their own regulations that are different from the Federal.

In terms of operator training, the natural gas industry does have a requirement, through OPS, under operator training. We are in the process of implementing that. And that program will be implemented by April of 2001. We ought to look at that program, evaluate it, and, if it needs improvement, let us improve it. Let us give it a chance to operate first.

In terms of public notification, I talked about that. We do annually notify the people along our right of way. We leave things with them so they do not forget us. I have numbers of examples here. Here is a thermometer you can stick on your window to look at the temperature. It has the name of the local pipeline company, the numbers to call. If you have questions or see an emergency, we encourage it. We do leave maps with local officials. So those things are done. They are underway.

In closing—I know there are a number of witnesses here—I would like to say that we are committed to work with the Committee to ensure that OPS and the Committee comes up with the best legislation that enhances safety. And on behalf of the natural gas industry, we will do whatever is required to work on this legislation and make sure it is passed in a timely manner.

Thank you.

[The prepared statement of Mr. Haener follows:]

PREPARED STATEMENT OF WILLIAM J. HAENER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, CMS GAS TRANSMISSION AND STORAGE COMPANY, ON BEHALF OF THE INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

Introduction

Mr. Chairman and Members of the Committee, I am William J. Haener, President and CEO of CMS Gas Transmission and Storage, a division of CMS Energy Corp.,

headquartered in Dearborn, Michigan. Today I am speaking on behalf of both the Interstate Natural Gas Association of America (INGAA) and CMS Energy.

INGAA is the trade association that represents virtually all of the interstate natural gas transmission pipeline companies operating in the U.S., as well as comparable companies in Canada and Mexico. INGAA's membership accounts for approximately 180,000 miles of the 280,000 miles of natural gas transmission pipeline in this country. Our members transport over 90 percent of the natural gas consumed in America.

CMS Energy Corporation has annual sales of more than $6 billion and assets of about $15 billion throughout the U.S. and around the world with businesses in electric and natural gas utility operations; independent power production; natural gas pipelines, gathering, processing and storage; oil and gas exploration and production; and energy marketing, services and trading.

CMS Gas Transmission and Storage is the pipeline and field services division of CMS Energy. CMS Panhandle Pipe Line Companies, a unit of CMS Gas Transmission and Storage, operates over 10,800 miles of mainline natural gas pipeline extending from the Gulf of Mexico to the Midwest and Canada. These pipelines access the major natural gas supply regions of the Louisiana and Texas Gulf Coasts as well as the Mid-continent and Rocky Mountains. The pipelines have a combined peak day delivery capacity of 5.4 billion cubic feet per day and 85 billion cubic feet of underground storage facilities. In addition, Consumers Energy, an affiliate of CMS Gas Transmission and Storage, owns and operates an interstate pipeline and storage company located in Michigan.

Before moving on to the rest of my testimony, I first want to say how much we appreciate the Committee's interest in pipeline safety. We share your concern. Clearly, the importance of pipeline safety has been highlighted by the recent tragic petroleum pipeline accident in Bellingham, Washington that killed three young people. It has unquestionably been a tragic and painful experience for three sets of parents—and for a local community—that probably had previously given little thought to the pipeline before the accident. Others will testify on behalf of the petroleum pipeline industry. On behalf of INGAA, I can assure you that the natural gas pipeline industry is committed to safety. As you have pointed out yourself, Mr. Chairman, the safety record for natural gas pipelines is quite good, and we will continue to improve safety with new procedures and technologies. My testimony will discuss the industry's historical emphasis on, and continued commitment to, ensuring that the nation's interstate pipeline system operates in a safe and reliable manner. INGAA is committed to working with this Committee to continue to build on our safety record.

Natural Gas Pipeline Integrity

Millions of Americans rely on clean, efficient natural gas to fuel homes and workplaces, with little thought about the vast network of pipelines that criss-cross the country transporting this abundant source of clean energy from the wellhead to the burner tip. The companies that build and operate interstate natural gas pipelines have created the safest mode of transportation today—safer than highway, rail, aviation and marine transport. And the interstate natural gas pipeline industry is spending millions of dollars each year on research and new technologies to make their systems increasingly safer.

Safety is the number one priority for interstate natural gas pipelines. As the integrity, or soundness, of our systems is key, operators of these pipelines take numerous steps to ensure the safety of their systems and use a number of different tools and diagnostic procedures to do so. No single tool or procedure will assure safety. In a recent survey, interstate natural gas pipelines spent $560 million dollars per year on safety for approximately 160,000 miles of pipeline. That translates into approximately $3,500 per mile of pipe.

For years, these interstate pipelines also have pursued new technologies to continue to improve the safety of their systems. Through the Gas Research Institute (GRI) and the PRCI (formerly known as the Pipeline Research Committee), interstate natural gas pipelines have been pursuing technologies to examine the limits of internal inspection devices such as "smart pigs" and to improve sensors used in smart pigs. They also are seeking advanced technologies to detect dents and metal loss caused by mechanical damage, and are developing technologies to provide reliable operations.

Natural gas pipelines monitor and control safety in many ways. Pipelines implement and comply with minimum safety standards imposed by the U.S. Department of Transportation's Office of Pipeline Safety (OPS) under the Pipeline Safety Act. Moreover, many companies have internal procedures that exceed these minimum requirements. These safety measures include, but are not limited to: ground and aer-

ial surveys to observe third party activity or discoloration of plants and grasses; the use of cathodic protection (a small electric charge) to prevent corrosion of below-ground pipeline; the use of high quality pipeline materials and corrosion coatings; hydrostatic pressure testing of new and replaced facilities; and the use of "smart pigs" to detect metal loss.

Specific measures are incorporated in OPS regulations to raise the level of safety for natural gas pipelines as the population density around a pipeline increases. These categories of population density, known as class locations, range from rural (Class 1) to heavy urban (Class 4). More stringent design, construction, inspection and maintenance practices are stipulated in higher population density areas. Pipeline operators are required to constantly monitor the area around the pipeline for changes in population density. When these changes occur, the pipeline operator is required to insure that the installed pipeline is commensurate with the new class location requirements for pipe design. If it does not meet these requirements, the pipe is upgraded to increase the margin of safety. The new class location also requires increased frequency of inspections.

The Importance of National Standards

In the wake of the Bellingham accident, some have called for changes to the federal Pipeline Safety Act which would allow each state to enact its own safety regulations for interstate pipelines. INGAA strongly believes that removal of federal preemption would be a mistake. Almost invariably, interstate pipelines operate in more than one state. Some systems traverse more than 10 states and hundreds of localities as they ship natural gas from the wellhead to the consumer. While a large pipeline may pass through many state and local jurisdictions, it still must operate and be maintained as a single system. This is why one set of standards and one national regulatory authority is so important to the consistent, efficient and safe operation of the interstate pipeline network.

The Pipeline Safety Act gives states the authority to adopt additional or more stringent safety standards for *intrastate* pipelines if such standards are consistent with federal minimum standards. However, states cannot adopt safety standards for interstate facilities. That authority is vested exclusively in the Congress and the U.S. Department of Transportation.

The reason for federal preemption is simple. Allowing individual states to create their own safety standards would be confusing and problematic for pipelines that operate in multiple states. The actions of one state might negatively affect gas service and deliverability to consumers in all other states in which the pipeline operates. For example, one state might require a lower gas pressure on pipelines within its jurisdiction, and thus decrease the amount of natural gas available to "downstream" consumers.

As Chairman McCain has stated, a "mishmash" of state regulations would almost certainly hamper interstate commerce without improving safety. The states do have an appropriate and important role; that is, regulating intrastate pipelines, which account for over 70 percent of all pipeline mileage, and creating state one-call damage prevention programs.

Damage Prevention

The importance of these public awareness programs is most critical in that the leading cause of natural gas pipeline accidents is unintentional third party damage. For natural gas transmission lines, third party damage represents about 40 percent of all accidents, and about 70 percent of all fatalities associated with pipeline accidents. For natural gas local distribution companies, third party damage is an even greater problem, causing almost two-thirds of all accidents.

One of the most effective ways to combat third party damage to pipelines is the use of one-call (or "call-before-you-dig") centers, which provide excavators with information about underground utilities prior to beginning their work. By using the local one-call center, a homeowner, business owner or construction company can learn the location of underground facilities ahead of time, and avoid serious accidents. One-call centers are governed by state law, but are private not-for-profit entities funded by local pipelines and utilities.

Congress passed comprehensive one-call legislation as part of the Transportation Equity Act for the 21st Century (TEA–21) in 1998. The law established a federal grant program for those states that work to improve the coverage and participation level of their one-call programs. The legislation also required the U.S. Department of Transportation to assemble a list of one-call center "best practices." This study, along with the framework for a new national effort to focus on public awareness and damage prevention (entitled Common Ground), was released by the Department in

1999. States should use this report to continue to improve their one-call center practices, thus making them eligible for the grants in TEA–21.

Public Information Disclosure

Another area where there has been renewed interest is in improving public information and disclosure about pipelines and pipeline safety efforts. INGAA wholeheartedly agrees that public education is a key aspect in ensuring safety. In fact, natural gas pipeline companies already provide a wealth of information about their systems to local communities through voluntary efforts and regulatory requirements. Public education has three goals: avoid accidents by educating the public about the potential danger of damaging pipelines; educate those living or working near pipelines about how to recognize potential problems and what to do in an emergency; and train local emergency response personnel in how to handle pipeline accidents.

Current Federal law requires natural gas pipelines to have public education programs. The Pipeline Safety Act calls for public education programs to include information about the use of local one-call (or "call-before-you-dig") systems, the possible hazards associated with leaks and the importance of reporting suspected leaks to the proper authorities. Federal law also requires natural gas pipelines to participate in local one-call centers, so that their facilities can be marked prior to the start of excavation work. Pipelines help to pay the costs associated with the operation of local one-call centers and their associated advertising and public outreach programs.

Current Federal regulations also call for pipelines to provide information to local communities and emergency response personnel along rights-of-way. For example, natural gas pipelines must provide local communities with detailed maps of their systems to aid emergency response planning and coordination. Pipeline operators also must engage in a "continuing educational program" for local governmental agencies, including police and fire departments. This is accomplished through annual briefings and training exercises for emergency response personnel hosted by the pipeline operator. Unfortunately, many pipeline operators report difficulty in getting local emergency response agencies to participate in these free events due to a lack of interest or resources.

Since a pipeline can pass by thousands of homes and businesses, pipeline operators also make information available to residents and business owners along the right-of-way. To get the attention of these individuals, pipeline companies often give out such items as calendars, flyers, thermometers, and other items, all with information about the pipeline, whom to call and what to do in an emergency. Landowners are encouraged to look for signs of trouble, including unauthorized excavation activity and indications of natural gas leaks.

The OPS has an extensive amount of information about pipeline accidents, specific regulatory orders and corrective actions. Its web site includes general statistics about pipeline safety, but also includes detailed information about OPS investigations, compliance orders, findings of violation, warning letters and more. In light of the extensive public communications activities already performed by the interstate natural gas pipeline industry, INGAA submits that there is no need for additional requirements in this area.

Operator Qualification

Although the interstate natural gas pipeline industry is already operating pipelines with qualified personnel, as is evidenced by the low rate for incidents attributable to operator error, INGAA supports the final rule on qualification of pipeline personnel issued by the OPS and placed in the Federal Register on August 27, 1999 (Docket No. RSPA–98–3783; Amendment 192–86; 195–67). This rule is the result of a negotiated rulemaking that included representatives of natural gas transmission and distribution pipelines, liquid lines, state pipeline safety representatives, emergency response agencies, labor unions, corrosion experts, federal safety agencies and others. The Federal Mediation and Conciliation Service convened and facilitated this rulemaking.

This rule requires operators of all pipelines covered by 49 CFR Parts 192 and 195 to have a written qualification program to evaluate the ability of employees and contractor personnel to perform tasks that are required under the pipeline safety regulations (called "covered tasks") and also to recognize and react to abnormal operating conditions that may occur while performing covered tasks. Operator training is recognized as an important element in achieving and maintaining qualification status. The new rule also sets record keeping requirements that operators must follow to successfully demonstrate compliance. This information must be maintained on each individual who has been evaluated and deemed qualified to work on a pipe-

line facility. OPS inspectors then audit this information to determine if the company is in compliance with the regulations.

This rulemaking recognizes the difficulty of devising a system appropriate for the wide variations in the operations and maintenance procedures and facilities of individual operations by providing a non-prescriptive, performance based regulation that requires each operator to develop, or have developed, a written program for the qualification of each individual. For example, some operators do not have transmission lines in their systems, others do not have compressors, pump stations, or storage facilities. Some operators perform a large number of "covered" tasks while other, smaller operators may have only a limited number of "covered" tasks. Therefore, each program can be tailored to the unique operations and practices of each operator.

However, this also permits the OPS to audit each company's program to determine what tasks are covered, what qualifications are necessary to perform that task, and if the individual employees have demonstrated those qualifications. OPS can examine the records of the qualification of the employees maintained by each company and compare these to similarly situated employees in other companies. This "benchmarking" will enable OPS to ensure the adequacy of these qualification programs.

Pipeline operators are now in the process of preparing these written qualification programs (to the extent they have not already done so), adapting (to the extent necessary) existing training and development programs, and developing an auditable record keeping system to ensure compliance with the rulemaking.

Safety Research

Pipeline safety research is another area where there has been a heightened sense of interest. Since the earliest days of the industry, the natural gas pipeline industry has historically collaborated on and funded safety research. Two organizations currently provide collaborative research and development activities for the natural gas pipeline industry. The industry formed the Pipeline Research Committee, now known as the Pipeline Research Committee International (PRCI), in 1952 to address industry-wide pipeline problems that needed R&D solutions. In the late 1970s, the natural gas industry formed the Gas Research Institute (GRI), which was supported by FERC-authorized funding.

PRCI was founded by 15 natural gas transmission companies to research problems with industry-wide implications through a cooperative R&D program. The Committee became PRCI in 1995 to reflect the growing number of international members, which now represent almost half of the total 24-company membership. PRCI's funding comes from dues and co-funding dollars received from GRI and others, with dues providing about $3.5 million annually.

The PRCI Board of Directors, made up of key engineering and technical officers from member companies, provides oversight of research activities. Six committees of member company technical and engineering representatives manage PRCI's research programs and specific projects. The committees are line pipe, welding, nondestructive testing, compressor efficiency and environmental performance, offshore and onshore design, and corrosion. Most PRCI programs focus on improving industry safety, processes for joining materials, corrosion control, pipeline design, operations, maintenance and construction, station efficiency, reliability, the performance of line pipe and system integrity.

GRI is the more visible of the two gas industry research organizations, as it performs research on all sectors of the gas industry—production, transportation/transmission, delivery and consumer and end-uses. As with PRCI, GRI uses industry input and direction to identify, plan and manage research using outside research companies. But they differ in that GRI's staff members, not technical committees, manage all research programs. The Pipeline Program Executive Committee (PIPEC) and the Technical Advisory Groups (TAGs), made up of representatives of pipeline member companies, provide guidance. There are five such groups in the Transmission Unit of GRI: measurement, non-destructive evaluation, storage, integrity management and systems optimization and compression.

INGAA Comments on Proposed Legislation

At this point I want to direct my comments to a few provisions of S. 2438, the "King and Tsiorvas Pipeline Safety Improvement Act of 2000," as well as S. 2409, the Administration bill. I would first like permission to submit further comments on these bills and S. 2004, introduced by Senator Murray, for the record.

Mr. Chairman, it is worth noting that natural gas pipelines already face a strict regimen of regulations. Natural gas, crude oil and petroleum liquids all have different properties. For example, natural gas pipelines compress their product while

liquid pipelines pump their products. Additionally, natural gas is lighter than air, and therefore moves into the atmosphere in the event of a leak. The probabilities and consequences of an accident are, accordingly, different for natural gas pipelines and for liquid pipelines. INGAA urges the Committee to continue to recognize these important differences in any pipeline safety legislation it approves.

First, we are concerned about the language in both bills which would give states the ability to "supplement the Secretary's program and address issues of local concern" with respect to interstate pipelines. This language appears to give states additional authority to go beyond those that exist under federal guidelines. INGAA believes that interstate pipelines should be subject to one set of regulations. Giving states the ability to "address issues of local concern" seems to imply that a state authority can go beyond federal minimum standards for these interstate facilities. As I noted earlier, this additional layer of regulatory authority would almost certainly hinder interstate commerce without improving safety. If the intent of this provision is to expand state oversight authority to jointly inspect interstate pipelines with the OPS, INGAA would like a better understanding as to what activities such oversight authority would entail, as well as language to clarify this intention.

The Pipeline Integrity Plan in S. 2409, the Administration's bill, calls for "best achievable technology." This appears to be similar to EPA requirements for "best available control technology." INGAA is concerned that compliance with such an open-ended standard could be disruptive to our operations, as well as costly to the industry. For example, one could read this language to potentially require us to continuously change the technology we use to construct pipelines. Taken to an extreme, the test could apply even to the pipe we already have in the ground. A "best achievable technology" mandate could also lead to a dangerous focus on only one or two technologies, rather than the mix currently employed by industry. Finally, it also assumes that pipeline safety is only derived from new technologies when, in fact, improved safety is often achieved through such "low-tech" methods as walking and flying the pipeline right-of-way and visually inspecting it and its surroundings.

The Administration also calls for EPA to consult with OPS when developing an integrity rule for natural gas pipelines. As previously mentioned, natural gas is lighter than air and is insoluble in water. The environmental impacts of a natural gas leak are therefore minimal. For that reason, INGAA fails to see why EPA should have more involvement in the development of this natural gas pipeline rulemaking than other federal agencies.

The Administration bill requires an integrity rule to be completed for large hazardous liquid pipelines by the end of 2000, and for natural gas pipelines within two years of enactment. However, if the OPS were unable to complete an integrity rule for natural gas pipelines within the specified period, then the existing hazardous liquid rule would automatically apply to gas pipelines. While we anticipate that the OPS will have this rulemaking out before the two-year period in the legislation is reached, and we would work with OPS towards this end, it is unfair to require us to fall under the liquid pipeline integrity rule. Natural gas and hazardous liquid pipelines are different, and the regulations governing their safe operation need to reflect those differences.

While your bill, Mr. Chairman, provides more flexibility for the Secretary of Transportation to differentiate between natural gas and liquid pipelines, it also calls on the Secretary to implement the recommendations of the Inspector General. One of these recommendations calls for DOT to complete action on various congressional mandates. We want to make sure that Section 2 of S. 2438 would not require the Secretary to perform an additional rulemaking beyond that required in Section 5 of the bill requiring a pipeline integrity program. We also have some recommended language to Section 5 to clarify that requirements regarding unusually sensitive areas do not apply to natural gas pipelines, as reflected in current law, since natural gas pipeline accidents have only a minimal impact on the environment.

INGAA also objects to the provision (Section 2(g)) in the Administration bill that would alter the existing "grandfathered" status for some pipelines. Some pipelines were grandfathered from design, construction, and installation regulations because they were designed, constructed and/or installed prior to the existence of the new regulations. However, this grandfathered pipe was constructed according to the existing industry and federal standards of the time, and other safety regulations currently apply to these facilities. For example, grandfathered pipelines are included in all inspection proceedings and are inspected in the same manner as any other pipeline on the system. Moreover, the proposed integrity rule will apply to these facilities in the same manner as it applies to newer pipeline facilities. The Secretary of Transportation already has the authority to shut down pipeline facilities that he or she finds pose a hazard. Yet, the provision in the Administration's bill could be read to require replacement of entire pipeline systems. Such a requirement would

be extremely costly, could cause significant gas service disruptions and is unnecessary in light of the fact that these facilities must comply with current pipeline safety requirements. Therefore, INGAA respectfully submits that there is no need to repeal this provision of the law.

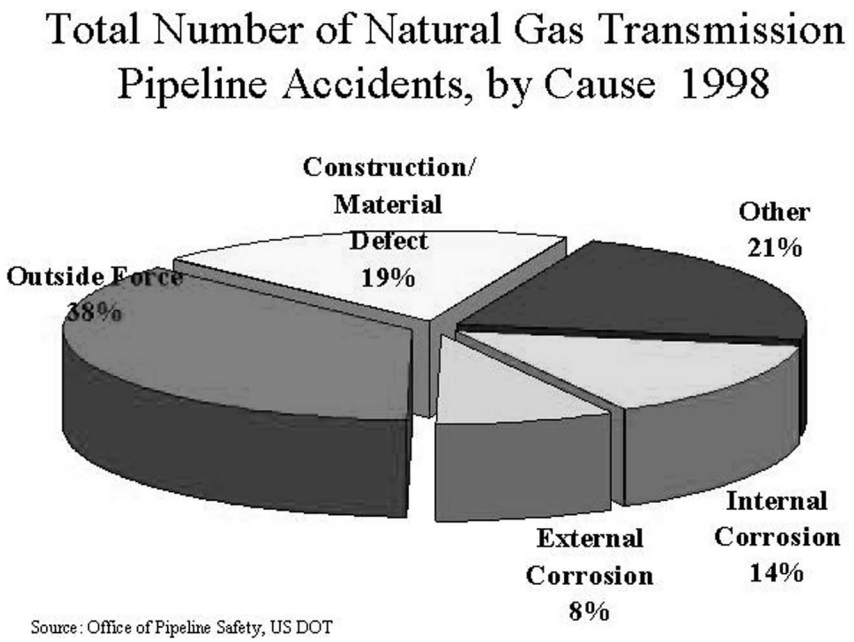
S. 2438 also establishes a new operator training requirement in Section 4. We believe that the intent behind this provision is important. However, we note that the new OPS operator qualification rule (Docket No. RSPA–98–3783; Amendment 192–86; 195–67) already includes training as a function of the employee qualification requirement.

Finally, I leave this Committee with some comments on the authorization level. First, I want to remind the Committee that part of the Administration's budget request for FY 2001 has already been authorized in TEA–21. I am referring to the $5 million in one-time grants to states which improve their one-call systems. In this authorization, Congress recognized that gas and liquid pipelines generate only about one-fifth of the calls made by one-call centers to mark underground facilities. This law states, in Section 6107, "(a)ny sums appropriated under this section shall be derived from general revenues and may not be derived from the amounts collected under section 60301 (user fee section) of this title."

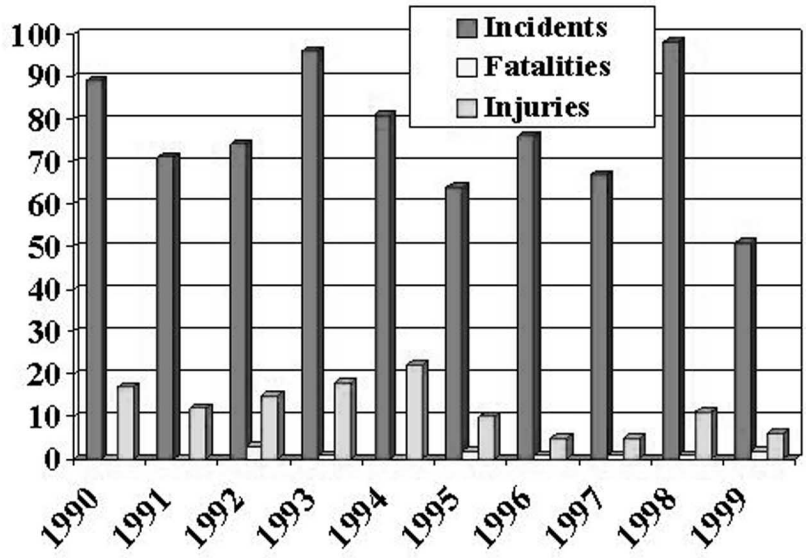
Neither bill breaks out what amounts should come from user fees, what amounts should come from the Oil Spill Liability Fund and what amounts should come from the Pipeline Safety Reserve. We would like to work with the Committee on this issue.

Mr. Chairman, I would like to thank you once again for giving us the opportunity to provide our testimony. Over the last fifty years, the natural gas pipeline industry has worked hard to improve our already strong safety record. We appreciate your efforts to pass a balanced, constructive Pipeline Safety Act reauthorization. INGAA wants to work with you and the Committee in making this legislation a reality.

APPENDIX

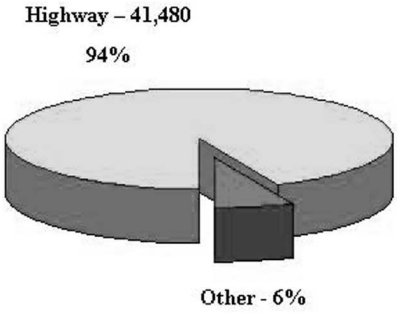


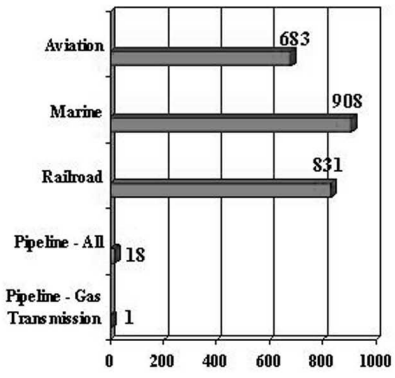
Natural Gas Transmission Pipeline Accident Summary 1990 - 1999



Source: Office of Pipeline Safety, US DOT

Transportation-Related Fatalities 1998





Sources: National Transportation Safety Board and the Office of Pipeline Safety, US DOT

Senator GORTON. Thank you. Mr. Wright.

STATEMENT OF PHILLIP D. WRIGHT, SENIOR VICE PRESIDENT, ENTERPRISE DEVELOPMENT AND PLANNING, WILLIAMS ENERGY SERVICES, ON BEHALF OF THE ASSOCIATION OF PIPE LINES AND THE AMERICAN PETROLEUM INSTITUTE

Mr. WRIGHT. Good afternoon, Mr. Chairman and members of the Committee. My name is Phil Wright. I am Chairman of the Executive Committee of the Association of Oil Pipe Lines. I am before you today to represent AOPL and API, the American Petroleum Institute.

But before I begin, having heard the courageous testimony of the families of those fine boys who perished in the tragic accident in Bellingham, Washington, I would just like to express, on behalf of myself and my colleagues in the industry, how deeply saddened we are by that incident. And we never, ever want that to occur again.

I wish I could promise that the industry will never again experience a fatal accident. But not unlike the airline industry, who could not possibly represent that there will never be another plane crash, I cannot do that. What I can tell you is that we view any accident, particularly those involving injury or death, as totally unacceptable, and pledge to take every step we can to avoid such accidents.

So, with that objective foremost in mind, let me begin by briefly describing the task that we do as an industry. There are about 200,000 miles of liquid pipelines in this country. They move an enormous amount of materiel. And to put that into context, that is about 600 billion ton miles annually. That is 525,000 million gallons. And I think it is important for us to bear in mind the context of the job that is done by the pipeline industry as we consider incidents and accidents and the occurrences of them.

This volume amounts to 40 percent of the Nation's energy requirements and 97 percent of the transportation fuels that we use as a country. Pipelines are also critical in our national defense, as they directly supply over 100 military bases in this country. In short, pipelines are absolutely vital to the quality of life the American people have come to enjoy.

The people in the pipeline industry are technically sophisticated, environmentally aware, we are committed as citizens, and dedicated to safety and the protection of the environment as our number one priority. Over the last 30 years, safety performance has steadily improved, whether measured by the number of incidents or the volume released. During this period of time, the number of incidents has declined 40 percent, the volume released has declined 60 percent, and the median size of releases has decreased 65 percent.

And over the last several years, the volume of product lost amounts to one-thousandth of 1 percent of the total product transported. That is an excellent record, and I would stack it up against any other industry's performance. We are, I think, justifiably proud of the job we do, but we are far from satisfied.

At my company, we have a slogan: "Good enough never is." And I find that attitude to be pervasive throughout the pipeline industry. No spill is deemed as acceptable, and we believe that the public, the government and we ourselves must control the factors contributing to accidents that we can control. As you have heard this

morning, one such factor is external damage from excavation, the largest single cause of pipeline accidents. Congress struck a blow last year in this regard with the enactment of Federal One-Call legislation, which has been referred to previously.

Now, turning to the legislation. First, it is our observation that the current law provides the Office of Pipeline Safety all the authority it needs to undertake its mission. The industry is closely and effectively regulated by the Office of Pipeline Safety.

Nevertheless, and this may surprise you, it is in our interest and in the public interest, in our opinion, to have rigorous, comprehensive and consistent Federal regulation. We welcome appropriate regulation, because it is good for the public confidence and because safe operation of our interstate pipeline systems is our number one priority, indeed.

My written testimony has detailed comments on the various bills before the Committee, but let me highlight just a few key points. With respect to Federal versus State authority, we believe that Federal rules should apply to pipeline facilities operating in interstate commerce. We believe this guiding principle is critical if we are to have a safe and efficient interstate pipeline network in the United States. We, therefore, oppose any provisions that weaken this principle.

We are also concerned about language in the administration and the chairman's bills that would let States engage in regulatory activities that, quote, supplement the Secretary's program and address issues of local concern, end quote. The use of this phrase implies that the States can impose standards different from the Federal standards. And at a minimum, this language will lead to confrontation and uncertainty.

Having said that, we totally agree that the Office of Pipeline Safety should be responsive to State concerns, and we certainly have no objection to creating a mechanism for States to have issues of concern addressed.

With respect to integrity testing, we believe the integrity rule recently proposed by the Office of Pipeline Safety will indeed improve results. The guidance in the chairman's bill is in keeping with the OPS approach. By contrast, the provisions in the administration's bill are, in our opinion, too prescriptive, detailed and, in some cases, ambiguous. For example, the administration bill requires that an integrity plan use the, quote, best achievable technology, end quote. That term is undefined and will lead to great confusion and, we think, unintended consequences.

Safety does not result from using a single test or tool, as my colleague pointed out. Nor is there a single best technology. Safety is achieved by using a combination of tools and operational techniques, some of which are very low-tech. In addition to those mentioned by my colleague, simply excavating the pipeline and looking at it is often the best thing to do. This is distinctly low-tech, but very effective in many cases. And certainly an effective overall program will include the use of high-tech and low-tech tools. But to suggest there is a single best technology or even a single best plan we think would be a mistake.

We note that Senator Murray's bill does not call for an integrity program but does in fact mandate internal testing every 5 years.

We believe the superior approach is to target testing and inspection resources to those areas posing the greatest risk. A blanket inspection requirement that treats all pipe equally will not produce that desired result.

In terms of public education and communities' right to know, we are willing to make more information available to local officials and the affected public. And we are here to work out ways to do that very efficiently. We do not believe, however, that it is useful to simply blanket an area with technical information, when only a few people may be interested. For this reason, we would like to see this provision in the final bill refined to provide more targeted information distribution.

In summary, the Association of Oil Pipe Lines and API members are, in fact, proud of our safety record and the job we do, while at the same time we also recognize that society and our public expects and demands that we do better. We expect no less of ourselves. And we look forward to working with the Office of Pipeline Safety on the integrity rulemaking as the next important step in that effort.

Thank you.

[The prepared statement of Mr. Wright follows:]

PREPARED STATEMENT OF PHILLIP D. WRIGHT, SENIOR VICE PRESIDENT, ENTERPRISE DEVELOPMENT AND PLANNING, WILLIAMS ENERGY SERVICES, ON BEHALF OF THE ASSOCIATION OF PIPE LINES AND THE AMERICAN PETROLEUM INSTITUTE

Introduction

Mr. Chairman, members of the Committee, my name is Phillip D. Wright. I am Senior Vice President of Williams Energy Services for Enterprise Development and Planning. Williams Energy Services owns and operates around 22,500 miles of pipelines carrying crude oil, liquid propane gas and refined petroleum products, including jet fuel, diesel fuel, heating oil and kerosene. Our pipelines are spread through 17 states, primarily in the West, Southwest, and Midwest. Williams is also a large operator of natural gas pipelines. Our company operates about 30,000 miles of interstate natural gas pipelines.

Currently I serve as Chairman of the Association of Oil Pipe Lines and appreciate this opportunity to appear before the Committee today on behalf of the Association and the American Petroleum Institute. The Association of Oil Pipe Lines (AOPL) is an unincorporated trade association representing 58 common carrier oil pipeline companies. AOPL members carry nearly 80% of the crude oil and refined petroleum products moved by pipeline in the United States. The American Petroleum Institute (API) represents over 400 companies involved in all aspects of the oil and natural gas industry, including exploration, production, transportation, refining and marketing. Together, these two organizations represent the vast majority of the U.S. pipeline transporters of petroleum products.

The Liquid Pipeline Industry

Mr. Chairman, the background information for my testimony is presented in the information packet included with my testimony. One of these packets was delivered to each Member of Congress earlier this week. I ask that this packet be made a part of the Record.

There are approximately 200,000 miles of oil and petroleum product pipelines in all 50 states of this country. The liquid pipeline infrastructure constitutes a fundamental part of our national economy. Pipelines carry about 66% of the petroleum and petroleum products moved domestically. About 29% is moved by water and about 5% by truck or rail.

Chances are, the gasoline you put in your car gets to you, in part, by pipeline. Our nation's airports rely on pipelines to deliver the jet fuel that powers our aviation industry. The trucking system relies on diesel fuel delivered by pipeline. Millions of heating oil and propane customers rely on pipeline deliveries. And industries across America rely on pipelines to deliver the feedstock they use to make many of our household goods.

Pipelines are an extremely efficient transportation system. For example, Williams' petroleum product lines moved roughly 591million barrels of product through our system last year. That is the equivalent of about 8,000 truck tanker loads every day. Gasoline may cost $1.50 a gallon, but the pipeline transportation contribution to the cost is around two cents.

As an industry, pipelines depend on a relatively small national workforce to approximately 16,000 skilled men and women. That modest workforce, however, and the 200,000 miles of pipelines for which they are responsible, transport over 600 *billion* ton-miles of freight each year. This mammoth job is accomplished so efficiently that America's oil pipelines transport 17% of *all* U.S. freight, but represent only 2% of the nation's entire freight bill.

The Industry's Safety Record

The liquid pipeline industry has a good safety record, a record that we in the industry are striving constantly to improve. On average, over the last ten years, liquid pipeline accidents have caused about two deaths per year and 10–15 injuries. In three of the last ten years, there have been no fatalities, and that is goal for which we strive. Pipeline transportation of fuel is far and away the safest form of transportation. For example, on a per gallon basis, deaths are 87 times more likely to occur when transportation is by truck rather than by pipeline. Many industries would be envious of our safety record.

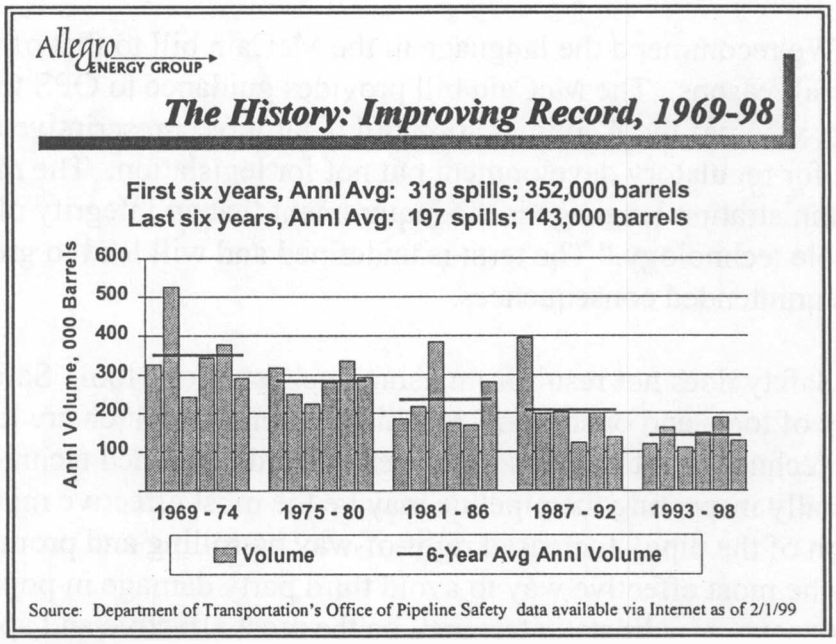
Having said that, we have a slogan in our company that "Good enough never is" and that applies here. A tragic accident like the recent one in Bellingham, Washington reminds us that any accident involving injuries or death is unacceptable and it's our desire and intention to improve on the current accident record.

The same is true with regard to leaks from the pipeline system. The last several years have seen, on average, about 160 reported leaks per year and involved the loss of about 160,000 barrels of product. This represents about one-thousandth of one percent of the total product. Still, a spill of any significant size can create serious problems if it occurs in an environmentally sensitive area. The recent spill here in the Washington, D.C. area demonstrates that.

It is important for the Committee to understand that the desire to operate safely does not result from OPS regulations, the threat of fines, or the threat of lawsuits. The desire to operate safely is woven into our corporate decision-making and into the industry-driven initiatives undertaken by our trade organizations. We assume responsibility for operating our lines safely. We care about the safety of our employees. We care about the safety of the public who lives near our lines. We care about preserving the environment. It is the right thing to do.

It is also in our financial interest to operate a safe, accident free system. Consider the practical fact that accidents have unacceptable business consequences. Accidents disrupt service to our customers and limit our ability to utilize our systems for an indefinite period of time. Cleanup and mitigation costs are expensive. Litigation costs can be substantial. Increasingly, our employees face the possibility that criminal charges may be brought. Accidents cause the public and government officials to question our commitment to safety and our credibility. Some critics have suggested that our companies have no financial reason to maintain high safety standards. We would suggest that exactly the opposite is true. The cost of having an accident, especially one involving deaths or injuries, is financially unacceptable to us and our stockholders.

These real incentives have led to a renewed focus on safety. And our efforts to improve safety have shown results. Real trends in safety performance take a long time to see. As the chart here demonstrates, over the last 30 years, our safety performance has improved steadily, whether measured in the number of incidents or the volume released. The number of pipeline incidents has decreased by 40% and the volume released has gone down 60%. These improvements have occurred at the same time that the total volumes transported have increased. Between 1977 and 1997, the amount of oil and petroleum products transported by pipeline increased almost 13%.



Having said this, we understand and accept the fact that the public expects the government to oversee the industry's safety efforts. The public understandably wants to be assured that we are making every reasonable effort to insure safety. We have worked with the Office of Pipeline Safety over the years on any number of initiatives to improve the safety of the liquid pipeline industry. Issues involving electric resistance weld pipe, valve spacing, criteria for determining environmentally sensitive areas, and establishing an operator qualification program are just a few of the areas where the industry has worked with OPS to the benefit of the public and to safety.

The Proposed Legislation

With this background, let me now turn to a discussion of the proposals before the Committee to reauthorize and amend the Pipeline Safety Act. There are a number of minor technical suggestions we have and will be communicating to Committee staff but let me focus in this testimony on our substantive comments and concerns.

Integrity Testing

Both S. 2438, introduced by the Chairman, and the Administration bill, S. 2409, direct the OPS to develop pipeline integrity programs that apply more stringent standards in "high consequence areas," generally thought of as more densely populated and unusually environmentally sensitive areas, as well as commercially navigable waters. OPS is already undertaking this effort, issuing the proposed rule for liquid lines a few weeks ago. S. 2004 introduced by Senator Murray would prescribe mandatory internal inspection of all pipelines at least once every five years and periodic external inspection once such technology is developed.

We recommend the language in the McCain bill to that of the Administration bill for several reasons. The McCain bill provides guidance to OPS to develop an integrity program, whereas the Administration bill is far more prescriptive and detailed, which is suitable for regulatory development but not for legislation. The most troubling feature of the Administration language is the requirement that an integrity plan use the "best achievable technology." The term is undefined and will lead to great confusion and perhaps unintended consequences.

Safety does not result from using one test or one tool. Safety is achieved by using a variety of tools and operational techniques, some of which are low tech or do not involve technology at all. In some cases, the old fashioned technique of digging holes and visually inspecting the pipeline may be the most effective method of deter-

mining the condition of the pipe. Increased right-of-way patrolling and promoting one-call programs may be the most effective way to avoid third party damage in populated areas. In certain circumstances, a hydrostatic test may be the most effective and appropriate test, but this is distinctly a low-tech method. In sum, there is no question that technology is important, and we support increased research into new technology, but technology is not always the answer and it is a mistake to build that concept into the law.

Also, the use of this term almost assures constant controversy and probably litigation over its meaning. When different technologies measure different parameters, how can you say that one is the "best?" The prescriptive use of the term in the Administration's bill raises the question as to the point at which a company's integrity plan is out of compliance with the law because it does not include the latest wrinkle in technology. Taken to its most extreme, the term suggests that we should dig up all the pipe laid in the past because newer pipe is made using better technology. This is not realistic nor, we suspect, the intention of the Administration, but it is the sort of unintended consequence that will result if language like this is used in the statute.

While there are parts of the Administration's provision on integrity testing to which we would have no significant objection, it is simply not necessary to go into such detail. The proposed integrity rule for liquid pipelines has been issued using the authority under existing law, so clearly there is no lack of statutory authority to accomplish their objective.

S. 2004, introduced by Sen. Murray, does not call for an integrity program, but, as previously indicated, does mandate internal testing every five years. We believe that such a blanket requirement would waste safety resources and detract from the objective of focusing safety efforts on the areas of greatest need. Therefore we would oppose that proposal. This does not mean that we oppose periodic testing of our pipelines, merely that the type and timing of such testing should be determined through rulemaking.

Public Education/Community Right-To-Know

While structured somewhat differently, the bill of Chairman McCain and the Administration bill appear to contain substantially the same provisions in this area. Senator Murray's bill also requires increased dissemination of information to the public.

We in the liquid pipeline industry do not object to making more information about our operations available to the public. We do not, however, believe it is useful to simply blanket an area with technical information, when only a few people may be interested. We also want to understand exactly what is required, so there is not a dispute about what constitutes compliance with the requirement.

With that in mind, we would recommend modifying Section 5(a) of S. 2438 to direct the Secretary to issue standards prescribing the elements of an effective public education program. Also, the bill currently calls for companies to submit their plans to the Secretary. It has been our experience that OPS inspects these plans as part of their overall inspection of company compliance with the statute. We therefore suggest changing the language to say that plans shall be "made available" to the Secretary.

We also suggest that Committee Report language encourage OPS and the industry to explore and make greater use of electronic means of communications, such as the internet. We understand this is not a substitute for more traditional means of communications, but we should become more creative in how we approach this task than we have been in the past. We must also use new electronic tools to ensure that local public officials have access to the information they need when they need it, something that is not always easily accomplished with paper maps.

Enhanced State Oversight

Both the Administration bill and the bill offered by Chairman McCain contain provisions allowing for greater state involvement in the oversight of interstate pipelines. Senator Murray's bill allows for greater state regulation of operator training and for delegation of authority to states to enact more stringent regulations than those set by federal law. A principal imbedded in the Act since its creation is that federal rules should apply to pipeline facilities operating in interstate commerce while states should be allowed to regulate lines wholly with a given state's boundaries. We believe this guiding principal is critical if we are to have an efficient, safe pipeline network in this country. The industry simply cannot operate effectively if states can impose their own rules. Our systems cross state boundaries. Our operations and safety activities are planned and implemented on a system-wide basis. If we faced separate regulations in every state in which we operate, we believe the

result would be a less efficient, less safe system overall and a potentially significant impediment to interstate commerce. Chairman McCain's statement accompanying the bill said it well

> "A mishmash of state laws regarding the construction, maintenance, training and operation of pipelines would certainly hamper commerce and would likely not improve safety."

We could not agree more. We cannot support the delegation of authority to the state to enact pipeline safety laws that differ from federal law, as provided in S. 2004. Our concern is that S. 2004 and the language in the Administration and McCain legislation will lead to efforts by states to do just that. While carefully drafted in many respects, the McCain and Administration bills provide that a state, in the process of overseeing interstate lines as agents for OPS, can seek authority allowing it to engage in "other activities . . . that supplement the Secretary's program and address issues of local concern. . . ." The use of this phrase, with no explanation of its meaning, raises serious questions. Are the states limited to applying the federal standards or are they able, with OPS's permission, to establish their own requirements? For example, could a state decide that the definition of "high consequence area" established by OPS is too lax, and require a pipeline to treat the entire state as a "high consequence area?" Could the state create different public education/community right-to-know requirements? Could the state treat one company differently than another company? These are serious questions raised by the language in the bills and by other proposals being made. If nothing else, the legislative language will lead to confrontation and uncertainty.

Some have suggested that states be permitted to regulate, and to enact more stringent regulation of, an interstate line in lieu of the federal government if those states enter into a compact to regulate a line located between or among those states. This proposal raises serious questions in addition to those raised above. By the very nature of the compact, one or more interstate lines would be singled out for different treatment than other lines to the same area. Aside from the safety and coordination issues raised, this suggestion would appear to raise serious competitive concerns. Interstate pipelines serving the same markets would face different costs and different operating constraints. This is precisely why regulation of interstate commerce is left to the federal government.

OPS should be responsive to state concerns and we have no objection to creating a mechanism for states to bring concerns to the attention of OPS. However, we strongly recommend that the legislation clarify that in no event can states apply regulations to interstate lines that are different from the federal regulation.

It should be noted here that traditionally, the calls for greater state involvement in the regulatory process come in the wake of a specific accident. The Committee should keep in mind, however, that it is the federal government that has consistently taken the lead on pipeline safety. When the law was created, it set minimum standards for intrastate natural gas lines because not all states had effective programs for such regulation. Even today, many states do not regulate intrastate liquid pipelines, but rely on the federal government to do so. We would also note that in the case of natural gas, over 70% of the accidents involving injuries or deaths occur on lines under state jurisdiction. It is certainly fair to criticize OPS or the industry for not doing a better job, but the suggestion that the answer is to allow state regulation of interstate lines is simply not borne out by the evidence.

In addition to the role states have in intrastate pipeline regulation, states can improve safety results by establishing reasonable setback requirements for future development near pipeline rights-of-way and by requiring full participation (with no exemptions) in call-before-you-dig/one call systems.

Operator Qualification

The bill of Chairman McCain requires companies to submit training plans to the OPS within six months of enactment. The OPS has already issued a rule requiring operators to develop programs for assuring that operators are qualified to do their jobs and to document that program. We suggest that the language here, which talks about "training," be changed to read in terms of "qualification," which is a broader concept than training, and that the time for completing those programs be made to coincide with the operator qualification rule made effective October 26, 1999 (64 Federal Register 46853 of August 27, 1999). Again, rather than calling for submission of the plans to OPS, we suggest that they be "made available" to OPS.

The bill offered by Sen. Murray would require OPS to certify that all individuals involved in the operation and maintenance of pipelines have been tested and are qualified to perform their functions. OPS has examined this issue and, along with a wide range of stakeholders, including state safety officials and representatives of

the public, has concluded that it makes no sense for OPS to perform a certification function. Under the standard developed, the industry must demonstrate that its covered employees and contractors are qualified to perform all tasks on the facility for which they are responsible. All of the documentation is subject to DOT review and audit and DOT can verify the implementation of the program.

Penalties

The Administration bill and that of Chairman McCain quadruple penalties for violations from $25,000 per violation to $100,000 and double the maximum civil penalty from $500,000 to $1,000,000. We are aware of no evidence suggesting that the current penalty levels are too low, nor have we seen any analysis as to why the higher penalties proposed in the bills are appropriate. Before the Committee approves increases of this magnitude, we believe there should be some rationale articulated to justify the increase.

Shutdown Authority/Enforcement

Both the Administration bill and the bill of Sen. McCain contain language involving the Secretary's authority to shut down pipelines believed to be dangerous. OPS has the authority today to shutdown pipeline systems and exercises that authority when necessary. We are not sure why this additional authority is needed, but we do not object to the provision.

The Administration bill also proposed two changes to the provisions of the law involving civil actions taken by the Attorney General and the citizen suit provision of the law. We do not object to the changes made to Section 60120(a)(1) involving the civil action provisions.

The second provision, modifying the citizen suit authority in Sec. 60121, allows judges to levy fines, not just provide injunctive relief if it finds an operator in violation of the regulations. We believe this provision of the Administration bill will encourage additional lawsuits, not improve safety, and object to its adoption.

If the Committee does consider this provision, however, there are two changes that need to be made to the language. When the Secretary levies penalties under Section 60122, the dollar limits on fines discussed above apply. However, there are no such limits applied to cases decided by the Court under this language. It should be made clear that the same limits apply to judgements made under Section 60121 as apply under Section 60122. Also, when the Administrator levies a fine against a pipeline operator, the fine is paid to the federal government as provided in Section 60122. If judges are to be allowed to levy fines under Section 60121, then it should be made clear that those fines should also be paid to the government.

Section 4(c) of the Administration's bill proposes correcting a language flaw in Section 60123(d) of the Act. The language, as currently drafted, requires a contractor both to "knowingly and willfully" disregard the one-call notification system and to "knowingly and willfully" damage the pipeline. Intentional damage to pipelines is already covered in sections 60123(b) and (c). Section 60123(d) should be modified to require only knowing and willful failure to call the available one-call system.

The Administration bill would amend the penalty provisions of Sec. 60123, the section dealing with damage to underground facilities, to provide that any person engaged in excavation activity without having called a one-call system is guilty of a misdemeanor. While we want to promote the use of one-call systems whenever possible, we believe this provision is excessive. The provision does not define "excavation activity" so conceivably activities as normal as gardening could be covered. This provision should either be dropped or modified to clarify what type of excavation activities are covered.

On a matter not covered in the bills, we have seen an increased tendency for accident investigations to be delayed because prosecutors want to investigate the possibility of criminal indictments. Frankly, we worry about the trend to criminalize accidents, but the bigger problem is that accident investigations by the NTSB are being delayed. Both OPS and the industry want to know the cause of accidents as soon as possible, in order to apply the lessons learned and reduce the chances of possible future incidents. We are not sure if a solution to this growing problem can be incorporated in this legislation, but it is a problem we urge the Committee to address.

Innovative Technology Development

Both the McCain bill and the Administration's bill propose increased research into the development of alternative technologies. We support improved research in the listed areas. Traditionally, technological innovation and improved safety inspection devices have been supported and funded by the industry. We welcome DOT's involvement in this important area. We support the Administration's proposal which authorizes the Secretary to support technological development through cooperative

agreements with trade associations, academic institutions or other qualified organizations.

Authorization of Appropriations

We certainly appreciate that OPS is engaged in a number of new initiatives that require adequate funding. On the other hand, the majority of the OPS budget is funded through user fees paid by the pipeline industry. The budget must be sufficient but should not be increased beyond what the agency is capable of spending productively. The amounts proposed in S. 2004 go far beyond the needs of the OPS and would result in a roughly 150% increase in pipeline user fees. A level of funding closer to that proposed in the McCain bill appears to be warranted. We also support drawing funds from the Oil Spill Liability Trust Fund for work undertaken by OPS that falls within the scope of that Fund.

Summary

In summary, AOPL and API members have built a solid safety record, but we also recognize that society expects and demands that we do better. We expect no less of ourselves. We look forward to working with OPS on the pipeline integrity rulemaking as the next important step in that effort. Achieving safety is the result of a system-wide effort that focuses resources where they are needed. We believe OPS is on the right track and that important progress has been made since this Committee passed the last authorization bill in 1996. We pledge to work with this Committee to pass an equally successful bill in this Congress.

Senator GORTON. Thank you.

Mr. Kenow.

STATEMENT OF CHARLES R. KENOW, NATIONAL VICE-CHAIRMAN, NATIONAL ASSOCIATION OF PIPELINE SAFETY REPRESENTATIVES

Mr. KENOW. Thank you, Mr. Chairman and members of the Committee. I appreciate the opportunity to address the Committee on a matter of grave importance to these states, this nation and the public we serve. This is the issue of public safety. As Vice-Chairman of the National Association of Pipeline Safety Representatives, I can assure you the states, who have been on the front lines of pipeline safety and damage prevention, view the actions of this Committee with great interest.

With me today is also the Chairman of NAPSR, Terry Fronterhouse, Chief of Pipeline Safety, from the Arizona Corporation Commission, who will also be available for questions.

The issue of pipeline safety and the role of the states in this federal/state partnership was discussed in great length at our recent national board of directors meeting in Phoenix, Arizona. Thirty-four states, who were represented at that meeting, were involved in the discussion of these remarks. As you may or may not be aware, this organization represents state agency pipeline safety managers, engineers and technical personnel who do inspect gas and liquid pipelines across the nation. And our mission is to strengthen that program through education, training and technology.

While the Pipeline Safety Act authorizes the Secretary of Transportation to administer a pipeline safety program, it also allows to delegate part of that inspection, or all of it, to interested States for a grant of up to 50 percent of the cost of those States' programs. Unfortunately, despite the active involvement of these states, the high performance levels, based on federal audits, scoring 95 to 100 percent, this state funding level has never been reached. And we are pleased to see in both Senate 2438 and 2409 that provisions are being made to provide greater funding for specialized or what we would call contracted state services.

We remain concerned, however, that this language is still unclear with regard to the role of interstate operators and agents, such as Minnesota and, until recently, Arizona, Nevada, and seven other states. We would also like to set the record straight on the role of the states. We have been actively involved in this process since 1968. And in fact, state safety personnel represent 90 percent of the federal/state inspection work force.

Actually, we are the first line of defense at the community level. Because we know the natural gas and hazardous liquid operators and the emergency personnel, and have been strong promoters of pipeline safety and underground utility damage. Actually, we have inspected more than 10,000 gas operators and 360 hazardous liquid operators nationwide. And we do this by not just going to their offices, we go out in the field in the states and the communities where we have responsibility for that.

So we are actually the first ones there. We are the ones that are called if something happens. We are the ones that are asked to be in public hearings and city council meetings to explain what is going on. And we think we should continue that effort.

In 1998, for example, we inspected more than 938,000 miles of gas pipelines and 45,000 miles of hazardous liquid. And in my detailed testimony, you will see there is over 25,000 inspection person days by state inspectors on the area of gas, and over 2,000 in the liquid area, compared with the DOT's current listing of 768 in 1998 and 621 in 1999 for the entire nation. So we are an active part in this process.

We also support the damage prevention efforts and are actively involved in Dig Safely and Common Ground. Some States have done additional things. Minnesota, for example, did several presentations, 231, to 13,000 operators. The State of Virginia has reduced its damage prevention by 40 percent since 1996.

So what we would ask is further support and increasing state grant funding for legislation, education and enforcement of state One-Call laws beyond the base pipeline safety program allocations. We think we can do even a better job of that.

As far as the two bills, the concern we have is with them being too restrictive with respect to the discussion of interstate agents and how they would be involved in this process. And we have made suggestions to those sections, particularly Section 9 of 2438, and Section 6 of 2409.

The other issue of concern is we need more clarity to assure that States that are already in the interstate program are assured due process before they may be removed by USDOT. And those that have been removed should be reinstated. We think that needs to be made clear, and we have made some recommendations on the language there.

Mr. Chairman, the issue of states' rights and agreement is the basis for this change. The states were summarily noticed that their programs would be changed and limited. The States of Arizona and Nevada were dropped this year. The other states in the process were put on notice they would be phased out of this process over the next 3 years.

Those states included Arizona, Connecticut, California, Iowa, Michigan, Minnesota, Nevada, New York, Ohio, and West Virginia.

Other states have tried in the past to become interstate agents. Washington, Oklahoma, Texas, Virginia, and, I should add, New Hampshire, as well, had previously requested but were denied this full interstate inspection status.

So we think that the removal of the state resources is analogous to taking a trained force from the field and replacing it with an outside force that has no knowledge of the local terrain, people or the conditions in that area, and replacing those with federal inspectors from Washington, D.C., Atlanta, Houston, Kansas City, and Denver regional offices, when we are familiar with our own states' activities.

We firmly believe these inspections are critical to ensuring interstate pipelines are constructed, operated and maintained safely. We do not believe the temporary agent program, as it is designed, will enhance that process. And I would just like to say in closing, let me reaffirm that the states' commitment is to pipeline safety and environmental protection. We have the trained resources in place and have been doing the job. We are familiar with those local conditions, emergency responders and operators. And we have been on the front lines of our communities, promoting public safety and damage prevention.

We fully support your efforts here to enhance that, but we want to make sure that it is not overly restricting those states that want to assume a greater role in pipeline safety. I would also call your attention to the resolution attached supporting this from the National Association of Regulatory Utility Commissioners, as well as the National Governors Association.

Thank you for allowing me to comment before your Committee.

[The prepared statement and information of Mr. Kenow follows:]

PREPARED STATEMENT OF CHARLES R. KENOW, NATIONAL VICE-CHAIRMAN, NATIONAL ASSOCIATION OF PIPELINE SAFETY REPRESENTATIVES

Mr. Chairman and Members of the Committee, I appreciate the opportunity to address the Committee on a matter of grave importance to the states of this nation and the public we serve. This is the issue of pipeline safety. As Vice-Chairman of the National Association of Pipeline Safety Representatives (NAPSR), I can assure you the states who have been on the front lines of pipeline safety and damage prevention view the actions of this Committee with great interest. With me today, is the Chairman of NAPSR, Terry Fronterhouse, Chief of Pipeline Safety from the Arizona Corporation Commission, who will be available for policy questions.

The issue of pipeline safety and the role of the states in this federal/state partnership was discussed at great length at our recent National Board of Directors meeting in Phoenix, Arizona, April 24–28. Thirty-four states were represented in this discussion and preparation of these remarks. For those of you who are not familiar with NAPSR, the organization was established in 1982 to represent state agency pipeline safety managers, engineers, and technical personnel who inspect gas and liquid companies. NAPSR's mission is to strengthen states' pipeline safety programs through promotion of improved pipeline safety standards, education, training, and technology.

As you are aware, the Pipeline Safety Act ("Act") (49 USC 60101 *et seq.*) authorizes the Secretary of Transportation (DOT) to administer a pipeline safety program for the gas and hazardous liquid pipelines in the United States. The Act allows the Secretary to delegate all or a part of the responsibilities for pipeline safety to interested states for a grant up to 50% of the cost of the states' programs. Unfortunately, despite the active involvement of the states, and high performance levels from federal audits showing the majority of states scoring 95–100%, this funding level has never been reached.

We are pleased to see in both S. 2438 the "King and Tsiorvas Pipeline Safety Improvement Act of 2000" and the Department of Transportation's bill, S. 2409 the

"Pipeline Safety and Community Protection Act of 2000," that provisions are being made to provide greater funding for specialized or "contracted" state services. We remain concerned over the restrictive language in the bill regarding inspections of interstate operators by state agents such as Minnesota and until recently—Arizona and Nevada.

First, I would like to set the record straight about the role of the states in this inspection process, since certain information being circulated about us is incorrect. States have been actively assisting the Secretary in carrying out the pipeline safety program for the United States since the Pipeline Safety Act was signed into law in 1968. In fact, States' pipeline safety personnel represent 90 percent of the federal/state inspection workforce. These personnel are the "first line of defense" at the community level. They know their natural gas and hazardous liquid operators, emergency personnel, and have been strong promoters of pipeline safety and underground utility damage prevention.

State inspectors conduct inspections of more than 10,000 gas operators and 360 hazardous liquid operators nationwide. State pipeline safety programs ensure public safety through periodic office and field inspections of existing gas and liquid facilities, code compliance activities, and construction reviews of new facilities. These inspections ensure pipeline operators comply with safety regulations and company procedures pertaining to pipeline operations and maintenance. This directly results in the safe transportation of products to consumers.

In 1998, states were responsible for inspecting more than 938,000 miles of gas pipelines, 47.5 million gas service lines and 1,851 gas facilities such as liquid natural gas plants. States were responsible for inspection of approximately 45,000 miles of hazardous liquid pipelines. In 1998, the states conducted 25,785 inspection person-days of gas facilities and 1,948 inspection person-days of hazardous liquid pipelines. In comparison, US DOT's Office of Pipeline Safety's inspections consisted of 768 in 1998 and 621 in 1999 for the entire nation.

With respect to Damage Prevention, it is a well-known fact that damage to pipelines caused by excavation activity remains the leading cause of pipeline failures. It is imperative that all stakeholders take action to reduce these damages. The states have been and remain, on the forefront of initiatives that are designed to reduce damages to pipelines and other underground infrastructures. Recent national initiatives (DIG SAFELY and Common Ground) sponsored by the Federal Office of Pipeline Safety (OPS) were fully supported by the states. States have taken other actions on their own to reduce excavation caused damages to pipelines. In Minnesota, from 1998–2000, 231 outreach and educational talks were conducted by our engineers to 13,073 operators and excavators. We also added requirements for tracking abandoned utilities and made calling 9–1–1 immediately a requirement when there is a release of gas or hazardous liquid. In Virginia, since 1996, state efforts resulted in a 40% reduction of excavation damage to pipelines. Nationally, in 1998, 1,800 inspection person-days were spent on damage prevention activities. We support increasing state grant funding for legislation, education, and enforcement of State One-Call laws beyond the base pipeline safety programs.

Allow me to discuss our specific concerns with the bills. While many of the provisions in the bill are useful, recent actions by DOT to summarily limit the states' past role in inspecting interstate pipelines remains of concern. We believe the current language remains too restrictive and will neither improve pipeline safety nor "enhance the states' ability" to maintain their current levels of inspection. We believe existing interstate agent states will be adversely affected by the limitations placed on their inspection program. If these new conditions are written into law, they will overly restrict state inspections and will prevent other states from entering into the interstate inspection process.

Finally, we believe that additional clarity is needed to assure that states already in the interstate program are assured due process before they may be removed by US DOT.

The language changes we are suggesting are as follows:

Sec. 9 in S. 2438 and Sec. 6 in S. 2409 DOT bill:

ENHANCED ABILITY OF STATES TO OVERSEE OPERATOR ACTIVITIES

(a)(3) should be amended to read, *"An agreement under paragraph (2) shall also include a program allowing states to assume full inspection responsibilities to ensure compliance with pipeline safety standards, provided that the Secretary determines that*—(A), (B), and then *strike (C)*, change (D) to (C).

To assure that states receive due process before their agreements are terminated, (b)(3) should be amended as follows: Section 60106(d) is amended by inserting after the first sentence the following: "In addition, the Secretary may end *or decline to renew* an agreement for the oversight of interstate pipeline transportation when the

Secretary finds that there are significant gaps in the regulatory authority of the state authority over intrastate pipeline transportation . . .

This addition would address the state's right to a hearing should its program be dropped by any administrative procedure by DOT. Due process did not occur this past year when the interstate agency agreements for the states of Arizona and Nevada were dropped.

Mr. Chairman, the rights of states who have effectively conducted interstate inspections for years, as an "agreement state" is the basis for this language change. Interstate agent states were summarily put on notice that their programs would be cancelled or phased out over the next three years and replaced by more limited "contracted" services. The states affected include Arizona, Connecticut, California, Iowa, Michigan, Minnesota, Nevada, New York, Ohio, and West Virginia. Other states including Washington, Oklahoma, Texas, and Virginia had previously requested but were denied full interstate inspection status in the past.

The removal and limitation of state resources is analogous to disengaging a seasoned, fully trained force and their field commander from the battlefield and replacing them with a force from a foreign country that does not know the local customs, people, terrain, or rules of engagement. This proposed language would adversely tie the states' hands by re-designing the conditions that must be met in order to fight, and then replacing state "troops" with federal ones from Washington D.C., Atlanta, Houston, Kansas City, and Denver. History has proven, more than once, this isn't the way to win the battle.

The states firmly believe their inspections are critical to ensuring that interstate pipelines are constructed, operated, and maintained safely. In several states including Minnesota, the state legislature mandated they seek this inspection role, which we have been successfully doing since 1991. In ending the current interstate agent program, OPS unfortunately presumes it could be replaced with a "temporary agent" program, which has not been fully analyzed, formalized or discussed with the states. This would only be for new construction and incident investigation. It also assumes that they will receive additional resources from Congress to replace state inspectors with federal ones. Unknown, unproven, uncertain alternatives must not be used to replace state activities that promote pipeline safety.

In closing, let me reaffirm the states' commitment to pipeline safety and environmental protection. We have the trained resources in place and have been doing the job. We are familiar with the local conditions, emergency responders, and operators. We have been and continue to be, on the front lines of our communities promoting public safety and damage prevention. We fully support your efforts to enhance this partnership without overly restricting those states that want to assume a greater role in pipeline safety.

Thank you for allowing me the opportunity to testify before your Committee.

Attachment

Resolution in support of Interstate Agents passed by National Association of Regulatory Utility Commissioners (NARUC) Washington, D.C. Annual Meeting March 8, 2000 and supported by NAPSR and the National Governor's Association.

Resolution In Support Of Interstate Agents

WHEREAS, The States have a vital interest in the safety of the interstate pipelines within their respective States; and

WHEREAS, The Congress of the United States has provided a means for States to take an active role in the safety of interstate pipelines by becoming "interstate agents" for the U.S. Department of Transportation, Office of Pipeline Safety (OPS) via Section 60117(c) of 49 U.S.C.; and

WHEREAS, The States of Arizona, Connecticut, California, Iowa, Michigan, Minnesota, Nevada, New York, Ohio, and West Virginia currently have interstate agent status which enables them to conduct safety inspections of interstate pipelines operating within their States, and other States including New Hampshire, Oklahoma, Texas and Virginia have requested but were denied interstate agent status; and

WHEREAS, By letters to the interstate agent States dated December 23, 1999, OPS announced that the States of Arizona and Nevada were being terminated as interstate agents, and that the entire interstate agent program would be phased out over three years; and

WHEREAS, This action was taken unilaterally and without notice to or consultation with the affected States, and in the case of the terminations the rationale given contained incorrect information; and

WHEREAS, In ending the interstate agent program OPS appears to presume it could be replaced with a "temporary agent" program, which has not been formalized or discussed with the States; and that it will receive substantial additional resources from the current Congress, which is not assured; and

WHEREAS, The States strongly believe their inspections are critical to ensure that interstate pipelines are operated, constructed and maintained safely; and that State activities which promote pipeline safety should not be arbitrarily supplanted by unknown, unproven, and uncertain alternatives; and

WHEREAS, The resources the States expend inspecting interstate pipelines in no way diminish the safety inspection of local distribution companies or other intrastate operators; and

WHEREAS, The National Transportation Safety Board (NTSB) has encouraged the inspection of interstate pipelines by State inspectors; and

WHEREAS, The National Governor's Association has adopted a Proposed Policy on Pipeline Safety encouraging greater State oversight of interstate pipelines; and

WHEREAS, Washington State Governor, Senators, Congressional Representatives and the Washington Utilities and Transportation Commission all desire a greater role in the oversight of the interstate pipelines through their State; now therefore be it

RESOLVED, That the Board of Directors of National Association of Regulatory Utility Commissioners (NARUC) convened in its March 2000 Winter Meeting in Washington, D.C., urges the U.S. Department of Transportation to stay any change in the pipeline interstate agent program as historically administered, that any changes to the program be made only after full consultation with the States and the finalization of alternatives, and that OPS be instructed to accept additional interested States as interstate agents.

Sponsored by the Committee on Gas
Adopted by the NARUC Board of Directors March 8, 2000

Senator GORTON. Thank you very much.

Mr. Reiten, please proceed.

STATEMENT OF RICHARD REITEN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, NORTHWEST NATURAL GAS, ON BEHALF OF THE AMERICAN GAS ASSOCIATION AND THE AMERICAN PUBLIC GAS ASSOCIATION

Mr. REITEN. Good afternoon, Mr. Chairman and members of the Committee. My name is Dick Reiten. I am President and Chief Executive Officer of Northwest Natural Gas, headquartered in Portland, Oregon. We are a local gas distribution company, serving more than 500,000 customers in Oregon and Southwest Washington. And I am here to testify on behalf of the American Gas Association and the American Public Gas Association.

As part of my testimony, I have an additional statement from the American Public Gas Association.

Senator GORTON. It will be included in the record.

[The information referred to follows:]

PREPARED STATEMENT OF RICHARD REITEN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, NORTHWEST NATURAL GAS, ON BEHALF OF THE AMERICAN GAS ASSOCIATION AND THE AMERICAN PUBLIC GAS ASSOCIATION

Good morning Mr. Chairman and members of the Committee. My name is Dick Reiten, President and CEO of NW Natural. NW Natural is a 141 year-old company headquartered in Portland, Oregon. We are a natural gas local distribution company serving more than 500,000 customers in Northwest Oregon and Southwest Washington.

I am here testifying on behalf of the American Gas Association (AGA) and the American Public Gas Association (APGA). Thank you for the opportunity to comment on the essential matter of public safety and the nation's natural gas distribution system.

AGA is the national trade association representing over 180 investor-owned natural gas utilities collectively serving almost 60 million consumers. The APGA represents 480 of the 1000 municipally owned gas companies across the nation. They include municipal gas distribution systems, public utility districts, county districts, and other public agencies that own and operate natural gas distribution facilities. Together we represent the companies that deliver virtually all of the natural gas to consumers in the United States.

Our industry is a growing business as 70% of all new households choose to have natural gas service. Our fuel is primarily domestically produced, reasonably priced and environmentally friendly. Delivering natural gas safely to our customers is essential for us to continue conducting our business. Our industry's commitment to safety is borne out each year through the National Transportation Safety Board's annual statistics. Delivery of natural gas by pipeline is consistently the safest mode of transportation.

Although State pipeline safety authorities regulate natural gas utilities, our State governments routinely adopt the federal safety standards as minimum standards. Therefore, what happens in Congress affects our companies. We are very concerned that any perceptions or allegations that we are not devoted to safety be addressed and dispelled. Utilities are the "faces" of the natural gas industry. Our companies and facilities are located within the communities we serve and the public knows us well. We participate in many community programs and charitable activities. The health of the community is the health of our company.

Natural Gas Systems are Different From Liquid Systems

As the legislative process moves forward, there are important differences between the natural gas and liquid pipeline systems that Congress needs to recognize and understand when crafting new requirements. While many may unintentionally link all "pipelines" together, there are significant differences between the liquid transmission, natural gas transmission and natural gas distribution systems. Each industry faces different challenges, operating conditions and consequences of ruptures.

The federal regulations recognize the differences between the three types of systems and different sets of rules have been created for each. 49 CFR Part 192 sets out the regulations for natural gas transmission and distribution and the rules discriminate between the two. 49 CFR Part 195 sets out the regulations for liquid transmission lines.

Transmission systems are generally long and straight pipelines are large diameter and operate at high volumes and high pressures. Distribution systems are constructed in pipe configurations that look like grids or web, use smaller diameter pipe and operate at low volumes and low pressures.

Natural gas moves a single product, methane, by periodic compression along the pipelines. Natural gas transmission lines take our product from the producing areas to our towns where the utility receives it and distributes the product to homes and businesses. Liquid transmission pipelines move commodities such as crude oil, gasoline, heating oil, jet fuel, diesel, propane and other liquids. These products are physically pumped through the pipeline to distribution centers or end-users.

The Leading Cause of Accidents—Third Party Damage

The leading cause of accidents on distribution pipelines is excavators unintentionally striking our lines, commonly third party damage. Year after year these strikes cause over 60% of the total ruptures on utilities and the vast majority of injuries and fatalities. While we work very hard to provide for safety we can't do it alone. Excavators and other underground utility operators need to work with us to provide for safe and reliable natural gas service.

This Committee recognized the problem last Congress and created a federal program to reward States with strong one-call laws. These laws require excavators to call before they dig and for utilities to accurately mark their underground facilities. The Committee also directed DOT to gather all stakeholders together to produce a "best practices" study. This effort was completed last year and we are working to help implement the best practices to improve field operations of one-call systems. The DOT/stakeholder effort is called "Path Forward" and utilities are participating fully. We thank you for your work on one-call and hope to find additional ways to improve this important safety tool.

Distribution Safety Initiatives

Natural gas utilities are working with federal and state governments on a variety of new safety initiatives. These include the creation of a voluntary data gathering effort on performance of older plastic pipe; pipeline system integrity regulations; operator fatigue surveys; utility transmission mapping and many other efforts. We view these as investments in our customers and the communities we serve.

In addition to our voluntary efforts, LDCs must comply with a regulatory program that pays stringent attention to design, construction, maintenance, operation, replacement, inspection and monitoring practices. We continually refine our safety practices. Combined, natural gas utilities spend an estimated $3.4 billion each year in safety related activities. Roughly half of this money is spent in compliance with federal and state regulations. The other half is voluntarily spent to ensure that our systems are safe and that the communities we serve are protected.

Over the past ten years we have seen the rate of incidents on natural gas distribution lines decreased by almost 40% while the volume of natural gas use nationwide has increased by 25%. Our industry has a tremendous incentive to maintain our excellent safety record. Safety is a matter of corporate policy and a top priority for every company. These policies are carried out in specific and characteristic ways. Each company employs safety professionals, provides on-going employee evaluation and safety training, conducts rigorous system inspection, maintenance, repair and replacement, distributes public safety information, and complies with a wide range of federal and state safety regulations and requirements. Individual company efforts are supplemented by collaborative activities in the safety committees of regional and national trade organizations. Examples of these groups include the American Gas Association, the American Public Gas Association and the Interstate Natural Gas Association of America.

Collaboration and Professional Organizations

Company safety professionals also participate in a variety of professional organizations dedicated to advancing the practice of work place and public safety. A partial list of the leading groups include the following: National Association of Corrosion Engineers (NACE), National Fire Protection Association (NFPA), National Safety Council (NSC), American Petroleum Institute (API), American Welding Society (AWS), American Society of Mechanical Engineers (ASME), Transportation Safety Institute (TSI), American Society of Civil Engineers (ASCE), and the American Society of Safety Engineers (ASSE).

Research and Development

Utilities also contribute to research and development through such organizations as the Gas Research Institute and Institute of Gas Technology where advanced safety devices and technologies are designed and tested. Interstate pipeline and local distribution companies invest millions in non-construction safety-specific activities. We are always seeking better technologies to use in our safety activities.

Senate Legislative Proposals

Legislative proposals have been made to address a number of concerns that are contained in the three pipeline safety reauthorization bills before the Senate—S. 2438, S. 2409 and S. 2004. Allow me to comment broadly upon some general themes. More specific comments on each bill are included with this testimony as attachments. We appreciate the opportunity to discuss the various proposals and to suggest specific language changes.

Operator Qualification

Concerns have been raised about expertise and abilities of the natural gas industry's workforce. While we have maintained that our excellent safety record shows that our employees are qualified, we are fully participating in the new Operator Qualification rule that was issued in August 1999. For the first time operators will be required document this qualification in writing. Utilities' written qualification plans must be completed by April 2001 and are subject to audit by our state regulatory authorities. In the event of an accident this information is subject to discovery in court.

Some have suggested that we focus on training and certification. The current rule encompasses training and the employees are actually certified by the company under an enforceable federal rule. Some may question self-certification but the fact remains that operators are "on the hook" and responsible for their decisions and actions. (Please see Attachment #4 for more details)

System Integrity Rule

The Administration has proposed legislative language that tracks a pipeline system integrity rule for the liquid transmission industry. The language as written does not discriminate between natural gas and liquids and includes such language as a requirement to use "best achievable technology." Natural gas distribution companies are actively working with the Office of Pipeline Safety to develop a rule that can be applied to our systems. It is evident that the system integrity rule for natural gas is going to be very different than the one for liquid transmission. As mentioned before, our systems are very different.

Unlike most liquid transmission lines, the physical characteristics of distribution lines preclude the use of internal inspection devices in many cases. Distribution companies to maintain their lines utilize other means of inspection. Regulations require utilities to perform a greater level of safety activities in more highly populated areas within our systems called "business districts." This is similar to the Class location approach used for natural gas transmission lines.

Public Education/Community Right To Know

We support the public's right to know and understand how and where the natural gas system operates. An informed public will be better able to contribute to accomplishing the objectives of improved public safety. In many instances, improving public information is a cooperative effort between the natural gas industry and communities served. Whether new efforts extend or improve existing programs, utilities will participate in their development and implementation. However, we ask that our unique relationship with our state regulatory agencies and local communities is recognized and any new requirements are crafted in a way that takes this into consideration.

We also support advanced preparation and training for fire, police and emergency service personnel who are often first to arrive at a hazardous site. It is critical for them to know and understand the nature of a natural gas incident and how best to manage it.

State Jurisdiction for Interstate Pipelines

Utilities are concerned that different requirements imposed by States on interstate transmission could lead to supply disruption to our customers. Uninterrupted flow is critical in natural gas systems. If interstate flows are interrupted, the ability of a utility to maintain adequate pipeline pressure to serve customers is immediately impaired. In such situations we must manually turn off service to individual customers. When flows resume, we must then restore service and re-light each gas appliance in every affected home and business. The process is a long and tedious one, and is obviously not without its own risks. Unnecessary disruptions should be avoided.

Summary

In summary, the natural gas industry is proud of its safety record. Natural gas has become the recognized fuel of choice by both citizens and the federal government. This customer growth and confidence also bears with it an added responsibility. As such, public and employee safety is a top priority for natural gas utilities. We will continue our ongoing efforts to operate safe and reliable systems and to strengthen one-call laws and systems in every State.

Thank you for providing the opportunity to present our views on the important matter of pipeline safety. We look forward to working with federal, state and local authorities, as well as within our industry, to achieve the highest possible level of public and employee safety.

Attachment #1

S. 2438

THE KING AND TSIORVAS PIPELINE SAFETY IMPROVEMENT ACT OF 2000

By the American Gas Association and The American Public Gas Association

May 11, 2000

IG Report

Section 2 requires the Office of Pipeline Safety (OPS) to respond to the recommendations of the Inspector General's report on the Office of Pipeline Safety. Some of the other provisions of S. 2438 go to areas mentioned in the IG report. Any inconsistencies should be rectified.

Operator Training Plans

Section 4 would require distribution companies to develop written training plans and submit them to the Department of Transportation. Normally, distribution companies work directly with their state regulatory authorities. States do adopt the federal standards as their minimum safety standards. However, the state pipeline safety inspectors inspect and enforce the rules on distribution companies. There are approximately 1200 natural gas utilities nationwide. We suggest that the requirements be changed to indicate that utilities will work with their state regulators when developing their final operator qualification plan that includes training.

All companies are now implementing the new federal Operator Qualification rule that was issued in August of 1999. The new rule requires companies to ensure that their safety related employee force is qualified to do their jobs and respond to abnormal circumstances. Companies must document this qualification in writing and this documentation is subject to audit by the regulatory authorities. Training is one of the tools used in qualification but not an end unto itself. An employee can go through a training program but not necessarily demonstrate the skills, knowledge and abilities to receive qualification. The focus should be on having a qualified workforce. (Please see Attachment #4 for further detail.)

Pipeline Integrity Inspection Program

Section 5 requires the Secretary to establish rules for inspection in "high-density population areas" and "unusually sensitive areas." Under the current statute the terms are defined whereby "high-density population areas" cover both natural gas and liquid pipelines and "unusually sensitive areas" cover only liquid pipelines. The language should be clarified to make this distinction. Unusually sensitive areas are designed for environmental protection measures. Natural gas ruptures do not result in environmental pollution.

Public Education and Community Right to Know

Section 7 requires distribution companies to engage in a number of public education programs including informing the public about how to use the one-call programs. We strongly support better knowledge of the use of one call or "call-before-you-dig" programs. Almost 60% of the accidents on natural gas distribution lines are caused by third parties unintentionally digging into the lines.

We already participate in many public education and outreach programs with state and local official and emergency response, police and fire personnel. One section requires distribution companies to "advise municipalities, school districts, businesses and residents of pipeline facility locations." Does this mean that utilities are required to directly contact every citizen, public official and business owner in the cities we serve regarding the location of our lines? It is far more effective to notify citizens that they need to call before they excavate or report any gas leaks directly to the utility. Information sent directly to individuals is often ignored. It is more effective to repeatedly put out your safety messages through various forms of advertisement. Natural gas utilities operate within the communities they serve and constantly interact with them.

The section also requires that companies provide maps to the municipalities where their pipes are located. Unlike long-line transmission pipelines that are relatively straight and are mainly located in rural areas, natural gas utilities are, by their nature, located in populated areas. We are concerned that releasing the location of our utility facilities may represent a security problem. A city could be seriously disrupted if such information fell into the wrong hands. A requirement to duplicate our maps and provide them to all municipalities also represents a significant storage issue for the municipal authorities. It is much more workable to simply require that company's supply any maps to the state or local authorities if they request them.

Authorization of Appropriations

Section 12 authorizes an increase in overall appropriations including an increased draw from the Oil Spill Liability Trust Fund. The majority of the appropriations are funded through user fees assessed on transmission lines. Natural gas utilities absorb a portion of these fees as part of the transportation costs and these costs are passed to the consumer. It is therefore important that any increased fees be wisely spent and not unduly burden the natural gas consumer. It is important to note that companies provide for the actual safe operations of their pipelines.

Attachment #2

S. 2409

THE PIPELINE SAFETY AND COMMUNITY PROTECTION ACT OF 2000

By the American Gas Association and The American Public Gas Association

May 11, 2000

Additional Pipeline Protections

Section 2 requires the Secretary to establish and implement a pipeline integrity program. The language also calls requirements to use "best achievable technology." If accepted the requirement would likely mean that local distribution companies (LDCs) would constantly be out of compliance and subject to fines. What is "achievable" is unclear. At what price is it "achieved." The language also appears to track the ongoing integrity rule for liquid pipelines. The discussions and issues surrounding the natural gas rule indicate that, because of the differences in the two products and systems, that it could be very different from the liquid rule. As the rules are ongoing, Congress should not confuse the matter with unnecessary legislative language. The natural gas industry is participating in developing the rule for our industry in good faith and these efforts should not be undercut.

Community Right to Know and Emergency Preparedness

Section 3 requires companies to promote knowledge about one-call notification systems and other possible hazards. Companies strongly support continued efforts to educate the public regarding one-call and how to respond to a natural gas leak. LDCs also would be required to work to ensure that emergency response authorities be educated to respond to natural gas leaks and other information.

Enforcement

Section 4 would expand the Department of Transportation's (DOT) enforcement authority and penalties. These provisions are unnecessary as the Secretary already has very wide enforcement authorities. The section also would broaden the existing citizen's suit provisions in the law. We question why this is necessary. Pipelines need to focus on safety activities not court cases.

Underground Damage Prevention

Section 5 would make it misdemeanors for an excavator to hit a natural gas line. We support strong enforcement for those that continually refuse to use one-call systems or wantonly endanger themselves or the pipelines. However, it is more important that an excavator report a strike, even if it relieves him of a penalty. One of the most serious problems is excavation activity damaging pipes and then reburying the pipe.

Improved Data and Data Availability

Section 7 would establish a national data depository for information other than incident related data. DOT is already working with both the liquid and natural gas industries to voluntarily develop a database to help identify any trends or problems. These programs are just being implemented and should be allowed to continue. There is no need to spend user fee dollars to create another depository.

Enhanced Investigation Authorities

Section 8 would allow the Secretary to collect "extraordinary expenses of incident investigation." Currently, the National Transportation Safety Board investigates accidents on LDCs when there is a death or injury. State authorities also investigate LDC accidents. We are concerned that there is no definition of the expenses or caps for an agency, that's primary role is to create safety regulations and to enforce them, not investigate accidents.

International Authority

Section 9 would allow DOT to support international efforts to share information. Once again LDCs fail to see the benefit to the public safety. The U.S. has one of the best pipeline systems in the world. If other countries benefit from our expertise they should foot the bill.

Support for Innovative Technology Development

Section 11 would direct DOT to take appropriations (user fees) and participate in the development of alternative technologies for identifying outside force damage. LDCs have for many years supported the development of technologies used in preventing or identifying outside force damage. If Congress desires to have DOT in-

volved in research then the projects should be useful and, where possible, be in conjunction with industry supported efforts.

Authorization of Appropriations

Section 12 would authorize DOT's FY2001 budget request. The request asks for a 43% increase in user fees. Any additional funding for the Office of Pipeline Safety should come from increased drawdown of both the Oil Spill Liability Trust Fund and the OPS "reserve fund." $5 million of the requested increase is for a state grant program for states with one-call programs. These funds are authorized to come from general revenues and should. One-call systems protect all underground facilities, excavators and the public in general. Solely pipeline user fees should not fund the grants program. The request for full 50% funding for the annual state pipeline safety programs is acceptable but the level should be $15 million not $17 million.

Attachment #3

S. 2004

THE PIPELINE SAFETY ACT OF 2000

By The American Gas Association and The American Public Gas Association

May 11, 2000

Expanded State Authority

Section 3 proposes to give State's the authority to promulgate and enforce regulations for interstate transmission pipelines. Varying state regulations on interstate transmission lines could result in requirements that cause the pipeline to interrupt service to local distribution companies (LDC) serving a different state. This could cause disruption of residential and business services that would require LDCs to individually visit them one by one to re-light their pilot lights for safety reasons.

New Federal Requirements

Section 5 would require that pipeline facilities capable of accommodating an internal inspection device be inspected every 5 years and that an external inspection occur every 5 years if the Secretary determines that the technology exists and is reliable. This provision would mandate internal inspection of any part of the nation's 1.7 million-mile distribution system, including service lines if the line could accommodate the same. Distribution lines are normally smaller in diameter and lower pressure and internal inspection devices are not routinely used. Other inspection means are much more prevalent.

The section also would require external inspections. In order to externally inspect the lines they would have to be entirely excavated every 5 years. The cost of these provisions would be enormous; the disruption to citizens and the public in urban areas by excavation every 5 years would be extreme. Basically, every city's streets served by natural gas would be cut and excavated on a continuing basis.

Enhanced Qualifications of Pipeline Operators

Section 6 would require that employees of pipeline facilities be tested and certified as qualified by the Secretary of Transportation. The industry is in the midst of implementation of DOT's Operator Qualification Rule. Under the rule companies must ensure that employees performing safety related jobs be qualified to perform their jobs and to respond to emergency and unusual circumstances. Companies must also keep records of an employee's qualification and such records are subject to audit by the Office of Pipeline Safety and, in the case of distribution companies, the state pipeline safety inspectors. The rule was created through two and one-half years of hard work in a negotiated rulemaking that was facilitated by the Federal Mediation and Conciliation Service.

Study and Report

Section 7 requires studies on internal and external inspection devices, burial depth, automatic failsafe mechanisms and equalizing priorities between natural gas and liquid pipelines. Numerous studies exist on many issues important to pipeline operation. Prior to expending user fees to conduct additional studies, Congress should avail themselves to the existing body of work. If an area of interest has not been covered, a study could be conducted.

Authorization of Appropriations

Section 8 would increase user fees $81 million for FY2001 and accelerating to $108 million by FY 2005. Currently user fees total a little over $30 million. Natural gas consumers eventually absorb the majority of user fees assessed on pipelines. Di-

verting pipeline safety dollars away from field activities to the federal government does not increase safety. The Office of Pipeline Safety's mission is to promulgate regulations, inspect and enforce. Pipelines are responsible for operating their systems safety 24 hours a day, 7 days a week, 365 days a year. Collectively, natural gas transmission and distribution spend approximately $4 billion annually on safety related activities. Our excellent safety record bears out our industry's commitment to safety.

Attachment #4

PIPELINE OPERATOR QUALIFICATION AND TRAINING
BRIEFING PAPER

By the American Gas Association and The American Public Gas Association
May 11, 2000

Background

The Accountable Pipeline Safety and Partnership Act of 1996 amended the statute to broaden a requirement for testing and certification of operations personnel, law required DOT to adopt regulations requiring that "all individuals who operate and maintain pipeline facilities shall be qualified to operate and maintain the pipeline facilities" and "shall address the ability to recognize and react appropriately to abnormal operating conditions that may indicate a dangerous situation or a condition exceeding design limits" (49 U.S.C. 60102(a)).

The Department of Transportation issued a final Operator Qualification Rule on August 27, 1999. Companies are currently required to have their written qualification plan completed by April 27, 2001 (49 CFR Part 192, § 192.805 Qualification Program).

Qualification Encompasses Training

Rather than only requiring training to an individual, the DOT Operator Qualification (OQ) rule was designed to focus on ensuring that an individual is qualified. This means a candidate for qualification must have the knowledge, skills, experience and demonstrated ability to perform **covered tasks**.

A **task is covered** by the OQ rule if it meets all four of the criteria below:

- Performed on a pipeline facility,
- It is an operations and maintenance task,
- It is performed as a requirement of the pipeline safety code (49 CFR Part 192), and
- Affects the operation or integrity of the pipeline.

Qualification is the process of *acquiring and demonstrating* the ability to perform a covered task. **Training** is an enabling process that helps an individual acquire only the knowledge and skills to perform a covered task. But training alone may not be enough; after training, the individual must gain the experience and demonstrate the ability to perform a covered task in order to be qualified. So, the OQ rule is broader in scope than a rule that only emphasizes training.

- An individual who acquired the ability to perform a task by regularly performing it prior to the effective date of this rule may be evaluated and determined to be qualified in accordance with evaluation methods and criteria established by the operator.
- An individual who will be performing a new task must also acquire the ability. This may be by training or any other appropriate means. The rule is flexible as to how this is to be done. Under the rule the individual must be evaluated to verify their ability to perform the covered task.
- In the event an individual is not able to qualify (demonstrate through evaluation their ability to perform a covered task), the operator may elect to help that individual acquire the ability through training or other appropriate means. After acquiring the ability the employee may be periodically evaluated to verify his/her qualification.

Recognizing that the great majority of the individuals in gas utilities are already qualified to perform covered tasks, the OQ rule was designed to be flexible as to the type of process needed to acquire the qualification, emphasizing also those areas where additional efforts are needed by the operator in order to improve the safety of its pipeline system operations and maintenance.

During the negotiated rulemaking that took place in developing the OQ rule, it was determined that a national qualification program conducted by the Research and Special Programs Administration, another federal agency, or a state agency, would not be an appropriate or practical response to the 1996 Act. While such a system would offer the advantages of national consistency, including the ability of contractor employees to work for different operators under a single qualification regime, the complexity and cost of administering such a system, coupled with the difficulty of devising a system appropriate for the wide variations in the operations and maintenance procedures and facilities of individual operators, precluded this from being an effective option. It was determined the mandate would best be met by a non- prescriptive, performance based regulation requiring each operator to have, a written program for the qualification of individuals. This would allow operator programs to be tailored for some to their unique operations and practices, without precluding others, including contractors, from joining each other to agree on specific common aspects of qualification.

A straightforward, performance oriented rule was developed that applies to both gas and hazardous liquid pipeline operators. It contains five sections that include the scope, definitions, requirements of the qualification program, recordkeeping and specifies the schedule for compliance.

In the requirements section (49 CFR Part 192, § 192.805 Qualification Program), the OQ rule requires operators to identify covered tasks, to carry out evaluation of individuals, and to identify periods of reevaluation of individuals along with the corresponding covered tasks for which they have to be qualified. It also has provisions for changes in covered tasks, and what is required in special situations involving individuals that are not or may not be qualified.

The OQ rule also includes a requirement for evaluation of individuals. An integral part of these evaluation methods is the requirement that training be performed if an employee fails the qualification test.

Acceptable evaluation methods are subject to certain restrictions and include, written exam, oral exam, work performance history, observation during:

- performance on the job,
- on the job training,
- simulations,
- or other forms of assessment.

Many operators in industry have been carrying out training and qualification of their workforce in connection with operation of their systems. They may not necessarily have their plans or carry out qualification in the format that the OQ rule requires. Operators have been given 18 months to prepare written plans for compliance with the rule and an added 18 months to comply by completing the qualification of their workforce.

Critical Tasks Are Further Covered

The rule also recognizes that there are specific critical tasks with a high level of specialized ability that may have to be performed, such as welding of a pipeline, fusion/joining of plastic pipes, or ensuring corrosion protection of steel piping. These tasks are already prescribed in detail the existing pipeline safety code. They are left intact by the OQ rule, with the added requirement that the individual qualified to perform them must also have the ability to recognize and react to abnormal conditions that may be encountered in connection with these tasks.

OQ Efforts Are Under Way

Preparations for the qualification process are well under way within a great majority of the gas industry. Taking advantage of similarity in some aspects of their operations and maintenance activities, some companies have joined together to develop common covered tasks or processes for qualification. Other companies are working by themselves. Both are supported by a cadre of recognized experts in instruction and training developing additional specialized teaching curriculums and evaluation materials and methods. The great majority of the operators are working with their state regulators to develop measurement criteria to verify compliance with the rule.

Let the DOT OQ Rule Run Its Course

Requiring operators to submit plans for training within six months of the passage of Reauthorization, could result in the premature submittal of plans in a wide vari-

ety of formats. Because of the large variation in the scope of programs in effect by various operators, this would be making it very difficult to evaluate the adequacy of the operator qualification programs in existence and under development today. This could in turn lead regulators and legislators to the wrong conclusions. Alternatively, imposing more prescriptive requirements under the above deadline would result in inefficient and wasteful use of resources by the stakeholders involved, without added benefit to safety. Therefore, it is suggested that implementation of the DOT OQ rule be allowed to run its course.

Mr. REITEN. Thank you.

I want to thank you for the opportunity to comment on the matter of public safety and the Nation's natural gas distribution system. Let me start by saying our industry understands the importance of safety and the terrible consequences that can result from a pipeline failure. And please understand, in testifying today, we do not want to diminish in any way the seriousness of the Bellingham incident or the tragic loss of life that occurred there. As a father and a grandfather, I think I have a keen awareness of what could be, and certainly I extent my sympathies to the families who are here today.

As the legislative process moves forward, there are important differences between the natural gas and the liquid pipeline systems that we would hope Congress will recognize. While many may unintentionally link all pipelines together, there are significant differences between liquid transmission, natural gas transmission—high-pressure transmission, if you will, and the natural gas local distribution systems. Each face different challenges, operating conditions and consequences of ruptures and problems.

Current federal regulations recognize the differences between the three type of systems and different sets of rules have been created for each. We hope that that differentiation will play a part of any new legislation.

In the U.S., there are 2 million miles of natural gas pipelines, as was discussed here earlier; 300,000 miles of interstate and intrastate high-pressure transmission pipelines; and 1.7 million distribution miles of pipeline. The federal Office of Pipeline Safety regulates the interstate pipelines. The distribution pipelines are basically under the authority of the states, who routinely and most always adopt federal pipeline safety standards as a minimum.

The leading cause of accidents on distribution pipelines is excavators unintentionally striking our lines. Year after year, these third party damages cause over 60 percent of the total ruptures on pipelines and the vast majority of injuries and fatalities. While we work very hard to provide for safety, we cannot do it alone. Excavators and other underground utility operators need to work with us to provide for safe and reliable natural gas service.

The Committee recognized this problem last Congress, and created a federal program to reward states with strong One-Call laws. These laws require excavators to call before they dig, and for utilities to accurately mark their underground facilities. This Committee also directed DOT to gather all stakeholders together to produce a best practices study. This study was completed last year, and we are working to help implement it to improve field operations of One-Call systems. So we thank you for this work on One-Call and hope to find additional ways to improve this important safety tool.

I would mention, in Oregon, we have one number, one set of regulations, training for contractors and penalties for failing to adhere to it.

Natural gas utilities are also working with federal and state governments on a variety of new safety initiatives. These include the creation of voluntary data gathering on the effect and performance of plastic pipe, pipeline system integrity regulations, operator fatigue surveys, utility transmission mapping, and many other efforts. We view these as investments in our customers and the communities we serve.

In addition to our voluntary efforts, local gas distribution companies must comply with a regulatory program that pays stringent attention to design, testing, construction, operation and maintenance practices. We continually refine our safety practices. Combined, natural gas utilities spend an estimated $3.4 billion each year on safety-related activities. And these efforts have really made a difference.

Over the past 10 years, we have seen the rate of incidents on natural gas distribution lines decrease by almost 40 percent, while the volume of natural gas used nationwide has increased by 25 percent. So, safety is a top priority for everyone, every company. Companies employ safety professionals and conduct ongoing employee evaluations, safety training, rigorous safety system inspections, maintenance, repair, replacement, distribute public safety information regularly, and comply with a wide range of federal and state safety regulations and requirements.

Legislative proposals aimed at addressing various concerns about pipeline safety have been introduced and are contained in three bills before the Senate. More specific comments on each bill are included with my written testimony. With respect to this legislation, I would like to comment on three topics.

First, concerns have been raised about the expertise and abilities of our industry's work force. It is clear from the Office of Pipeline Safety data that we have an exceptional safety record. Still, we are fully participating in the new operator qualification rule that was issued in August 1999. This rule encompasses training and requires that employees are actually certified by the company, but under enforceable federal rules.

Second, Senate bill 2409 contains language about system integrity. It does not differentiate between natural gas and liquids. Natural gas distribution companies are actively working with the Office of Pipeline Safety to develop a rule that can be applied to our systems. It is evident that the system integrity rule for natural gas should be different from the one for liquid transmission. We hope you will consider this in your deliberations.

We are also concerned about any requirement that might impair the reliability of natural gas transportation service to local distribution companies from interstate pipelines. Unlike liquid lines, uninterrupted flow is critical in natural gas lines. If interstate flows are interrupted, the ability of a local distribution company to maintain adequate pipeline pressures may be impaired and customers may lose service. The process of restoring natural gas service to these customers is a long and tedious one and is not without its own risks.

Unlike liquid transmission lines, the physical characteristics of distribution lines, especially older ones, preclude the use of internal inspection devices in many cases. So distribution companies use other means of inspection to maintain pipeline integrity. In addition, regulations require utilities to perform a greater level of safety activities in more highly populated areas within our systems.

Finally, we do support the public's right to know where natural gas systems are located and how they operate. Whether new efforts extend or improve existing programs, utilities will participate in their development and implementation. However, we ask that our unique relationship with our state regulatory agencies and local communities be recognized, and any new requirements be crafted in a way that takes this into consideration.

We also support advanced preparation and training for fire, police and emergency service personnel, who are often first to arrive at a hazardous site. We work very hard at this. It is critical for them to know and understand the nature of a natural gas incident and how best to manage it.

So, in summary, the natural gas industry is proud of its safety record. Natural gas has become the recognized fuel of choice by both citizens and the federal government, and this customer growth and confidence also bears with it an added relationship. As such, public and employee safety is a top priority for natural gas utilities. We will continue our ongoing efforts to operate safe and reliable systems, to strengthen the One-Call laws and systems in every state.

Thank you for providing the opportunity to present our views on this important matter of pipeline safety. And we look forward to working with federal, state and local authorities to achieve the highest possible level of public safety.

Thank you.

Senator GORTON. Thank you.

Mr. Pates.

STATEMENT OF JAMES M. PATES, CITY ATTORNEY, FREDERICKSBURG, VIRGINIA, ON BEHALF OF THE NATIONAL PIPELINE REFORM COALITION

Mr. PATES. Good morning, Mr. Chairman and Senator Murray. My name is Jim Pates. I am the City Attorney for the City of Fredericksburg, Virginia. I am here as Vice-President of the National Pipeline Reform Coalition.

Before I get started, though, I would like to point out to you that I have with me this morning a copy of a letter that was sent, I believe, to the Committee this week by the National League of Cities, which is now in support of some of the measures that we are talking about today. And I would ask that their letter be included in the record.

Senator GORTON. It will be.*

Mr. PATES. Thank you.

The National Pipeline Reform Coalition is a new organization, having only been formed a couple of years ago by State and local government representatives, environmental organizations, local

*The information referred to was not available at the time this hearing went to press.

community organizations, and businesses that are committed to the idea of pipeline safety reform in this country.

We have heard today about the Bellingham accident. But please do not get the impression or allow the public to get the impression that this accident is somehow an isolated case. In fact, our organization was formed because there have been so many accidents and so many communities adversely affected by these accidents that we felt that there was finally a need for us to work together to try to get some change, because we have gotten, as a group, so little satisfaction or help from the Office of Pipeline Safety.

In my written testimony, I discuss some of these accidents, many of them equally tragic to the one you have heard about here today.

Within the last 15 years, we have seen serious accidents in Greenville, South Carolina; Lively, Texas; San Bernardino, California; Houston, Texas; MoundsView, Minnesota; and you just read about the recent spill here in Maryland.

The city of Fredericksburg has had the unfortunate distinction of having twice lost its entire public water supply due to oil pipeline accidents, first in 1980, and then again in 1989. A 32-inch pipeline, operated by Colonial Pipeline Company—it is an interstate line, which runs from Houston to New York and provides a great deal of the petroleum to the East Coast—runs 30 miles west of Fredericksburg. On two occasions, this pipeline ruptured, causing petroleum to spill into the Rappahannock River, which is our sole water source.

Each time, our water system was contaminated. We had to shut down our whole system for a week. The first time, the Governor declared a state of emergency. And they had a tremendous impact on our community, although we did not suffer the fatalities that you have heard about here today.

Both of these accidents were due to a rare phenomenon known as "railroad fatigue." Which means that when the pipeline was originally constructed back in the early sixties and the pipe was shipped on railroad gondola cars, it jostled along the railroad enough times that tiny, hairline fractures developed in the pipeline which were not readily detectable at the time. And then, over normal usage over the years, these fractures eventually will propagate to failure.

After our second accident, we decided that enough was enough and that we needed to really look at this situation and educate ourselves about the risk from a pipeline that did not even lie within our jurisdiction. Our conclusion was that the Office of Pipeline Safety had not taken adequate action after the first accident, and we were not convinced that they would do so now.

They entered into an agreement with Colonial. Testing was done. Pressure was reduced on this line to 455 psi. That is now 10 years ago. And that pipeline is still operating under the reduced pressure, because, I assume, that OPS still considers the pipeline dangerous. We certainly do.

In the aftermath of our accident, that pipeline was hydrostatically tested. And hard as it may be to believe, when they tested that line, it ruptured, which is not surprising. But what was amazing was—and this was in approximately 1992, I believe, when they tested that line—the joint of pipe that burst—and pipe usually

comes in 40-foot segments, called joints—and the joint that burst that time, under testing, was the exact same joint of pipe that had failed in 1980, the first time. What had happened was when that pipe broke the first time, Colonial went in, cut the pipe in half, and left the other half of the defective pipe in the ground to fail again.

I have heard here today that pipeline safety is first and foremost in the minds of the industry. And I am sure, for many operators, it is. But, to me, that hydrostatic testing rupture reflects a shocking lack of regard for safety on the part of a single operator and on the part of the Office of Pipeline Safety in inspecting and monitoring the activities of the pipelines.

Over the past 10 years that I have been involved in this issue, we have not seen much cause for optimism when it comes to the Federal Government. I am hoping this year is different. I think the two of you are to be commended, to have both Senators from a State take the personal interest in an issue like this, which generally attracts zero public attention, and for you to be pursing this I think is commendable. And I am hoping that it will be fruitful.

I would encourage you, however, to ask some hard questions of the administration, and not to accept glib, bureaucratic answers at face value. Our group would like to ask you to focus on three issues as you look at this bill—or these bills, actually, the four of them.

First, there is no question that there are insufficient financial incentives for pipeline operators to prevent accidents. Under current Federal law and enforcement policy, there is little financial incentive for companies to take the serious actions needed to reduce the risk of accidents. Generally, unless there are fatalities or calamitous environmental damage to surface waters, pipeline operators generally face no fines or penalties at all for accidents that could have been prevented altogether.

Even when State or Federal authorities do seek penalties for oil spills under the Oil Pollution Act or similar State statutes, the penalties and remedies are related to environmental damage and remediation, not to public safety, pipeline design, operation or maintenance. In other words, what we see treated are the symptoms or the results of these accidents, but not the disease itself, which is the design, operation and maintenance, and location of pipelines.

You have heard here today that the Office of Pipeline Safety already has considerable enforcement tools at its disposal, but has deliberately chosen not to use them. They can impose civil penalties, seek injunctive relief, seek criminal penalties for willful violations. But these enforcement tools are rarely used.

From 1987 to 1989, for example, at a time when over 33 million gallons of petroleum were spilled, in hundreds of separate accidents, OPS collected fines of only $188,000. That adds up to less than 5 cents per gallon spilled. Both the administration's bill and S. 2438 contain provisions increasing the maximum alowable civil penalties from $25,000 to $100,000. While such additional penalties are helpful, OPS's track record strongly suggests that such enhanced penalties will never be used.

Rather than relying on such discretionary penalties, the Pipeline Reform Coalition strongly urges the Committee to look at the Oil Pollution Act of 1990 as a model for providing stronger financial incentives for pipeline companies to act on their own to adopt oper-

ational practices that will reduce the likelihood of catastrophic accidents.

Specifically, we recommend that the bill be amended to include mandatory fines for gas and hazardous liquid pipeline releases that exceed a certain minimum threshold, or when fatalities are involved, regardless of fault. In addition, we would suggest that you take a hard look at the citizen suit provision that is already in the current law. Under the Act, any person may file suit against OPS or a pipeline operator for violations under the Act.

When this was first enacted, Congress intended that this section serve as a powerful incentive to ensure compliance with the law. Unfortunately, the citizen suit provision has not worked. We are unaware of a single incident in the last 20 years where any person has successfully brought a citizen suit under this Act.

The reason for this is that the Act bars any person from bringing a citizen suit as long as the agency is diligently pursuing some form of administrative proceeding to correct the violation. Since OPS's proceedings often go on for years and years—I mean, Colonial has been under an order in our case for 10 years—so, in essence, what happens is, by having this administrative proceeding hang out there for 10 years, you are helping the company by protecting them from a citizen suit. This section should be amended to bring it more into line with other Federal statutes, which provide that violators are shielded from citizen suits only if they are under judicial supervision.

The second issue we would like to have you focus on is the fact that OPS has consistently disregarded congressional mandates to establish higher safety standards, to protect the environment and to penalize operators who violate the law. You have heard here today about one of the most egregious examples. And that is the fact that Congress, in 1992, added protection of the environment for the first time as part of OPS's statutory mandate and mission. And they were given those 2 years to come up with criteria for identifying environmentally sensitive areas.

As of today, almost 6 years after the Congress' deadline, no final rule on these criteria has been adopted, much less any additional safeguards actually put in place. Now, I would submit to you that there is simply no excuse for such a dereliction of duty by OPS.

You have heard how OPS has failed to carry out NTSB recommendations. They also have relied, and continued to rely, on notoriously inaccurate data. I, for one, would question any statistics about pipeline accidents, whether they are given by the industry, given by us or given by NTSB. The studies have shown, time and again, that the figures compiled by OPS are almost completely inaccurate.

For instance, you were talking about different causes of accidents. I do not think anybody can realistically pinpoint percentages on causes of accidents because the data is so poor.

In our opinion, this pattern of neglect by OPS shows that OPS, as an agency, needs to be fundamentally restructured or reinvented. Instead of seeing itself as an advocate and protector of the industry, OPS must refashion itself as an advocate and protector of the public interest. In this regard, we would make several suggestions.

Number one is that either this Committee or some congressional committee should conduct some meaningful oversight hearings on OPS. NTSB Chairman Jim Hall recently recommended such hearings that would look into the repeated failure of OPS to carry out congressional mandates. Such hearings would also be able to evaluate this Federal/State partnership that we have been talking about today. And they could also examine the peculiarly close relationship between OPS and the industry that it is supposed to be regulating.

We would also recommend that in your legislation you mandate some tougher safety requirements. We commend the chairman on his bill, and Senator Murray and Senator Gorton, on the specific safety requirements that have been included in your bills. We would suggest, however, that these be strengthened and additional ones be added to require:

Number one, that by December 31, 2002, all pipeline operators complete internal inspections of their pipelines if it is technologically possible; number two, that OPS mandate minimum operator qualification and training standards; three, that operators develop fail-safe mechanisms to protect pipelines from over-pressurization in the event of equipment failures; four, that all liquid pipelines install emergency shutoff valves, with stiff requirements for pipelines located in environmentally sensitive areas; five, that pipelines with significant accident histories undergo periodic hydrostatic testing; and, six, that OPS develop leak detection standards for all pipelines and require the operators to utilize such systems.

The third issue that we would ask you to look at is that Congress needs to enhance, not reduce, the role of State and local governments in protecting the public from pipeline accidents. Specifically, right now, as you know, there are two systems in place. First, States can be certified to handle the intrastate program. And then, on the interstate level, the OPS may designate States as its interstate agents.

It is hard to believe, in the wake of the Bellingham accident, that OPS would still be pursuing its stated policy of phasing out the existing interstate agent program within 3 years. Following our accident in Virginia, our most recent one, in 1989, Virginia adopted legislation to authorize our public utility commission to develop a liquid pipeline program.

At that time, OPS came to Virginia, testified in support of that bill, saying that not only do we welcome Virginia assuming responsibilities for its intrastate lines, but also being designated as an interstate agent. So, Virginia went through the process, hired the necessary people, trained them, got their intrastate program up and running. And then, when they were ready to assume responsibility for the interstate lines, which are the main ones in Virginia and the ones that cause all the problems, OPS said, oh, sorry, we do not need your help anymore.

And the chairman of our utility commission wrote back to OPS and said: Why is it that after you have led us on for all these years and encouraged us to assume this responsibility, and we have incurred expenses, hired people, and now you are telling us that you do not need us anymore?

I find that absolutely incomprehensible, when you look at the scope of the problems that are facing all levels of government with this problem. We are convinced that the real reason OPS is attempting to reduce the States' role in pipeline safety arises from a demonstrated commitment by a number of States, including ones such as Washington, Minnesota and Virginia, to take a more aggressive approach on pipeline safety than OPS is willing to do.

As far as this interstate agent issue goes, we would propose that S. 2438 be amended to grant States the authority to develop and administer their own pipeline safety programs for interstate lines, provided they do not overburden interstate commerce or compromise public safety. OPS would still rightfully be entrusted with primary authority over interstate pipelines, but States would be given a legitimate partnership role in protecting the public from pipeline accidents.

Finally, we would encourage the Committee to include two other measures that would enhance State and local involvement in pipeline safety. The first is the creation of these regional advisory councils. The Oil Pollution Act of 1990 provides a model for fostering long-term partnerships among industry, government and local citizens in monitoring compliance with safety and environmental laws.

Under that statute, Congress established these regional committees, comprised of local elected officials and other community representatives for the purpose of working with the Alyeska Pipeline Company to promote their mutual goals. By all accounts, the program has been very successful. We would urge you to consider extending this concept to pipeline safety by allowing communities interested in forming such regional councils to do so.

Lastly, we would encourage the Committee to amend the bill to require OPS to institute a program aimed at encouraging State and local governments to take a more active role in utilizing their existing legal authority to promote pipeline safety. As a local government official myself, I can tell you that most cities and counties in America are largely unaware that large transmission pipelines run through their communities.

Senator GORTON. Mr. Pates, can I ask you to finish up quickly? Senator Murray has been called to the floor of the Senate, and I want to give her a chance to ask questions.

Mr. PATES. On this issue, we would ask the Committee to direct the National Research Council to conduct an independent risk assessment study to determine the public safety and environmental risks posed by new and existing pipelines, and to develop model standards for easement widths, building setbacks, fire codes, and other measures that local governments could then use.

Thank you so much for giving us the opportunity to appear today. Thank you.

[The prepared statement of Mr. Pates follows:]

PREPARED STATEMENT OF JAMES M. PATES, CITY ATTORNEY, FREDERICKSBURG, VIRGINIA, ON BEHALF OF THE NATIONAL PIPELINE REFORM COALITION

Mr. Chairman and Members of the Committee:

My name is Jim Pates and I serve as City Attorney of the City of Fredericksburg, Virginia. I am appearing today as Vice-President of the National Pipeline Reform Coalition ("NPRC"), a national pipeline safety advocacy organization consisting of individuals, state and local governments, citizens groups, environmental organizations, pipeline accident victims, and businesses committed to promoting pipeline safety reform in the United States. We are a new and growing organization, having been formed in 1998 in response to numerous oil and gas pipeline accidents across the country and efforts by pipeline companies to construct new pipelines without adequate public safety and environmental safeguards. We recently sponsored our first national conference here in Washington and were pleased to see how well attended it was and how many national organizations are supporting our efforts to secure meaningful pipeline safety reform.

Introduction

I would first like to thank the Chairman, Senator McCain, and Senator Hollings for being permitted to speak here today. All too often, the Pipeline Safety Act ("Act") has been the subject of Congressional hearings and reauthorization proceedings that have not included input from public interest organizations, local governments, or victims who have personally suffered from pipeline accidents. You are to be commended for your willingness to hear from these families today. We thank you for including the NPRC and hope that our comments will be received in the same spirit in which they are offered, that is, simply, to improve pipeline safety regulation in this country.

The NPRC exists for one simple reason. Communities and individuals that have either experienced pipeline disasters or who have sought assurances that new pipelines will be constructed in a safe and environmentally sound manner have discovered, to their dismay, that our federal laws and the agencies charged with enforcing them, particularly the Office of Pipeline Safety, U.S. Department of Transportation ("OPS"), do not adequately protect the public interest.

You have heard today from the people of the State of Washington, who have suffered one of the worst pipeline accidents within the past decade. But please don't think that their story is an isolated case. There have been many other similar accidents, most of which you are probably unaware. For example:

1. *Greenville, South Carolina*—Shortly before midnight on June 26, 1996, an interstate oil pipeline ruptured along the Reedy River near Greenville, South Carolina, spilling almost a million gallons of diesel fuel into the river. For hours, fuel poured into the river, killing an estimated 34,000 fish and other wildlife and threatening public water supplies before an emergency crew of 500 workers could stanch the flow. By the time the leak was stopped the next day, the pipeline's owner, Colonial Pipeline Company, and the state of South Carolina had each experienced their largest oil spills in history. The state Department of Natural Resources later catalogued 23 fish species that had been decimated, including catfish, largemouth bass, suckers, shad, carp, bullhead, and warmouth, as well as turtles, muskrat, snakes, crawfish, and wood ducks.

2. *Kemp, Texas*—Two months later, on August 24, 1996, in the small town of Kemp, Texas, about 50 miles southeast of Dallas, a transmission pipeline carrying liquid butane ruptured, creating a massive cloud of foul-smelling gas. Two teenagers, Jason Stone, 17, and Danielle Smalley, 18, jumped into their pickup truck to warn others. Sparks from the engine ignited the highly flammable gas, causing an explosion that sent a fireball into the air visible from 40 miles away. Both teenagers were killed.

3. *San Bernardino, California*—In May 1989, a Southern Pacific train derailed in San Bernardino, plowing through a residential neighborhood and killing four people. The train landed on top of a pipeline operated by Calnev Pipeline Company, an interstate carrier that transports petroleum from California to Nevada. Thirteen days after the train derailment and train service had been restored, the pipeline exploded in the same location. The flames rose 500 feet in the air. Two people were killed, 10 homes destroyed, and dozens of people injured.

4. *Fredericksburg, Virginia*—In 1980 and again in 1989, my hometown of 20,000 people lost its public water supply for a week due to oil spills in the Rappahannock River. Both emergencies were caused by the failure of an interstate oil pipeline operated by Colonial Pipeline Company. The first accident resulted in

92,000 gallons of fuel oil spilling into a tributary of the river, the City's sole water source. Nine years later, it happened again, with 212,000 gallons of kerosene flowing into the river. Both accidents took place 20 miles upstream of the city's water intake. Each time, fish and wildlife were killed, businesses were forced to close, and the city had to haul water from neighboring jurisdictions.

5. *Houston, Texas*—On October 20, 1994, Houston's San Jacinto River, swollen by heavy rains and flooding, gouged a new channel through the floodplain and exposed 17 underground pipelines. Four of them broke. Gasoline from Colonial's 40-inch line ignited, sending flames down the river and destroying houses, trees, and barges. "It was like hell had opened up and swallowed the whole river," said Mike Norman, 34, who witnessed the explosion.

6. *Mounds View, Minnesota*—At 4 o'clock in the morning on July 8, l986, a gasoline pipeline owned by Williams Pipeline Company ruptured in the small town of Mounds View, sending vaporized and liquid gasoline into the streets of a residential neighborhood in this suburb of Minneapolis. Twenty minutes later, an automobile passed by, causing the gasoline to ignite. Two people were burned to death while fleeing their home. When the City of Mounds View attempted to delay the pipeline from resuming operations until local safety concerns had been met, company officials went to court and secured a permanent injunction blocking the city from taking any action that might restrict their operations.

Since 1990, there have been nearly 4,000 incidents reported to OPS involving gas and hazardous liquid pipelines,—more than one every single day. These incidents have resulted in over 200 deaths, nearly 3,000 injuries, and at least $780 million in reported property damage. Over 62 million gallons of oil and other hazardous liquids have been released into the environment over the past 10 years, making oil pipeline accidents one of the largest point sources of oil pollution in the country. It is not a record of which any of us should be proud.

Reauthorization of the Pipeline Safety Act

This year, we see history repeating itself.

For those of us who have been involved in pipeline safety reform efforts for years, we recognize a familiar pattern unfolding. For the past several years, there has been little discussion on a national level about pipeline safety because there have been only one or two high-profile accidents. During this time, the Office of Pipeline Safety and the pipeline industry have worked together quietly to avoid any regulatory measures which would place any new requirements on pipeline operators or reduce industry profits. In fact, they have been busy trying to reduce state and federal regulation of pipelines generally.

But then along comes an accident such as the one in Bellingham and the public demands action. Congress responds by directing OPS to devise tougher standards, by imposing deadlines for agency action, by granting OPS additional enforcement authority, and by increasing the agency's budget.

Then several more years pass, during which time OPS conducts studies (generally funded and directed by the industry) and determines that no new standards are actually needed or that compliance with them should be strictly voluntary. It ignores the deadlines set by Congress and uses its increased funding to pursue deregulation of the industry.

Then another tragic accident occurs and the process repeats itself. Throughout such cycles, very little actually changes and preventable accidents continue to plague unsuspecting communities and individuals who happen to live near dangerous transmission pipelines.

We hope this year will somehow be different. As you know, there are at least four different bills that have recently been introduced as a result of the Bellingham accident. The NPRC has reviewed all four of these bills and believes that all of them contain useful provisions. We would urge the Committee, however, to take advantage of this narrow window of opportunity and to delve deeply into the serious problems that plague OPS, to ask some hard questions, and not to accept glib bureaucratic answers at face value.

We urge you to focus on three fundamental issues in formulating this legislation:

ISSUE #1—There are Insufficient Financial Incentives for Pipeline Operators to Prevent Accidents.

Under current law and federal enforcement policy, there is little financial incentive for pipeline companies to take the actions needed to reduce the risk of serious accidents. Unless an accident results in deaths or calamitous environmental damage to surface waters, pipeline operators generally face no fines or penalties at all for accidents that they could have prevented altogether or that could have ended trag-

ically. Even when state or federal authorities do seek penalties for oil spills under the Oil Pollution Act of 1990, the Clean Water Act, or other state statutes, the penalties and remedies are related to environmental damage and remediation, not to public safety, pipeline design, operation, or maintenance. In other words, the symptoms or effects of pipeline accidents get treated, but not the disease itself.

The Office of Pipeline Safety already has considerable enforcement authority but they have deliberately chosen not to use it. Under current law, OPS has the power to impose civil money penalties up to $25,000 per day per violation (up to a maximum fine of $500,000), to obtain injunctive relief and punitive damages against operators, and to seek criminal penalties for willful violations. The agency can also utilize a special statutory remedy called a "hazardous facility order," which allows OPS to find that a pipeline or other facility is either

> (1) hazardous to life, property, or the environment; or
>
> (2) constructed or operated, or a component of the facility is constructed or operated, with equipment, material, or a technique the Secretary [of Transportation] decides is hazardous to life, property or the environment.

Unfortunately, these enforcement tools are rarely used. From 1987 to 1989, for example, at a time when over 33 million gallons of petroleum were spilled in 580 separate accidents, OPS collected fines of only $188,000. That adds up to less than five cents per gallon spilled.

Both S. 2438 and the Administration's bill contain provisions increasing potential civil penalties under current law from $25,000 to $100,000 per violation. While such increased penalties are helpful, OPS' track record strongly suggests that such enhanced penalties will never be used.

Rather than relying solely on such discretionary penalties, the NPRC strongly encourages the Committee to look to the Oil Pollution Act of 1990 as a model for providing stronger financial incentives for pipeline companies to act on their own to adopt operational practices that will reduce the likelihood of catastrophic accidents.

Specifically, we recommend that S. 2438 be amended to include mandatory fines for gas and hazardous liquid pipeline releases that exceed a minimum threshold amount or when fatalities are involved, without regard to fault. Pipeline operators would be authorized to recover these mandatory fines from third parties if such persons were actually responsible for a release. Repeat offenders would face even stiffer statutory penalties.

In addition, we suggest that the Committee consider enhancing the citizens suit provisions under current law. The Act now provides that any person can file suit against OPS or a pipeline operator for violations under the Act. Congress intended for this section to serve as a powerful incentive to ensure compliance with the law. Unfortunately, the citizens suit provision has not worked.

We are unaware of a single instance where anyone has been able to bring a successful citizens suit under the Pipeline Safety Act. The reason for this is that the Act bars any person from bringing a citizens suit so long as the agency is diligently pursuing an "administrative proceeding" to correct the violation. This section should be amended to bring it more into line with other federal statutes, which provide that violators are shielded from citizens suits only if they are already under judicial supervision.

Finally, we would recommend that a "whistle blower" provision be added to the statute to protect pipeline company employees who report pipeline safety violations. We hear of instances where pipeline company employees fear for their jobs if they report violations to state or federal officials. Such laws have proven helpful in other areas by protecting lower level employees who recognize and seek to correct their employer's unlawful conduct.

ISSUE #2—OPS Has Consistently Disregarded Congressional Mandates To Establish Higher Safety Standards, To Protect the Environment, and To Penalize Operators who Violate the Law.

Although we do not yet have a final report from the National Transportation Safety Board on the causes of the Bellingham accident, it will undoubtedly conclude, as its reports have repeatedly found in the past, that a large part of the culpability rests with OPS. As the Committee considers this legislation, we urge you to keep in mind that Congress' past efforts to deal with the shortcomings of OPS have been largely unsuccessful.

As noted earlier, Congress has increased civil penalties in the past but OPS has refused to impose them. The agency has also been derelict in carrying out the major environmental mandate that Congress conferred upon the agency in 1992. As you know, OPS was ordered at that time to incorporate "protection of the environment" into its overall regulatory mission and to establish criteria for identifying pipelines

located in high-density population and environmentally sensitive areas. In this way, higher safety standards and environmental protection measures could be applied to high-risk areas. The agency was given two years, until October 24, 1994, to complete the task. As of today, almost six years after Congress' deadline, no final rule on the high-density population and environmental criteria has been adopted, much less any additional safeguards actually put in place. There is simply no excuse for such dereliction of duty by OPS.

As noted recently in the Audit Report of the DOT Inspector General (Report No. RT–2000–069, issued March 13, 2000), the Office of Pipeline Safety has failed to respond to, much less carry out, various recommendations of the National Transportation Safety Board, continues to rely on pipeline accident data that is notoriously unreliable, and has failed to conduct research on "smart pigs" and other technologies that could detect pipeline problems before they cause accidents.

The list of bureaucratic failings goes on and on. For years, OPS has ignored calls by the NTSB and Congress to set tougher pipeline safety standards. Beginning 20 years ago, in 1980, the NTSB first called upon OPS to require gas pipeline operators to install certain equipment known as "excess flow valves" to isolate failed pipelines after they break, thus reducing the risk of fire and explosion. In 1992, Congress finally required the agency to formulate performance standards for such valves and to determine under what circumstances, if any, they must be installed. Three years later, in 1995, OPS finally concluded that no such valves should be required. Even today, in 2000, no such requirement is in place.

In our opinion, this pattern of neglect shows that OPS, as an agency, needs to be fundamentally restructured or "reinvented." Instead of seeing itself as an advocate and protector of the industry, OPS must refashion itself as an advocate and protector of the public interest. To help accomplish this objective, the NPRC recommends that the Committee:

1. Conduct oversight hearings. As NTSB Chairman Jim Hall recently recommended, Congress should convene a series of oversight hearings into the repeated failure of OPS to carry out Congressional mandates and NTSB recommendations, to evaluate the federal-state regulatory partnership, and to examine the peculiarly close relationship between OPS and the industry it is supposed to be regulating. No such hearing has been held within the past decade and could go a long way toward explaining the real reasons for OPS' ineffectiveness.

2. Mandate tougher safety requirements. We commend the Chairman for including in his bill provisions requiring operators to develop employee qualification and training plans and directing OPS to develop a pipeline integrity management program. We would recommend, however, that these provisions be strengthened and additional ones added to require:

- that by December 31, 2002, all pipeline operators complete internal inspections of their pipelines and take appropriate corrective action when serious anomalies are discovered;
- that OPS mandate minimum operator qualification and training standards;
- that operators develop "failsafe" mechanisms to protect pipelines from overpressurization in the event of equipment failures or other mishaps;
- that all liquid pipelines install emergency shut-off valves, with stiffer requirements for pipelines located in environmentally sensitive areas;
- that pipelines with significant accident histories undergo periodic hydrostatic testing; and
- that OPS develop leak-detection standards for all pipelines and require operators to utilize such systems.

Many of these issues have been addressed in the past by Congress, NTSB, GAO, and other outside studies, but OPS has either failed to act on them or has been so dilatory in pursuing them that Congress should proceed and set the standards itself.

ISSUE #3—Congress Needs To Enhance, Not Reduce, the Role of State and Local Governments in Protecting the Public From Pipeline Accidents.

As you know, the Pipeline Safety Act envisions that regulation of the design, construction, maintenance and operation of gas and hazardous liquid pipelines should primarily be a federal responsibility. This is appropriate, given the impact of pipelines on interstate commerce. There is an obvious need for uniform standards in our interstate transportation system. But the current law also envisions a strong federal-state partnership in which the federal government sets and enforces national

safety standards for interstate pipelines but states may perform day-to-day inspection and administrative duties and can even adopt more stringent safety standards for intrastate pipelines.

Specifically, the Act currently provides that OPS can "certify" states to assume federal jurisdiction over intrastate pipelines if they have adopted federal standards and do not impose more stringent standards that are incompatible with federal standards. Certified states also enjoy full enforcement authority over intrastate operators.

In addition, under a separate program, OPS may designate certified states as its "agent" to administer the interstate pipeline programs, except that all enforcement authority over interstate facilities remains with OPS. States have been actively encouraged in the past to assume federal responsibilities under both the intrastate and interstate programs through a cost-reimbursement formula that enables them to recover up to fifty percent (50%) of their costs from the federal government.

This bifurcated federal-state regulatory system has produced a confusing regulatory maze. As of 1999, 49 states were certified to implement the intrastate gas program, 9 served as agents to administer the interstate gas program, 4 were permitted to inspect intrastate gas or liquid facilities but not to enforce federal standards, 12 were certified to implement the intrastate liquid program, and 4 served as agents to administer the interstate liquid program. Now OPS has indicated that it intends to phase out the entire interstate agent program within the next several years.

The Office of Pipeline Safety has put forth several rationales for phasing out the interstate agent program, including claims that additional Congressional appropriations for OPS preclude the need for interstate agents and that some states are doing an inadequate job of regulating intrastate pipelines. The NPRC suspects that the real reason for OPS attempting to reduce the states' role in pipeline safety arises from a demonstrated commitment by a number of states, including ones such as Washington, Minnesota, and Virginia, to take a more aggressive approach on a whole range of issues.

As someone who has been personally involved in this issue from a local government perspective for the past 10 years, I can tell you that the state pipeline regulators with whom I have dealt are far more vigilant in conducting inspections, monitoring new construction, and enforcing regulations than is OPS. As a group, they generally favor tougher safety standards than those approved by OPS and are more willing to take strong enforcement action against recalcitrant operators. Their help should be welcomed, not discouraged.

The Administration, in Section 6 of its bill (S. 2409), has put forward a proposal titled, "Enhanced Ability of States to Oversee Operator Activities." Such a title constitutes a total misrepresentation of what the bill actually does. Instead of enhancing state authority, it actually limits state activities to "special investigations involving new construction or incidents" and to "other activities overseeing interstate pipeline transportation that supplement the Secretary's program and address issues of local concern," provided OPS makes certain findings that such state activities are consistent with "the Secretary's program for inspection." In addition, it would place the imprimatur of Congress on OPS' ongoing efforts to cancel the interstate agent agreements already in place. Given OPS' public announcement that it intends to eliminate the entire interstate agent program within three years, how can the Administration's bill possibly state authority?

The NPRC strongly believes that states should be encouraged to assume a much larger role in promoting pipeline safety than is allowed under current law. This should be true for interstate, as well as intrastate, pipeline facilities. There are several reasons for this.

First, the record reflects that states have generally done a better job of carrying out federal regulations affecting intrastate gas and liquid pipelines than OPS has. Several states have gone beyond the minimum federal standards and promulgated their own standards to enhance public safety for intrastate facilities or taken the stronger enforcement actions against violators than OPS ever has. For example, I invite you to look at the record of the Virginia State Corporation Commission in administering the federal program for intrastate liquid pipelines; it far surpasses the track record compiled by OPS prior to Virginia's certification.

Second, each state has unique conditions that may warrant slightly different regulatory standards. For example, states suffering risks from flooding or earthquakes may need different operational or design standards to protect the environment from natural disasters.

Third, states can allocate additional resources and personnel to conduct more rigorous inspections that OPS has been willing or able to do.

The NPRC proposes that S. 2438 be amended to grant states the authority to develop and administer their own pipeline safety programs for interstate pipelines, provided they do not overburden interstate commerce or compromise public safety. OPS would still rightfully be entrusted with primary authority over interstate pipelines but states would be given a legitimate partnership role in protecting the public from pipeline accidents.

Finally, the NPRC would encourage the Committee to include two other measures in S. 2438 to enhance state and local involvement in pipeline safety:

1. Creation of regional advisory councils. The Oil Pollution Act of 1990 provides a model for fostering long-term partnerships among industry, government, and local citizens in monitoring compliance with safety and environmental mandates. Under that statute, Congress established regional advisory committees comprised of local elected officials and other community representatives for the purpose of working with the Alyeska Pipeline Company to promote their mutual goals of reducing oil spills and protecting the environment. By all accounts, the program has been very successful.

The NPRC urges the Committee to consider extending this concept to pipeline safety by allowing communities interested to form similar regional councils. The membership of the councils would consist of representatives of local government, tribes, property owners, emergency responders, and other interested parties. The governor of the host state would certify each council. The duties of the councils would be purely advisory but they could provide invaluable assistance on a variety of pipeline safety issues. Federal agencies such as OPS would be required to consult with the councils on issues affecting that state. To ensure technical competency, each council would be assured a continuing source of funding under the statute.

Such a program would, for the first time, create a true partnership among industry, government, and the public on pipeline safety issues. It would provide a vehicle for industry and localities to work with each other instead of against each other. It would provide a continuity of expertise and local involvement instead of the sporadic public hysteria that often arises out of pipeline accidents or proposals for new pipelines. We believe that such a vehicle could prove to be a constructive means of promoting dialogue on these difficult and technically complex pipeline issues.

2. State and local government study and grants. The NPRC also urges the Committee to amend S. 2438 to require OPS to institute a program aimed at encouraging state and local governments to take a more active role in utilizing their existing legal authority to promote pipeline safety. Most cities and counties in America are largely unaware that large transmission pipelines run through their communities or that such facilities may pose significant threats to their citizens and the environment.

The fact is that state and local governments can and should play a much larger role in pipeline safety. Local governments largely control land use, both as it affects existing and proposed pipelines, yet few localities adequately address pipelines in their comprehensive land use plans, zoning and subdivision ordinances, or building codes. Even localities such as Fredericksburg and Bellingham that have suffered serious accidents often do not comprehend what sort of risks pipelines pose or how their local laws should restrict human activities near pipelines. They need federal guidelines and technical assistance to help them make such sound, scientifically based, decisions.

In addition, few states or localities set minimum easement widths for new pipelines. We see many instances of existing transmission pipelines having been built within rights-of-way that are entirely too narrow. Now, new buildings, schools, hospitals, and homes are being built within 15 or 20 feet of these hazardous facilities. Who's protecting the hapless people who happen to live and work right next to these facilities?

We urge the Committee to direct the National Research Council to conduct an independent risk assessment study to determine the public safety and environmental risks posed by new and existing transmission pipelines and to develop model standards for easement widths, building setbacks, fire codes, and other measures that state and local governments can use to protect their citizens and the environment.

Mr. Chairman, thank you again for permitting the National Pipeline Reform Coalition to participate in today's hearing. We have worked very hard, over a very short period of time, to scrutinize these various bills and to formulate our own reform proposals. We look forward to working with you, the Office of Pipeline Safety, the Na-

tional Transportation Safety Board, the pipeline industry, and other interested parties to reduce the likelihood of accidents such as the one that has devastated and continues to haunt the people of Bellingham.

Thank you.

Senator GORTON. Senator Murray, you must go to the floor of the Senate, so it is your turn.

Senator MURRAY. Thank you very much, Mr. Chairman. I truly appreciate that.

Let me just ask the panel this. One of the issues that has come before us consistently from our State is the need for a public right to know provision. And I am sure all of you are aware of the different provisions in the bills before us. One of the ideas that has been put forward is for the industry to collect the information into a summary of problems with the pipelines and submit that information to local officials and emergency responders in the area that is being impacted.

Can you put some information together in a way that is easily understood by the local governments so that this can be useful for them?

Mr. REITEN. Senator Murray, Dick Reiten.

Yes, we can. We already have the information and mapping where our systems are, both high-pressure and low-pressure. We do make that available to the local jurisdictions upon request. And I am sure we could revise that in some way, although it would be an enormous burden to provide maps of everything to every jurisdiction on a continuous basis. We would rather have it that it is available to them and that they can access it at any time that they would need to.

Senator MURRAY. I think the second half of that question is just as critical, which is what Senator Gorton and I heard when we had our hearing in the State. Which was that it could be understood by the local governments in an easily readable way.

Mr. REITEN. Right, I think so. And I think we could revise that. I think we could also do more to advise local officials of the various jurisdictions where the local distribution companies and interstate pipelines operate, about where the lines are and how to access the information and the terminology, so that they are equipped to get the information and interpret it quickly when required.

Senator MURRAY. Mr. Wright?

Mr. WRIGHT. Thank you. Phil Wright.

I would just add to that, and recognize, as someone else did earlier today—I cannot remember exactly who—that with the technology we have available to us to affect Web sites and the like for easy access, that in putting up those kinds of facilities we can have a more efficient distribution than sort of just blanketing every jurisdiction, as Dick pointed out.

Senator MURRAY. Mr. Haener?

Mr. HAENER. Let me add that I think that the interstate industry is doing a lot of that. But I think we do need to be careful, when you said putting technical data out in an understandable form. We can certainly tell you where the pipeline is, what the operating pressure is, those kinds of things. But putting out maintenance data in a simple form that people understand I think would be very difficult and it would not serve to improve safety.

Senator MURRAY. When the local agency's main goal is to protect the citizens in their communities, it is really important that they have information that is understood. So, hopefully we can work with all of you to make sure that that is available to those communities so they can do that.

Mr. Chairman, I do have to go to the floor to manage a bill. I will submit the rest of my questions as post hearing questions.

Senator MURRAY. And I want to thank Senator Gorton, the other members of this Committee, and Chairman McCain for working so diligently to have this hearing today. I want to especially thank Senator Gorton, who has been working with me in a very cooperative, bipartisan manner, to move legislation that I think will ensure the safety of many families. I also want to thank the families, again, who have travelled here and have so diligently worked for so long to make sure that we continue to do the right thing here.

My hope is this Committee will pass a bill out before the end of this month. My true hope is that the Senate can pass a bill out before the anniversary of June 10th. And hopefully we can have a bill by the end of this Congress on the President's desk. I think that would be a true tribute to the courage and integrity of the families and the community of Bellingham, but also, as Mr. Pates said, to the many other families that have suffered tragedies in this country.

Thank you very much, Mr. Chairman. And again, thank you to all of the witnesses.

Senator GORTON. One question to each of you, following up on the question that I asked to the previous panel. I understand that there is a pipeline company that has expressed support for granting Federal immunity for criminal charges for workers who cooperate with government investigators. And I would like to know the views of each of you on that subject, both from the point of view of getting that kind of cooperation and whether or not, internally, those of you who represent companies have any penalties for operators or employees who refuse to cooperate when legitimate inquiries are being made.

Mr. WRIGHT. Senator, I will start. First of all, I think that you and Senator Breaux were on the right track on the issue of ordinary negligence. Certainly, if there is egregious, willful misconduct, that is an issue that perhaps should be segregated from the issue of ordinary negligence. I am not a lawyer and should probably not wander off too far into that arena, but it has been problematic, as we have seen firsthand in trying to get to the bottom of the issues in Bellingham. Nobody wants to know more than we in the liquid pipeline industry precisely what the causes were in that catastrophe, and we cannot do that, given where we are right now, as people are attempting to protect their rights.

As to your second question with respect to penalties within the company, certainly part and parcel to a person's accountability that is operating a pipeline system is to do those things that comply with the law and with the agencies that are accountable for regulating our systems. And if there is some kind of misconduct involved, apart from protecting their given rights under the Constitution, yes, there are disciplinary actions that logically should be taken.

I am not aware of us ever having to do that at my company, but I am confident that we would if challenged with that.

Mr. REITEN. I cannot add a lot to that except to say that, in our company, we have standards for forthrightness and honesty in all matters. Certainly, there is a difference between willful negligence and human error, and you have to try to separate between the two. There is also the issue of personal rights under the law, and we have to recognize those.

But I think it is important, and it is almost hard to believe that we could go a year after a major accident and not have the critical information necessary to evaluate it. And something is wrong with a system that allows that to happen.

Senator GORTON. Mr. Haener?

Mr. HAENER. Let me say that I am an engineer, so I apologize for that part of it. But I think it is a very critical point. And as I sat here today, I hear that the solution to pipeline safety is stiffer penalties, fines, throw people in jail. And I think the priority needs to be to find out what the problem is so we can fix it and correct it.

And sitting here and not knowing the final cause of an accident a year later because of people's rights, that is a problem. So if we need take those kinds of steps so we can get the facts sooner, I think we should do those kinds of things.

As I understand it, some of the penalty provisions that are proposed get into contractors and the One-Call system. I think everyone on this panel has agreed that third party damage is a problem and we need to improve the system. But if we propose a penalty to a contractor that hits our pipe because he did not call the One-Call system, but he hit our pipe so he had to report to us. And by his reporting to us, we know he did not report that he was digging there he is going to get a $100,000 fine, I think you may hurt safety.

Because that contractor is going to say to his partner—and some of these are small people—gee, I forgot to call this morning as I took my kids to school, we have hit this pipe, if we call in now, we are going to get a large fine. Well, they are going to cover it up and move on to the next location. I want them to call. I want to get out there. I want to open that pipe up and I want to see if there is a problem. And if there is a problem, we will fix it.

So I think we need to be careful how we do this, and we need to promote safety, not punishment.

Mr. PATES. Mr. Chairman, I guess my short response would be I do not think I would trust OPS to give immunity to anybody. But, second of all, it raises an important issue. And that is we have seen an increase in the last several years of the number of criminal prosecutions brought against pipeline companies.

I think that it would be a very, very good subject of discussion for an oversight hearing to talk about why that is. How many criminal referrals has DOT sent to Justice for pipeline accidents? And to hear from the U.S. Attorney from Washington, to know why that case is not moving forward. I think those are all very good questions. But I doubt that the answer lies in granting immunity.

Mr. KENOW. Mr. Chairman, the only comment I have is not specifically on immunity. But there is a need to strengthen some of the

language in the national One-Call law. And I believe some of that is in the administration bill. Because the State of Minnesota was involved in that case where there was an intentional cover-up of a third part hit of a pipeline, where 240,000 gallons of liquid was spilled. The Justice Department was involved with that, but had difficulty prosecuting under the One-Call law. They did use the Oil Pollution Act.

Our State inspectors who were part of that interstate agent agreement did the investigation for that and supplied that information to the Justice Department. So there is an example of us being on site, being able to participate. Unfortunately, because of the way the law was written, there were very light penalties, and it was definitely an admission of guilt. We had to evacuate an entire town of 240 people. And in the same farm field, another line broke about a month later, as well. And that one is still under investigation.

Senator GORTON. Yes, Mr. Reiten.

Mr. REITEN. Senator, I would like to make just maybe one final point, picking up on what Bill commented on. And that is that, as stated in a number of testimonies, two-thirds, or nearly two-thirds, of all the incidents in both local distribution lines and interstate pipelines are caused by other than utility personnel. These are contractors and other people.

So they are outside our control with respect to management, our companies' standards. So the One-Call legislation, the training of contractors and so on, would address the majority of the people who are causing the problems. And it really does not lie—only one-third of the problem lies with employees of the utilities and pipeline companies.

Senator GORTON. Thank you. This hearing will be adjourned. I want to emphasize to this panel and to the earlier panels that I believe that action in this Committee is likely to take place very promptly. If you have any other suggestions, critiques of the various bills or suggestions for their improvement, the Committee will welcome them, but they need to be submitted promptly.

Senator GORTON. With that, thanks to this group, to the others, especially to the parents. The hearing is adjourned.

[Whereupon, at 1:15 p.m., the hearing was adjourned.]

APPENDIX

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN MCCAIN TO HON. KELLEY COYNER

Question 1. The Bellingham accident is not the only accident involving the Olympic Pipe Line Company. In August 1999, 3500 gallons of petroleum product spilled from a broken pump at another Olympic Pipe Line control center.

a) Why does the Research and Special Programs Administration (RSPA) continue to permit Olympic Pipe Line to operate south of the Bayview station?

Answer. RSPA and the National Transportation Safety Board (NTSB) worked together to identify the circumstances surrounding both accidents. We issued a corrective action order requiring Olympic to address the identified safety issues. The operating pressure of the pipeline is restricted to 80 percent of the pre failure (June 1999) maximum operating pressure until internal inspections are completed and any necessary repairs are made.

b) Are Olympic Pipe Line employees who were working in the pipeline's control room at the time of the Bellingham accident, and who are not cooperating with the existing investigations by pleading the 5th Amendment, still working on product operation positions at Olympic?

Answer. Yes. We do not have enough information to conclude that any individual's actions were responsible for causing the spill. We are, however, taking specific and comprehensive action to ensure the pipeline can safely operate. We can require removal of specific individuals from performing certain functions if they fail a drug or alcohol test. However, the employee controlling the pipeline when it failed and a computer specialist who attempted to fix the malfunctioning control system both passed a post accident drug test. Our Corrective Action Order requires a training program for controllers including classroom, practical exercises and, as appropriate, the use of simulators specific to the Olympic control system. The training program will address responding to abnormal operations and the starting up and shutting down of the pipeline system. Further, we are requiring a review of the qualifications of each controller in performing their duties, recognizing conditions that are likely to result in emergencies, and predicting consequences of facility malfunctions or failures such as those occurring on June 10, 1999.

c) As a safety measure, OPS has limited Olympic Pipe Line from operating its line in excess of 80 percent operating pressure. Was the 80 percent operating pressure threshold in force at the time of the August 1999 spill?

Answer. Yes. The August 1999 release was due to a mechanical failure of a piston in the pump at a station. It is unrelated to the Bellingham failure, which the 80 percent pressure reduction was designed to address.

d) What is the current status of Olympic's request to reopen the entire line?

Answer. Olympic is internally inspecting the pipeline under close scrutiny by RSPA. After each section of pipeline is tested, the pipeline will be shut down again until various company and government experts have reviewed the internal inspection results and assured that all needed corrective action is completed.

e) What has OPS done to ensure the safety of the communities along this pipeline?

Answer. RSPA ordered the company to shut down the pipeline in some areas and restrict use in other sections until a series of integrity verification tests and corrective actions were completed. These actions are designed to prevent recurrence of the Bellingham tragedy. RSPA has ordered the best technology and testing methods available and has devoted considerable resources to closely monitor these corrective actions. We have met with state and local representatives on a variety of occasions and in public meetings to hear and address their concerns wherever feasible. For example, RSPA assisted the City of Bellingham to monitor Olympic's performance of an agreement between the two. We have permanently stationed an inspector in the state of Washington and have conducted, in cooperation with the state pipeline safety program, a joint review of all pipeline facilities in Washington.

Question 2. The Administration's pipeline safety reauthorization submission proposes to increase the maximum amounts or civil penalties.

a) In recent years, how often has OPS used the maximum civil penalty currently authorized by statute?

Answer. RSPA has assessed the maximum civil penalty for individual violations four times in the past few years for overpressure of a pipeline. The maximum civil penalty is restricted to $25,000 for each day the violation exists. Overpressure of a pipeline, which usually occurs in minutes rather than days, is a serious and preventable violation. However, the civil penalty restriction limits the maximum assessment to $25,000 per event. RSPA has not assessed the maximum aggregate civil penalty of $500,000.

b) What does OPS do with the money it collects from civil penalties?

Answer. The funds collected from civil penalties go directly to the Department of the Treasury and are deposited into the general fund.

c) How much did OPS collect from civil penalties last year and how much does OPS anticipate collecting annually if the higher penalties are enacted?

Answer. OPS collected $16,500 in civil penalties last year. RSPA has finalized new standards for protection of tanks and operator qualification and expects to finalize new standards for corrosion and integrity management this year. While it is difficult to estimate in advance the extent to which operators will comply with these standards, we expect that some operators may have difficulty. We plan to enforce compliance, and penalties are likely to increase on that basis alone. The number and magnitude of civil penalty actions are not true measures of the safety impact of the RSPA compliance program. We continue to take strong enforcement action, including civil penalties and compliance orders, for a serious noncompliance. Enforcement is not the only means to achieve the desired safety impact. We focus on the best safety solutions.

Question 3. The Administration's reauthorization bill includes a section that directs DOT to support "international efforts to share information about the risks to the public and the environment from pipelines and the means of protecting against those risks." The Administration's section-by-section document accompanying the submission acknowledges that pipeline safety is primarily a national issue, but that environmental issues "may have" worldwide impact.

a) Is statutory language necessary since the submitted section-by-section states that the Secretary already provides technical assistance to foreign governments?

Answer. The Department's involvement in international pipeline safety matters has been limited and has usually been at the request of other agencies, such as the Department of State. A statutory provision is not needed to continue current practice. However, as the world gets smaller, there will be more opportunities to become involved in the international arena than the agency can accommodate. The Administration's proposal provides a statutory basis consistent with the Nation's pipeline safety needs upon which to base decisions on participation.

b) What international meetings involving pipeline safety issues has the Secretary attended and where have those meetings taken place?

Answer. The Secretary did not attend any international meetings having to do with pipeline-specific issues.

c) For the record, please identify the DOT Presidential appointees, the DOT civil service employees, and the total travel expenditures that were associated with attending those meetings. Please provide a chart listing those expenses and individuals involved for the record.

Answer. Not applicable.

d) In your opinion, what should take precedence as Congress considers reauthorizing the pipeline safety act, enhancing U.S. community awareness efforts or international outreach?

Answer. Although U.S. community awareness clearly takes precedent, the Administration's proposal on international outreach is fully consistent with and supportive of that effort. One of the considerations for international activities is the extent to which the knowledge gained will benefit the public. For example, international activities could increase our understanding about issues that are important to communities, such as new monitoring and detection techniques or the performance of pipelines in particular environments, such as earthquake or flood zones. This knowledge would put us in a better position to respond to community concerns in those areas.

Question 4. At the beginning of this year, RSPA revoked interstate pipeline agent delegation status from Arizona and Nevada—whereby the states inspect the interstate lines, report their findings, and the department is responsible for enforcement actions. RSPA also announced its intention to revoke this status from other states in the future.

a) What has been the safety record in the states that have requested and received delegation status for the program been to date?

Answer. Currently, we do not have mileage information by state, so we are unable to compare normalized incident rates by state on a per mile basis at this time. Without normalizing on a per mile basis, comparing a large state with high mileage to a small state with low mileage, one would expect to see more incidents in the larger state. Definitive conclusions about the relative risk of the two states can't be drawn without normalizing on a per mile basis. A comparison of the state incident rate against the national average provides a useful comparison methodology.

We have prepared three charts for states with interstate agent status showing national and by-state average number of incidents for the ten-year period from 1990–1999. The first chart compares intrastate vs. interstate jurisdiction for states with hazardous liquid programs. The second chart compares intrastate vs. interstate jurisdiction for states with natural gas programs. The third chart compares natural gas distribution and transmission incidents, and hazardous liquid incident rates.

State Agencies Acting as Liquid Interstate Agents

1990–1999—National average—3.9 incidents/year/state

1990–1999 Incidents per Interstate Agent State

State	Jurisdiction	Total Transmission Incidents (1990–1999)	Average Incidents Per Year
California State Fire Marshall [1]	Intrastate	156	15.6
	Interstate	54	5.4
	Total	210	21.0
Minnesota	Intrastate	1	.1
	Interstate	31	3.1
	Total	32	3.2
New York	Intrastate	1	.1
	Interstate	16	1.6
	Total	17	1.7
Arizona [2]	Intrastate	3	.3
	Interstate	5	.5
	Total	8	.8

State Agencies Acting as Gas Interstate Agents
1990–1999—National average—1.5 incidents/year/state

1990–1999 Incidents per Interstate Agent State

State	Jurisdiction	Total Transmission Incidents (1990–1999)	Average Incidents Per Year
Connecticut	Intrastate	0	0.0
	Interstate	2	.2
	Total	2	.2
Minnesota	Intrastate	2	.2
	Interstate	7	.7
	Total	9	.9
Ohio	Intrastate	3	.3
	Interstate	7	.7
	Total	10	1.0
Iowa	Intrastate	1	.1
	Interstate	9	.9
	Total	10	1.0
New York	Intrastate	7	.7
	Interstate	4	.4
	Total	11	1.1
West Virginia	Intrastate	2	.2
	Interstate	19	1.9
	Total	21	2.1
Michigan	Intrastate	5	.5
	Interstate	8	.8
	Total	13	1.3
Arizona [2]	Intrastate	1	.1
	Interstate	11	1.1
	Total	12	1.2
Nevada [2]	Intrastate	3	.3
	Interstate	0	0.0
	Total	3	.3

National Ten-Year State Averages (1990–1999)

Pipeline Mode	Acc/ Year	Deaths/ Year	Injured/ Year	Property Damages	Net Loss (Bbl) Liquid Operators
Natural Gas Transmission	1.6	.02	.24	$396,960	
Natural Gas Distribution	2.4	.34	1.5	$350,059	
Liquid	3.9	.05	.25	$786,205	1,570

Ten-year Averages by State (1990–1999)

State	Pipeline Mode	Acc/ Year	Deaths	Injured	Property Damages	Net Loss (Bbl) Liquid Operators
Connecticut	Natural Gas Transmission	.2	0.0	0.0	$9,600	
	Natural Gas Distribution	1.2	0.0	.6	$278,500	
	Liquid	.2	0.0	0.0	$295,000	29
Minnesota	Natural Gas Transmission	.9	0.0	.2	$32,100	
	Natural Gas Distribution	2.1	.8	1.6	$71,960	
	Liquid	3.2	0.0	.2	$1,976,503	2,105
Ohio	Natural Gas Transmission	1.0	.2	0.0	$446,900	
	Natural Gas Distribution	4.1	.4	3.0	$528,641	
	Liquid	3.4	0.0	.2	$790,205	557
Iowa	Natural Gas Transmission	1.0	.1	.1	$56,380	
	Natural Gas Distribution	1.8	.8	.5	$193,669	
	Liquid	4.7	0.0	.4	$511,717	4,124
New York	Natural Gas Transmission	1.1	0.0	0.0	$76,514	
	Natural Gas Distribution	6.2	.7	4.4	$1,517,800	
	Liquid	1.7	.2	.5	$352,285	151
West Virginia	Natural Gas Transmission	2.1	0.0	.6	$145,520	
	Natural Gas Distribution	1.1	.1	1.3	$18,327	
	Liquid	.1	0.0	0.0	$0	0
Michigan	Natural Gas Transmission	1.3	0.0	.4	$44,920	
	Natural Gas Distribution	5.5	1.3	2.8	$642,531	
	Liquid	2.1	0.0	.1	$160,788	295
Arizona [2]	Natural Gas Transmission	1.6	0.0	.4	$177,576	
	Natural Gas Distribution	1.3	0.0	.4	$65,500	
	Liquid	.8	0.0	0.0	$63,500	237

Ten-year Averages by State (1990–1999)—Continued

State	Pipeline Mode	Acc/ Year	Deaths	Injured	Property Damages	Net Loss (Bbl) Liquid Operators
Nevada [2]	Natural Gas Transmission	.3	0.0	.1	$31,196	
	Natural Gas Distribution	1.3	0.0	1.0	$216,997	
	Liquid	.2	0.0	.3	$40,800	34
California [1]	Natural Gas Transmission	2.9	.1	.6	$743,163	
	Natural Gas Distribution	9.2	1.0	3.5	$4,398,970	
	Liquid	21.0	.1	.9	$7,661,170	4,118

[1] Without normalizing incident rates on a per mile basis, skewing may occur. California may appear to have a higher incident rate than smaller states, but we do not know if this is true on a per mile basis.
[2] Arizona and Nevada are no longer interstate agents but are included for comparison purposes.

b) Are either Arizona or Nevada being prevented from participation based on safety performance?

Answer. No. This year, Arizona and Nevada are not participating as interstate agents in the pipeline safety program because there are no major system inspections or construction projects within those states. System inspections are coordinated team inspections of entire pipeline systems. Different pipeline systems are selected each year for these comprehensive inspections. None of the pipeline systems scheduled for this year cross into either Arizona or Nevada. Both of these states have performed well in the past as interstate agents.

c) Does RSPA currently have the resources to take over the work of the states that have historically carried out the interstate inspections?

Answer. No. We hope to continue current interstate agent programs with a different type of interstate agreement that would be mutually beneficial for safety oversight on interstate pipelines. These agreements would focus on the development of annual plans to utilize the states' expertise in addressing local concerns, such as new construction, damage prevention and emergency response activities.

d) How many RSPA inspectors are needed to carry out all of the interstate inspections, what is the federal funding level for the necessary FTEs, and how many pipeline inspections are completed solely by federal inspectors each year?

Answer. We currently have 58 federal inspectors that perform approximately 800 pipeline inspections annually and we requested four additional positions for federal inspections. These positions will require $100,000 per FTE, or $200,000 in FY 2001.

e) How do you intend to utilize states to oversee pipeline safety?

Answer. The Administration's legislative proposal outlines its continuous commitment to working with its state partners on pipeline safety. It offers an expanded role for all states to participate in numerous ways to improve oversight of interstate pipelines. We invite states to work with us on the evaluation of interstate pipelines, especially on new construction, accident investigation and major rehabilitation projects and, are proposing to fund, for the first time up to 100 percent of the costs associated with those inspections. The Administration's proposed legislation has provisions for state participation in federal inspections and other activities that will contribute to improved safety and environmental protection, particularly in the areas of identifying local issues of concern, broadening damage prevention activities, and improving community outreach and emergency response planning endeavors.

We would work with each participating state agency to establish an annual work plan to support these various functions and to agree on how we would share responsibilities. As examples, for new pipeline construction, the state would monitor the pipeline construction and report noncompliance issues to OPS. For accident investigations, the state may evaluate inspection results and witness testing. The state may audit an operator's risk management demonstration project or initiate or participate in ongoing damage prevention projects. They may assess or recommend improvements to response planning and procedures. They may work with local officials who need to understand specific pipeline risk assessments and remedial actions.

We would expect to keep participating states in the program as long as their intrastate programs are in order. We believe this proposal promotes federal/state

collaboration and more efficient scheduling of interstate pipeline inspections which all contribute to greater safety. We believe this expansion will improve our national understanding of the pipeline infrastructure, the risks to it and the public, and will improve our ability to evaluate the adequacy of operators' system-wide safety and environmental performance.

f) In April, DOT proposed legislation to reauthorize the pipeline safety program that includes provisions to allow states to participate somewhat in the oversight of interstate pipelines. What are the differences between the state partnership program you are canceling and the new one you are proposing?

Answer. The Department is proposing improvements to its policy relating to interstate agents and plans to put in place a different type of interstate agreement that would be of mutual benefit to both the Federal Government and the States in safety oversight of interstate pipelines. The current interstate agent program limits funding to 50 percent of a state's costs for performing inspections on our behalf and turning over the results to OPS for possible enforcement action.

DOT's proposed legislation would substantially expand the state oversight role. States could participate in the oversight of interstate pipeline transportation. Accident investigation and new construction would be major roles but a state would also work on other areas of local concern. Under this new proposal, the Department would be authorized to reimburse up to 100 percent of the states' cost in investigating accidents or inspecting new construction. Other activities related to interstate pipelines would be funded at the 50 percent level. We hope that damage prevention, local preparedness, and community right-to-know activities will be enhanced through this program. This program will be open to all states, not just those already having interstate agent status.

Question 5. On April 24, 2000, RSPA issued a notice of proposed rulemaking proposing that hazardous liquid pipeline operators that have pipelines in high consequence areas (environmentally sensitive areas, populated areas, and navigable waterways) develop plans for enhanced protection of these areas from pipeline rupture.

a) How does RSPA intend to evaluate the adequacy of these plans and whether the operators are following the plans?

Answer. One year from the effective date of each integrity assessment rule, OPS plans to begin field review of (1) operators' plan for baseline assessment of all pipelines that could affect a high consequence area and, (2) a framework addressing the required program elements. In reviewing the baseline assessment plan, OPS will evaluate timelines for internal inspections, pressure tests, or equivalent alternative technology to determine the integrity of the pipeline in high consequence areas; methods; and explanations of risk factors considered, and priority given, to material, manufacturing information, local environmental factors, activities in the area, coating, product, repair history, previous test data, corrosion and leak history. In reviewing the program framework, OPS will review the process the operator establishes for continuous evaluation; the process for integrating information, including potential for excavation damage, data from past integrity assessment, results of inspections and tests, including corrosion control monitoring and cathodic protection surveys on the pipeline, and the consequences of a failure; repair criteria and prioritization; identified preventive and mitigative measures to protect high consequence areas; methods used to ensure the effectiveness of the program (e.g., performance measures); and a process to ensure that qualified personnel will review and interpret assessment results and data. More important, we will begin to observe how operators implement their plans.

In examining integrity assessment plans, field inspections will include review of documents that support the analyses and decisions made and actions taken to implement the plan. In reviewing this documentation, we will closely examine how well an operator's program addresses the main elements of the integrity assessment rules. We will follow these reviews with subsequent field inspection of the testing, repair, prevention, and mitigation actions an operator makes. RSPA inspectors and contractors will verify that assessments have been conducted according to an operator's plan, and identified weaknesses that could affect the integrity of the pipeline have been repaired, and that the operator has taken the planned mitigative and preventive measures.

We anticipate that our performance-based rules will be supplemented by consensus standards (liquid pipeline standards are currently being developed under the auspices of the American National Standards Institute). We expect these standards to be specific and articulate the range of testing methodologies and repair criteria. We will monitor performance in accordance with these standards.

b) To what extent will this approach require additional federal resources?

Answer. Actual implementation of integrity reviews will begin in FY 2002. A decision on additional resource requirements will be made at that time. RSPA currently has 58 inspectors on staff. We anticipate requiring additional resources for this effort. Of the resources needed, significant support may be supplied through technical contractors and third party experts. The initial three-year period will include review of each pipeline operator's framework and plan and then subsequent inspection of the testing, repair, prevention, and mitigation activities. Because we are issuing separate rulemakings to address each of the major pipeline types, such as large hazardous liquid, small hazardous liquid, interstate and intrastate natural gas transmission pipelines, the compliance dates will likely be phased in up to six months or one-year apart, due to the time needed to complete the rulemaking process.

Question 6. The Accountable Pipeline Safety and Partnership Act of 1996, sponsored by our distinguished Majority Leader, authorized the Secretary of Transportation to implement a risk demonstration program to test the use of a risk management approach to pipeline safety. The act further required the Secretary to report by March 31, 2000, on the results of the projects carried out under this program, including an evaluation of the safety and environmental protection provided by the projects.

a) What is the status of the program? Has OPS issued a report?

Answer. The report required by Congress is now in clearance within the Department. The report, entitled "Beyond Compliance: Creating a Responsible Regulatory Environment that Promotes Excellence, Innovation, and Efficiency," describes the Pipeline Risk Management Demonstration Program and its progress to date and outlines recommendations for future activities based on lessons learned. It describes our experiences exploring different applications of risk management. Its fundamental conclusion is that OPS's near-term focus should be on regulatory approaches that use risk management programs, processes, and tools in combination with, rather than as a replacement for, existing regulations. This finding is consistent with, and provides a foundation for, the integrity management/high consequence area rulemakings now underway.

b) Has OPS evaluated whether the projects have provided safety and environmental protection beyond that provided by current pipeline safety regulations?

Answer. Yes. Each demonstration project accepted into the program includes risk control activities that exceed current regulations or that produce better performance than could be achieved through compliance with the current regulations. Specific examples:

> Implementation of the Equilon Risk Management Program (covering its Cortez Pipeline) is resulting in improved emergency response capability and enhanced public and emergency personnel protection and awareness. These new risk control activities exceed the current regulations and even go beyond the risk control activities included in Equilon's original proposal.
>
> Equilon will test the "First Call System," a high speed community emergency notification network. The First Call System immediately phones both emergency officials and local residents in the event of a leak or rupture. Emergency officials would be informed about the location and nature of the event, who to contact for further instructions and information, where to report, what emergency precautions need to be taken, etc. Landowners would be provided current, up-to-date information on the incident and on what precautions they should take. Upon validation, this notification network will be used elsewhere, including other Equilon pipeline systems.
>
> Equilon will also develop and distribute an emergency response guideline tool to employees, emergency responders, and the public. This tool provides the necessary safeguards and protective actions to be taken in the event of a release in an easy-to-understand format. The tool uses the results of Equilon's latest carbon dioxide and ethylene dispersion analyses performed as part of the risk management program to identify distances from the pipeline and type of leak for which various protective actions are required.
>
> Phillips' Excavation Risk Assessment Process has resulted in a number of benefits. For example, in some instances outside parties have rerouted or altered proposed projects to reduce the likelihood of hitting Phillips' pipelines during excavation activities. This has reduced the risk of outside force damage during excavations and has improved safety and service reliability. Through the use of performance measurement, Phillips' project has significant potential to dem-

onstrate superior performance, and provide valuable input to OPS's damage prevention initiatives.

Northwest has implemented a comprehensive geologic hazards program that helps identify where land movement might be a threat to pipeline safety, and implements activities that are designed to prevent failures in these locations. A key feature of this program is the use of instrumentation to measure precursors to land movement including pipe strain, soil movement, and moisture level. Company personnel regularly monitor these instruments to obtain advance indication of potential land movement. Using this early warning, the company is able to relieve stress on the pipe and prevent ruptures. The company has evidence that this advance warning and remediation was able to prevent at least three ruptures in recent years.

Columbia has been able to expand its internal inspection program through risk management. Columbia will be able to internally inspect and repair more miles of its system, focusing on those segments identified as most susceptible to corrosion or other material defects. These inspections and associated repairs will reduce the likelihood of corrosion failures, improving safety and reliability.

As part of a major project to reverse the direction of flow on part of its Salt Lake Products System, Chevron used its risk management process to identify and address the risks associated with operation in this new configuration. A review of the risks at major river crossings indicated that installation of new valves at these locations would minimize the volume of products that would be discharged into the river should a failure occur at or near the river crossing. As a result, Chevron installed valves to provide an additional level of protection for these waterways.

c) Why does the Administration's submission include provisions to statutorily enact certain conditions contained in an executive order the President signed when he signed the 1996 reform Act into law?

Answer. These conditions—relating to the compliance record of the operator and the level of safety and environmental protection provided by the project—have been part of the risk management demonstration program from the beginning. Therefore, it is appropriate to include them in any limited continuation of the individual projects.

Question 7. RSPA data show the leading cause of pipeline failure is outside force damage. What is the leading cause of pipeline product spills and what is OPS doing to reduce pipeline product spills?

Answer. Outside force damage and corrosion run about even as the leading causes of liquid pipeline accidents by total number. Spills from outside force damage, however, have higher consequences.

Over the past 10 years, more than 25 percent of all reportable liquid accidents, resulting in nearly 40 percent of all releases to water, and more than 40 percent of total property damage from these incidents, were caused by outside force damage. Hazardous liquid pipeline accidents attributable to outside force damage result in nearly double the average net loss of products than occur from accidents attributable to other sources of pipeline failure.

OPS has several program initiatives in the areas of damage prevention, corrosion regulation, and response planning underway to target both outside force damage due to excavation and corrosion, as well as to better prepare for any accidents.

- Our national Dig Safely damage prevention education campaign, promotion of the best practices identified by all stakeholders in our widely heralded Common Ground damage prevention effort, the work of the Common Ground Alliance (the nonprofit organization we are helping to establish), and our current smart pig research program is all squarely focused on preventing or identifying previous damage to pipelines, as well as to other critical underground facilities (water, electric, telecommunication, sewer, etc.).
- OPS will, this summer, propose new regulations to modernize corrosion regulations based on our collaboration with the National Association of Corrosion Engineers.
- OPS requires, reviews, and approves emergency response plans for all liquid pipeline operators. Further, we conduct about 20 tabletop and field deployment exercises each year to ensure that these plans can translate to action, if needed.

OPS has issued several recent rulemakings that strengthen existing spill prevention and planning regulations including:

- Final oil breakout tank rule: April 1999.
- Operator qualification final rule: October 1999.
- Unusually Sensitive Areas (USA) proposed rule: December 1999.
- Enhanced Protection for High Consequence Areas proposed rule: April 2000.

Question 8. What are the existing training requirements for federal and state pipeline inspectors and do those training standards meet the recommendations issued by the NTSB?

Answer. Federal and state pipeline safety inspectors are all required to take a minimum of nine weeks of training at DOT's Transportation Safety Institute focused on the pipeline safety regulations and specialized safety issues (e.g., corrosion and cathodic protection). These same inspectors are required to take and periodically refresh training in occupational safety and emergency response. In addition, specialized training (e.g., reading in line inspection tool results, breakout tank standards, etc.) is provided on an ad hoc basis. Most OPS inspectors and many of those employed by the states are professional engineers, many with graduate degrees in engineering. Further, OPS inspectors have an average of 10–15 years of related experience, mostly in pipeline and utility systems engineering and inspection.

We are not aware of any NTSB recommendation addressing training of the Federal and State pipeline safety inspection workforce. OPS continues to support the NTSB during significant accident investigations and to conduct those where NTSB chooses not to become involved. The NTSB has many times complimented OPS on the helpfulness and thoroughness of our inspectors. We continue to work with NTSB wherever and whenever possible so that we can both successfully discharge our responsibilities to the public.

We are currently working to address recommendations of DOT's Office of Inspector General (IG) on improving the training of pipeline safety inspectors in interpretation of in-line inspection tool results. We have already begun using available funds for this purpose, and will accelerate this specialized training for Federal inspectors over the next two fiscal years. This training will ensure that our inspectors are fully prepared to monitor compliance with our integrity management rules.

Question 9. The DOT-Inspector General (IG) has highlighted the fact that RSPA has not implemented Congressional safety mandates, and in some cases, is at least five years overdue and counting. How do you defend this poor performance?

Answer. The DOT-IG report highlighted several authorities provided to RSPA by the Congress. It also noted that RSPA has recently taken regulatory action to fulfill several Congressional mandates: (1) defining Unusually Sensitive Areas (USAs), (2) providing enhanced protection for USAs and populated areas, and (3) requiring periodic inspection of pipelines in high-consequence areas. This action is intended to respond fully to these outstanding mandates. These three mandates were the focus of the DOT-IG's recommendations.

Our response to these mandates was delayed due to the complexity of the USA issue (on which our response to several mandates rests), the lack of in-house environmental expertise, the required consultation with all federal environmental agencies, and our decision to seek broad public involvement. In addition, Congressional direction to RSPA on some of these items changed in 1996 to allow RSPA more flexibility in its responses.

RSPA has recently completed pilot testing of the proposed definition of USAs in the states of California, Louisiana, and Texas (which represent 45 percent of total pipeline mileage). This pilot test is being peer-reviewed by ecological and drinking water experts from each of these states, other federal agencies, and academics. The pilot test results and summary of the peer review are available to the public on the OPS Internet web site. The comment period for the proposed USA definition ends in late June 2000. RSPA is working to issue a final rule on the USA definition by the end of the year.

In April 2000, RSPA published the first in a series of rulemakings to focus company and regulatory attention on pipeline protection in high-consequence areas, including USAs, populated areas, and waterways. These rules will satisfy the Congressional mandates and build on RSPA's ongoing risk management demonstration program, integrity-based inspection program, and risk-based regulations to add additional pipeline safety protection. These initiatives supplement RSPA's comprehensive pipeline safety inspection program. These rules will address several Congressional mandates and will: (1) require pipeline operators to periodically inspect their lines; (2) integrate the results of these tests with other available information regarding threats to pipeline integrity; and (3) provide for governmental oversight of the company's testing protocols, schedules, and results. The first proposed rule in this

series addresses larger hazardous liquid pipelines, which account for 87 percent of total liquid pipeline mileage.

We expect to issue a similar rulemaking to the operators of smaller liquid pipelines and natural gas pipelines later this year. We are also considering a rulemaking to require pipeline communities to communicate more detailed pipeline safety information to local communities.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN MCCAIN TO JOHN A. HAMMERSCHMIDT

Question 1. The NTSB has had on-going concerns over the need for adequate pipeline operator training. As you are aware, last August, RSPA completed a negotiated rule on operator qualifications, which is just now beginning to be implemented.

a. What is the Board's view of the rulemaking outcome? Does the NTSB believe the new procedures are an improvement over the previous rules?

Answer. On January 26, 1999, the National Transportation Safety Board (NTSB) provided comments to a proposed rulemaking on the negotiated rule dealing with qualification of pipeline personnel (Docket No. RSPA–98–3783). Our comments noted that, as proposed, operators could determine that an individual was qualified based solely on observation of an individual and that the proposed rule failed to include strong training and testing requirements. Our comments referenced the pipeline accident that occurred in San Juan, Puerto Rico, in 1996, and noted that as a result of its investigation the Board concluded that the gas company's employees were not properly trained in testing for leaks. The Board's comments noted the prevalence of accidents in the pipeline industry associated with deficient personnel training and urged that the final rule include strong training and testing requirements to ensure that employees can properly perform tasks. We are disappointed that the proposed rule became a final rule, virtually unchanged. No training or testing requirements were included in the final rule.

Previously, there were no training or qualification requirements for individuals operating or maintaining gas pipeline systems operating under 49 CFR Part 192. The negotiated rule, effective October 26, 1999, allows an operator to determine that an individual is qualified based merely on observations or work history. Still no testing or training is required for individuals operating gas pipeline systems subject to Part 192.

Individuals working for hazardous liquid pipeline systems operating under 49 CFR Part 195, on the other hand, are currently subject to training requirements. Title 49 CFR Section 195.403 requires operators to conduct continuing training for operating and maintenance personnel and to work with employees annually to ensure the training is meeting their needs. However, as a result of the negotiated rule on operator qualifications issued by the Research and Special Programs Administration (RSPA) last August, this section will be revised. Training requirements for all these operating and maintenance personnel will be eliminated effective October 28, 2002, and replaced by qualification requirements based on observation or work history. Thus, Title 49 CFR Part 195, Subpart G, for hazardous liquid operators contains the same deficiencies as noted above for Part 192.

b. Aside from providing comments to DOT during the rulemaking process, did NTSB participate in the negotiated rulemaking negotiations and, if not, why did the NTSB fail to take a more active role given the significance of operator performance in accidents?

Answer. Safety Board staff attended some of the negotiated rulemaking meetings on operator qualifications, as observers, to learn about proposals being considered and the comments presented. NTSB policy has been not to participate directly in negotiated rulemaking between regulators and industry. NTSB staff did meet with RSPA's Office of Pipeline Safety staff on a regular basis to discuss open safety recommendations, including those calling for qualification and training requirements. These meetings usually included the Directors of the Safety Board's Office of Pipeline and Hazardous Materials Safety and the Office of Safety Recommendations and Accomplishments. Through these meetings we continuously urged RSPA to move forward on this rulemaking and to include strong training and testing requirements. When a proposed rule on operator qualifications was issued by RSPA, the Board provided comments to the docket.

About six months before RSPA's final rule was issued, the Board classified an open safety recommendation on this issue as unacceptable because the NPRM did not require adequate training or testing. Further, in testimony before the House Committee on Transportation and Infrastructure, Subcommittee on Economic Devel-

opment, Public Buildings, Hazardous Materials, and Pipeline Transportation on July 27, 1999, Safety Board Chairman Jim Hall, representing the Board, testified that the proposed rule was inadequate for these same reasons.

c. Other than providing public comments and offering suggestions, did any NTSB representatives directly work with the parties to improve the rulemaking? If not, why not?

Answer. Safety Board staff meets periodically with representatives of the Association of Oil Pipelines and the American Gas Association. During these meetings, the staff discusses ongoing safety issues. Discussions have included the Board's position on the need for strong training and testing requirements for pipeline operator personnel, accident investigations conducted by the Safety Board that support NTSB recommendations on this issue, and the lack of training and testing requirements in the proposed rulemaking.

Question 2. NTSB data show that RSPA has the worst safety recommendation acceptance rate for all DOT modes since the NTSB began issuing recommendations.

a. Recognizing that acceptance rates differ from one year to another, what has RSPA's acceptance rate been for each of the past five years?

Answer.

	Percentage Acceptance Rate
1996	73.3
1997	72.4
1998	72.3
1999	65.6
2000	62

b. For the record, provide a chart showing the DOT modal administrations' acceptance rates for each of the past five years for which statistics are available.

Answer. A chart is attached (attachment 1) as requested.

Modal Administration Acceptance Rates 1996 through 1999

Administration	1996		1997		1998		1999		Overall—33 years	
	Acceptance Rate	Total Recs. Issued	Acceptance Rate	Total Recs. Issued	Acceptance Rate	Total Recs. Issued	Acceptance Rate	Total Recs. Issued	Acceptance Rate	Total Recs. Issued
FAA	83.4%	171	83.3%	108	83.9%	126	91.7%	81	82.9%	3794
FHWA	100%	4	100%	2	80.0%	10	100%	6	87.0%	451
FRA	60.0%	16	63.6%	20	60.9%	24	100%	9	72.1%	491
NHTSA	100%	14	80.0%	10	N/A	5	100%	12	86.3%	290
RSPA	80.0%	5	93.3%	15	100%	13	100%	9	71.2%	387
USCG	91.7%	12	70.0%	12	64.6%	48	100%	17	73.0%	1181

N/A means that none of the recommendations issued to that recipient have had an official status assigned.

Average number of days to first response by recipient—1996 to April 2000.

FAA	83
FHWA	94
FRA	188
NHTSA	218
RSPA	131
USCG	321

As of April 26, 2000

Question 3. I appreciate your overview of the on-going Bellingham investigation. You gave a good indication of the difficulties you face due to Olympic's employees refusal to cooperate and the interference of the Justice Department officials. What has been the Board's experience with the Company in general—has Olympic been cooperative?

Answer. Soon after arriving at the accident site, our investigation team began the task of identifying pipeline operator employees that could help us gather and understand information needed to determine what happened. The day after our team arrived on-scene, a Vice President at Olympic Pipe Line issued a memorandum to all employees informing them that the company was not requiring or recommending what decision each employee should make in deciding whether or not to be interviewed by federal representatives. The company noted that it would provide an attorney for each employee to consult with before deciding whether to agree or decline to be interviewed. This had an extremely chilling effect on our ability to obtain firsthand accounts of the events leading up to the accident. Most employees, including those operating the system at the time of the accident, decided not be interviewed by NTSB staff.

Under the Safety Board's party system for accident investigations, companies, government agencies and other organizations that have employees, functions, activities or products involved in the accident and can provide needed technical assistance may be named as "parties." Parties assist the Safety Board by offering specific technical expertise and relevant information in the development of the best possible factual record. As a party to the investigation, Olympic Pipe Line Company has provided the Safety Board staff written technical information and other documentation specifically requested. However, Olympic's participation as a party to the investigation has not been typical in that key employees with specific technical expertise have not been available to provide technical assistance and information about the events that day.

Question 4. In addition to the provisions contained in my legislation to reauthorize the Pipeline Safety Act, I am considering a number of additional provision to further strengthen safety. Two of these provisions are in response to the difficulties NTSB has faced with the on-going Bellingham investigation.

First, I think we should include *whistle blower protections* for pipeline employees similar to the protections afforded for other industries. Second, while I fully recognize the right of citizens to exercise their rights to protect themselves, I do not believe they have the right to continue to carry out the same critical duties during an on-going safety investigation if they are not cooperating with the investigators. I believe that at a minimum they should be *placed on Administrative leave*.

a. What are your thoughts on these legislative concepts?

Answer. Uncooperative employees should at least be reassigned to other, non-operations positional because their performance at the time of the accident cannot be properly scrutinized. However, reassignment or administrative leave will not solve the problems uncooperative personnel pose for the Board's investigation. The threat of criminal prosecution sanctions is far more serious than even unpaid administrative leave. Until recently, we were rarely faced with an employee unwilling to cooperate with an investigation intended to make their industry safer.

In principle, whistle blower protection may encourage the disclosure of legitimate safety issues. We would view any law that would provide positive information to the Safety Board as a positive action. In other industries, such as aviation, there are mechanisms available to obtain safety-related information. The Aviation Safety Reporting System (ASRS) permits employees to anonymously report safety problems with no fear of reprisal from the Federal Aviation Administration for unintentional acts. The Flight Operating Quality Assurance (FOQA) is a program for reviewing recorder data. Such mechanisms could be considered for the pipeline industry.

Question 5. Your testimony also touches on the Board's concerns that RSPA is halting its interstate pipeline inspection program in which states are allowed to inspect interstate pipelines. To your knowledge, what has been the safety record of the state inspection program?

Answer. The Administrator for Gas Pipeline Safety, Arizona Corporation Commission, is the current National Chairman of the National Association of Pipeline Safety Representatives (NAPSR). He advised us that until recently Arizona participated as an Interstate Agent for the U.S. Department of Transportation's Office of Pipeline Safety. That agreement was terminated for the year 2000. The Arizona Commission noted that under its inspection program, transmission pipeline incidents in Arizona decreased steadily from 1990 to present: the Commission noted that from 1989 through 1995 there were 10 incidents, and for the last 4 years none. The Com-

mission attributes this reduction to its "aggressive and proactive" audit and compliance program. NAPSR notes that in 1999, nine States acted as interstate agents for the gas pipeline safety program and four for the hazardous liquid program. It advises that State agency duties normally consist of operator inspections, compliance and enforcement, training and safety programs, accident investigations, and record maintenance and reporting.

The Safety Board does not have quantitative data that can demonstrate the effectiveness of State pipeline safety programs. The Chairman of NAPSR provided us a report of various State activities. Attached is a copy of the Executive Summary of that report (attachment 2). The information shows that States conducted 652 accident investigations in 1998 compared to 128 Federal accident investigations, and 461 State accident investigations in 1999 compared to 55 Federal accident investigations. Other identified State activities include enforcement of one-call laws, participation in other damage prevention efforts, training of operators, and inspection activities.

Executive Summary

The Pipeline Safety Act ("ACT")(49 USC 60101 *et seq.*) authorizes the Secretary of the Department of Transportation to administer a pipeline safety program for the gas and hazardous liquid pipelines in the United States, The Act allows the Secretary to delegate all or part of the responsibilities for pipeline safety to interested states for a grant of up to 50% of the cost of the states' programs.

Since the Pipeline Safety Act was signed into law in 1968, the States have been very active in assisting the Secretary in carrying out the pipeline safety program for the United States. In fact, States' pipeline safety personnel represent more than 90 percent of the State/Federal inspection workforce. These personnel are the "first line of defense" at the community level to promote pipeline safety and underground utility damage prevention.

For many years now, states have been burdened with providing more than 50 percent of the cost of carrying out a partnership with OPS and performing the majority of the pipeline safety activities required by the Act. States' pipeline safety activities have continued to increase due to many new mandates, but grant dollars have not kept pace with these demands. The lack of adequate grant funds will result in programs that do not protect the public or the environment. For FY2001, the States' project a total grant of $17.5 million is necessary to fully fund their programs at the 50% level.

This report details the scope of the states pipeline inspection activities for 1998 and the associated costs. As will be noted upon reading the report, states continue to perform the majority of the nation's pipeline safety activities, despite the inadequate funding from the Federal government. The continued shortfall in Federal funding discourages states from fully participating in the nation's pipeline safety program. It is hoped that this report will provide a better understanding of the states' contribution to pipeline safety and the need for fully funding the pipeline safety grant for the states' pipeline safety activities.

Background

The statutory basis for the pipeline safety program is found in Chapter 601 of Title 49, United States Code. This chapter establishes the framework for promoting pipeline safety via federal authority for regulation of *interstate* pipeline facilities and federal delegation to the states for all or part of the responsibility for *intrastate* pipeline facilities under an annual certification or agreement. Chapter 601 also authorizes federal grants-in-aid of up to 50 percent of a state agency's costs relative to its pipeline safety efforts. The resulting federal/state partnership is the cornerstone for ensuring uniform implementation of the pipeline safety program nationwide.

The Office of Pipeline Safety (OPS) is the federal agency responsible for protecting the people and environment in the United States through a comprehensive pipeline safety program. Under delegation from the Secretary of the Department of Transportation (DOT), OPS manages the national pipeline safety program and develops, issues, and enforces minimum safety regulations for interstate and intrastate pipelines. OPS also administers the grant-in-aid funding to those states that assume responsibility for pipeline safety.

The responsibility for a state's pipeline safety program is delegated by the state to the appropriate agency. This agency may be a Public Utility Commission, a State Fire Marshal, or a State Public Service Commission, among others. States currently have jurisdiction over almost all intrastate gas, hazardous liquid, and carbon dioxide facilities in the United States. Several states also act as agents for UPS relative to

pipeline safety for certain interstate pipeline facilities. State agency duties normally consist of; 1) operator inspections, 2) compliance and enforcement, 3) training and safety programs, 4) accident investigations, and 5) record maintenance and reporting.

The States, through their involvement within their respective states and two active associations, the National Association of Pipeline Safety Representatives and the National Association of Regulatory Utility Commissioners' Pipeline Safety Subcommittee, promote improved pipeline safety standards, proper education and training of operators, and the advancement of pipeline technologies, to enhance public safety. For a discussion of these two associations, see Appendix 1.

Pipeline Safety Activities

Inspections

While the Pipeline Safety Act ("Act") requires the federal government to ensure pipeline safety throughout the United States, state pipeline safety personnel represent more than 90 percent of the state/federal inspector workforce. The state inspectors conduct inspection activities of more than 10,000 gas operators and 360 hazardous liquid operators nationwide.

The state pipeline safety programs ensure public safety through periodic inspections of gas and liquid existing facilities, records, and construction of new facilities. The inspections are to make certain pipeline operators comply with the appropriate regulations and company procedures pertaining to pipeline safety, resulting in the safe transportation of products to consumers. This attachment also details the hazardous liquid facilities that are inspected. In 1998, the states inspected approximately 45,000 miles of transmission lines.

Attachment No. 1 to this report presents the type and the number of miles of gas facilities jurisdictional to the states. In summary, the states are responsible for inspections of more than 938,000 miles of gas pipelines, 47.5 million service lines and 1,851 gas facilities such as LNG plants.

Attachment No. 2 to this report details the number of standard, specialized, follow-up and construction inspections, accident investigations and operator training conducted by each state during calendar year 1998. In summary, the states conducted 25,785 inspection person-days of gas facilities and 1,948 inspection person-days of hazardous liquid pipelines. Attachment No. 3 presents the percentage of inspections for each type of inspection activity in 1998.

Accident Investigations

In addition to inspections and other proactive efforts by states to further improve pipeline safety, states are responsible for investigating accidents. The purpose of these investigations is to determine probable cause of failures and require action that minimizes the possibility of recurrence. These investigations cover incidents that are reported as required by §191.5 of 49 C.F.R. as well as those that are reported in response to states' more stringent reporting requirements.

During calendar year 1998, states spent more than 1,400 inspection man-days on failure investigations relative to gas systems and approximately 150 inspection man-days on failure investigations of liquid facilities. In addition to investigating 128 incidents reportable under §191.5, states investigated 652 incidents reportable under the more stringent state's reporting requirements. These investigations and subsequent findings resulted in a number of corrective actions that operators were required to undertake. The corrective actions ranged from requiring an operator to join a qualified one-call center to requiring hydrostatic pressure testing of storage field pipelines. Inasmuch as the actions required by states have enhanced pipeline safety, it is appropriate to include the majority of the actions taken by states during 1998/99 as an attachment to this report (See Attachment No. 4).

Damage Prevention

Damage to pipelines caused by excavation activities remains the leading cause of pipeline failures. It is imperative that all stakeholders take action to reduce these damages. The states have been, and remain, on the forefront of initiatives that are designed to reduce damages to pipelines and other underground infrastructures. The recent national initiatives (Dig Safely and Common Ground) sponsored by OPS were fully supported by the states. Additionally, states have taken other actions to reduce excavation-caused damage to pipelines in their own respective states.

Dig Safely

In September 1996, OPS convened the Damage Prevention Quality Action Team (DAMQAT) to develop a national damage prevention education campaign. This team is comprised of representatives from the federal and state government and the var-

ious industries. States were very active in assisting DAMQAT to complete its mission and help carry out the Dig Safely campaign. Their activities included the following:

- Active participation by NAPSR and NARUC on DAMQAT.
- Conducting research on state's enforcement activities for DAMQAT use.
- Participation in the pilot program by States of Virginia and Tennessee
- Collection and analysis of pilot program data
- Participation in implementing the Dig Safely campaign.

Common Ground Study

In accordance with the Transportation Equity Act of the 2lst century (TEA21), the "Common Ground: Study of One-Call Systems and Damage Prevention Best Practices" report was prepared. Representatives of many stakeholders participated in conducting this study. For nearly a year, a number of teams worked to identify, define and agree on more than 130 best practices governing all aspects of damage prevention. Representatives from states served on many of these teams and provided valuable input into this process.

Currently, the states are working with other stakeholders to promote these practices and reduce damages to pipelines and other underground facilities in their own states.

Other Damage Prevention Efforts

States are involved with a number of other efforts that have significantly reduced excavation-caused damage to pipelines. These efforts range from educational programs for excavators to enforcement of one-call laws. In 1998, at least 1,800 inspection man-days were spent on damage prevention activities.

The states' efforts have resulted in reduction of excavation caused damage to pipelines. For example, in Virginia, damage to pipelines has dropped by 43 percent since 1996. This is an average of 10 percent per year since Virginia began enforcing their law.

Operator Training and Information Dissemination

Training of operators and information dissemination is an integral part of every state's pipeline safety program. States' pipeline safety staff conduct and participate in training programs to further pipeline safety.

In 1998, the states spent more than 1,300 inspection person-days training more than 25,000 individuals on pipeline safety issues. This training addressed, among others, the new operator qualification rules, corrosion, LPG, leak detection. master-meter operators, first responder training, damage prevention, and training of housing authority operators.

In addition, states disseminated informational material to promote pipeline safety and compliance with existing regulations. This information included, but was not limited to, guidance manual for small operators; damage prevention brochures, videos, etc.; copies of NFPA publications; sample operator and maintenance plans; law; rules; and regulations.

Industry/Government Committees

As part of its commitment to the safe operation of pipeline systems across the country, the states actively participate in a number of industry/government committees. These committees work to address certain issues, resolve certain problems or identify better ways to promote public safety, A list of some of the Committees and a brief mission statement of each committee in which the states currently participate is found in Attachment No. 5.

Waivers

States review applications requesting waivers to certain pipeline safety codes. This review involves following each state's specific rules of practice and procedures and the OPS' notice requirements. These waivers, when granted, achieve the same or enhanced level of safety and provide certain relief for the operator.

In 1998/99, states issued waivers dealing with: excess flow valves, inactive service lines, depth of pipe cover, use of polyamide pipe at 160 psig, frequency of odorant sampling, use of plastic pipe inside casings, and uprating of systems.

Resolutions

States arc very active in communicating important pipeline safety issues to RSPA through submission of resolutions. These resolutions are reviewed annually at NAPSR and NARUC meetings and, are forwarded to RSPA for their consideration.

Here are a few examples of issues contained in resolutions that have been forwarded to RSPA:

- Study the use of controlled density fill (CDF) around or in proximity to plastic pipe and appurtenances.
- Amend D2513 standard to require sustained pressure testing of plastic pipe fittings that utilize o-rings, gaskets, etc.
- Conduct technical studies to set design, installation, and maintenance criteria for aluminum gas pipe.

Since 1986, more than 50 resolutions have been submitted to RSPA and NAPSR recommending various actions.

Interstate Agent Activities

In addition to administering pipeline safety and damage prevention programs for the intrastate pipeline operators, several states have been heavily involved with OPS' interstate pipeline safety program. In 1999, nine states acted as interstate agents for OPS' gas pipeline safety program and four for the hazardous liquid program.

The interstate agent program has been successful for a number of reasons. First, states' pipeline safety personnel live and work in close proximity to interstate operators and their facilities as compared to OPS personnel. This enables states' personnel to interact more efficiently with the interstate operators in the particular state during routine inspection and review activities. Second, interstate agent states have played a key role in coordination in emergency planning and response involving local officials. This is critical in effectively planning for response to a major pipeline emergency event. Third, in today's environment, the citizens are extremely concerned about, and adverse, to large, high pressure pipelines going through their communities. This fact is evident from virtually every approval process for proposed pipelines in the last 15–20 years. Citizens do not trust the large corporations that own and operate these interstate pipelines, nor are they willing to trust a Washington-based pipeline safety program to guarantee their safety and the protection of their environment. The recent high impact accidents involving interstate pipelines, such as the Bellingham accident in the state of Washington, has further fueled these concerns.

The OPS' inspection program principally involves advance notice of inspection activities. Operators know when inspections are conducted and what these inspections involve. States have found that to truly gauge compliance, certain unscheduled inspections must be conducted. These types of inspections allow the inspector to see how an operator's compliance actually is instead of reviewing prechecked, prepared records and facilities for an advance-noticed inspection.

Although states believe the interstate agent program has been very effective in enhancing public safety, OPS has put in motion a policy to eliminate all interstate agent programs over the next three years. This policy is not in the best interest of pipeline safety.

State's Resources to Carry out Pipeline Safety Responsibilities

As noted previously, Chapter 601 of Title 49, United States Code, provides the basis for the pipeline safety program. States, under a partnership agreement, conduct the vast majority of pipeline safety inspection activities in the US. In exchange for this effort, which substantially reduces federal government obligations in this area, §60107(a) authorizes grants to reimburse states for "not more than 50%" of the cost of their pipeline safety program. The grant funds are distributed through a performance-based allocation process in which a state's grant is reduced if federal performance standards are not met. As discussed below, the federal grant has not kept up with the costs of the states' pipeline safety programs.

As a result of the prosperous economy, construction of gas pipelines has increased 15–20 percent in the past few years. The majority of the new facilities have been constructed by contractors with little company supervision. State personnel should be available to witness installation and require corrections as needed. State personnel who have witnessed construction have reported instances of improper procedures used by contractors when constructing new facilities, the states are unable, in terms of lack of resources, to provide adequate monitoring of construction. Without correcting these problems, at the time of construction, it is only a matter of time until corrosion occurs at welds and joints, or other types of breaches of integrity occur. States are able to cover about 50% of their inspection units (7,035 of 13,398 units in natural gas distribution and 343 of 580 units in hazardous liquid pipelines). Proper funding of states programs should substantially improve inspection coverage to monitor the majority of their units, particularly new construction activities.

Additionally, state inspectors are the first line of defense at the community level to educate local officials, excavators, utilities, and others on the importance of improvement in damage prevention practices. State inspectors are a primary means of encouraging the adoption of these practices at the local level, where construction occurs. Extensive construction of telecommunications, electric, water, sewer, and gas distribution lines in the same right of way increases the urgency of getting the Office of Pipeline Safety's best practices adopted.

Attachment No. 6 presents the grant levels requested by the states and amounts appropriated by the Department of Transportation for 1992–1999. It is obvious that the allocated funds have continuously fallen short of the program costs. In 1999, the shortfall was more than $1.5 million or 12 percent of the states' requested level.

For many years now, states have been burdened with providing more than 50 percent of the cost of carrying out a partnership with OPS and performing more than 90 percent of the pipeline safety activities required by the Act. States' pipeline safety activities have continued to increase due to many new mandates, but grant dollars have not kept pace with these demands. The lack of adequate grant funds will result in programs that do not protect the public or the environment.

Consequences of Not Fully Funding

Without adequate funding, states will not be able to conduct the required inspections of the existing pipeline facilities, conduct inspections of new facilities construction, and encourage compliance with the safety regulations. As discussed earlier, states have only been able to cover approximately 50% of their inspection units. States represent 90% of the state/federal inspector work force that oversees pipelines nationwide. Grants are an effective way to leverage resources and increase total inspection capability since states match or exceed Federal funding. A shortfall in Federal funding discourages states from taking part in the pipeline safety program. The states' projection for FY2001 shows that a total grant of $17,519,000 is needed to fully fund their programs at the 50% level.*

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ERNEST F. HOLLINGS TO WILLIAM J. HAENER

Question 1. As you know, OPS is attempting to map the national pipeline system with information provided by the industry on a voluntary basis. Do you believe that your members will be able to provide the mapping information to OPS by the end of the year?

Answer. No, the voluntary mapping data in the format requested by OPS will not be available by the end of the year for all interstate natural gas transmission pipelines. The previously agreed upon schedule for a more detailing mapping system is 10 to 15 years for total completion. However, OPS already has mapping information in electronic format for all interstate natural gas transmission pipelines. This mapping information was compiled by the U.S. Department of Energy. I have attached an explanation of the voluntary process and the agreement that was reached between the INGAA members and Office of Pipeline Safety.

Question 2. I understand that there are many obstacles for gas pipeline operators to overcome to conduct extensive internal inspections or "pig." What percentage of your lines do you currently pig? Can you identify some of the problems associated with "pigging" your company or the gas pipeline industry faces?

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*Attachments referred to were not available at the time this hearing went to press.

Answer.

Operational considerations for pipeline "piggability" (Liquid vs. Gas)

Natural gas pipelines are not as piggable as liquid lines because of differences in the type of product being transported. Liquid lines frequently use "pigs" (not "smart pigs," but the uneducated kind) to separate and move batches of liquid products through a pipeline, or to clean out a pipeline. This is why liquid lines are generally designed to accommodate pigs, including the instrumented ones that are used for internal inspections. Natural gas pipelines carry only one product, in a gaseous form, which is far more compressible and able to negotiate differing pipeline diameters, valve spaces, etc. Therefore, natural gas pipelines were not originally designed to accommodate large solid objects moving through them.

Pigging and other corrosion detecting tools

The solitary reason for installing pig launchers and receivers on natural gas transmission pipelines is to permit the use of inline inspection tools known as "smart pigs." All natural gas transmission pipelines constructed after 1994 have been required by OPS to accommodate smart pigs. Pipelines built prior to that time must be modified in varying degrees in order to accommodate these devices. Some of these modifications are relatively minor, such as installing aboveground launchers and receivers for smart pigs. In other cases, entire sections of pipe, or valves, must be replaced, causing major service disruptions.

Corrosion protection systems and their accompanying aboveground diagnostic procedures are the first, second, and third levels of defense to prevent corrosion. These systems are constantly monitored and adjusted to maintain effectiveness. Only in rare circumstances do these protection systems fail. When this occurs, additional diagnostic tests are performed. These could include "bellhole" examination (digging up sections of pipe to physically look for damage), hydrostatic testing (using water pressure to test the integrity of the pipeline), and inline inspection. Therefore, the major reason for modifying a pipeline for inline inspection is a determination that there is a high probability of corrosion on a particular pipeline segment.

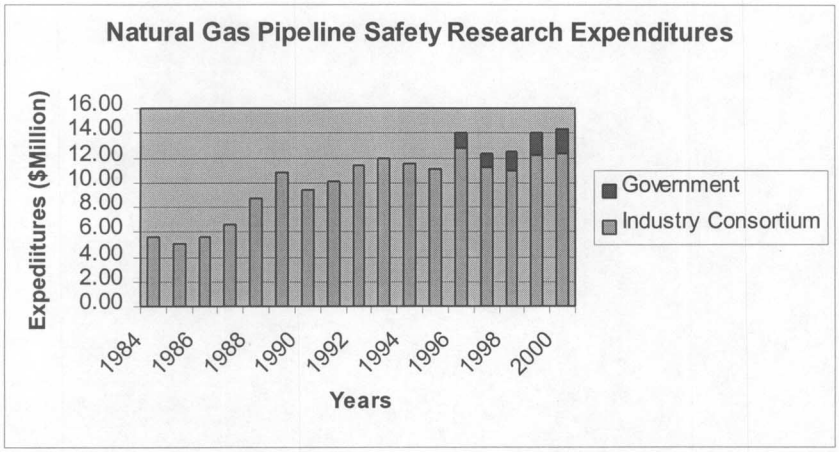
INGAA conducted a survey of its members to see how much of the interstate natural gas transmission system is piggable. This sample reflects responses for about 70% of INGAA's membership. We believe the sample to reflect the present state of the interstate natural gas transmission system.

	Interstate Natural Gas Pipelines That Can be Pigged Sample Size 103,000 miles
30.14%	Mileage that is easily piggable (launchers and receivers available)
24.45%	Mileage that can be pigged without much work (temp. launchers, receivers)
42.71%	Mileage that cannot be pigged without extensive modifications (new bends installed, significant service disruptions, etc.)
1.87%	Mileage that cannot be pigged at all (not enough pressure to push the pig through)
	Interstate Natural Gas Pipelines That Have Been Pigged Sample Size 103,000 miles
25.48%	Mileage that has been pigged at least once
5.34%	Mileage that has been pigged more than once

Question 3. I note from your testimony that a recent survey revealed that the interstate natural gas industry spends approximately $3,500 per mile of pipe on safety. Can you identify some of the components of this safety investment? What about spending on research and development?

Answer. I have included a report of the original survey that was referenced in the testimony. The report is structured to show where and how the expenditures are used to ensure safety on the natural gas pipeline safety system. As you can see in the report there are significant expenditures in various categories.

I have also included a chart on the expenditures of cooperative research for natural gas transmission pipeline safety within the last ten years. Natural gas pipeline companies have been conducting cooperative research since 1953 primarily through the Pipeline Research Committee International and the Gas Research Institute.



RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. PATTY MURRAY TO WILLIAM J. HAENER

Question 1. The McCain bill, my bill, and the administration's proposal focus on the public's right to know about what your operations are doing. One idea is that it would be up to you guys to collect the information about your practices and a summary of problems with your pipeline then to submit that information to local officials and emergency responders in areas impacted by your operation. Could you put such information in a form that would be easily understood and how hard would it be to submit that information to these local entities? How difficult do you foresee having to submit that information to the public at large, such as mailing to people within the right of way on a periodic basis?

Answer. A quick trip to the Office of Pipeline Safety website will tell you that a great deal of information is already available to the public upon demand. In recent years, OPS has done an excellent job of posting information about specific enforcement actions, safety statistics, and general information about pipelines, onto the Internet.

The current regulations for natural gas pipelines require a continuing education program for public officials, emergency responders and citizens who live near rights-of-way. Our members host local meetings with community groups annually, to discuss safety issues and emergency planning. We also send information about our pipelines out to all those who own property on the right-of-way, to alert them about potential hazards, what to do in an emergency, and who to call if there are questions.

Some of the legislative proposals we have seen would require pipelines to send technical information about pipelines inspections and other activities to the parties near a pipeline. Obviously this kind of information would be of a technical nature, and we do not think it would be easy for most laypeople to understand. As a result, such a general effort would either be ignored by the public, or might even alarm them if they did not have a background in engineering or mechanics. Pipelines provide inspection information to pipeline safety regulators as part of their auditing process. This information is complex, lengthy, and potentially confusing to those who are not familiar with pipeline operations. We think it would be feasible for OPS to disseminate the results of these audits to local officials, perhaps through an Internet-based system. Not only would that indicate that inspections had been performed, but it would also provide an auditing record for pipelines within their respective jurisdictions.

To generate a large volume of technical information for the general public, which we believe would largely be ignored, does not seem like a rational use of safety resources, however.

Question 2. This question is for those that work in the natural gas business. Senator McCain's bill and the administration's proposal both contain mapping requirements. I am aware of the voluntary National Pipeline Mapping System (NPMS) and applaud that effort. The administration's proposal would require liquid pipelines to provide to local officials maps of their pipeline. Senator McCain's bill would require both natural gas and liquid pipeline operators to have to provide those maps. Do you already map your facilities? I also understand that natural pipeline facilities would take longer to map. Could we not simply allow natural gas companies more time, but still retain a mapping requirement for natural gas lines, to map their facilities to take into account the fact that your facilities are more complicated?

Answer. All interstate natural gas transmission pipelines are mapped at this time, just not in the particular format currently requested by OPS. The U.S. Department of Energy's Energy Information Agency has had available mapping information for interstate natural gas pipelines in electronic format since 1994. OPS originally decided to use the DOE mapping information, but has since determined that it wants to use a different format. For the new format, we are estimating a 10 to 15 year time period for completing that very expensive and time-consuming effort. See the enclosed mapping information.

Question 3. Another question for the natural gas folks. There has been much discussion, which is reflected in the administration's proposal that it is difficult to internally inspect with the exception of hydrostatic testing many of your lines. What other types of inspections do you do? Do you know of any experimental methods being tested to internally inspect currently non-piggable natural gas lines?

Answer. The attached report entitled "INGAA Pipeline Safety Survey" gives an overview of the various types of inspections that are performed on natural gas pipelines. Visual inspections of the right-of-way, by foot or from the air, are perhaps the most important inspections, because they look for leaks or unauthorized excavation activity. Close interval surveys, which test the effectiveness of a pipeline's cathodic protection, are also a key inspection tool. Pipelines can be inspected externally using "bellhole inspections," which involve digging up sections of pipe to check and verify its condition.

Some new technologies have been tried recently to impart sonic waves on the exterior of pipeline and measure the back reflection. Unfortunately, this technology is limited in applicability. Generally, the best alternate inspection method to verify a pipeline's overall condition is to individually monitor the progress of deterioration prevention mechanisms. Several new methods, such as Direct Current Voltage Gradient (DCVG) which identifies specific areas where cathodic protection is not adequately protecting the pipe from corrosion, have shown promise.

Question 4. Do you think you could adjust your personnel qualification plans that are due to OPS by April 2001 to address Senator McCain's periodic retraining and examination requirements?

Answer. Since operator training is a component of an operator's overall job qualification, we believe the training requirement contained in Senator McCain's bill is incorporated in the present rule. Therefore, training plans will be a part of the individual plans which are scheduled to be completed by April 27th of 2001.

Question 5. I've heard from many of you that your current business practice met nearly all of the provisions of these proposals, thus no need for legislation. If that is correct, then why oppose it?

Answer. We do utilize the technologies and techniques mentioned in your legislation, and have for many years. It was the natural gas pipeline industry, for example, that funded the research which lead to the development of "smart pig" inspection devices. Our quarrel is not with the technologies, but rather, with the idea that technologies or techniques should be employed on a "one-size-fits-all" basis. Each pipeline system is different, and therefore faces different potential risks. We believe an individual pipeline operator should be given the flexibility to meet the unique safety risks associated with its system in the most effective manner possible, rather than being forced to employ nationwide mandates which give little weigh to specific conditions or potential risk.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN MCCAIN TO KENNETH M. MEAD

Question 1. Some of the pending pipeline reauthorization bills call for the wider use of internal pipe-defect identification devices, often referred to as "smart pigs." Yet your recent audit reports that OPS investigators are incapable of interpreting the data reported from the internal devices.

a) Where should we focus our efforts, on expanding internal pipeline examinations or training investigators in how to interpret the data?

b) Or, should we focus on training the inspectors first and then require more widespread use of the devices?

Answer. Data generated by inspections are critical to determining a pipeline's condition and identifying serious defects before a failure occurs. Smart-pig vendors use the data to prepare an inspection report for the pipeline operator, who reviews the report and takes appropriate actions. This critical flow of information should continue—and be expanded—concurrent with the Research and Special Programs Administration's design and implementation of a training program on pig technology for Office of Pipeline Safety (OPS) safety inspectors.

c) Did your audit examine the capabilities of state pipeline inspectors to interpret such data?

Answer. No, our audit did not examine the capabilities of state pipeline inspectors to interpret smart-pig data. However, we believe Federal and state inspectors need state-of-the-art skills, expertise, and the ability to make accurate safety assessments that lower the risk of pipeline failures. As we noted in our testimony, state pipeline inspectors should receive the same level of training as Federal inspectors in order to ensure consistent implementation of pipeline-inspection regulations.

Question 2. During your testimony, you highlighted concerns over a lack of adequate training of pipeline inspectors and operators. What are your views on the August 1999 negotiated rule on operator qualifications? Do you believe additional requirements are needed and if so, what do you recommend?

Answer. The intent of the negotiated rule on operator qualifications is to ensure a qualified workforce in the pipeline industry and to reduce the probability and consequence of incidents caused by human error. We support these goals.

However, pipeline operators are not required to submit their qualification programs (to evaluate an individual's ability to perform certain work tasks) to RSPA for approval. Consistent with our testimony, we support reauthorization provisions requiring operators to submit their qualifications programs to the Secretary for approval. We also support requirements for periodic retraining and reexamination of pipeline personnel. The issue of operator qualifications should not focus on the paper record of the training process, but rather on assurances that pipeline personnel have the necessary knowledge and skills to safely perform their jobs.

Question 3. What are your views on RSPA's actions to halt its interstate partnership agreements with the states?

Answer. We support the reauthorization provisions seeking to expand, rather than eliminate, the states' role in interstate pipeline inspections and oversight. By sharing the safety oversight role with states, RSPA has the opportunity to leverage limited resources to increase the number and quality of pipeline inspections. States should also be involved in special investigations involving new construction or pipeline accidents.

However, we do not support granting States the ability to establish inspection, operations, or maintenance standards for interstate pipelines. Where additional standards for interstate pipeline integrity and safety are required, they should be established at the Federal level.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN MCCAIN TO JAMES M. PATES

Question 1. I understand that certain states exempt certain city-run municipal pipeline entities from regulations. For example, Virginia exempts the City of Richmond municipal facility and Pennsylvania exempts a municipal gas distribution facility in Philadelphia. If states won't allow their own pipeline inspectors to inspect certain state pipelines, why should those same states be given inspection authority over interstate lines?

Answer. First, let me emphasize that the City of Fredericksburg supports the concept that all municipal gas utilities should be subject to the same regulatory author-

ity as privately owned ones, whether that regulator be OPS or a state public utility commission. However, a state's lack of jurisdiction over a handful of public gas utilities should not serve as a roadblock to a state becoming a more active partner in interstate pipeline regulation.

In the case of Virginia, for instance, the fact that the State Corporation Commission (SCC) lacks jurisdiction over intrastate gas facilities in the City of Richmond has absolutely nothing to do with the SCC's ability to serve as an effective interstate agent over hazardous liquid pipelines.

Second, the fact that a municipal utility such as the City of Richmond has managed to remain subject to the more lax supervision of OPS should not allow all public and private utilities in Virginia to be held to a lower standard of public safety and environmental protection than would be achieved by bringing them under the authority of the State Corporation Commission. How could that possibly serve the public interest?

We would encourage the Committee to consider the example of Virginia's intrastate liquid program. Up until 1995, intrastate liquid pipelines in Virginia were regulated by OPS. That same year, the SCC gained certification to administer the intrastate program on behalf of OPS and began regular inspections of the main intrastate carrier in Virginia, ST Services. The Commission discovered significant violations involving the company's Operations and Maintenance Plan and other requirements and fined the company $83,000. Most, if not all, of these violations existed during the years that the company was subject to OPS jurisdiction but that agency had never taken any corrective action.

This one example is typical of the manner in which most states provide better inspections and oversight than OPS. I am absolutely confident that if the Commonwealth of Virginia, rather than OPS, had been inspecting Olympic Pipeline Company in the years preceding the Bellingham accident, that pipeline would not have failed and those three boys would not have died.

In other words, the fact that Virginia lacks the authority to oversee Richmond's gas utility should not deprive the citizens of this state of a higher standard of safety for interstate liquid pipelines than what OPS has been providing.

Question 2. Should state pipeline enforcement enhancements be conditioned upon a state's repeal of such exemptions.

Answer. No, but perhaps OPS could instruct its inspectors to place such exempt utilities on the same inspection schedule and subject them to the same standard of review exercised by that particular state over other intrastate operators. This would remove any "double standard" that may exist. In other words, this is a problem that could undoubtedly be resolved administratively by OPS.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ERNEST F. HOLLINGS TO PHILLIP D. WRIGHT

Question. As you know, OPS proposed a rule which attempts to define High Consequence Areas last month. Do you believe that this proposed rule will provide for accurate assessments of high density and unusually sensitive areas?

Answer. Yes, with some qualifications. The rule depends heavily on data from a number of federal, state and private sources. Data from multiple sources—for example, state data bases for environmental information supporting the definition of areas unusually sensitive to environmental damage; heritage programs, such as those of The Nature Conservancy; state data bases on drinking water; U.S. Census Bureau information on population—are needed to provide a solid basis for a definition of HCAs that will withstand professional and legal scrutiny. The level of completeness, compatibility, accessibility and usability for these sources vary. The Office of Pipeline Safety is working with the data providers to turn database information into mapped high consequence areas that operators can then use for conducting assessments. The information available to pipeline operators will be limited by the quality of the original data sources, the resources those data providers have applied to collecting and updating the information, and OPS's capacity for providing HCA maps. These data sources will improve over time, but the quality of HCA definitions will always depend heavily on the quality, utility, completeness and availability of information from the agencies that have the information in the first instance. This said, we believe the proposed definition, when properly implemented with adequate data, can capture those areas that are, in fact, high consequence areas.

Question. What percentage of your lines do you currently pig? How often do these internal inspections take place?

Answer.

API Survey on Internal Inspection

In January 2000 the American Petroleum Institute conducted a survey on internal inspection practices in the liquid pipeline industry. Responses were received from 24 companies operating 129,046 miles of liquid pipelines or 82% of the approximately 157,000 miles of pipeline mileage regulated by OPS. Because this survey represents such a large portion of the total mileage, we have projected our statistical summary analysis to the entire 157,000 miles. The time period for information on integrity testing is 1990 to 1999. The results for Williams track the industry results.

We estimate that 89% of US hazardous liquid pipeline mileage is currently capable of being inspected using in-line inspection tools. This means that 11% of US hazardous liquid pipeline mileage has significant barriers to in-line inspection tools. These barriers include, for example:

- lack of commercially available in-line inspection tools for the particular pipeline diameter, especially small diameter pipe;
- bends with *radii* too tight for tool passage; or
- restrictions resulting from valve design or changes in pipe diameter.

This category also includes mileage that is currently being maintained, but is not in active service. Of those companies with more than 500 miles of pipe, companies varied from a high of 39% of miles with barriers to using in-line tools to a low of 0% of mileage with barriers to using in-line tools. Most companies fall within the range of 2–5% of total mileage that currently has barriers to in-line tools. We did not receive sufficient responses from companies with less than 500 miles of pipe to make any definitive statements.

Summary: Total Use of In-Line Inspection Tools by Hazardous Liquid Pipelines

- Since 1990, 49% of the pipeline mileage regulated by OPS has been inspected using in-line inspection tools.
- Since 1995, 31% of the pipeline mileage regulated by OPS has been inspected using in-line inspection tools.
- The trend is clearly toward increasing use of high-resolution tools; however, low-resolution tools continue to have value.
- Based on this survey, we suggest that the current capability of in-line inspection vendors using high-resolution tools to serve the liquid marketplace is about 20% of the total mileage (157,000 miles) over 5 years, or 5% per year (8000 miles) per year. This vendor capability may grow based on demand for the service and capability of a relatively small market to meet demand.

In-Line Inspection with High-Resolution Tools

- Since 1990, 24% of the pipeline mileage regulated by OPS has been inspected using high-resolution in-line inspection tools.
- Since 1995, 22% of the pipeline mileage regulated by OPS has been inspected using high-resolution in-line inspection tools.
- Ultrasonic tools represent the introduction of a new type of high-resolution technology and their use is increasing. The capabilities of ultrasonic tools are also being validated through field application. Since 1990, 3% of the pipeline mileage regulated by OPS has been inspected using ultrasonic in-line inspection tools. Some portion (undetermined by our survey) of the mileage inspected using an ultrasonic tool may also have been inspected using other high-resolution tools.

In-Line Inspection with Low-Resolution Tools Only

- Since 1990, 22% of the pipeline mileage regulated by OPS has been inspected using low-resolution tools only.
- Since 1995, 8% of the pipeline mileage regulated by OPS has been inspected using low-resolution tools only.
- These two percentages indicate that pipeline companies are clearly shifting away from using low-resolution tools and toward the use of high-resolution tools. Low-resolution tools continue to have value and are suitable for certain types of pipeline conditions.

For additional information, see the API comments to Docket No. RSPA–99–6355; Notice 1, the rulemaking on enhanced protection of high-consequence areas.

Question. As you know, OPS is attempting to map the national pipeline system with information provided by the industry on a voluntary basis. Do you believe that your members will be able to provide the mapping information to OPS by the end of the year?

Answer. The liquid pipeline industry and the OPS have been working to support the National Pipeline Mapping System. OPS readiness to absorb various kinds of mapping data is evolving. OPS has commissioned a number of state repositories in addition to a national repository. State repositories are in various stages of preparedness for handling electronic or paper submittals. Each pipeline company is in a different stage of preparedness to provide information. Some companies are paper-mapped based; some companies are electronic-mapped based; many are in a transitional phase moving from paper-based maps to electronic GIS based maps. Technology is getting better and less costly. Currently the liquid pipeline industry has contributed mapping information on 21,823 miles or 14% of the total liquid mileage of 157,000 miles. Many oil pipeline companies have committed to making significant contributions by the end of 2000. The proof of course, is in the actual mileage filed. We believe that contributions from API and AOPL members will approach 50–70% of the total liquid pipeline mileage by year-end. Williams expects to have 100% of its mapping data submitted by year-end.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. PATTY MURRAY TO PHILLIP D. WRIGHT

Question. The McCain bill, my bill, and the administration's proposal focus on the public's right to know about what your operations are doing. One idea is that it would be up to you guys to collect the information about your practices and a summary of problems with your pipeline then to submit that information to local officials and emergency responders in areas impacted by your operation. Could you put such information in a form that would be easily understood and how hard would it be to submit that information to these local entities? How difficult do you foresee having to submit that information to the public at large, such as mailing to people within the right of way on a periodic basis?

In our experience, there are three "publics" that a right-to-know program needs to address: local public officials with responsibilities along the pipeline corridor; our right-of-way neighbors who live or work near the pipeline; and the public generally. An effective program should be aware of and fashion its work product to, the needs and interests of each of these audiences.

Local Public Officials

The pipeline industry can provide good quality information in a format that can be understood and used by local officials. In fact, we have already committed to the Office of Pipeline Safety to prepare materials and pilot test the effectiveness of new types of materials with local officials in areas impacted by pipeline operations. OPS is convening a group of stakeholders to conduct pilot tests of specific approaches in several states. We seek a strong partnership with local officials along our pipelines. We enhance safety and environmental protection when we ensure that these officials are knowledgeable and prepared to take action if an incident occurs. In the past, the biggest challenge in this area has not been developing or providing the information for this audience. The biggest challenge is getting local officials to focus on the information when it is provided and to commit to being effective in the roles that are available to them in ensuring pipeline safety—enacting good state laws on damage prevention; supporting quality one-call systems; enforcing damage prevention statutes; implementing land use planning that reduces the risks of pipeline accidents; and developing effective emergency response mechanisms We welcome ideas that will improve the partnership between pipeline companies, regulators and local public officials.

Right-of-Way Neighbors

The pipeline industry is already providing right-of-way neighbors with information on a periodic basis under 195.440 and 442. We need knowledgeable right-of-way neighbors as a first line of defense in protecting the pipeline from damage and in recognizing and sounding the alarm about problems that may occur. We want right-of-way neighbors to have the information and understanding they need to protect themselves in the event of an incident. As an industry we recognize this as a communication challenge that it is our responsibility to address, and we are open

to advice and direction about how to accomplish these goals more effectively. The type of information needed for the right-of-way public is different than for officials if only because we do not want to lose the audience with a message that is off-putting, overly technical or otherwise difficult to understand. Nor do we wish to overstate safety concerns.

The industry is committed to the DIG SAFELY campaign as an umbrella communications program that will ensure that the efforts of excavators, all underground utilities (electricity, water, sewer, cable, telephone, pipelines, etc.), one-call notification centers and public officials are coordinated under a unified message. The DIG SAFELY campaign is a major asset in informing right-of-way neighbors and the public.

The General Public

Communicating with a broader audience adds additional concerns related to purpose, content and the mechanism of distribution of information that will be used by and useful to the general public. Our experience is that it is both wasteful and counterproductive to undertake massive mail campaigns to long lists of addresses. The communication that occurs under these schemes appears to us to be minima. The information becomes rapidly out of date. As a communications vehicle, mass mailings are fundamentally inflexible. Rather than enact an affirmative requirement in law that companies contact and supply a preset list of data to large groups of potentially affected persons, we'd prefer to work with OPS, the states and local officials to make understandable information available to those who are interested, perhaps in electronic format, and experiment with ways to communicate effectively. As part of the OPS's pilot test of communications, the stakeholder group is also looking at information more suitable for the general public.

Question. Do you think you could adjust your personnel qualification plans that are due to OPS by April 2001 to address Senator McCain's periodic retraining and examination requirements?

Answer. Yes, however, we recommend that the plans be made available to OPS, for example, as another matter to be reviewed during inspection, rather than being formally submitted to OPS as a document.

Question. I've heard from many of you that your current business practice met nearly all of the provisions of these proposals, thus no need for legislation. If that is correct, then why oppose it?

Answer. We are not opposed to pipeline safety legislation and support reauthorization of the pipeline safety act. Our detailed testimony, already provided to the Committee, provides specific changes that we feel are necessary and appropriate in achieving Senator's McCain's objectives in proposing this legislation.

PREPARED STATEMENT OF CASCADE COLUMBIA ALLIANCE, EAST LAKE WASHINGTON AUDUBON SOCIETY, FRIENDS OF THE SAN JUANS, FRIENDS OF THE EARTH, FRIENDS OF TOLT RIVER, LAKE JOY COMMUNITY CLUB, THE MOUNTAINEERS, NORTH LAKE JOY ESTATES, OCEAN ADVOCATES, PACIFIC CREST BIODIVERSITY PROJECT, PEOPLE FOR PUGET SOUND, RAINIER AUDUBON SOCIETY, SAFE BELLINGHAM, SURFRIDER FOUNDATION, WASHINGTON STATE CHAPTER, SURFRIDER FOUNDATION USA, TOLT RIVER HIGHLANDS, WASHINGTON KAYAK CLUB, WASHINGTON PUBLIC INTEREST RESEARCH GROUP, WASHINGTON TROUT, WILLAPA HILLS AUDUBON SOCIETY, AND GRAYS HARBOR AUDUBON SOCIETY

FEDERAL PIPELINE SAFETY ACT AND PIPELINE SAFETY LEGISLATION

On 9 June 1999, the Olympic Pipe Line Company (operated by Texaco/Shell as "Equilon," along with part-owners Arco and GATX) made a long afternoon presentation to the Washington State Parks and Recreation Commission regarding their application for an easement and right-of-way through three State Parks for their proposed 231 mile Cross Cascade petroleum pipeline project. This proposed project, from north of Seattle to Pasco, WA, would also have crossed hundreds of wetlands, aquifers, streams and rivers, two National Forests and a National Wildlife Refuge.

Olympic argued that they should be granted an easement and right-of-way through three State Parks and defended the environmental and safety record of Olympic's existing 400 plus mile pipeline running from north Puget Sound refineries down the I–5 corridor to Portland, OR.

The next day, 10 June, Olympics existing pipeline ruptured in Bellingham, WA, sending as much as 300,000 gallons of gasoline into Whatcom City Park down Whatcom creek toward the city center. Liam Wood, 19, was rendered unconscious from inhaling the fumes, and subsequently drowned in the creek. Two other chil-

dren, Stephen Tsorvais and Wade King, both 10, died when the gasoline vapor cloud exploded in a gigantic fireball. Had this explosion taken place even a short time later, even more people would have died. Later it was learned that Olympic had run a smart-pig test in 1996, but had ignored signs of problems with the three-decade old pipeline.

Transportation of hazardous materials is regulated by the Federal Hazardous Materials Transportation Act (HMTA), which is administered by the Research and Special Programs Administration (RSPA) of the U.S. Department of Transportation. Congress has failed to reauthorize this Act since it expired on September 30, 1997, and the program has been continued through the annual appropriations process, but at levels below those authorized. For FY 99, a total of $16 million was appropriated for hazardous materials, with an obligation limitation of $11 million for emergency preparedness grants funded from registration fees.

Petroleum pipeline safety is governed by the Hazardous Liquid Pipeline Safety Act of 1979 (HLPSA, Subtitle VIII of Title 49, U.S. Code). The program is administered by the Office of Pipeline Safety (OPS) within the Research and Special Programs Administration. During FY 99, the pipeline safety program is funded at $34.6 million with the program funded from annual fees from the pipeline industry (with a small amount from the Oil Spill Liability Trust Fund).

What we have learned as a result of our review of Olympic's petroleum products pipeline operations and applications is shocking and alarming:

a) Existing Federal safety and environmental regulations on petroleum pipelines are woefully inadequate.

b) Efforts to increase safety and environmental standards at the state level are strongly opposed by the oil industry.

c) Efforts of local jurisdictions to protect their citizens from pipeline routing decisions are strongly opposed by the oil industry.

d) The Federal Office of Pipeline Safety (within the Research and Special Programs Administration of the Dept. of Transportation) is a captive of the oil industry, relies on the oil industry to establish both standards and self-policing practices and too often refuses to implement either the recommendations of the Department of Transportation and National Transportation Safety Board or requirements of Congress.

e) In addition, there is a lack of regional liquid fuel energy planning in this country. As a result, hazardous material pipelines are constructed in the absence of clear demonstration of public need and without requiring an examination of the least environmentally damaging alternative.

A significant part of the problem lies with Congress. During the 104th Congress, the Accountable Pipeline Safety and Partnership Act of 1996, was passed which reauthorized the pipeline safety program for FY 96–2000. The Act moved the pipeline safety program towards a new "risk-based" approach by incorporating risk assessment and cost-benefit analysis in the establishment of new pipeline safety standards, in accordance with Executive Order 12866. The Act established a risk management demonstration program whereby pipeline operators may be exempted from any or all safety requirements if the operator submits, and DOT approves, a safety plan that will achieve a level of safety equal to or greater than that which would be achieved through following existing regulations.

This industry-backed approach, which has moved us away from much-needed federal oversight and away from compliance based regulations, has resulted in a deemphasis in developing, issuing, and enforcing regulations for the safe transportation of petroleum via pipeline.

RECOMMENDATIONS

We, therefore, recommend that Congress:

a) Increase funding for both the Hazardous Materials Transportation Program and the Pipeline Safety Program.

b) Require enforceable standards for repair of pipelines after internal inspections.

c) Require a showing of public need and least damaging environmental alternative before allowing the construction of new pipelines.

d) Remove the provisions designed to allow industry to self-audit and perform risk assessment in lieu of compliance with federal safety standards.

e) Allow state and local jurisdictions to impose human health, safety, and environmental land use standards as long as not in conflict with federal regulations.

Thank you for the opportunity to provide this testimony.

PREPARED STATEMENT OF SUSAN HARPER, EXECUTIVE DIRECTOR, CASCADE COLUMBIA ALLIANCE

Thank you Chairman, Senator McCain and Senator Hollings for holding this hearing on the Pipeline Safety Act ("Act") and accepting this written testimony on behalf of Cascade Columbia Alliance (CCA). I represent with my testimony a coalition of citizens, elected officials, environmental and civic groups, labor and businesses in Washington State. I am also a board member of the National Pipeline Reform Coalition (NPRC). You have heard from Mr. James Pates, NPRC Vice President. We wholly support his testimony.

CCA's association with pipeline victims in other states began in 1996 when Olympic Pipe Line Company proposed the 230-mile Cross Cascade Pipeline. During the siting process we learned many disturbing facts about pipelines and the inadequacy of the Federal Office of Pipeline Safety (OPS). The most frustrating lesson we learned is that this problem had plagued communities for years, and had proper action been taken by the OPS, the Bellingham nightmare could have been prevented. We urge this Committee to take swift action to set right a tragedy that should have never happened by implementing the recommendations for safety improvements that CCA, the NPRC and others have presented. I would request that the attached material, including letters and petitions from concerned citizens be made part of the hearing record.

Mr. Pates' testimony describes many horrific stories about victims of pipeline company and OPS negligence. According to Mr. Pates testimony, since 1990, there have been nearly 4,000 accidents involving gas and hazardous liquid pipelines reported to OPS, resulting in over 200 deaths, nearly 3,000 injunes, and at least $780 million in property damage. Over 62 million gallons of oil and other hazardous liquids have been released into the environment over the past 10 years, making pipeline accidents one of the largest point sources of oil pollution in the country. In fact, in the report submitted to this Committee by the Inspector General they point out the flaws in the OPS reporting systems, so this is an understatement of a huge problem that you have the power to set right.

On March 13th, I presented testimony at the Field Hearing held by Senator Gorton and Senator Murray. My testimony focuses on the role of citizen participation in the oversight, siting and operation of hazardous fuel pipelines. Since pipeline accidents happen locally, the people who have the most to lose need to play an active role in preventing them. In an attached press release by Senator Gorton, he expresses his support for such a body.

After the Exxon Valdez disaster in 1989, a joint citizen, local government and tribal oversight body came together in Prince Williams Sound. Alaska Governor Knowles credits the Regional Citizens' Advisory Council (RCAC), formally established and funded in OPA–90, as creating the safest oil transport system in the United States. OPA–90 also encouraged the establishment of other regional citizen and local government monitoring bodies elsewhere. Given the current climate surrounding the Office of Pipeline Safety and the public mistrust of the agency, establishment and funding for Regional Advisory Council's (RAC) to monitor hazardous pipelines is essential to a comprehensive reauthorization of the Pipeline Safety Act.

In Washington State a loose coalition has been working together to oversee the safety action plans of Olympic Pipe Line Company as they work with OPS and the National Transportation Safety Board to discover the cause of the explosion and prevent future spills from the same pipeline. An article about that effort is attached to this testimony.*

Something must be done now, before another tragedy like Bellingham happens again. The OPS has not acted on recommendations that were made many years ago because of their cozy relationship with the industry. The public needs to be assured this will not happen again. Citizens can play a positive role in preventing pipeline accidents. A Regional Advisory Council (RAC) will help regulators do the right thing and not succumb to industry pressure. The diverse membership comprised of representatives of local governments, tribes, surface and groundwater protection agencies, pipeline right-of-way property owners, emergency responders, and environmental organizations assures that the RAC represents the broader public interest. We are pursuing the establishment of an RAC in Washington State, and encourage other states that have had problems with the pipeline industry and OPS to do the same.

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*The information referred to was not available at the time this hearing went to press.

Thank you again for this opportunity to present this additional testimony. I am happy to provide additional information upon request.

PREPARED STATEMENT OF EDWARD J. HOLMES, CHAIR, NARUC COMMITTEE ON GAS AND COMMISSIONER, KENTUCKY PUBLIC SERVICE ON BEHALF OF THE NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC)

As Chairman of the Committee on Gas with the National Association of Regulatory Utility Commissioners (NARUC), I am pleased to be given this opportunity by the Senate Committee on Commerce, Science, and Transportation to offer NARUC's comments concerning the reauthorization of the Pipeline Safety Act (49 USC 60101, et seq.).

NARUC is a quasi-governmental nonprofit organization founded in 1889. Its membership includes the State public utility commissions for all States and territories. NARUC's mission is to serve the public interest by improving the quality and effectiveness of public utility regulation. NARUC's members regulate the retail rates and services of electric, gas, water and telephone utilities. We have the obligation under State law to assure the establishment and maintenance of such energy utility services as may be required by the public convenience and necessity, and to ensure that such services are provided at rates and conditions that are just, reasonable and nondiscriminatory for all consumers.

The majority of State regulatory agencies have various responsibilities concerning the safe construction, maintenance and operation of natural gas and hazardous liquids pipeline facilities in the States. In most cases, this regulatory responsibility concerning intrastate pipeline facilities is exercised at least in part under partnership agreements with the Office of Pipeline Safety, Research and Special Projects Administration, and U.S. Department of Transportation. In several States, also, partnership agreements are in effect in which State pipeline safety personnel inspect interstate pipeline facilities as agents of the Office of Pipeline Safety and report their findings to QPS for enforcement action by OPS.

NARUC supports the pipeline safety programs of OPS and is strongly supportive of the OPS/State agreement programs. The Commissioners believe that the States have continually demonstrated strong commitment to enforcement of pipeline safety regulations. The States have brought to State/OPS partnership programs invaluable knowledge of local conditions, facilities and operators within their jurisdictions. The OPS/State intrastate partnership programs have been very important in ensuring the safe construction, maintenance and operation of facilities within the States. NARUC has consistently and strongly supported full authorization of funds to enable OPS to fully fund 50 percent of the States' intrastate agent program costs.

The States also have been very active with OPS in informing operators of the importance of safe excavation practices, especially calling the State One-Call agency to obtain marks of existing underground facilities prior to new excavation.

This year, NARUC, at its March 2000 Winter Committee Meetings, adopted a resolution recommended by the Committee on Gas concerning the interstate agent program. The resolution expressed the concern of NARUC about the termination of some, and possibly all, of the interstate agent programs. NARUC urges that, regardless of which of the bills now before this Committee might ultimately be enacted, and regardless of such authority as might be conferred on OPS to ultimately change the interstate agent programs, that any changes to the program be made only after full consultation with the States. I have attached a copy of the resolution for your review.

NARUC thanks the Committee for this opportunity to comment on these matters.

NARUC

National Association of Regulatory Utility Commissioners

RESOLUTION

Resolution In Support Of Interstate Agents

WHEREAS, The States have a vital interest in the safety of the interstate pipelines within their respective States; and

WHEREAS, The Congress of the United States has provided a means for States to take an active role in the safety of interstate pipelines by becoming "interstate agents" for the U.S. Department of Transportation, Office of Pipeline Safety (OPS) via Section 60117(c) of 49 U.S.C.; and

WHEREAS, The States of Arizona, Connecticut, California, Iowa, Michigan, Minnesota, Nevada, New York, Ohio, and West Virginia currently have interstate agent status which enables them to conduct safety inspections of interstate pipelines operating within their States, and other States including New Hampshire, Oklahoma, Texas and Virginia have requested but were denied interstate agent status; and

WHEREAS, By letters to the interstate agent States dated December 23, 1999, OPS announced that the States of Arizona and Nevada were being terminated as interstate agents, and that the entire interstate agent program would be phased out over three years; and

WHEREAS, This action was taken unilaterally and without notice to or consultation with the affected States, and in the case of the terminations the rationale given contained incorrect information; and

WHEREAS, In ending the interstate agent program OPS appears to presume it could be replaced with a "temporary agent" program, which has not been formalized or discussed with the States; and that it will receive substantial additional resources from the current Congress, which is not assured; and

WHEREAS, The States strongly believe their inspections are critical to ensure that interstate pipelines are operated, constructed and maintained safely; and that State activities which promote pipeline safety should not be arbitrarily supplanted by unknown, unproven, and uncertain alternatives; and

WHEREAS, The resources the States expend inspecting interstate pipelines in no way diminish the safety inspection of local distribution companies or other intrastate operators; and

WHEREAS, The National Transportation Safety Board (NTSB) has encouraged the inspection of interstate pipelines by State inspectors; and

WHEREAS, The National Governor's Association has adopted a Proposed Policy on Pipeline Safety encouraging greater State oversight of interstate pipelines; and

WHEREAS, Washington State Governor, Senators, Congressional Representatives and the Washington Utilities and Transportation Commission all desire a greater role in the oversight of the interstate pipelines through their State; now therefore be it

RESOLVED, That the Board of Directors of National Association of Regulatory Utility Commissioners (NARUC) convened in its March 2000 Winter Meeting in Washington, D.C., urges the U.S. Department of Transportation to stay any change in the pipeline interstate agent program as historically administered, that any changes to the program be made only after full consultation with the States and the finalization of alternatives, and that OPS be instructed to accept additional interested States as interstate agents.

Sponsored by the Committee on Gas
Adopted by the NARUC Board of Directors March 8, 2000

PREPARED STATEMENT OF GOVERNOR GARY LOCKE, STATE OF WASHINGTON

I appreciate the opportunity to provide testimony on the critical topic of pipeline safety. As you know, the tragedy in Bellingham, Washington has focused tremendous public attention on the need to ensure that pipeline safety laws, regulations and practices at the state, federal and local levels are as effective as they can be. Washington communities, government agencies, and others involved in gas and hazardous liquid transportation have made pipeline safety one of their highest priorities.

I am pleased that the Senate Committee on Commerce, Science, and Transportation is holding this hearing on reauthorization of the Pipeline Safety Act. I hope this effort will result not only in a new law to increase pipeline safety, but will also ensure strong, thorough and consistent enforcement of pipeline safety requirements.

I also want to thank the Committee for holding a field hearing in Bellingham in March. Some members heard direct testimony from the families and the community on the devastating effect of last summer's pipeline tragedy. They also heard about our state's commitment to a strong and effective pipeline safety program. That commitment has been underscored by new state legislation on pipeline safety. Now we are seeking a stronger federal partnership to protect our citizens and those across the nation.

I believe any pipeline safety bill that is passed must incorporate, at a minimum, the following five fundamental principles:

- **Increased state role in regulation.** A critical component of any effort to improve pipeline safety is the strengthening of states' ability to oversee pipeline operator activities and compliance. Many states, including Washington, are eager to participate in a full partnership with the Office of Pipeline Safety (OPS). As effective partners, states need the authority to develop and impose standards that may be more stringent than federal standards without interfering with interstate commerce. They also need the authority to inspect operations and to enforce federal and state standards. Specifically, each state must have the authority to work directly with all pipeline operators in the state. That authority needs to be supported by the free flow of data regarding pipeline operations between OPS and its state partners.
- **High standards.** I urge you to adopt a bill that will require state-of-the-art safety standards for the construction, testing, operation, and maintenance of pipelines. In addition, standards need to be toughened for prompt public reporting of spills and leaks. We would also like to see increased standards for certifying pipeline operators.
- **Effective oversight and enforcement of the federal program.** The bill you pass should include an effective and independent mechanism for oversight of the federal government's activities related to pipeline safety. An effective pipeline safety program requires that the federal regulatory body be held accountable for any shortcomings in its activities. For example, "risk management" or "integrity assessment" plans could be a valuable means for the industry to develop standards and practices to ensure pipeline safety. But they will fulfill this promise *only* if OPS exercises its independent judgment that the substance of the plans, not just the process of developing them, advances public safety. While the main burden here falls on OPS, I believe that Congress will need to continue active oversight of that agency's pipeline safety activities to ensure that the program goals are being met.
- **Communities' right to know.** Another important aspect of any new legislation is strengthening communities' access to information about the pipelines located beneath them. Both pipeline companies and their regulators should be required to provide education and outreach activities to those communities and their residents. Communities in Washington, for example, are eager to participate in activities ensuring safe excavation around pipes. Our recent state legislation directs that an improved mapping system be established so that pipelines can be clearly and easily located. We need a similar commitment from the federal government to make pipeline information more accessible.
- **Adequate funding.** Adequate funding is essential for the success of a pipeline safety program. Sufficient federal funding is required for better federal regulation for increased state involvement and enforcement in pipeline safety efforts, and for a greatly expanded program of research and development on technology improvements, such as internal inspections for small diameter pipes and distribution systems.

At the National Governors' Association Winter 2000 meeting, I sponsored, and NGA adopted, a policy on Improved Pipeline Safety, specifically identifying five recommendations for the reauthorization of the Pipeline Safety Act. Those recommendations include requirements for:

- increased state authority,
- Congressional oversight,
- more effective rules,
- appropriate funding, and
- intergovernmental cooperation.

I urge you to consider these NGA recommendations as you work to adopt a pipeline safety bill; a copy is attached to this testimony.

Thank you for the opportunity to comment on this very important issue. I look forward to working with your Committee in the next few weeks. Together, I hope we can ensure passage of an effective pipeline safety bill that will give the people and the environment of this country the protection they need and deserve.

PREPARED STATEMENT OF JOHN W. SOMERHALDER II, PRESIDENT,
EL PASO ENERGY PIPELINE GROUP

Introduction

Mr. Chairman and Members of the Committee, I am John Somerhalder, President of El Paso Energy's regulated pipelines. I am submitting this written testimony on behalf of El Paso Energy, the nation's largest natural gas pipeline operator.

El Paso Energy operates nearly 40,000 miles of natural gas pipelines that are regulated by the federal Department of Transportation. Our pipelines stretch from California to New England and from the Canadian border to the Gulf of Mexico. We operate in 25 states and bring natural gas to fuel American homes and businesses.

The natural gas pipeline transmission industry is a safe industry. By continuously monitoring and inspecting our pipelines, we work to ensure that transportation by pipeline is the safest mode of energy transportation. I appreciate the Chairman's recognition of this fact. Operating and maintaining a safe system is embedded in every aspect of our business. The benefits of developing and implementing safety programs are widely recognized within our industry and are at the core of what we do. We are continuously working to improve our record of safety—for like you, we believe one fatality is one too many. It is with this thought in mind that I can say that our interests are directly in line with what this Committee and the public at large are interested in—reliable delivery of natural gas through safe pipelines.

I now would like to comment on a number of areas in Chairman McCain's bill and the Administration's bill with which we have concerns.

National Transportation Safety Board Recommendations

Presently, the National Transportation Safety Board has a number of open recommendations to the Office of Pipeline Safety (OPS). This is recognized in S. 2438, the McCain bill. I agree that OPS should be required to respond to these recommendations in a timely manner, that any responses should be open to the public, and that the responses should be reported to Congress.

Pipeline System Integrity

On November 18 and 19, 1999, the Office of Pipeline Safety held a public meeting to begin a pipeline system integrity rulemaking. To date that effort has resulted in a Notice of Proposed Rulemaking published on April 24, 2000, for the hazardous liquid operators with over 500 miles of pipeline. OPS has indicated they plan to issue a Notice of Proposed Rulemaking for natural gas in the fall. The Interstate Natural Gas Association of America (INGAA), which represents interstate natural gas pipelines including El Paso Energy, is working to have this rulemaking technically based. INGAA and El Paso Energy agree that this will permit the greatest possible chance of positively impacting natural gas pipeline safety. However, this task is difficult. The natural gas pipeline safety regulations are much more comprehensive than the hazardous liquid regulations, and I believe these regulations form a basis for the excellent safety record of the natural gas transmission pipeline industry. Unfortunately, we have been so effective that simple solutions to improve our safety record do not exist. It is our intent in this pipeline system integrity rulemaking to comprehensively analyze and propose to OPS a program providing the greatest opportunity for improvement to occur.

It is my recommendation that any legislation recognize the differences between natural gas and liquid pipelines, including the risks and consequences of an incident and the regulations already imposed on these pipelines. Since the legislative proposals before this Committee address the issue of pipeline integrity, I offer the following comments:

1. Under no circumstances should the hazardous liquid rule be applied to natural gas transmission pipelines. First, upon release, natural gas and hazardous liquids behave very differently. Natural gas, which is lighter than air, rises and rapidly dissipates, whereas a liquid, let's say oil, that is heavier than air, spills onto the ground causing a variety of environmental concerns. Second, the ability to utilize internal inspection devices to look for a wide variety of potential flaws is very different. Third, the ability to test a pipeline hydrostatically is very different—our reliable gas service would be curtailed where there is only one pipeline serving the public. Clearly a rule tailored to each pipeline product should be considered.

2. The required use of the "best achievable technology" is open-ended and a moving target with which pipeline operators would be required to comply. While in theory this language sounds laudable, it leads people to believe that there are one or two technologies that solve the problem of safety for the pipeline. Natural gas pipeline operators have a number of tools they use to ensure the

safety of their systems. These range from non-technical items such as walking the pipeline to look for changes to soil or vegetation to more technical items such as cathodic protection (a small electric current) and smart pigs. Industry voluntarily has been investing in research to continue to pursue better technologies for more than fifty years. Use of "best achievable technology" is also a relative term, meaning someone determines what this is whether or not the technology is truly proven.

If Congress is concerned about OPS issuing a natural gas rule in a timely manner, I suggest that OPS be given a timeframe for issuing Final Rules. If those dates are not met, Congress should require OPS to prepare a report to Congress explaining why those dates were not met. Forcing the natural gas transmission pipeline industry to comply with a rule that is completely inappropriate for our product because OPS failed to act is nonsensical and would not, in the least, result in improved safety.

Enhanced State Oversight

Interstate pipeline operators, like virtually all forms of interstate commerce, are under the jurisdiction of the federal government. For an operator like El Paso Energy, with operations in 25 states, this is an important pipeline safety issue. Consistency in the application of safety standards is paramount to pipeline safety.

If individual states were permitted to create and enforce their own safety standards, operators like El Paso Energy would be forced to approach pipeline safety in a piecemeal manner, rather than on a system-wide basis. If pipeline operators were forced to comply with individual state requirements, it would actually lessen safety across the entire system, because it would reduce needed resources going to those areas most in need of risk reduction. Permitting the states to dictate specific activities would reduce pipeline safety overall.

Avenues are already in place for states to supplement the federal program and address issues of local concern. Approximately 75 percent of the natural gas pipelines in the United States are local distribution systems, which supply natural gas to homes and businesses. All of these systems, as well as intrastate transmission pipelines, are subject to the safety oversight of the states. If a state has a specific concern regarding an interstate operator, the states can address that concern by bringing it to the attention of the federal Office of Pipeline Safety. States also have complete control over the various one-call centers, whose primary purpose is to provide a mechanism for underground utilities to be marked to prevent accidental excavation damage. Third party damage by excavation is the biggest cause of pipeline failures.

Operator Qualification

On August 27, 1999, a Final Rule was published by the Office of Pipeline Safety which required operators of pipelines to prepare an operator qualification plan and have the applicable operating personnel qualified within specific time frames. This rulemaking was based on an extensive cooperation and negotiation between the Office of Pipeline Safety, natural gas transmission and distribution pipelines, liquid pipelines, labor unions, state pipeline safety representatives, corrosion experts, emergency response agencies, federal safety agencies, and other affected parties. Operators diligently have been preparing their qualification plans for over a year to meet the rule deadlines. Moving these deadlines up, as some of the legislative proposals suggest, would place an undue burden on operators, would sabotage some of the benefits expected to be realized by the rulemaking, and would have no effect on safety. It would seem best to let the existing regulatory process work by allowing the Operator Qualification rule to reach fruition.

I also am concerned that some of the proposals require operator training rather than operator qualification. A one-size fits all training program is not appropriate for the different systems upon which operators work and the varied tasks that operators must perform. The parties to the negotiated rulemaking recognized these differences and, after much discussion and analysis, agreed to an operator qualification rule rather than a training rule. Such a rule allows operators the ability to best address the specific concerns of their systems. As such, El Paso Energy believes that any legislative proposal addressing operators should focus on qualifications, not training. Training is only one component used to assure that an operator is qualified.

Public Education and Community Right-to-Know

The existing natural gas pipeline safety regulations require operators to provide a variety of information to the public about the pipelines. This information includes maps, emergency response information, educational materials, and one-call or loca-

tion information. However, even with these efforts, third party damage is still the leading cause of pipeline failures, and is believed to have contributed to the gasoline pipeline failure in Bellingham, Washington.

The Office of Pipeline Safety is in a unique position to disseminate facility location information to the public. Since they are a federal agency, it would appear that they could serve as an information clearinghouse for public right-to-know issues, as well as many other issues that concern the public about pipelines. OPS could utilize accepted forums for information dissemination such as their Internet homepage or the Internet-based National Pipeline Mapping System for location information.

Improved Data and Data Availability

The interstate natural gas transmission pipeline industry has, in conjunction with the Office of Pipeline Safety, developed a new form for reporting incidents. This new form allows better analysis of incident trends and better determination of the actual causes of incidents. This effort is in line with the DOT Inspector General's report and the National Transportation Safety Board's recommendations and will result in greater pipeline safety.

The Office of Pipeline Safety has maintained records on pipeline incidents since the early 1970's. These records are available to the public on OPS' Internet homepage (*http://ops.dot.gov*) and are also available by contacting OPS.

Based on the aforementioned facts, it would not appear that a legislative effort to improve data or data availability would demonstrably improve what is currently being done.

Technology Development

The natural gas transmission pipeline industry has been conducting independent research since the early 1950's through the Gas Research Institute (GRI) and Pipeline Research Council International (PRCI), among others. This research has led to many advances in pipeline safety and is a significant contributor to our outstanding safety record.

The bills state that the Office of Pipeline Safety should direct research attention to work that is ongoing by the industry. If OPS is to expand its role in pipeline research, I believe it would be prudent to have OPS direct the research funding to existing, proven research organizations such as those mentioned above. This would ensure that the research is performed in an efficient manner, that OPS funding is in partnership with industry funding for increased effectiveness, and that all affected parties would have input into the direction of the research efforts.

Penalties

Presently, the pipeline safety regulations permit penalties up to $25,000 per incident per day up to a maximum of $100,000. Both bills would increase the penalties to $100,000 per incident per day up to a maximum of $1,000,000. El Paso Energy complies with the pipeline safety regulations because they are the law and because we believe that in most cases they increase pipeline safety. El Paso Energy's goal is to increase pipeline safety, not avoid penalties. As such raising the penalty amounts for non-compliance would not result in El Paso Energy or our industry better complying with the regulations.

Authorization of Appropriations

I believe it is important to note that part of the Administration's budget request for FY 2001 already has been authorized in TEA21. TEA21 authorized $5 million in one-time grants to states that improved their one-call systems. In this authorization, Congress recognized that natural gas and liquid pipelines generate only about one-fifth of the calls made by one-call centers to mark underground facilities. As such, Congress required that any sums that are appropriated for state grants must be taken from general revenues, not from user fees.

The bills before the Committee do not break out what amounts should come from user fees, the Oil Spill Liability Fund, and the Pipeline Safety Reserve. El Paso Energy would be more than happy to work with the Committee on this issue.

Conclusion

I would like to conclude by thanking this Committee for allowing me the opportunity to provide this written testimony. I also would like to encourage this Committee to remember the outstanding safety record of the natural gas pipeline transmission industry and the many efforts natural gas pipeline operators already take to assure that we can reliably deliver natural gas to consumers in the safest manner possible. El Paso Energy appreciates your efforts to pass a balanced, constructive Pipeline Safety Act reauthorization and we look forward to working with you in making this legislation a reality.

PREPARED STATEMENT OF GEORGE P. WILLIAMS, DIRECTOR, GOVERNMENT AFFAIRS, SEMPRA ENERGY

Introduction

Sempra Energy is pleased to offer testimony to the Senate Committee on Commerce, Science, and Transportation regarding the reauthorization of the Pipeline Safety Act. Although our comments specifically address S. 2438, we would be pleased to similarly address S. 2004 and S. 2409 should the Committee so desire.

Sempra Energy is a Fortune 500 energy services holding company whose subsidiaries include Southern California Gas Company and San Diego Gas and Electric Company. Together these two local distribution companies operate 3500 miles of transmission pipeline in some of the most heavily populated areas of the country. Southern California Gas Company is the nation's largest local natural gas distribution company serving over 18 million consumers through 5 million meters in a service territory stretching from San Luis Obispo to the Mexican Border. San Diego Gas & Electric is a combination utility providing service to over 3 million consumers in San Diego County through 1.2 million electric meters and 720 thousand natural gas meters.

Sempra Energy commends the author and Committee chair, Senator McCain, in introducing this legislation to address the serious issue of pipeline safety. Sempra Energy also commends the Senators from Washington who are co-authoring this proposal and have first hand knowledge of the problems that result if a pipeline failure occurs.

Background on Sempra Energy Pipeline Integrity Programs

Southern California Gas Company and San Diego Gas & Electric have a pipeline integrity management program. We have a Pipeline Integrity Team that addresses the overall operation of our facilities including ensuring strict compliance with local, state and federal pipeline safety regulations and evaluating our operations to ensure that the risks to our facilities are known and addressed. On a routine basis, this team identifies hazards and vulnerabilities of the pipeline system, performs specific risk assessments, evaluates data, and prioritizes areas to be addressed. In addition, this team evaluates the applicability of new technology to our operations. At a strategic level, this team works to integrate our operating experience with the study of the interrelationships among various failure causes and known risks, to ensure resources are directed at protecting public safety and maintaining the integrity of our pipelines.

In addition to internally focused activities, Sempra Energy actively participates in industry and government sponsored forums on pipeline system management. Southern California Gas Company and San Diego Gas & Electric have a long history of active participation in regulatory proceedings, including rulemakings, sponsored by the Office of Pipeline Safety (O.P.S.) and by other regulatory bodies such as the California Public Utilities Commission, O.P.S.'s designated enforcement agency for the state. Sempra Energy believes that continued emphasis should be placed on improving pipeline integrity and we continue to work with other stakeholders to ensure that the risks to pipelines from damage due to excavation, failures, etc. are minimized to maintain the highest levels of public safety. In addition, we strongly support the pursuit of new technology and engineering advances that would lead to greater pipeline safety and encourage the authors to consider directing resources towards research and development of new technologies.

Sempra Energy wholeheartedly agrees that public safety concerns should be paramount when operating and maintaining the infrastructure used to deliver natural gas. We do, however, have concerns that certain provisions in this bill may not achieve the desired objectives and in fact, may give rise to a false sense of security regarding public safety. We ask that you consider the following input as you continue to refine this bill.

Specific Comments on S. 2438

Internal Inspections

Section 5 of the proposal requires the Secretary to issue regulations that would require natural gas and hazardous liquid pipeline operators to evaluate risks to their pipeline facilities based upon specific criteria to determine the adequacy of pipelines to operate in unusually sensitive areas and high-density population areas. We readily agree that pipeline operators should continually evaluate the risks to their pipeline facilities. However, although we recognize the inherent necessity of vagueness in this type of directive, we are concerned about the preliminary references to mandatory "smart pigging" or other types of internal inspections for nat-

ural gas pipelines. While there are situations when certain internal inspections are warranted and as an operator, we utilize internal inspections to assess certain vulnerabilities on a targeted basis, we do not endorse the thought that internal inspection should be mandated on a routine basis for natural gas transmission pipeline facilities. Overall, we believe that a comprehensive integrity management program can be completely effective without mandating these types of inspections on a routine basis.

We are actively working with the Office of Pipeline Safety, other operators, state regulators and key stakeholders to look at possible modifications to the federal pipeline safety regulations as they relate to pipeline integrity management. In fact, on April 24, 2000, a notice of proposed rulemaking was published in the Federal Register concerning an Office of Pipeline Safety proposal to add additional regulations to "test, repair and validate through analysis the integrity of most hazardous liquid pipelines that could affect populated areas, commercially navigable waterways and areas unusually sensitive to environmental damage." While this notice of proposed rulemaking governs regulations under 49 C.F.R. Part 195 for hazardous liquid pipelines, this is the first stage of an overall integrity management rulemaking process that will then address 49 C.F.R. Part 192 regulations for natural gas pipelines. Practically speaking, we are aware of many inspection and evaluation techniques capable of assessing a pipeline's identified vulnerabilities that could be far more effective in ensuring public safety than devoting resources to performing internal inspection on natural gas pipelines on a routine basis.

As a side note, as you consider the possible mandate of routinely "smart pigging" natural gas transmission pipelines, please keep in mind the current capability of "smart pigs." For example, we believe that the current capability of smart pigs to find prior mechanical damage, on a scale of 1 to 10, is about a 4, a number far from infallible. In addition, we analyzed reportable incidents on gas transmission and gathering lines filed with the Department of Transportation from 1985–1997 and determined that "smart pigging" the pipeline would not have identified the determined cause of over 70% of the failures. This is not to say that smart pigging is without value. We do believe that the use of "smart pigs" should be part of an overall inspection program to ensure pipeline integrity by assessing vulnerabilities on a targeted basis. Accordingly, we would support language directing the Secretary to give natural gas transmission pipeline operators options to allow for the use of, "internal inspection, pressure testing or other evaluation techniques capable of assessing the pipeline's identified vulnerabilities."

Provision of Maps to Local Authorities

Sempra Energy understands the concerns prompting this particular proposal; however, Sempra Energy is very concerned that the widespread provision of detailed maps could do more harm than good. In addition, we believe that information that will be made available through the National Pipeline Mapping System (N.M.P.S.) project sponsored by the Office of Pipeline Safety will successfully address many of the issues the authors have noted.

Southern California Gas Company is participating on the M.Q.A.T. (Mapping Quality Action Team) sponsored by the Office of Pipeline Safety to develop the National Pipeline Mapping System. This project was created to address Congress' concerns about having better information on the nation's hazardous liquid and natural gas transmission pipelines, especially during emergency situations. A partnership was created between industry and the Office of Pipeline Safety to develop an electronic mapping system that would give the Office of Pipeline Safety, as well as other public agencies, information regarding the general location of these pipeline facilities. Through this system, information regarding the location of facilities, within 500 feet, the type of product, and the owner of the line will be available through the Internet and readily accessible to the general public. Regulatory personnel and public agencies will have access to more detailed information. Based on the current schedule, this system should be ready for deployment by the end of 2000.

Sempra Energy is concerned with the authors' proposal to provide maps outside of the National Pipeline Mapping System as this material could provide local authorities with a false sense of security. Our maps are fluid proprietary documents. They are updated on a continuous basis. We do not want to take a chance that a local official would rely on an outdated map in responding to an emergency. In addition, we do not want others that are not "qualified personnel," no matter how well intentioned, to operate our system under any circumstances. Operating pipeline systems without proper training by unqualified personnel could lead to significant public risk.

Sempra Energy's concern is also based on the very real threat posed by terrorists. The United States is no longer immune from terrorist attacks, from both domestic

and foreign perpetrators. Sempra Energy believes it would be extremely unwise to make detailed maps available to a public that could include terrorists.

We do not believe that public safety would be advanced by providing either maps or specific details such as operating pressure of our facilities to schools or the public. We do however, strongly endorse the one-call system and other practices to address damage prevention to our facilities and general public safety. Instead of providing local officials, and potentially the general public, with detailed maps, other than those provided through the National Pipeline Mapping System, Sempra Energy recommends that local distribution companies continue to work closely with local officials in responding to emergencies. Not only do we know our systems the best, but we also have highly trained personnel available to assist the local officials.

Operator Training Programs

Section 4 requires pipeline operators to submit training plans designed to enhance training for personnel and to reduce the likelihood of accidents and injuries. Sempra Energy concurs with the motivation behind this requirement; however, we are concerned that this provision is needlessly duplicative of a recent regulatory proceeding.

The Office of Pipeline Safety issued a final rule on operator qualification and training on August 27, 1999. This ruling, "Pipeline Safety: Qualification of Pipeline Personnel" is designed to ensure a qualified workforce which will result in a reduced risk of accidents attributable to human error. This rule, effective on October 26, 1999, requires that operators have a written qualification program in place by April 27, 2001 and complete the qualification of individuals performing covered tasks by October 28, 2002. This "Operator Qualification Rule" specifically requires that operators develop a qualification program to "evaluate an individual's ability to perform covered tasks and to recognize and react to abnormal operating conditions that may occur when performing covered tasks."

Sempra Energy believes that the training programs mandated in S. 2438 are premature in light of the recent "Operator Qualification Rule." We believe that the "Operator Qualification Rule" will be sufficient to ensure qualified personnel and we encourage the authors to consider not requiring implementation of a new training program before operators fulfill the regulatory mandates specified by the Office of Pipeline Safety on this issue and the results are evaluated.

Conclusion

In closing, Sempra Energy commends the authors in this effort to address the issue of pipeline safety. We believe that we should work together to continually strive to reduce the risk to public safety through technological advances and improved practices for operating pipelines and specifically encourage you to support more resources towards research in this area as it would ultimately serve the interests of public safety.

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