REAUTHORIZATION OF THE NATURAL GAS PIPELINE SAFETY ACT AND THE HAZARDOUS LIQUID PIPELINE SAFETY ACT

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND AIR QUALITY

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

MARCH 19, 2002

Serial No. 107–87

Printed for the use of the Committee on Energy and Commerce

Available via the World Wide Web: http://www.access.gpo.gov/congress/house

U.S. GOVERNMENT PRINTING OFFICE

78–508CC WASHINGTON : 2002

For sale by the Superintendent of Documents, U.S. Government Printing Office
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REAUTHORIZATION OF THE NATURAL GAS PIPELINE SAFETY ACT AND THE HAZARDOUS LIQUID PIPELINE SAFETY ACT

TUESDAY, MARCH 19, 2002

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON ENERGY AND AIR QUALITY,
Washington, DC.

The subcommittee met, pursuant to notice, at 2 p.m., in room 2318, Rayburn House Office Building, Hon. Joe Barton (chairman) presiding.

Members present: Representatives Barton, Ganske, Norwood, Tauzin (ex officio), Sawyer, John, Markey, Gordon, Barrett, and Dingell (ex officio).

Staff present: Bill Cooper, majority counsel; Andy Black, policy coordinator; Peter Kielty, legislative clerk; Sue Sheridan, minority counsel; and Rick Kessler, minority professional staff.

Mr. BARTON. The subcommittee will come to order. First, we wish to thank the Science Committee, which I also serve on in addition to serving on the Energy and Commerce Committee; and its chairman, the Honorable Sherwood Boehlert of New York, for allowing us to use the full committee hearing room of the Science Committee, since the Energy and Commerce Committee hearing room is currently under renovation.

Today we are going to begin our review of the pipeline safety laws. It is time for Congress to reauthorize the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act.

We welcome our witnesses today to discuss the current status of existing laws, and hear about their recommendations about any changes, if any, that they would proffer to the subcommittee.

As I said, I want to thank Chairman Boehlert for allowing us to use the Science Committee hearing room. At the staff level, we would like to thank David Goestand and Jeffrey Donnelly of the Science Committee and the Energy and Commerce Committee for helping us to use this room.

I find pipelines to be an important part of our Nation's energy infrastructure and our energy future. Without a safe and consistently expanding system of pipelines, the Nation's economy would not fare as well, and American Consumers would have less fuel for heating and driving.

Pipelines continue to be the safest method of transferring natural gas and liquid petroleum products over long distances. There are accidents and have been accidents in the past.

Congress and regulators should do the very most that we can do to promote safety and prevent accidents in the future. I would expect later this spring that the subcommittee consider legislation reauthorizing the pipeline safety laws. As of today's hearing, it is not clear what bill or bills that we will consider.

Chairman Tauzin of the full committee and myself are greatly interested in pursuing a consensus bill with Mr. Boucher and others on the subcommittee. My intention is to have the staffs work together over the next few weeks to see if such a consensus bill can be drafted.

Chairman Tauzin and I have in the meantime co-sponsored H.R. 3609 with the Transportation Committee Chairman, Don Young, from Alaska. If consensus is not reached, some bill will have to be moved and chosen as the appropriate vehicle.

I am going to invite the witnesses to discuss the recent regulations that have been promulgated by the Office of Pipeline Safety, and their responses to the General Accounting Office with suggestions on practical reforms that do not overly reduce the flow of precious commodities to waiting consumers or needlessly increase private transportation which the consumer ultimately pays.

I would also be interested in hearing the Office of Pipeline Safety's response to the criticisms as to its responsiveness to mandates and recommendations. Finally, I want to inform the subcommittee members that Congressman Boucher has had some flooding in his district.

And I talked to him by phone about 30 minutes ago, and it is very unlikely that he will make this hearing, but he stated that the Honorable Chris John of Louisiana is going to be a more than adequate substitute for him on this matter.

I do want to thank Congressman Boucher for his and his staff's help in putting together today's hearing. We have worked very well together at the staff level, and we have a good group of witnesses to talk to us about pipeline safety.

So with that, I would recognize the Honorable Chris John of Louisiana for any opening statements that he would wish to make.

[The prepared statement of Hon. Joe Barton follows:]

PREPARED STATEMENT OF HON. JOE BARTON, CHAIRMAN, SUBCOMMITTEE ON ENERGY AND AIR QUALITY

Today the Subcommittee will begin its review of pipeline safety laws. It is time for Congress to reauthorize the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act. I welcome the witnesses here today to discuss the current status of pipeline safety laws, regulations, and practices.

I would like to thank Chairman Boehlert of the Science Committee for letting us use this hearing room today, and thank David Goldston and Jeffrey Donald of the Science Committee and Peter Kielty of the Energy and Commerce Committee for setting us up over here smoothly.

Pipelines are an important part of our Nation's energy infrastructure and our energy future. Without a safe and consistently-expanding system of pipelines, our Nation's economy would not fare as well and American consumers would have less fuel for heating and driving. Pipelines continue to be the safest method of transporting natural gas and liquid petroleum products over long distances. There have been accidents in the past, and Congress and regulators should do what we can to promote and improve appropriate best practices.

Later this spring, I expect this subcommittee to consider legislation reauthorizing pipeline safety programs and laws. It is not clear what bill we will consider. Chairman Tauzin and I are greatly interested in pursuing a consensus bill with Mr. Boucher, Mr. Dingell, and all Members of the Subcommittee. I will direct my staff to

work over the next few weeks to see if an agreement can be reached. Chairman Tauzin and I have cosponsored H.R. 3609 with the Transportation Committee leadership, as well. If a consensus is not reached, that bill or something like it could also be a markup vehicle.

I invite witnesses to discuss the recent regulations promulgated by the Office of Pipeline Safety (OPS), the OPS response to reports by the General Accounting Office (GAO), and suggestions on practicable reforms that do not overly reduce the flow of precious commodities to wanting consumers or needlessly increase the price of transportation, which consumers ultimately pay. I am also interested in hearing OPS' response to the criticisms concerning its responsiveness to mandates and recommendations. While I am sure several were excellent, I am also quite certain that several may have been well-intended, but ill-conceived.

Finally, I want to thank my good friend Mr. Boucher for his help putting together today's hearing. I look forward to working with him on this important issue. He is not here because he is helping his district cope with some flooding. I wish he and his constituents well in their recovery. I want to thank Congressman John for being here to take his place. He too, is an important Member of the Subcommittee and has great interest in this issue.

Mr. JOHN. Thank you, Mr. Chairman. As you mentioned earlier, our colleague, Mr. Boucher, couldn't be with us today, and I was glad to sit in for him during today's hearing. I am really pleased to have the opportunity to preside over the hearing because pipeline safety is an important issue to constituents in the Seventh Congressional District of Louisiana.

As you know, Mr. Chairman, I represent the Onshore Hub of the Offshore Oil and Gas Industry, which is in Louisiana's southwest corner. Many of the fuels, chemicals, and plastics that people in this room use begin their journey in the commerce of oil and natural gas that is produced right off-shore of Louisiana in the Gulf of Mexico and along Louisiana's shoreline.

From there it travels via pipeline into refineries, chemical plants, or power generating facilities in our State, and then from there across the country. Pipelines are the lowest cost, environmentally accessible, and in many instances the only feasible mode of transportation on land to distribute large volumes of petroleum and natural gas.

It is clear that our Nation needs to expand and improve our pipeline system for our economy if we expect to meet future demands.

We need a strong, flexible pipeline infrastructure policy to supply the liquid fuel and gas demands in every region of this great country.

However, public support and public confidence for extending our pipeline infrastructure is in my mind directly tied to the public confidence that they have in pipeline safety.

As you mentioned earlier in your statement, Mr. Chairman, pipelines are statistically the safest method of transportation for oil and oil products, and natural gas. However, accidents as you mentioned do happen, and every member of this committee and in this Congress is very sensitive to the concerns raised by members who experience major pipeline accidents in their districts.

I feel that Congress has a legitimate role in making sure that our pipeline infrastructure is not only safe, but that the pipeline operators are qualified, and that reasonable efforts are undertaken by industry to minimize these accidents.

Mr. Chairman, you are also aware that people have a tendency to lump all pipelines together, with little regard for the dramatic

differences between liquid, gas transmission, and gas distribution systems.

The facts are that each one of these systems vary quite differently in both design and also in operation. We cannot and should not regulate these different systems in the very same way.

No engineering or scientific analysis has provided justification for a one size fits all approach to inspecting pipelines. I believe we can find consensus in this committee, and during this Congress on pipeline safety legislation.

There are several legitimate legislative proposals out there, and quite frankly I think they have much more in common than some people are willing to acknowledge. There are some significant differences between the leading proposals, and the greatest is the frequency of pipeline inspections.

I hope that this oversight hearing will pave the way for members over the Easter break to work on bridging the gaps so that we can move forward with a bipartisan consensus product out of this subcommittee.

I am also committed to work with the ranking member of the full committee, Mr. Dingell, on finding a consensus that frankly we could not find in the 106th Congress. I look forward to the testimony today from the two panels, and I yield back the balance of my time, Mr. Chairman.

Mr. BARTON. The gentleman is welcome, and the chair now recognizes the distinguished ranking member of the full committee, the Honorable John Dingell of Michigan, for an opening statement.

Mr. DINGELL. Mr. Chairman, I thank you, and I commend you for holding this oversight hearing today on pipeline safety.

I am particularly pleased that both the General Accounting Office, the GAO, and the National Transportation Safety Board, NTSB, are here today because they have attributed greatly to the effort to improve the regulation and safety of the Nation's pipelines.

I also want to recognize the work in the current office of the Pipeline Safety, Director Stacy Gerard, who despite my strong and continued misgivings about OPS, there is no doubt that Ms. Gerard has worked hard to begin cleaning up the substantial mess left behind by her immediate predecessors.

This subcommittee and this committee has had a long interest in pipeline safety, and I think it necessarily so. In 1996, the Congress turned its back on the American people and the environment when it enacted legislation that substantially cut into our Nation's pipeline safety laws.

And it put industry profits on the same level as human life, and worse, it was enthusiastically supported by the Federal Pipeline Safety Agency, which appeared to be much more interested in providing better service to its industry customers than in serving the public good.

Unfortunately, the consequences of the Federal Government's neglect in this area are infamous. In August 2000, 12 people, 5 of them small children, died in a natural gas explosion in Carlsbad, New Mexico.

Before that a gasoline pipeline blast in Bellingham, Washington, killed three people, including two, 5 year olds. In the last 2 years,

pipeline accidents caused millions of dollars in environmental damages, disrupted fuel supplies, contributed to price spikes, and forced people to evacuate their homes.

Concerned that the combination of a weak law and an absence of regulation are also recipes for a disaster. Just over 3 years ago, I asked the General Accounting Office to investigate the effectiveness of both OPS and the 1996 law.

GAO's May 2000 report revealed an agency that places a disturbing amounts of faith in the industry that is supposed to regulate it, and it is either unable or unwilling to carry out the responsibilities that it has under the law.

In its report to the General Accounting Office, it was found these unfortunate things. One, OPS had almost eliminated the use of fines, reducing the use of monetary penalties by more than 90 percent between 1990 and 1998.

Two, at the same time that OPS stopped fining violators, major pipeline accidents increased by approximately 4 percent annually, and killing 226 people, and injuring over 1,030 others, and resulting in about $700 million in property damage.

Three, OPS was not complying with the law, and it failed to implement nearly half of the 49 requirements mandated by Congress since 1988 to improve the safety of pipelines.

Four, OPS repeatedly ignored recommendations by NTSB. Five, OPS information on pipeline accidents is extremely limited and ill-managed. It seems like something should be done here.

Six, OPS was moving ahead with a risk-based approach to safety regulation,despite a complete lack of quantifiable evidence to justify such a change. This last point continues to be of special concern to me.

According to GAO, many of the companies participating in risk management demonstration programs, which by the way includes the bastion of corporate responsibility known in the press today as ENRON, are not even collecting the types of data necessary to support an evaluation of the program safety impacts.

The fact is that there is no real empirical evidence to support OPS's risk-based approach to safety regulation. I would note that it was conceived in a rather curious kind of situation in the dark of night, without any consultation with anybody, and without ever having been properly considered in this body.

I would note also that this ready, aim, fire approach strikes me as the same kind of reckless behavior that led to OPS's disastrous enforcement policy of the last few years. In the next year, OPS must take bold steps to clean up its act.

Unfortunately, the administration's fiscal year 2003 budget pushes OPS's precisely in the wrong direction. It cuts overall pipeline safety funding by $5 million below last year's funding levels.

Moreover, the administration's budget unwisely proposes to transfer OPS pipeline safety research work currently being conducted at the Department of Energy. Clearly, OPS cannot now handle its workload.

To layer upon the agency still another mission is both foolish and dangerous. In closing, I note that prior to 1995, this committee, on a broadly bipartisan basis, led the Congress to enact legislation that required biannual inspections, increased the use of internal in-

spection devices, replacement of old pipe with new lines, and to accommodate the passage of smart things, and the creation of a national inventory of pipeline, and the licensing of operators amongst other things.

Yet, 48 percent of the gas pipeline industry has failed to provide the Department of Transportation with maps of their pipeline system. Also, the gas industry have failed to ensure that old pipelines are replaced by new lines that can accommodate the smart things, and make possible a really good program of inspection and safety in this area.

It does not need to be this way. I want you to know, Mr. Chairman, that I committed to working in good faith with both you and with our Chairman, Mr. Tauzin, as well as all of my colleagues, to enact meaningful pipeline safety reauthorizing legislation.

I want you to know, however, that I am equally committed to fighting any legislation that would maintain the status quo, or worse, roll back the new protection of pipeline workers, the public, and the environment. Thank you, Mr. Chairman.

[The prepared statement of Hon. John D. Dingell follows:]

PREPARED STATEMENT OF HON. JOHN D. DINGELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. Chairman, thank you for holding this oversight hearing on pipeline safety. I am particularly pleased that both the General Accounting Office (GAO) and the National Transportation Safety Board (NTSB) are here today because they have contributed greatly to the effort to improve the regulation and safety of our pipelines. I also want to recognize the work of current Office of Pipeline Safety (OPS) Director Stacey Girard: despite my strong continued misgivings about OPS, there is no doubt that Ms. Girard has worked hard to begin cleaning up the substantial mess left behind by her immediate predecessors.

In 1996, Congress turned its back on the American people and the environment when it enacted legislation that substantially gutted our Nation's pipeline safety laws and put industry profits on the same level as human life. Worse, it was enthusiastically supported by a Federal pipeline safety agency more interested in providing better service to its industry "customers" than in serving the public good.

Unfortunately, the consequences of the Federal Government's neglect in this area are infamous. In August 2000, 12 people—five of them small children—died in a natural gas pipeline explosion in Carlsbad, New Mexico. Before that, a gasoline pipeline blast in Bellingham, Washington, killing three people—including two five-year-olds. In just the last two years, pipeline accidents caused millions of dollars in environmental damage, disrupted fuel supplies, contributed to price spikes and forced some people to evacuate their homes.

Concerned that the combination of a weak law and an absent regulator was a recipe for disaster, just over three years ago I asked the General Accounting Office to investigate the effectiveness of both the OPS and the 1996 law. GAO's May 2000 report revealed an agency that places disturbing amounts of faith in the industry it is supposed to regulate, and is either unable or unwilling to carry out any of its responsibilities under the law. In its report GAO found that:

- OPS had almost eliminated the use of fines, reducing the use of monetary penalties by more than 90 percent between 1990 and 1998.
- At the same time OPS stopped fining violators, major pipeline accidents increased by approximately four percent annually, killing 226 people, injuring over 1,030 others, and resulting in about $700 million of property damage.
- OPS was not complying with the law, having failed to implement nearly half of the 49 requirements mandated by Congress since 1988 to improve the safety of pipelines.
- OPS repeatedly ignored recommendations by NTSB.
- OPS information on pipeline accidents is extremely limited and ill-managed.
- OPS was moving ahead with a risk-based approach to safety regulation despite a complete lack of quantifiable evidence to justify such a change.

This last point continues to be of particular concern to me. According to GAO, many of the companies participating in the risk management demonstration pro-

gram—which, by the way, include that bastion of corporate responsibility known as Enron—are not even collecting the types of data necessary to support an evaluation of the program's safety impacts. The fact is that there is no real empirical evidence to support OPS risk-based approach to safety regulation. This ready, fire, aim approach strikes me as the same kind of reckless behavior that led to OPS's disastrous enforcement policy of the past few years.

In the next year, OPS must take bold steps to clean up its act. Unfortunately, the Administration's fiscal year 2003 budget pushes OPS in precisely the wrong direction by cutting overall pipeline safety funding by $5.0 million below last year's funding levels. Moreover, the Administration's budget unwisely proposes to transfer to OPS pipeline safety research work currently being conducted at the Department of Energy. Clearly, OPS cannot handle its current workload. To layer upon the agency still another new mission is both foolish and dangerous.

In closing, I note that prior to 1995, this Committee, on a broadly bipartisan basis, led Congress to enact legislation that required biannual inspections, increased use of internal inspection devices or "smart pigs," the replacement of old pipe with new lines that could accommodate the passage of these smart pigs, the creation of a national inventory of pipelines, and the licensing of operators, among other things. Yet, 48 percent of the gas pipeline industry still has failed to provide the Department of Transportation with maps of their pipeline systems. Also, OPS and the industry have failed to ensure that old pipeline is replaced by new line that can accommodate smart pigs.

It doesn't have to be that way. I want you to know, Mr. Chairman, that I am committed to working in good faith with Chairman Tauzin and you—as well as all my colleagues—to enact meaningful pipeline safety reauthorization legislation. I want you to know, however, I am equally committed to fighting any legislation that would maintain the status quo, or worse, roll back the few protections left to pipeline workers, the public, and the environment.

Mr. BARTON. I thank the gentlemen from Michigan. We are told that Dr. Norwood is here, and there he is. Would the gentleman from Georgia wish to make an opening statement?

Mr. NORWOOD. Very briefly, Mr. Chairman, if I may. I'm sorry that I was late. Having these hearings on Tuesday afternoons makes one rush around a little bit, but I do commend you for holding this hearing today on what I believe to be a very important issue to all Americans.

It is encouraging to me to see this committee work together in conjunction and coordination with the Transportation and Infrastructure Committee to ensure the safety and reliability of the pipeline network in this country.

To me, public confidence in this expansive network is paramount to not only maintaining operability and reliability of the system itself, Mr. Chairman, but effectively meeting critical energy needs.

Ensuring public safety of this system is a responsibility of Congress, and I am proud to be a co-sponsor of H.R. 3609. Again, let me thank you for holding this hearing today, and don't expect me to be this brief every time.

Mr. BARTON. We thank the gentleman and recognize the gentleman from Massachusetts, for an opening statement.

Mr. MARKEY. Thank you, Mr. Chairman. All of us have a vested interest in the safety and purity of our Nation's pipeline. They crisscross our Nation, delivering 23 trillion cubic feet of natural gas, and 13 billion barrels of petroleum products per year, which is instrumental in keeping our economy running.

Many of our constituents live in close proximity to these pipelines and are justifiably concerned about the risk that pipeline accidents or explosions could pose. While we have been spared the large death tolls that other countries have experienced, we are not

immune from such events, as the El Paso Natural Gas accident in Carlsbad, New Mexico, demonstrated.

In that case the corrosion of a segment of line that had not been inspected in 50 years appeared to have been the cause. According to today's testimony, over half of the pipelines in the U.S. were originally constructed more than 30 years ago.

So the adequacy of inspections and missions of all the pipelines is something that I am particularly interested in hearing more about.

Six months ago a discussion of reauthorizing the pipeline safety program would have drawn little interest beyond the effected industry, but in the last 6 months the public has begun to focus a lot more on infrastructure security issues following the terrorist attacks of September 11.

Six months ago, we would have asked how the Office of Pipeline Safety was coping with its statutory backlog. Now we must ask if what OPS is doing, or what OPS is doing to decrease the vulnerability of our pipeline networks from premeditated attacks.

The challenge to our panelists today is to help us understand what is necessary to mitigate both the ongoing risks, like accidental third-party damage, corrosion, and equipment failure, and the more sinister threats, like terrorist attacks to pipelines.

When we last reauthorized the Natural Gas Pipeline Safety Act and Hazardous Liquid Pipeline Safety Act in 1996, the majority failed to emphasize the risk assessment and cost benefits requirement over traditional inspection and enforcement.

I had posed a bill at the time because I feared that it would trap OPS in a paralysis by analysis that would prevent it from moving to addressing important safety issues. Six year gone, we still don't know if this program has worked.

Our last hearing in 1999 provided an inclusive answer to this question, and so I hope that our panelists today will enlighten the committee so that we can correct any deficiencies in the current regulation.

I am particularly concerned with the GAO's reported decline in OPS enforcement actions, and their use of fines for enforcement purposes without any evidence that this policy is improving compliance and pipeline safety.

I am also very troubled by the OPS's continued foot-dragging in responding to National Transportation Safety Board's safety recommendations. And finally in our post-September 11 world, we are to think the unthinkable.

We have to avoid, and how do we avoid, and in the worst case, deal with a well-planned attack on our energy infrastructure aimed at hurting citizens, and/or compromising our ability to supply critical energy resources to parts of the Nation.

As some of today's testimony points out, no coordinated response plan exists for region-wide emergencies. I have seen in my own district the confusion that overlapping Federal, State, and local responsibilities can cause, leading to incomplete protection of communities near the Distrigas LNG facility in Everett, Massachusetts.

I hope in this hearing that we can explore some of those problems, and work toward efficient preparation of a coordinated response plan. We must also address the balance between the public

need to know about locations of hazardous pipeline and the security needs to keep critical knowledge from potential terrorists.

But perhaps the overarching question is whether or not OPS, which has a dismal track record of implementing Congressional mandates, is capable of providing the added protections and safeguards to our pipeline infrastructure.

And if they are incapable of providing this protection, who should. I look forward, Mr. Chairman, to today's testimony. I thank you for having this hearing.

Mr. BARTON. I thank the gentleman. We would like to welcome the gentleman from Ohio, Mr. Sawyer, and see if he has an opening statements.

Mr. SAWYER. Thank you, Mr. Chairman. Just a brief one. I am grateful to you for holding this hearing. Pipeline accidents in the last few years have underscored the need for oversight of the 2.2 million miles of pipeline.

Last week in Cleveland near my district, an intersection was engulfed by flames from a gas line that was broke during the course of repair of a nearby water line. It was an extraordinary experience.

Fortunately, nobody was hurt, but over 100 homes and businesses had to be evacuated, and 2,000 people were left without power and heat the following night. I join in my colleagues concern if that is the type of damage that can be done by accident, just think of what could be done on purpose.

About half the pipelines in this country were built before 1970. Most of them are in very sound condition, and most of them operate under State requirements that generally tend to serve the public well.

And Congress should not let another year pass without a meaningful pipeline safety bill. With that, I am going to conclude this opening statement and yield back the balance of my time, and submit the rest of my statement for the record. Thank you, Mr. Chairman.

Mr. BARTON. Seeing no other members present, the Chair would ask unanimous consent that all subcommittee members not present have the requisite number of days in which to put into the record their opening statements. Hearing no objection, so ordered.

[Additional statements submitted for the record follow:]

PREPARED STATEMENT OF HON. GREG GANSKE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Thank you Mr. Chairman. Pipeline safety is an important issue for our country. Given that we are moving liquid and gaseous materials through more than one million seven hundred and fifty thousand miles of pipeline in our country, it is an extensive undertaking and one that must be taken very seriously. Recent events have caused the reexamination of safety and security issues related to all aspects of our society and pipelines are no exception. Meeting the demand for 23 trillion cubic feet of natural gas and 13 billion barrels of petroleum products each year is a daunting undertaking. There is no question that moving the products by pipeline is the best and safest alternative. Therefore, we must make every effort to assure that we have taken all the prudent steps necessary to make pipelines even safer.

I know that the General Accounting Office has in the past questioned the reaction time and responsiveness of the Office of Pipeline Safety to concerns which have been raised. I hope the testimony today will indicate that those concerns have been addressed and that the Department of Transportation has moved aggressively to implement all necessary steps to achieve a higher level of confidence in pipeline safety

across the nation. I thank the witnesses who have taken the time to join us today and I look forward to their testimony. Mr. Chairman I yield back my time.

PREPARED STATEMENT OF HON. GEORGE RADANOVICH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. Chairman, today's hearing is a vital step in restoring and maintaining confidence in America's pipeline network. We must continue to operate, upgrade, and expand our pipeline network in order to meet our nation's energy needs, and it is our duty to meet these needs with reasonably priced fuels.

In my home state of California, pipeline capacity remains insufficient to meet the supply of natural gas from regulated pipelines entering the state. This problem leaves our state dependent on hydropower from other states and praying for rain and cool weather. I believe the hearing today will aid us in crafting a solution to California's intrastate pipeline problem, as well as help us to resolve other pipeline issues throughout the nation.

It is also imperative that we upgrade and expand our pipelines without diminishing the reliability, efficiency and security of the delivery system. Collaborative research and development efforts must also be strengthened in order to enhance existing damage prevention programs, which will further reduce the amount of fatal accidents. Pipelines are the safest mode of transporting hazardous liquids and natural gas, but accidents are inevitable. Increased communication with the public regarding pipeline safety issues can minimize these accidents and their affects. This goal can be achieved without compromising security. However, state and local officials must be provided with adequate information.

In the end, I hope we can work together to forge bipartisan legislation that will build on our Committees' recent progress and result in continued improvements in pipeline safety.

Thank you, Mr. Chairman, for holding this hearing today. I look forward to the witnesses' testimony.

PREPARED STATEMENT OF HON. W.J. "BILLY" TAUZIN, CHAIRMAN, COMMITTEE ON ENERGY AND COMMERCE

Thank you Chairman Barton for holding what promises to be a very informative safety hearing today. The information we gather this afternoon will be most useful as we consider reauthorization of the federal pipeline safety program.

We all recognize that pipelines play a critical role in our nation's energy infrastructure. They help enable our economic prosperity, moving nearly 23 trillion cubic feet of natural gas and 13 billion barrels of petroleum products on a yearly basis.

Compared with other modes of moving freight—such as barges, trucks, and railroads—pipelines represent the safest form of transportation available. But accidents *do* happen, which is why Congress has provided for federal pipeline safety regulation, and why we will be discussing safety today.

And of course, safety concerns have become much more acute following the terrorist attacks of September 11. So I look forward in particular to the perspective both the government and industry can offer us on how best to enhance our infrastructure security.

The Department of Transportations Office of Pipeline Safety (OPS) performs a vital function. It was authorized by Congress to issue and enforce regulations to provide for safety in the construction and operation of pipelines. Yet the OPS program's congressional authorization expired at the end of fiscal year 2000.

Certainly, given our concerns about safety, given our duty to assure the public that this vital infrastructure meets the proper standards, certainly we must address reauthorization with some urgency. This hearing will help us move forward in this process, so we can assure that the safety programs can do the job.

Now, views differ on the best way to regulate pipeline safety. But we all agree that a regulatory framework that protects the public and the environment, while recognizing the operational needs of pipelines, is not only desirable, but necessary.

Therefore, I look forward to the discussion about measures the OPS is taking to keep up with the safety demands of the time. What security measures are necessary to reduce terrorist threats? How well is OPS responding to new statutory requirements and recommendations from other safety agencies?

I appreciate the witnesses' willingness to give their time and views in this process. Thank you. And, Mr. Chairman, thank you again for holding this hearing.

Mr. BARTON. We are now going to hear from our first panel. We have Ms. Ellen Engleman, who is the Administrator for the Research and Special Programs Administration for the Department of Transportation, which is the administration which the Office of Pipeline Safety is located.

She is going to give her opening statement, and as soon as she does that, then the other three members can come forward and give their statements, and we will ask all four questions.

So we welcome you. Your testimony is in the record in its entirety, and we ask that you summarize it in 5 minutes.

STATEMENTS OF ELLEN G. ENGLEMAN, ADMINISTRATOR, RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, DEPARTMENT OF TRANSPORTATION; ROBERT CHIPKEVICH, DIRECTOR, OFFICE OF RAILROAD, PIPELINE AND HAZARDOUS MATERIALS INVESTIGATIONS, NATIONAL TRANSPORTATION SAFETY BOARD; PETER GUERRERO, DIRECTOR, PHYSICAL INFRASTRUCTURE, UNITED STATES GENERAL ACCOUNTING OFFICE; AND JAMES D. ANDERSON, NATIONAL VICE-CHAIRPERSON, NATIONAL ASSOCIATION OF PIPELINE SAFETY REPRESENTATIVES

Ms. ENGLEMAN. Thank you, Mr. Chairman, and members of the subcommittee. My name is Ellen Engleman, and I do have the privilege to serve as the Administrator for Research and Special Programs for the U.S. Department of Transportation.

As you are aware the Office of Pipeline Safety is one of six major departments within RSPA. I appreciate the opportunity to inform you of the continued progress that we are making to improve the protection of the pipelines for our national energy infrastructure.

I am encouraged by the passion and commitment by members of this committee and Congress as our common goal is the safety of the American people. As Secretary Mineta and President Bush have emphasized, our national transportation system plays a critical role in our Nation's economic strengths.

Our oil and gas pipelines are the backbone of the Nation's energy infrastructure. Moving our resources for national defense, to heat and cool our homes, to generate power for business and to fuel an unparalleled national transportation system.

As overseers of the Nation's 2.1 million miles of pipeline, we hold the people's trust to ensure that vital energy resources will be delivered safely and securely. We are using a number of statutory changes to achieve this. We are setting the designs for construction, testing, operation, maintenance and repair of pipelines. That is our job.

Our job is to ensure the qualifications of personnel who perform pipeline safety and to respond to emergencies when the system fails. When those standards are not followed, we will enforce the law. We take our job seriously, and I assure you that we are on the job and we are not alone.

Congress has given us the authority to share oversight of these tasks with the States, which are primarily responsible for overseeing intrastate pipeline systems. We also work closely with our regulatory community.

This year the President's budget request reflects the importance the administration places on assuring the safety of pipelines, and has added significant additional resources to support more inspection and enforcement.

In 2003, if the President's budget is accepted, we will have 89 inspectors, and it should be noted that 73 percent of our budget for the Office of Pipeline Safety is dedicated to enforcement and inspection.

My prepared testimony is on the record, and let me just summarize some of the main points. First of all, at the start of my tenure in September of 2001, there were 65 outstanding mandates and recommendations from Congress and the National Transportation Safety Board, the General Accounting Office, and the Department of the Inspector General.

By the end of this month, we believe that we will have addressed nearly 50 percent of these remaining open items in a meaningful way, as well as the Congressional mandates. In January, we completed four important rulemakings on integrity management, pipeline repair, accident reporting, and corrosion control for the housing for the pipelines.

We will have the slate clean in 12 months—that I am dedicated to personally and professionally. We have executed an aggressive plan. Let me show you our plan. We will continue to fill regulatory gaps and particularly we will finish the integrity rule to complete our integrity management approach for oil and gas trasmission lines.

This is performance based, to include pipeline safety. We will continue to strengthen our enforcement efforts through a better use of our tools, including fines. We have proposed $9 million in civil penalties in the last 18 months, and processed six times the number of cases in the year 2001 over the previous year.

Ten years ago, the average fines were $17,000. The average fine today is $171,000. We will continue to improve operator and regulator qualifications. We also must focus on reducing excavation damage to pipelines, one-third of the critical cause for pipeline failure.

If you look at the pipeline incidents, and we have copies for you that have been given to you, please note that in the last 10 years there has been a 39 percent decrease in liquid pipeline accidents.

In gas distribution pipeline incidents, a 15 percent decrease, and in gas transmission pipeline incidents, a 1 percent increase, pretty much flatline.

It also should be noted that given that third-party damage is critical, approximately one-third of the incidents caused by that, please note that there has been a 30 percent decrease in the last 10 years in excavation damages.

And that is in spite of a 57 percent increase in housing starts, and a 13 percent increase in pipeline mileage. These actions are a beginning, and I am determined to further improve our record, again within the next 12 months.

We are also focusing on research, and we need to develop advanced, innovative technology. We have developed a comprehensive plan, with a multi-year technology match that will provide a return on investment within 36 months.

Finally, in security, we are looking at security and safety. Yes, prior to 9-11, we focused on safety and the accident; and since 9-11, we must focus on safety and the deliberate incident.

On September 11, we made over 1,000 telephone calls to pipeline operators to assess the security of pipeline facilities and personally address security issues. We also supported security protocols, which were developed in coordination with the Department of Energy, the FBI, and the new Transportation Security Administration. We also focused on streamlining the communications process and reviewing all aspects of security for our pipelines.

We are directing the pipeline industry to improve protection. We are also making sure that our standards for security practices are closely coordinated with the Office of Homeland Security.

In summary, RSPA is facing our challenges with a vision and an action plan. We are cleaning up our record. We are strengthening our regulatory structure through a systematic, comprehensive approach to safety evaluation.

And we are aggressively enforcing our requirements. We are taking a leadership role in advancing technology for pipeline safety. And, in coordination with the Transportation Security Administration, we are addressing security and safety as combined goals.

We need your help. We all agree that reauthorization is essential to raise the public's confidence in pipeline safety. Americans need to know that we are upholding their trust and doing everything possible to ensure the security and safety of pipelines.

Toward these goals, we are pleased that Congress is renewing its efforts, and at the appropriate time I would be happy to answer any additional questions. Thank you.

[The prepared statement of Ellen G. Engleman follows:]

PREPARED STATEMENT OF ELLEN G. ENGLEMAN, ADMINISTRATOR, RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

Mr. Chairman, and Members of the Subcommittee, I am Ellen Engleman, Administrator of the Research and Special Programs Administration (RSPA) of the U.S. Department of Transportation. I appreciate this opportunity to provide you an overview of the Department's pipeline safety program and the progress we are making to improve the protection of our national energy infrastructure.

As Secretary Mineta has emphasized, our national transportation system plays a critical role in our Nation's economic strength. Our oil and gas pipelines are the backbone of the Nation's energy infrastructure—these pipelines provide resources for our national defense; to heat and cool our homes; to generate the power for our business enterprises and to fuel an unparalleled national transportation system.

As overseers of the nation's 2.1 million miles of pipelines, we hold the people's trust to ensure that vital energy resources will be delivered safely and securely. We execute this mission through a number of statutory charges. We are charged with setting standards for the design, construction, testing, operation, maintenance and repair of pipelines. We are charged with ensuring the qualification of personnel who perform pipeline safety responsibilities. We are charged with responding to emergencies when pipeline systems fail. And we are charged to enforce the law, when standards are not followed. We take our job very seriously and I assure you, we are on the job.

Further, we are not alone in executing our mission. Through its wisdom, Congress sought fit to provide us with authority to share oversight of these tasks with state agencies, who through adoption and enforcement of our regulations, are primarily responsible for overseeing intrastate pipeline systems. It is a close working partnership we depend on and value. We also work closely with our regulated community, to ensure we understand the safety and security challenges they face and to ensure that limited resources are maximized for greatest safety benefit. However, make no mistake, if the law is broken, we will aggressively enforce it.

This year, we identified the need for significant additional resources to help RSPA's Office of Pipeline Safety (OPS) fulfill our responsibilities, particularly the need for additional inspection and enforcement. The President's budget request for fiscal year 2003 reflects the importance the Administration places on assuring the safety of pipelines. Considering the expectation that pipeline mileage will continue to grow at an unprecedented rate, we need to make clear to the American people and the pipeline industries that the pipeline safety regulator is on the job and equipped with adequate resources to do it properly.

Understanding what the job is, RSPA clearly faces a number of challenges. Among the most important of these challenges is the need to improve OPS's record and responsiveness to outstanding mandates and recommendations. Additionally, the agency is poised to address the challenge of leading the way on research and development of innovative pipeline safety technologies. And finally, in the new security environment caused by the events of September 11, we must address the challenge of ensuring the nation's pipeline infrastructure is secure as well as safe. I will address each of these challenges in turn.

RECORD

At the start of my tenure, there were 65 outstanding mandates and recommendations from Congress, the National Transportation Safety Board (NTSB), the General Accounting Office (GAO)and the Department's Inspector General (IG). In recent months we have made great progress in completing work on half of these outstanding recommendations. In January, we completed four important rulemakings on integrity management, pipeline repair, accident reporting and corrosion control for hazardous liquid pipelines. By the end of this month, we believe that we will address nearly 50% of the remaining NTSB, IG, and GAO recommendations in a meaningful way, as well as the remaining Congressional mandates, and intend to have the slate clean within a year. To accomplish this task, we have executed an aggressive plan involving various actions, currently underway.

First, we are better defining pipeline safety problems and evaluating the results of solutions we put in place through regulatory and non-regulatory efforts. We broadened our reporting requirements, to provide better quality data and better control the accuracy of the data. This action will allow us to make more informed decisions regarding safety. Additionally, we improved our distribution of information to state and local agencies who assist us in safety oversight of pipeline operations.

Next, we continue to fill gaps in regulation with updated requirements on integrity management, LNG facilities, breakout tanks, pipeline repair standards, personnel qualifications and pipeline corrosion control. Through the integrity management program, especially, we are improving safety standards by using systemic safety evaluation. This performance based approach will yield specific improvements for application to individual and unique pipeline systems, and will add value to the effect of the standards we have in place.

We also strengthened our enforcement efforts by making better use of all of our tools, including fines. We are improving the enforcement process by updating internal procedures, providing increased enforcement training and expanding the use of automation in case processing. We also devoted more resources to enforcement in FY 2002, and as previously mentioned, requested further increases for FY 03. To date, we proposed over $9 million in civil penalties in the past year and a half. We processed six times the number of cases in 2001 over the prior year. And now, as our large hazardous liquid pipeline integrity management rule is in effect, RSPA is out enforcing it. Which means OPS inspectors have been out conducting inspections, reviewing about 70,000 miles or about half of the mileage covered by the first rule. Based on our inspections, we estimate that as much as 80,000 to 120,000 miles of pipelines will receive added protections from this first phase of regulation.

In the area of qualification, we are addressing the need to improve qualifications for both operators and regulators alike. We are particularly interested in improving the ability of operators to diagnose and treat safety problems. Additionally, our operator qualification rule is in effect, and we are in the field auditing its implementation, including the use of examination methods beyond the observation of on-the-job performance. RSPA and State agencies trained together for auditing implementation of the rule, and currently are in the process of thoroughly reviewing all operators' training programs.

Also, as outside force damage is the primary cause of pipeline failures, we are focusing efforts on damage prevention. We are working in conjunction with the Common Ground Alliance (CGA), a national, non-profit damage prevention organization that evolved from the initial one-call framework established by Congress in the TEA 21 Surface Transportation Reauthorization Act. And I am pleased to report that na-

tional efforts in this area are bearing fruit. Damages to pipelines associated with new construction are coming down—while construction of new housing is up 57 percent in the last ten years, and damages to pipelines resulting from excavation are down 30 percent.

Finally, RSPA is creating a nationally uniform oversight program that makes better use of the State resources available to us. In September 2001, GAO closed two recommendations concerning our use of State agencies in the areas of inspection and enforcement. This was accomplished through RSPA's efforts to develop new guidelines for State participation in interstate pipeline oversight; by involving States in the development of integrity management programs; and by holding frequent conference calls with the States to seek input on our national security initiatives.

As you can see, we are serious about cleaning up our record. To date, we are very proud of our results in these areas. However, these actions represent the beginning of our efforts; I am determined to further improve our record within 12 months. Our plan to address the remaining recommendations involve a number of RSPA actions, including: the completion of rulemakings on integrity management, which will address approximately one-third of the remaining recommendations; additional training for Federal and State inspectors in advanced testing, monitoring, management systems and processes; building on our expanded interstate agent program with our State partners; implementing information and management systems to support State/Federal cooperative oversight efforts; and increased enforcement.

Additionally, through our joint actions with the CGA on damage prevention, education and outreach, we should satisfy about another third of the outstanding recommendations. These actions include the development of a public education standard to guide operators' evaluation of public information; promotion of additional "best practices" for preventing third party damage; development of a database on excavation activities; and review of State requirements for one-call programs. In this effort, it is critical to share responsibility for pipeline safety and protection of underground facilities with other utilities and local officials. We need to encourage communication among the various stakeholders and foster alliances in order to focus on this goal and identify specific practices amongst the stakeholders to reduce damage. We must also continue to broaden public awareness of safe excavation practices. Simply put, protection of pipelines from third party damage is a shared responsibility.

RESEARCH

Our next primary challenge is fulfilling a leadership role in research and development of innovative pipeline safety technologies. At RSPA we see a need for technological breakthroughs in the development and use of innovative technologies to provide true safety advances. Based on our success with previous collaborative efforts, such as one-call, we recognized that we could facilitate a role in this area. Taking the initiative, RSPA developed a comprehensive research and development plan, or a multi-year "blueprint" or technology map, if you will. This action was done in cooperation with DOE, the Federal Energy Regulatory Commission and the Department of the Interior Minerals Management Service, as well as a broad-based group of State and industry stakeholders. As part of this plan, we established four areas of focus: Damage Prevention and Leak Detection; Enhanced Operations, Controls and Monitoring; Improved Materials; and Mapping and Information Integration. Based on this plan, we intend to have 80 percent of the R & D identified in the plan, complete within three years or less. I want to be clear, that we are focused on near-term technology results that will be useful and competitively ready for the marketplace in a short time frame.

Additionally, through the President's budget request for 2003, we are asking to consolidate pipeline safety research activities previously undertaken by DOE, within RSPA to reduce duplicative efforts among federal agencies. Within this consolidated approach, we will promote clear accountability for safety outcomes and ensure integration of activities among the public and private sector.

In sum, through our R&D efforts, we will place greater emphasis on integrity management tools and practices for distribution companies; we will consider practical options for improved leak detection; we will continue development of techniques, particularly direct assessment, for evaluating pipelines that cannot be inspected with current in-line inspection techniques; and we will pursue development of improved techniques for real-time monitoring of pipelines, including use of satellites, acoustics and unmanned aerial vehicles.

SECURITY

We are also addressing security issues for pipelines through our Office of Pipeline Safety. RSPA oversees the safety and security of the nation's 2.1 million miles of pipelines. The security of our pipeline system is of strategic importance due to the large volumes of materials transported by pipeline and their critical importance to the National economy as well as defense. The events of September 11 provided us a unique understanding of the state of security preparedness within the pipeline industry—and we discovered there is work to be done. To ensure that pipelines are secure to the maximum extent possible, we are now taking a number of measures. Additionally, we are cooperating with the new Transportation Security Administration, to ensure we provide a unified approach to meeting transportation security challenges.

Initially, on September 11th, we responded immediately to security concerns for our Nation's pipeline systems by making over 1,000 telephone calls jointly with our State partners to pipeline operators, to assess the security at pipeline facilities and to monitor events. In recent months, we streamlined this communication process, in coordination with the Department of Energy (DOE) and the Federal Bureau of Investigation, and incorporated it into our daily operations for distribution of security information and threat warnings.

Along with improving our communications capabilities, we are securing our own information systems. One action on securing information concerns the National Pipeline Mapping System, accessed by a website. To reduce the opportunity for misuse, we limited accessibility to the website by installing a password protection system. We are also processing security clearances for key federal, state and industry security personnel, and conducting conference calls every two to three weeks with all the pipeline safety agencies to review recent developments, toward the goal of providing a seamless Federal and State oversight program of pipeline security.

Realizing that we cannot address the security challenge alone, we called on the pipeline industries to work with us in further assessing vulnerabilities, identifying ways to improve protections for pipeline facilities, and developing plans to improve response and recovery preparedness. Based on this outreach effort, we encouraged the development of consensus standards for security practices. We participated in the development of these standards, and we included DOE and state pipeline safety agencies in this process. We are now incorporating these security practices into a pipeline contingency plan, and are tiered to correspond with the Office of Homeland Security's threat warning levels. We are also at the stage of implementing a coordinated set of protocols for our inspectors to use during inspections of pipeline facilities to ensure operators are putting security practices into place at critical facilities.

Additional RSPA efforts are focused on improvements to public and private sector planning for response and recovery. The primary needs in this area include improved communications with local authorities and identification of methods/resources necessary to expedite the return to service of a pipeline, in the event of an attack. With regard to recovery, this involves identifying critical spare part inventories for rapid restoration of pipeline service, and establishing relationships among the operators to share their resources. The benefits of such actions will not be limited to terrorist incidents, but will also accrue in the event of natural disasters or pipeline accidents. Additionally, we formed a work group with DOE to assess the role of Federal-level emergency authorities in the rapid restoration of service.

In sum, the experience we gained from the events of September convinced us of the need for an integrated role for safety, system integrity and security to maintain a reliable national pipeline system. The consequences of a major pipeline failure, whether intentional or unintentional are potentially the same—that is loss of life, injury, property loss, environmental damage and disruption of critical fuel supplies. I am pleased to inform you that OPS security activities are integrated fully within our safety operations.

CONCLUSION

RSPA is committed to addressing the many challenges before us and we have a vision of how to accomplish our goals. We have a plan to address the outstanding mandates and recommendations, and we are cleaning up our record. We are strengthening our regulatory structure through a systemic, comprehensive approach to safety evaluation; and aggressively enforcing our requirements. We are taking a leadership role in advancing technology for pipeline safety. And in coordination with the Transportation Security Administration, State agencies and the pipeline industries, we are addressing pipeline security issues. Overall, all of these efforts will provide greater accountability for safety outcomes, which can result in greater public confidence in the safety of America's pipeline systems.

However, our efforts alone are not enough to raise the public's confidence in the pipeline safety program—we need reauthorization of the program. Commercial and residential energy demands are growing; urban centers are expanding and moving closer to rural pipelines; and our national defense demands a reliable energy supply—yet, citizen concerns over pipeline safety have resulted in delays of new construction or rehabilitation of existing pipelines. This does not serve the public's interest—and we must act. American citizens need to know we are upholding their trust. They need to know we are doing everything possible to ensure the safety and security of pipeline systems, and they need to know we are authorized and provided the resources necessary to accomplish our job. Toward this goal, we are very pleased that Congress is renewing its efforts on this front, and we offer our assistance in any way possible to complete your work.

Again, I wish to thank the Subcommittee for this opportunity to share an overview of the pipeline safety program and our vision of how to accomplish pipeline safety, research and security efforts. I would be happy to answer any questions.

Mr. BARTON. Thank you. We will now like to have the other three members of the panel come forward. We have Mr. Chipkevich, who is the Director of the Office of Railroad Pipeline and Hazardous Materials Investigations for the National Transportation Safety Board.

We have Mr. Peter Guerrero, who is the Director of the Physical Infrastructure Program at the U.S. General Accounting Office; and we have Mr. James D. Anderson, who is the National Vice-Chairman of the National Association of Pipeline Safety Representatives.

Gentlemen, we welcome you to the subcommittee, and your statements are in the record. We will give each of you 5 minutes to summarize, and we will start with Mr. Chipkevich.

STATEMENT OF ROBERT CHIPKEVICH

Mr. CHIPKEVICH. Thank you, Chairman Barton, and members of the subcommittee. I am pleased to represent the National Transportation Safety Board before you today to discuss the pipeline safety issues.

Pipelines carry more hazardous materials in the United States than any other form of transportation, and nearly 200,000 miles of hazardous liquid pipelines, delivering 14.4 billion barrels of petroleum products annually.

More than 21 trillion cubic feet of natural gas is delivered through 2 million miles of pipelines. RSPA's pipeline safety recommendation acceptance rate of 70 percent is the lowest of all model administrations, and for many years, the Safety Board has been critical of RSPA's delay in providing needed pipeline safety improvements.

We are encouraged, however, with recent RSPA action, particularly in areas of pipeline integrity, data collection, and environmental damage protection.

Continued operation of pipelines with discoverable integrity problems has been a recurring issue in safety board investigations, and our recommendations in this area date back to 1987.

Recently published PIMHCA rules will require integrity assessments for liquid pipelines in high consequence areas. Although the Safety Board provided favorable comments to much of this rule, we believe that pipeline integrity management programs must ensure that pipelines located outside high consequence areas are also adequately assessed and maintained, which was not addressed in the final rule.

Another pipeline integrity issue, corrosion, is a leading cause of hazardous liquid pipeline failures. On December 27, 2001, OPS issued a final rule that we believe will improve the effectiveness of corrosion protection requirements for all hazardous liquid pipelines, and addresses other issues of corrosion included in our open recommendations.

The Safety Board has for some time found RSPA's data collection to be inadequate for trend analysis and pipeline operator performance evaluations. In May of 2001, OPS issued new accident reporting requirements for gas transmission pipelines, and in January of this year issued new accident reporting requirements for hazardous liquid pipelines.

The new reporting requirements include information that the Safety Board believes will assist with operator evaluation and trend analysis. We understand that OPS is now working on improving the accident data reporting requirements for gas distribution systems, and implementing which would be very important a quality control system to be sure that the information reported on the accident reports is accurate.

Excavation damage remains the leading cause of pipeline accidents, and as a result the NTSB accident investigations over the years we have issued numerous safety recommendations on this issue.

We are aware of research that is intended from OPS, including improved pipeline location technologies, and improved inspection technologies for finding pipeline defects, real time monitoring to detect mechanical damage and leaks, and improved technology to avoid potential damage to underground facilities.

We are hopeful that the ongoing research which addresses many of the Safety Board recommendations, will lead to increased excavation prevention safety.

As previously mentioned, we are encouraged by much of the work that RSPA has undertaken. However, the Safety Board believes that insufficient progress has been made in the qualification and training requirements for personnel operating pipelines.

In 1987 and 1996, respectively, the Safety Board recommended that OPS require operators to develop training and testing programs to qualify employees, and asked RSPA to complete its rulemaking and operator qualification, training, and testing standards, and to require operators to test employees on safety procedures they are expected to follow, and to demonstrate that they can correctly perform that work.

In January 1999, in comments to an OPS rulemaking, the Safety Board noted that the proposed rules failed to adequately address qualification requirements, or include requirements for training and testing.

The final rule issued in April 2001 allows individuals to be evaluated by oral or written examinations, observations during on-the-job or work history. While the rule allows individuals to be evaluated solely on their work history only until October of this year, operators will not be required to reevaluate each individual using additional criteria until the next scheduled evaluation.

The rule also allows the operators to determine what the interval time should be between those evaluations. We believe that a quali-

fication rule should require that pipeline operators be tested or trained and tested to assess the success of the training, and that periodic retraining be required.

Mr. Chairman, that completes my statement and I would be happy to respond to any questions.

[The prepared statement of Robert Chipkevich follows:]

PREPARED STATEMENT OF ROBERT CHIPKEVICH, DIRECTOR, OFFICE OF RAILROAD, PIPELINE, AND HAZARDOUS MATERIALS INVESTIGATIONS, NATIONAL TRANSPORTATION SAFETY BOARD

Chairman Barton and Members of the Subcommittee, I am pleased to represent the National Transportation Safety Board before you today to discuss pipeline safety issues.

Pipelines carry more hazardous materials in the United States than any other form of transportation. Nearly 200,000 miles of hazardous liquid pipelines deliver approximately 14.4 billion barrels of petroleum products annually, and more than 21 trillion cubic feet of natural gas are delivered through nearly 2 million miles of pipe. Since its creation in 1967, the Safety Board has issued 257 pipeline safety recommendations to the Research and Special Programs Administration (RSPA).

RSPA's pipeline recommendation acceptance rate, 70 percent, is the lowest of all modal administrations, and for many years, the Safety Board has been critical of RSPA's delay in providing needed pipeline safety improvements. We are encouraged, however, with recent RSPA action, particularly in the areas of pipeline integrity, data collection, and excavation damage protection.

PIPELINE INTEGRITY

The continued operation of pipelines with discoverable integrity problems has been a recurring issue in Safety Board investigations. The Safety Board first issued a pipeline integrity recommendation in 1987, as a result of investigations into three pipeline accidents—two in Kentucky and one in Minnesota. The Safety Board recommended that RSPA require periodic inspections or tests of pipelines to identify corrosion, mechanical damage, or other time dependent defects that may be detrimental to the continued safe operation of the pipelines. We also recommended that RSPA establish criteria for use in determining the frequency for performing inspections and tests.

In this regard, final rules—Pipeline Integrity Management in High Consequence Areas—were recently published that will require integrity assessments for liquid pipelines in high consequence areas. The new rules will require operators to assess the integrity of pipelines using in-line inspection tools, pressure tests, or other technologies that are demonstrated to provide equivalent results. According to the rule, a pipeline operator must prioritize pipeline segments for baseline and continual assessments and determine schedules for those assessments, based on all risk factors that reflect risk conditions. These factors must include results of previous assessments, defects that could be found and their growth rates; pipe size, material, manufacturing information, coating type and condition, and seam type; leak, repair, and cathodic protection history; product transported; operating stress level; activities in the area; local environmental factors; geo-technical hazards; and physical support of the segment. It is our understanding that Office of Pipeline Safety (OPS) is in the process of drafting integrity assessment rules that will apply to gas transmission pipelines.

Mr. Chairman, the Safety Board has provided favorable comments to much of this rule. It is unfortunate, however, that it has taken 15 years following the issuance of our 1987 safety recommendation for RSPA to act.

As a result of Safety Board investigations, the Safety Board has also advocated the increased use of valve automation to reduce the consequences of pipeline failures. The OPS' integrity management rules will also require operators to evaluate the benefits of valve automation in pipeline systems. According to this rule, operators must consider the swiftness of leak detection and shutdown capabilities, the type of commodity carried, the rate of potential leakage, the volume that can be released, topography or pipeline profile, the potential for ignition, proximity to power sources, location of nearest response personnel, specific terrain between the pipeline segment and the affected area, and the benefits expected by reducing the spill size.

Risk management principles, if properly applied, can be powerful tools to identify the risks to pipeline integrity and should lead operators to take action to mitigate those risks. Quantifying inputs into various risk management models, however, can

be difficult and subjective. In a competitive environment, it may not be economically feasible for a pipeline operator to conduct assessment and mitigation activities to prevent a possible, but not inevitable, future pipeline failure. To ensure that the new rules for risk-based integrity management programs are effectively employed throughout the pipeline industry, it is imperative that RSPA establish an effective evaluation program and aggressively examine and monitor operators' pipeline integrity programs.

An effective program will require significant, qualified personnel and intense attention from OPS. We note that the Administration's budget provides RSPA with resources for additional pipeline personnel that should be helpful in establishing and maintaining an effective program.

In addition, the principles of risk management assign highest priorities to locations subject to the greatest damage or consequences. As a result, a risk-based integrity management program will direct priority resources to those areas. Pipeline integrity management programs must ensure that pipelines located outside high consequence areas are also adequately assessed and maintained. The Safety Board is concerned that this was not addressed in the final rule.

Another pipeline integrity issue, corrosion, is a leading cause of hazardous liquid pipeline accidents. In 1987, the Safety Board recommended that requirements for corrosion protection include criteria against which liquid pipeline operators can evaluate the adequacy of cathodic protection systems. As recently as 1998, as a result of its investigation of a hazardous liquid pipeline accident in 1996 near Lively, Texas, the Safety Board urged RSPA to require hazardous liquid pipeline operators to determine the condition of pipeline coating when pipe is exposed and again asked them to include criteria against which the adequacy of cathodic protection systems can be evaluated. On December 27, 2001, OPS issued a final rule that we believe will improve the effectiveness of corrosion protection requirements for hazardous liquid pipelines, and addresses other issues included in our recommendations.

DATA COLLECTION

As a result of Safety Board investigations, we have for some time been critical of RSPA's collection of accident data. We have found its data collection to be inadequate for trend analyses and pipeline operator performance evaluations. On May 8, 2001, OPS issued new accident reporting requirements for gas transmission pipelines. Additionally, on January 8, 2002, OPS issued new accident reporting requirements for hazardous liquid pipelines. The new reporting requirements include information that the Safety Board believes will assist with operator evaluation and trend analyses. We understand that OPS is now working on improving accident reporting requirements for gas distribution systems, and is implementing quality control procedures to improve the accuracy of accident data reports.

EXCAVATION DAMAGE

Excavation damage remains a leading cause of pipeline accidents, and as a result of NTSB accident investigations we have over the years issued numerous safety recommendations regarding this issue. We are aware that OPS is funding research in the following areas:

- Improved pipeline location technologies,
- Improved inspection technologies to find pipe defects,
- Real time monitoring to detect mechanical damage and leaks,
- Improved trenchless technologies to avoid potential damage to underground facilities, and
- Technologies to increase the security of pipelines.

Excavation damage prevention is an item on the Board's "Most Wanted" list of safety issues, and we are hopeful that the on-going research, which addresses many Safety Board recommendations, will lead to increased excavation prevention safety.

QUALIFICATION AND TRAINING REQUIREMENTS

Mr. Chairman, we mentioned previously, we are encouraged by much of the work that RSPA has undertaken. However, the Board believes insufficient progress has been made in the qualification and training requirements for personnel operating pipelines.

Following the 1987 Kentucky and Minnesota accidents, the Safety Board recommended that OPS require operators to develop training and testing programs to qualify employees. Following a 1996 accident in San Juan, Puerto Rico, the Safety Board asked RSPA to complete its rulemaking on operator qualification, training, and testing standards. The Safety Board also asked RSPA to require operators to

test employees on safety procedures they are expected to follow and to demonstrate that they can correctly perform the work.

In January 1999, the Safety Board commented on OPS' rulemaking regarding operator qualifications. Our comments noted that the proposed rules failed to adequately address qualification requirements or include requirements for training and testing. The final rule, issued in April 2001, allows individuals to be evaluated by written or oral examinations, observation during on-the-job performance, or work history. The rule allows individuals to be evaluated solely by their work history only until October 28, 2002, and operators will not be required to re-evaluate each individual using additional criteria until the next scheduled evaluation. In addition, the rule allows operators to determine what the interval time should be between evaluations. It is conceivable that a pipeline employee may continue to perform indefinitely safety-related tasks based solely on work history.

Following the issuance in April 2001 of the final rule on operator qualifications, the Safety Board closed its recommendations as unacceptable response. We believe a qualification rule should require that pipeline employees be trained and tested to assess the success of the training, and that periodic retraining should be provided.

Mr. Chairman, that completes my statement and I will be happy to respond to any questions you may have.

Mr. BARTON. Thank you, Mr. Chipkevich.

We will now hear from Mr. Peter Guerrero, and your statement is now in the record, and we would ask that you summarize it in 5 minutes.

STATEMENT OF PETER GUERRERO

Mr. GUERRERO. Thank you, Mr. Chairman. I appreciate the opportunity to testify here today on pipeline safety. Historically, as you have heard, the Office of Pipeline Safety has been slow to take action to improve its oversight of the pipeline industry, and to implement critical safety improvements. However, recently, the agency has initiated several actions, including requiring pipeline operators to implement integrity management programs that offer the potential to improve safety. Today, I will discuss OPS's progress in implementing these initiatives, its responsiveness to outstanding mandates and recommendations, and the outstanding challenges it faces.

OPS has moved forward, as you heard, with a new risk-based approach that requires operators to focus on the greatest risks to pipeline safety. This is called integrity management, and requires pipeline owners and operators to conduct a baseline assessment of all pipelines that could affect high consequence areas, to periodically reassess these segments, to take prompt action to address problems, and to develop measures of program effectiveness.

OPS has issued final rules requiring these programs for operators of hazardous liquid pipelines and plans to issue a final rule for operators of natural gas transmission pipelines by the end of the year.

OPS has also made progress in other areas. First, it is taking action to improve its safety data. In the past its data has been limited and often inaccurate. As a result, OPS could not identify and focus on the causes of accidents, analyze industry trends, and compare the safety performance of operators. The revisions to incident reporting forms, as well as new procedures, should address the underlying problems. However, it will be several years before the agency has sufficient data to analyze trends.

Second, OPS is allowing States to play a larger role in overseeing pipeline safety. We believe that this makes sense. State pipeline

safety inspectors are an invaluable resource for OPS because they are familiar with pipeline safety issues unique to their States. Currently, 11 States, up from 8, are qualified to participate in all oversight activities and an additional four States can participate in short term oversight projects.

Third, OPS appears more willing to use fines for safety violations, thereby reversing its former trend of relying more heavily on voluntary compliance. In the 1990's, OPS had dramatically decreased the number and amount of fines. We questioned this change in enforcement policy and recommended that the agency determine the impact of the reduced use of fines on safety. In response to our recommendations and other criticisms, OPS has changed its enforcement policies to make better use of its full range of enforcement tools, including fines for violations. However, OPS still needs to develop better information on the effect its enforcement approaches are having on pipeline safety.

I would now like to turn to OPS's record in responsiveness in implementing pipeline safety improvements.

As you know, OPS—as you heard from my colleague here—has one of the lowest records of implementing Safety Board recommendations, such as requiring periodic inspection of pipelines. We remain concerned that a significant number of recommendations and requirements that deal with critical safety issues are not yet complete, many of them more than a decade old. As of February of this year, OPS has not implemented 42 recommendations and 9 statutory requirements. OPS hopes to fulfill most of these by the end of this year.

Mr. Chairman, I have highlighted for you some of OPS's recent actions that demonstrate their willingness to improve safety oversight.

However, the agency has a number of significant challenges that it faces, and I want to enumerate these. First, it needs to develop performance measures for the integrity management program. We believe that such measures are essential to determining whether the new approach is successful and what improvements may be needed.

Second, it needs to ensure that it has sufficient resources and expertise to oversee more than 400 integrity management programs in various stages of development. The integrity management approach represents a fundamental shift in how OPS's oversees the pipeline industry. Inspectors used to a checklist approach will face a number of challenges, such as becoming familiar with a variety of inspection techniques and determining when it is appropriate to use them, and how to interpret the results.

Third, OPS needs to ensure that integrity management programs are enforced consistently and effectively. To do so, they will need to develop a comprehensive set of inspection protocols that provide clear criteria for inspections and for making enforcement decisions.

Finally, OPS needs to issue a final rule for natural gas transmission pipelines. To do so, it must resolve a number of technical issues. For example, many natural gas transmission pipelines cannot easily accommodate internal inspection devices and will require alternative inspection approaches.

In conclusion, we are encouraged by OPS's recent efforts to improve its oversight of pipeline safety, and believe that those are steps in the right direction. However, significant challenges remain. Among other things, OPS needs better data and meaningful performance measures, sufficient resources and expertise to implement its integrity management approach, partnerships with States, and greater assurance that its enforcement approaches are improving pipeline safety. We believe that it is imperative for OPS to meet these challenges to ensure the safety of the Nation's pipelines.

Mr. Chairman, this concludes my statement and I would be pleased to answer any questions at the end of this panel. Thank you.

[The prepared statement of Peter Guerrero follows:]

PREPARED STATEMENT OF PETER GUERRERO, DIRECTOR, PHYSICAL INFRASTRUCTURE, U.S. GENERAL ACCOUNTING OFFICE

Mr. Chairman and Members of the Subcommittee: We appreciate this opportunity to testify on the Office of Pipeline Safety's (OPS) oversight of the safety of our nation's pipeline infrastructure. Our statement is based on reports we issued in May 2000 and September 2001, as well as ongoing work for Mr. Dingell of this Subcommittee.[1]

OPS oversees the safety of 2.2 million miles of pipelines that transport potentially dangerous materials, such as oil and natural gas. Historically, OPS has been slow to take action to improve its oversight of the pipeline industry and implement critical pipeline safety improvements. As a result, OPS has the lowest implementation rate of any transportation agency for recommendations from the National Transportation Safety Board (the Safety Board). This lack of responsiveness has prompted Congress to repeatedly mandate basic elements of a pipeline safety program, such as requirements to periodically inspect pipelines. In recent years, OPS has initiated several actions to improve its oversight of the pipeline industry, including requiring "integrity management" programs for individual operators to assess their pipelines for risks, take action to mitigate the risks, and develop program performance measures. We are here today to discuss (1) OPS' progress in implementing integrity management and other initiatives, (2) OPS' progress in responding to recommendations from the Safety Board and statutory requirements, and (3) issues that are critical to the future success of OPS' initiatives to improve the safety and oversight of the pipeline industry.

In summary: OPS has moved forward with its new risk-based regulatory approach—integrity management—that requires operators to develop programs that focus on the greatest risks to their pipelines. This approach differs significantly from its traditional approach of inspecting pipelines for compliance with uniform regulations establishing minimum standards. OPS plans to review and monitor these programs, which will be unique for each of more than 400 hazardous liquid and natural gas transmission operators. OPS has issued final rules requiring the phased implementation of these programs for operators of hazardous liquid pipelines. The agency also plans to issue a final rule for operators of natural gas transmission pipelines by the end of 2002.

OPS has also made progress on other initiatives that are intended to improve the agency's oversight of the pipeline industry. These initiatives include:

- Revising forms and procedures to collect more complete and accurate data, which will enable OPS to better assess the causes of incidents and focus on the greatest risks to pipelines. According to the Safety Board and industry associations, these actions address the underlying problems with OPS' data, such as limited data on the causes of incidents. OPS hopes to implement most of its initiatives to improve data in 2002. However, according to industry associations, it may be several years before OPS has sufficient data to thoroughly evaluate industry trends, especially for hazardous liquid pipelines.

[1] U.S. General Accounting Office, *Pipeline Safety: The Office of Pipeline Safety Is Changing How It Oversees the Pipeline Industry,* GAO/RCED-00-128 (Washington, D.C: May 15, 2000) and *Pipeline Safety: Progress Made, but Significant Requirements and Recommendations Not Yet Complete,* GAO-01-1075 (Washington, D.C.: September 28, 2001).

- Allowing more states to oversee a broader range of interstate pipeline safety activities. State pipeline safety inspectors are an invaluable resource for OPS because they are familiar with pipeline safety issues unique to their states. OPS responded to our May 2000 recommendations that the agency better utilize this resource by allowing states to participate in a wider range of oversight activities, such as reviewing integrity management programs for pipelines in their individual states.
- Increasing the use of fines, thereby reversing OPS' former trend of relying more heavily on less severe corrective actions. From 1990 through 1998, OPS decreased the number and amount of fines while increasing the use of less severe corrective actions, such as letters of concern. We questioned this change in OPS' enforcement policy and recommended in May 2000 that the agency determine the impact of the reduced use of fines on safety. According to OPS officials, the agency is not able to determine this impact as we recommended because it does not have sufficient data to link its compliance actions with improvements in safety. Nevertheless, OPS determined that its enforcement policy was perceived negatively and did not adequately address safety concerns. OPS subsequently changed its enforcement policy to make better use of its full range of enforcement tools, including increasing the number and severity of fines. According to OPS officials, the agency plans to collect data that will allow it to link its compliance actions with improvements in safety. We are evaluating OPS' response to our recommendation.

OPS has made progress in responding to recommendations from the Safety Board and statutory requirements, but still has not implemented some significant recommendations and requirements. In May 2000, we reported that OPS had the lowest rate of any transportation agency in responding to recommendations from the Safety Board and had not completed 22 out of 49 statutory requirements imposed since 1988. OPS has since improved its responsiveness to the Safety Board's recommendations and taken action on eight statutory requirements. However, some recommendations and requirements dealing with issues that are critical for pipeline safety—such as requiring pipeline operators to periodically inspect their pipelines—are more than a decade old and OPS still has not implemented them. According to OPS officials, the agency's ongoing initiatives should fulfill the majority of the open recommendations and requirements before the end of 2002.

OPS faces major challenges in implementing its initiatives and in fulfilling the Safety Board's recommendations and statutory requirements. These challenges include (1) developing performance measures for the integrity management approach, (2) ensuring sufficient resources and expertise to oversee operators' integrity management programs, (3) providing consistent and effective enforcement of integrity management program requirements, and (4) issuing requirements for integrity management programs for operators of gas transmission pipelines. We are reviewing these issues as part of our ongoing work, and will address them in our final report.

BACKGROUND

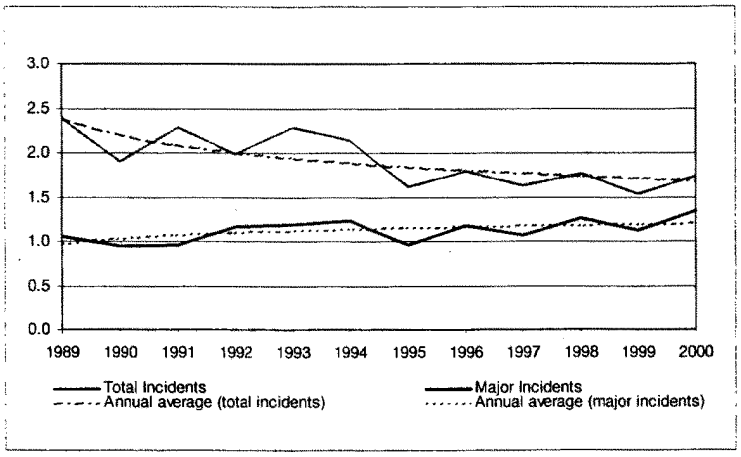
OPS regulates the safety of almost 2.2 million miles of pipelines, which is enough to circle the earth 88 times. There are three primary types of pipelines under OPS' jurisdiction. Natural gas transmission pipelines—about 322,000 miles—transport natural gas over long distances from sources to communities. An additional 1.7 million miles of natural gas distribution pipelines continue transporting the gas throughout the communities to consumers. Finally, about 155,000 miles of hazardous liquid pipelines generally transport crude oil to refineries and continue to transport the refined oil product, such as gasoline, to product terminals and airports.

These pipelines transport the bulk of natural gas and petroleum products in the United States and are the safest mode for transporting these potentially dangerous commodities. Although pipeline incidents resulted in an average of about 24 fatalities per year from 1989 to 2000, the number of pipeline incidents is relatively low when compared with those involving other forms of freight transportation. On average, about 66 people die each year in barge accidents, about 590 in railroad accidents, and about 5,100 in truck accidents. Despite the relative safety of pipelines, pipeline incidents can have tragic consequences, as evidenced by the incidents at Bellingham, WA, and Carlsbad, NM. These incidents, which caused 15 fatalities, highlighted the importance of pipeline safety and the need for more effective oversight by OPS.

From 1989 through 2000, the total number of incidents per 10,000 miles of pipeline decreased by 2.9 percent annually, while the number of major pipeline incidents (those resulting in a fatality, an injury, or property damage of $50,000 or more) per

10,000 miles of pipeline increased by 2.2 percent annually. (See fig. 1.) Over the same time period, pipeline mileage increased 1.6 percent annually from 1.9 to 2.2 million miles of pipelines.

Figure 1: Major and Total Incidents per 10,000 Miles of Pipeline



Source: GAO's analysis of OPS data.

Traditionally, OPS carried out its oversight responsibility by requiring all pipeline operators to comply with uniform, minimum standards. Recognizing that pipeline operators face different risks depending on such factors as location and the product they carry, OPS began exploring the concept of a risk-based approach to pipeline safety in the mid-1990s. In 1996, the Accountable Pipeline Safety and Partnership Act directed OPS to establish a demonstration program to test a risk-based approach. The Risk Management Demonstration Program went beyond OPS' traditional regulatory approach by allowing individual companies to identify and focus on risks to their pipelines. Since the program's initiation in 1997, OPS has approved six demonstration projects.

OPS HAS MADE PROGRESS IN IMPLEMENTING INTEGRITY MANAGEMENT PROGRAMS AND OTHER INITIATIVES

Partly on the basis of OPS' experience with the Risk Management Demonstration Program, the agency has moved forward with a new regulatory approach that requires pipeline operators to comprehensively identify and address risks to the segments of their pipelines that are located in "high consequence areas" where a leak or rupture would have the greatest impact.[2] This approach requires individual pipeline operators to develop and follow an integrity management program. Each program must contain specific elements, including a baseline assessment of all pipelines that could affect high consequence areas, periodic reassessment of these pipeline segments, prompt action to address any problems identified in the assessments, and measures of the program's effectiveness.

Although OPS has issued final rules requiring integrity management programs for operators of hazardous liquid pipelines, the agency has not issued a proposed rule for operators of gas transmission pipelines. In December 2000, OPS issued a final rule for operators of "large" hazardous liquid pipelines, defined as pipeline systems of at least 500 miles. Under this rule, individual operators were required by December 31, 2001 to identify pipeline segments that can affect high consequence areas, and then develop a framework for their integrity management program and a plan for conducting baseline assessments by March 31, 2002. OPS issued a similar rule for operators of "small" hazardous liquid pipelines that are less than 500 miles

[2] For hazardous liquid pipelines, a high consequence area is defined as a populated area, an environmentally sensitive area, or a commercially navigable waterway. For natural gas transmission pipelines, OPS is developing a definition that focuses on populated areas.

long on January 16, 2002, with later deadlines. For natural gas transmission pipelines, OPS anticipates issuing a final rule in fall 2002.[3]

OPS plans to review and monitor operators' programs for compliance with the integrity management requirements, but will not formally approve operator programs. OPS is currently in the first of a four-phase plan for reviewing and monitoring integrity management programs for operators of large hazardous liquid pipelines.[4] In phase 1—scheduled to be completed by the end of April 2002—OPS is reviewing operators' identification of pipeline segments that impact high consequence areas. During phase 2—from July 2002 to July 2004—OPS will inspect the more fully developed framework and assessment plans. After July 2004, OPS plans to monitor operators' implementation of their individual programs through periodic inspections in phase 3, and review and respond to notifications from operators of changes in their programs in phase 4.

OPS is hiring and training additional inspectors to review and monitor operators' programs. OPS had 56 inspectors in fiscal year 2001 and plans to hire an additional 30 inspectors—a 54-percent increase—by the end of fiscal year 2003. OPS plans to augment its inspection force with contractor and state support as it develops the necessary expertise to review and monitor operators' programs. OPS has also developed a list of training courses that will be required for federal and state inspectors, and it is currently scheduling this training. OPS officials anticipate that it will take about 2 years to provide this training to all federal and state inspectors.

In addition to the integrity management programs, OPS is making progress on other initiatives for improving data, involving states, and increasing the use of fines. These initiatives are intended to improve pipeline safety and the agency's oversight.

OPS Is Taking Action to Improve Data

DOT's Inspector General, the National Transportation Safety Board, and others have reported that OPS' data on pipeline incidents and infrastructure are limited and sometimes inaccurate. For example, in the past, OPS' incident report forms have used only five categories of causes for incidents on natural gas distribution pipelines, four categories for those on natural gas transmission pipelines, and seven categories for those on hazardous liquid pipelines. As a result, about one-fourth of all pipeline incidents were attributed to "other causes," which limited OPS' ability to identify and focus on the causes of incidents. In addition, data on the amount of pipeline mileage in various infrastructure categories (such as age or size) are necessary for a meaningful comparison of the safety performance of individual pipeline companies. OPS did not require hazardous liquid pipeline operators to submit this type of data and did not collect complete data from natural gas pipelines. Finally, the information on incident reports filed by operators sometimes changes as the incident investigation proceeds. OPS did not have a procedure for ensuring that operators submitted revised reports when needed.

OPS is taking action to collect data that will allow it to more accurately determine the causes of incidents, analyze industry trends, and compare the safety performance of operators. For example, OPS revised its incident report forms in 2001 for hazardous liquid and natural gas transmission incidents to include 25 categories of causes and plans to revise the form for natural gas distribution incidents by the end of 2002. Furthermore, OPS is assigning an inspector in each region to review incident report forms for completeness and accuracy, and has instituted new electronic notification procedures to ensure that operators submit revised incident reports, if necessary. OPS also plans to institute annual reports for hazardous liquid pipeline operators, and is in the process of revising annual report forms for all natural gas pipeline operators. Finally, OPS is conducting studies of incident information to improve its understanding of the causes of incidents. According to OPS officials, most of these improvements will be implemented for 2002 data.

According to the Safety Board and industry groups, OPS' initiatives address the underlying data problems and will enable OPS to better understand the causes of incidents so the agency can focus its efforts to improve safety. However, officials from industry groups told us that it will be several years before OPS has sufficient data to analyze trends in incidents. Officials from the Safety Board also noted that these initiatives are merely a first step, and they emphasized that OPS should periodically reassess its forms and procedures and take steps to revise them as necessary. We are evaluating OPS' data improvement initiatives as part of our ongoing work.

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[3] OPS issued a proposed rule to define high consequence areas for natural gas transmission pipelines on January 9, 2002.

[4] OPS anticipates following a similar process to review and monitor integrity management programs developed by operators of small hazardous liquid and natural gas transmission pipelines.

States Are Taking a Greater Role in Overseeing Interstate Pipeline Safety Activities

OPS is allowing more states to help oversee a broader range of interstate pipeline safety activities. Although OPS relies heavily on state inspectors to oversee intrastate pipelines, it reduced its reliance on states to inspect interstate pipelines in the mid-1990s when it moved to a more risk-based, system-wide approach to inspecting pipelines. At that time, OPS believed it would be too difficult to coordinate participation by individual states in the new inspection process. However, in our May 2000 report, we found that allowing states to participate in interstate pipeline safety inspections could improve pipeline safety by increasing the frequency and thoroughness of inspections to detect safety problems. Additionally, state pipeline safety inspectors are likely to be familiar with pipelines in their jurisdictions and the potential risks faced by these pipelines. We recommended that OPS work with state pipeline safety officials to determine which activities would benefit from state participation and, for states that are willing to participate, integrate their activities into the safety program. We also recommended that OPS allow state inspectors to assist in reviewing the integrity management programs developed by the companies that operate in their states to help ensure that these companies have identified and adequately addressed safety risks to their systems.

OPS responded to our recommendations in 2001 by encouraging more states to oversee the safety of interstate pipelines in their states. These states may perform a broad range of oversight activities, such as inspections of new construction, oversight of rehabilitation projects and integrity management programs, incident investigation, standard inspections, and participation in nonregulatory program initiatives. Other states that want to participate on a smaller scale may apply for specific, short-term projects, such as inspecting new pipeline construction projects. As of January 2002, 11 states—up from 8 in 2000—have been approved to participate in all oversight activities, and an additional 4 states have been approved to participate on short-term projects.[5]

OPS Is Increasing its Use of Fines

OPS is increasing its use of fines for safety violations, thereby reversing a trend of relying more heavily on less severe corrective actions. From 1990 to 1998, OPS decreased the proportion of enforcement actions in which it proposed fines from about 49 percent to about 4 percent. During this time, the agency increased the proportion of warning letters and letters of concern from about 33 percent to about 68 percent. OPS made this change in order to place more emphasis on "partnering" to improve pipeline safety rather than on punishing noncompliance. As of May 2000, OPS could not determine whether this approach was effective in maintaining compliance with safety regulations. Consequently, we recommended that DOT determine whether OPS' reduced use of fines had maintained, improved, or decreased compliance with pipeline safety regulations.

According to OPS officials, the agency is not able to determine the impact of its compliance actions on safety as we recommended because it does not have sufficient data. Nevertheless, OPS concluded that its decreased reliance on fines was perceived negatively by the public and Congress, and that the letters of concern did not allow OPS to adequately address safety concerns. OPS subsequently changed its enforcement policy to make better use of its full range of enforcement tools, including increasing the number and severity of fines. According to OPS officials, the agency plans to collect data that will allow it to link its compliance actions with improvements in safety. We will follow up on OPS' progress in this area during our current review.

OPS HAS NOT IMPLEMENTED SIGNIFICANT SAFETY BOARD RECOMMENDATIONS AND STATUTORY REQUIREMENTS

OPS is taking action on open recommendations from the Safety Board and statutory requirements, but has still not implemented important recommendations and requirements. In May 2000, we reported that OPS historically had the worst response rate—about 69 percent—of any transportation agency to Safety Board recommendations. These recommendations dealt with a variety of issues that are critical for pipeline safety, such as requiring operators to periodically inspect pipelines and install valves to shut down the pipeline in an emergency. Some of these recommendations were more than a decade old. OPS has been working to improve its responsiveness over the last several years by initiating activities in response to the recommendations and improving communications with the Safety Board. The Safety

[5] Arizona, California, Connecticut, Iowa, Michigan, Minnesota, New York, Ohio, Virginia, West Virginia, and Washington.

Board has been encouraged by OPS' efforts to improve its responsiveness, particularly in the areas of excavation damage, corrosion control, and data quality. However, the Safety Board remains concerned about the amount of time OPS has been taking to implement recommendations. As of February 2002, OPS had not implemented 42 recommendations, several of which date from the late 1980s and deal with issues considered critical to pipeline safety, such as requiring operators to inspect their pipelines.

OPS maintains that its progress is better than the Safety Board indicates. According to OPS officials, the majority of the recommendations deal with integrity management and excavation damage prevention, which the agency's ongoing initiatives should fulfill before the end of 2002.

We also reported in May 2000 that OPS had not implemented 22 out of 49 statutory requirements that were designed to improve pipeline safety. Similar to the open Safety Board recommendations, several of these unfulfilled requirements dated from the late 1980s and early 1990s and were related to important pipeline safety issues, such as internal inspections and identification of pipelines in populated or environmentally sensitive areas. Since May 2000, OPS has been working to complete these requirements. As of February 2002, 8 of the 22 requirements were closed as a result of OPS' actions, 9 requirements were still open, and the remaining 5 were reclassified as "closed" because OPS considered them to be superseded by amendments or other requirements or because the agency did not believe it was required to take further action. OPS plans to fulfill the majority of the open requirements before the end of 2002.

OPS FACES MAJOR CHALLENGES IN IMPLEMENTING ITS INITIATIVES

In our ongoing work, we are examining several issues that could affect OPS' ability to implement its integrity management and data improvement initiatives and, ultimately, fulfill the Safety Board's recommendations and statutory requirements. These issues include (1) performance measures for the integrity management approach, (2) sufficient resources and expertise to oversee operators' integrity management programs, (3) consistent and effective enforcement of integrity management program requirements, and (4) requirements for integrity management programs for operators of gas transmission pipelines.

Performance measures: In May 2000, we reported that OPS had not developed programwide performance measures for the Risk Management Demonstration Program, even though the act required such measures to demonstrate the safety benefits of the program. OPS still has not developed such measures. Despite the lack of quantifiable performance measures for the demonstration program, OPS moved forward with integrity management programs and faces the challenge of developing performance measures for this new approach to regulating pipeline safety. Such measures are essential to determine whether the new approach is successful and what improvements may be needed. However, OPS does not have a complete and viable database of information on pipeline incidents and an inventory of pipeline infrastructure on which to establish certain performance measures. OPS has taken steps to improve its data, but it may be several years before the agency can accumulate sufficient data to evaluate trends in the pipeline industry.

Resources and expertise: Pipeline operators are in the best position to develop integrity management programs that are tailored to their pipelines; however, it is critical for OPS to have adequate resources and expertise to oversee the programs. After OPS issues a final rule on integrity management programs for natural gas transmission pipelines, the agency estimates that there will be more than 400 hazardous liquid and natural gas pipeline operators with individual programs in various stages of development. OPS must ensure that it has a sufficient number of inspectors to oversee these programs while maintaining its other oversight responsibilities. Moreover, while OPS has resolved to include states in reviewing and monitoring operators' programs, the agency faces a challenge to determine how best to leverage federal and state resources and provide training to state inspectors.

Furthermore, OPS' integrity management initiative represents a fundamental shift in how it oversees the pipeline industry. Federal and state inspectors that are accustomed to using a checklist approach for inspecting pipelines for compliance with uniform regulations will have to be trained to evaluate programs that are unique to individual operators. For example, under the new requirements, operators may use a variety of inspection techniques to assess the safety of their pipelines. Inspectors must be familiar with all of these inspection techniques, know when it is appropriate to use them, and know how to interpret the results.

Enforcement: The variability of individual operator programs will make it difficult for OPS to enforce the requirements of the integrity management program. OPS' in-

tegrity management requirements for hazardous liquid pipelines allow pipeline operators flexibility to design and implement integrity management programs based on pipeline-specific conditions and risks.[6] However, this flexibility will result in unique programs for each operator and require more judgment on the part of inspectors. To ensure that the program requirements are consistently and effectively enforced, OPS is developing a comprehensive set of inspection protocols that are intended to provide clear criteria to inspector staff for evaluating the adequacy of operator actions and making enforcement decisions. As noted previously, OPS believes its staff will need increased training and expertise to make these types of judgments.

Final rule for natural gas transmission pipelines: OPS has issued the final rules requiring integrity management programs for operators of hazardous liquid pipelines; however, significant differences between natural gas transmission pipelines and hazardous liquid pipelines present challenges for OPS in developing a similar rule for operators of natural gas transmission pipelines. For example, to facilitate the movement of natural gas under pressure, transmission pipelines tend to vary more in diameter than hazardous liquid pipelines. These variations make it more difficult for natural gas transmission pipelines to accommodate internal inspection devices. The Interstate Natural Gas Association of America estimates that about 45 percent, or about 145,000 miles, of natural gas transmission pipelines would require alternative inspection methods because modifying the pipelines to accommodate internal inspection devices would not be feasible. OPS plans to identify alternative inspection methods that would be effective in assessing the integrity of these pipelines. OPS has 8 months to resolve this issue if it is to meet the goal of issuing a final rule by the end of 2002.

OBSERVATIONS

We are encouraged by OPS' recent efforts to improve its oversight of pipeline safety and believe they are steps in the right direction. However, a number of challenges remain. These challenges include developing performance measures for the integrity management approach, ensuring sufficient resources and expertise to oversee operators' integrity management programs, providing consistent and effective enforcement of integrity management program requirements, and issuing requirements for integrity management programs for operators of gas transmission pipelines. It is imperative for OPS to meet these challenges to ensure the safety of the nation's pipelines.

Mr. Chairman, this concludes my testimony. I would be pleased to answer any questions you or Members of the Subcommittee may have.

CONTACTS AND ACKNOWLEDGMENTS

For information about this testimony, please contact Peter F. Guerrero at (202) 512-4907 or guerrerop@gao.gov. This statement is available on GAO's home page at http://www.gao.gov. Individuals making key contributions to this testimony were Helen Desaulniers, Susan Fleming, Judy Guilliams-Tapia, Michael Horton, Wyatt Hundrup, and Sara Vermillion.

Mr. BARTON. Thank you.

We would now like to hear from Mr. Anderson, and your testimony is in the record, and we would ask you that you summarize it in 5 minutes.

STATEMENT OF JAMES D. ANDERSON

Mr. ANDERSON. Yes, sir. Mr. Chairman and members of the subcommittee, we are pleased to file this document addressing pipeline safety reorganization. The National Association of Pipeline Safety Representatives is an organization of each States' regulatory oversight pipeline safety personnel.

We represent the States, including the District of Columbia and the Commonwealth of Puerto Rico, pipeline safety directors, managers, and inspectors, and technical personnel responsible for as-

[6] Pipeline operators must also maintain compliance with uniform regulation establishing minimum safety requirements.

suring that pipelines are operating in a manner that assures safety to the public.

NAPSR's mission is to strengthen States' pipeline safety programs for promotion of improved pipeline safety standards, education, training, and technology. Several initiatives have been and are ongoing.

First and foremost is damage prevention. The leading cause of pipeline failure is third-party damage. NAPSR believes that the best practices as identified in the report: "Common Ground: Study of One-Call Systems and Damage Prevention Best Practices," should be used and encourages this subcommittee to support States' adoption and implementation of the best practices into State and private stakeholder's underground facility damage prevention programs.

In addition to supporting the adoption of the best practices, we encourage the subcommittee to increase funding from $1 million to $2 million for the States' One-Call Grants that are available to the State's pipeline safety programs. These grant monies are utilized to enhance various projects and programs in the States.

Data collection. Compiling records of third-party damages is another damage prevention initiative. We believe this is an important step to better identify the causes of damages to pipelines and other underground facilities.

This data collection will focus damage prevention efforts and campaigns toward those specific problems. We support the use of Federal grant monies from general revenue funds for damage prevention awareness campaigns and voluntary data gathering efforts.

Public Education/First Responders. Finally, in an issue that is related to pipeline damage, NAPSR supports the use of damage prevention monies to support efforts toward public education and/or training to first responders.

Due to their emergency response capabilities, first responders, local law enforcement agencies and fire departments, are usually the first personnel to arrive on the scene of a pipeline failure.

If properly trained, their abilities to quickly arrive at the scene should enhance safety by proper assessment of the situation and maintaining a safety zone around the area when pipeline personnel arrive.

Security. NAPSR supports the new security and anti-terrorism legislation measures. We believe it is important to have a consistent, national policy developed and identified that, in cooperation with the pipeline industry and regulators, will establish guidelines and standards for pipeline security that are easily recognizable throughout the country.

For that reason, we support designation of the United States Department of Transportation's Office of Pipeline Safety as the Federal agency to take the lead in pipeline security matters.

Operator Qualification. NAPSR supports the qualification of pipeline personnel. Members of our association, in cooperation with the pipeline industry, associations, and other regulatory personnel, participated in the negotiated rulemaking process that created the current Federal regulations for qualification of operator personnel.

National Mapping System. The current voluntary National Mapping Program has not been successful in obtaining the participation

of the pipeline operators needed to produce a national map of pipeline facilities.

For this reason, we would support mandatory participation by pipeline operators in a national mapping system. However, with the events of September 11 in mind, we believe this information should be treated as pipeline security sensitive information with appropriate limitations placed on access, supplied on a need-to-know basis and not a right-to-know basis.

Amendments to H.R. 3609 Regarding Emergency Waivers. There has been an amendment to Section 60118 offered that would give the State authority the ability to waive compliance from the safety standard, in emergencies as determined by the State, and provides a shorter timeframe for approval than is currently allowed.

The State authority would have to notify the Office of Pipeline Safety within 48 hours, and the Office of Pipeline Safety would have 10 days to direct the State to rescind the waiver.

State Jurisdiction for Interstate Pipelines. NAPSR supports and encourages willing States' oversight and participation in interstate regulatory activities of those facilities in their States.

The Federal and State partnership is a cornerstone for assuring uniform implementation of pipeline safety programs nationwide.

The ability to inspect these facilities using OPS guidelines and training will assist OPS in performing more frequent and thorough inspections than have normally been performed by OPS in the past.

In summary, in addition to our specific comments, NAPSR believes that a strong and equal partnership between the States and OPS is vital to assure the highest level of pipeline safety possible.

Continued support by Federal grant in aid funding to the States will continue to protect the Nation's infrastructure. Thank you very much.

[The prepared statement of James D. Anderson follows:]

PREPARED STATEMENT OF JAMES D. ANDERSON ON BEHALF OF THE NATIONAL ASSOCIATION OF PIPELINE SAFETY REPRESENTATIVES

Mr. Chairman and members of the Subcommittee, we are pleased to file this document pertaining to the Pipeline Safety Reauthorization. The National Association of Pipeline Safety Representatives (NAPSR) is an organization of each States' regulatory oversight pipeline safety managers. We represent the state (including the District of Columbia and the Commonwealth of Puerto Rico) pipeline safety directors, managers, inspectors, and technical personnel responsible for ensuring that pipelines are operated in a manner that ensures the safety of the public. NAPSR's mission is to strengthen states' pipeline safety programs through promotion of improved pipeline safety standards, education, training, and technology. We are the "state agency partners" noted by Ms. Ellen G. Engleman, Administrator of DOT's Research and Special Programs Administration in her statements at the Subcommittee on Highways and Transit's hearing for HR3609 on February 13, 2002. The various states' pipeline safety programs directly regulate 90% of the pipelines and liquefied natural gas facilities in the country.

The Association supports, encourages, develops, and enhances pipeline safety, through the Federal/State Pipeline Safety programs as established and defined by the Natural Gas Pipeline Safety Act of 1968, the Hazardous Liquids Pipeline Safety Act of 1979, and all subsequent amendments. This partnership has been the most successful relationship between states' and the federal government in providing security in supply and safety to the public.

DAMAGE PREVENTION

The leading cause of pipeline failures is third party damage. NAPSR believes that the "best practices" identified in the report, *Common Ground: Study of One-Call Systems and Damage Prevention Best Practices* should be used and encourages this

Subcommittee to support states' adoption and implementation of the "Best Practices" into state and private stakeholder underground facility damage prevention programs. The Common Ground Study was initiated by the U.S. Department of Transportation's Office of Pipeline Safety (an element of RSPA). This study developed "Best Practices" by consensus agreement of 160 individuals representing a wide range of interests, organizations, and viewpoints on preventing damage to underground facilities. The existing "Best Practices'" in the report are real world experiences that can help prevent damage to all underground facilities. Several of our NAPSR members participated in the study and release of the final report to members of Congress.

In addition to supporting adoption of the "Best Practices", we would encourage the Subcommittee to increase funding from $1 million to $2 million for the State One-Call Grants, that are available to the state pipeline safety programs. These grant monies are utilized to enhance various individual projects and programs in the states. The programs and projects supported by the grant monies are developed on the state level and are initiatives that regulators in the field believe are very effective. Additional support of these types of programs would help us address specific needs that have been identified in our states.

DATA COLLECTION

Compiling records of third party damages is another damage prevention initiative. We believe this is an important step to better identify the causes of damage to pipelines and other underground facilities. This data collection will focus damage prevention efforts and campaigns toward those specific problems. We therefore encourage efforts toward compilation of information on damage to pipelines so that data can be used to reduce third-party damage. We support the use of federal grant monies from general revenue funds for damage prevention awareness campaigns and voluntary data gathering efforts. This is a wise investment in determining the causes of all underground facility damages. The Common Ground Alliance (CGA), a national non-profit damage prevention organization, has developed public education/awareness materials that can be used by anyone nationwide. The CGA organization is continuing its damage prevention efforts through data collection, education and best practices and we encourage this broad-based national approach to addressing damage to all underground facilities. One of our NAPSR members serves on the CGA Board of Directors as the "State Regulator Board" member and others on various CGA Committees.

PUBLIC EDUCATION/FIRST RESPONDERS

Finally, in an issue that is related to pipeline damage, NAPSR supports the use of damage prevention monies to support efforts toward public education and/or training to "first responders". Due to their emergency response capability, first responders (local law enforcement agencies and fire departments) are usually the first personnel to arrive on the scene of a pipeline failure. If properly trained, their ability to quickly arrive at a scene could enhance safety by proper assessment of the situation and making the area safe until pipeline personnel arrive. In addition, training of the first responders would enhance the coordination of efforts with pipeline personnel at the scene and further allow the pipeline personnel to concentrate their efforts on making the area safe.

SECURITY

NAPSR supports the new security and anti-terrorism legislation measures. We believe it is important to have a consistent, national policy developed/identified that, in cooperation with the pipeline industry and regulators, will establish guidelines and standards for pipeline security that are easily recognizable throughout the country. For that reason, we support designation of the U.S. Department of Transportation's Office of Pipeline Safety as the Federal agency to take the lead in pipeline security matters. Absent a lead Federal agency and national guidelines/standards, it will be almost impossible to coordinate security efforts and communication across the nation.

QUALIFICATION OF PIPELINE OPERATORS

NAPSR supports the qualification of pipeline personnel. Members of our association (in cooperation with the pipeline industry, associations, and other regulatory personnel) participated in the negotiated rulemaking process that created the current Federal regulations for qualification of operator personnel. Current regulations require that operator qualification plans were to be developed by April 27, 2001, and

the personnel qualified by October 28, 2002. Therefore, qualification of the pipeline personnel is being conducted at this time. We believe the current operator qualification process established by Subpart N in Part 192 of the Federal Pipeline Regulations should be allowed to continue and regulatory over-site of the qualification of operations personnel be evaluated before the requirements are changed. We would support the addition of programs for the qualification of pipeline product flow controllers.

NATIONAL MAPPING SYSTEM

The current voluntary National Mapping Program has not been successful in obtaining the participation of the pipeline operators needed to produce a national map of pipeline facilities. For this reason, we would support mandatory participation by pipeline operators in a National Mapping System. However, with the events of September 11th in mind, we believe this information should be treated as pipeline security sensitive information with appropriate limitations placed on access (supplied on a "need-to-know" basis, not on a "right-to-know" basis).

AMENDMENT TO HR3609 REGARDING EMERGENCY WAIVERS

There has been an amendment to Section 60118 offered that would give the "State authority" the ability to waive compliance from the safety standard, in emergencies as determined by the state, and provides a shorter time frame for approval than is currently allowed. The State authority would have to notify DOT within 48 hours and DOT would have 10 days to direct the state to rescind the waiver. NAPSR believes this provision is needed and supports the amendment. Even though occurrences are rare, when certain emergencies occur, quick action is needed to continue or quickly restore service that may not fully comply with the regulations. This amendment would allow the State authority to determine those emergencies and to take needed action when consistent with pipeline safety and allow quick receipt of notice from DOT.

STATE JURISDICTION FOR INTERSTATE PIPELINES

NAPSR supports and encourages willing states' oversight and participation in interstate regulatory activities of those facilities in their states after meeting OPS requirements. The ability to inspect these facilities using OPS guidelines and training will provide assistance to the OPS in performing more frequently and thorough inspections than have normally been performed due to lack of OPS resources. The states have the ability due to their location to respond in an emergency and make the area safe.

SUMMARY

In addition to our specific comments, NAPSR believes that a strong, and equal, partnership between the states and OPS is vital to assure the highest level of pipeline safety possible. Continued support by federal grant in aid funding to the states will continue to protect the nation's infrastructure. The people in the NAPSR organization are directly involved in assuring the safety and security of a large portion of our nation's pipeline system. We appreciate the opportunity to supply our input to this important legislation and give our support to reauthorize the pipeline safety program.

Mr. BARTON. Thank you, Mr. Anderson, and the Chair would recognize himself for the first 5 minutes of questions.

Ms. Engleman, would it be fair to say that prior to 1996 that the theory in pipeline safety was to catch them after the fact and punish them?

And that since 1996, we have tried to change the theory to work with the pipeline industry before the fact to prevent the accidents in the first place?

Ms. ENGLEMAN. Yes, sir, it is. Prior to that time, there was an approach where one would inspect and one would look at a checklist, and its ability, exclusive of the opportunity for proactive performance on safety measures.

From that, there was a time if you will—and I can show you a time line. If you look at the time line that we are presenting here,

you will see a trend that has evolved, and we are continuing to operate with pipeline inspections, and all regulations are in effect and in force.

But as you can see the trend, we are adding both the security and local police involvement, and attention to the environment, and a list of implementations, and damage prevention issues.

Mr. BARTON. Now, the number of incidents that has been reported, there is a chart somewhere of pipeline incidents, and if you could put that back up. There you go. Now, that is based on a period that begins in 1986, and goes to 2001.

But what we are really interested in is the period after 1996, and as we change the theory. Now, I am not a statistician, but it looks to me just looking at 1997, 1998, 1999, and 2000, and 2001, that the blue line stops and the trend line is obviously down in terms of the number of incidences.

The gray line, the gas distribution pipeline, honestly I would have to say is going up some, and then the bottom line, the gas transmission pipeline, I would say is basically slightly—I would say it is neutral or slightly up ahead 1 year in 1998 that it definitely went up.

So how many years do you think your agency would need to transition to this need theory before you could really give it a fair evaluation?

Ms. ENGLEMAN. Sir, I don't have a specific number to give you. I can only say that unfortunately accidents do happen, and when one happens, it affects us obviously statistically.

However, I do believe that the overall trend of using a holistic approach and using performance metrics will ensure that we can eliminate as many accidents as can be eliminated.

If I can just make reference to one issue. A few years ago I had the privilege to become a commissioned officer in the Navy Reserves; and a lesson that I was told at that time in leaving the civilian world is as follows.

In the Navy, 98 percent does not give them a minus. It means that two people were hurt or killed, or two people were affected. So our goal will always be 100 percent. Whether we can achieve it in 2 years or 4 years, or ever, I can't address.

But I will say that when we look at a holistic approach, and when we implement a systematic approach for liquid and gas, I believe the trend will continue to go downward.

Mr. BARTON. Now, much has been made of the fact that a number of recommendations and mandates have not been implemented. I won't comment on that other than to say that I wish we would hold EPA to the same standards as they have—it is appalling of the number of Congressional mandates that they have not attempted to implement in the last 10 years.

I want to go to you, Mr. Chipkevich. There are a number of outstanding national transportation safety board recommendations that have been made through the OPS. I am told that as they respond that your organization as a rating system where you rate the responses as open-accessible, open-unaccessible. Is that true?

Mr. CHIPKEVICH. Yes, sir.

Mr. BARTON. Based on the responses that have actually been made to your agency, could you give us an idea of how many of

those responses your agency considered acceptable, and how many they considered to be unacceptable?

Mr. CHIPKEVICH. Overall, the acceptance rate has been a little over 80 percent, 82 percent.

Mr. BARTON. So, 82 percent acceptable, and 18 percent unacceptable?

Mr. CHIPKEVICH. Yes, sir.

Mr. BARTON. What kind of coordination or communication, if any, do you have in the drafting stage with OPS before they actually make a formal recommendation? Is there some interchange before the fact?

Mr. CHIPKEVICH. When we conduct our accident investigation, we identify and parties participate in our investigation through the entire fact finding and the technical reviews of our accident data.

We do ask for input from all parties, including the regulatory organizations, like RSPA, about any of their proposed conclusions, and the types of recommendations that they think would be effective, and also their recommendations on probable cause.

So we do seek their input when we are looking at types of recommendations, yes, sir.

Mr. BARTON. And generally would you say that OPS attempts to work with your agency are positive and productive, or negative and unproductive?

Mr. CHIPKEVICH. I think over the last couple of years it has been very positive. We have had several meetings with them to talk about the recommendations in the other areas. There has been a lot of positive movement in some of those recommendations, and in particular in the last 2 years.

Mr. BARTON. Finally, Ms. Engleman, there are a number of members on this subcommittee that when we come to drafting a bill that we are going to want to move this back toward the old catch-them-after-the-fact regulatory approach. Do you think that is a good idea or a bad idea?

Ms. ENGLEMAN. Sir, we don't have to do either/or, because please note that the regulations remain in effect as we go forward with a holistic principle. If you compare what we are looking at, say, in one health's system, I think it is important to continue with the holistic, systematic approach.

After all, an EKG cannot tell you if you have diabetes, any more than a mammogram can tell you if you have a disease other than what it is created for.

So I believe the holistic, systematic approach is appropriate to continue the level of work, and so please again keep in mind that this is added to the regulations. This is in addition to the regulations which we will continue to enforce and enforce successfully.

Mr. BARTON. I am going to interpret that that you don't want to go back to the old approach, and that we have regulations on the books that have to be enforced, but at the same time it is a good idea to try to work to prevent accidents in the first place.

Ms. ENGLEMAN. Yes, sir.

Mr. BARTON. Good enough. Mr. John.

Mr. JOHN. Thank you, Mr. Chairman. Ms. Engleman, at the time of the GAO report back in 2000, your office or the OPS office was

moving to really discontinue the use of the States to help them conduct their inspections of the interstate pipeline.

This brought obviously a great deal of concern amongst Members of Congress and the States. And since 2000, I think that OPS has taken steps to restore some of the relationship that they have had with the States.

As it relates to your integrity management approach, how exactly are you going to integrate the States—question one—as to your plans; and second, when are the State inspectors going to receive any training as it relates to your new program, or your program?

Ms. ENGLEMAN. Thank you, sir. The States are our most significant partners in our goal of pipeline safety. With approximately 400 State Inspectors, we add to that 89 Federal Inspectors, or almost 500 field inspectors that we can utilize.

The field inspectors have an average of 20 years of experience each. That gives us 9,500 man-years of experience to put to task, and it is a critical aspect of how valuable our State partnerships can be.

Mr. JOHN. So you feel that a move back toward a partnership is a good thing, which is contrary to what would happen prior to just 2 years ago?

Ms. ENGLEMAN. Yes, sir. We support State partnerships and try exceedingly hard to get input. Please note that the States participate with us in all of our rulemaking, and they participate in many of our inspections.

They have access to the data that we have, and we participate in side-by-side training. We utilize the Transportation Safety Institute in Oklahoma, which is again part of the RSPA program.

And we do the same training for the State inspectors as we do with our Federal inspectors. To answer your second question, continued training of State inspectors and increased training for them is part of our plan.

Mr. JOHN. Well, I think that is a positive move toward the safety inspections. Mr. Chipkevich, is it the authority of the NTSB or the responsibility of NTSB to inspect accidents that happen in pipeline incidents across the country; is that correct?

Mr. CHIPKEVICH. To investigate accidents, yes.

Mr. JOHN. Yes, to investigate accidents. It is my understanding that the two accidents that were referred to several times up here by some of my colleagues, the one in Washington in 1999, and the one in Carlsbad, New Mexico, in 2000, that you have not issued a final report as to findings of what went on, and how we can use some of these findings to enter into the debate as we develop a piece of legislation.

Can you maybe expand on why we have not received a final report on your findings?

Mr. CHIPKEVICH. Yes, sir. In the Bellingham accident investigation, there was a significant delay because of a criminal investigation that was ongoing, and almost immediately from the time that we began our investigation on the scene.

There were from the onset 17 people that we wanted to interview, including the pipeline operator who would not speak to us, and in fact noted that they would take the Fifth Amendment.

We also had to delay our ability to do laboratory testing and examination on the actual pipe that failed in that particular accident until the criminal investigation side was satisfied.

We have been able to thus far interview all but four witnesses, who have since been given immunity on that particular accident. As a matter of fact, last month we interviewed the last witness that was made available to us, and we don't expect to be able to interview the last four witnesses any time soon.

But we are moving forward with the investigation and expect to complete it this summer.

Mr. JOHN. And that is in the Washington case?

Mr. CHIPKEVICH. Yes, sir.

Mr. JOHN. And it is the criminal investigation that has hampered your investigation is what I am hearing?

Mr. CHIPKEVICH. Yes, sir, that is what has substantially delayed our work on it.

Mr. JOHN. Do you have any idea as to when that will be completed so that we can use some of that information?

Mr. CHIPKEVICH. We expect to have our factual reports all finished on that investigation this month, and hopefully available and in the docket by April for all the disciplines; and the Board's complete report by this summer.

Mr. JOHN. And what about the other incident?

Mr. CHIPKEVICH. The next incident has been a matter of the lack of resources, the number of people able to work on the investigation. That investigation also will be finished by this summer.

And as was noted earlier, in that particular accident, there was significant internal corrosion found in that specific pipe.

Mr. JOHN. And that is preliminary information?

Mr. CHIPKEVICH. That is factual information that there was significant internal corrosion found in that pipe.

Mr. JOHN. Thank you, Mr. Chipkevich.

Mr. BARTON. I thank the gentleman from Louisiana. I recognize the gentleman from Massachusetts for 5 minutes of questions.

Mr. MARKEY. Thank you, Mr. Chairman. Ms. Engleman, I am concerned about the harbor at the Distrigas LNG facility in Everett, Massachusetts, which I represent. As you know, I wrote Secretary Mineta on this issue last September, and to the Homeland Security Director Ridge in October.

Secretary Mineta responded to my letter, which was very helpful, and unfortunately I have yet to hear back from Governor Ridge since October is my concern.

So I would like to raise with you an issue that I posed to Governor Ridge. What was seen in Boston is that when an LNG tanker is going into the harbor and heads for the Distrigas facility the Coast Guard is involved in providing security.

There is a coordinated security and emergency response plan involving the Coast Guard, and State, and local police, fire, and emergency responders. But after the ship docks, unloads, and leaves, there is no coordinated plan.

The Everett Police and Fire Department are on their own, and the Distrigas security does not appear adequate. Your office appears to have some authority over safety and security at this facility, and the Department of Energy has also gotten involved in ex-

amining the issue, although their statutory basis for involvement is unclear.

What are you doing to ensure that the Distrigas LNG facility is protected from terrorist attacks on those days when an LNG tanker is not docked at the facility?

Ms. ENGLEMAN. Thank you, sir. More than any other area, we specify physical security requirements in our regulations, specifically for LNG facilities. This includes access issues, including gates, guards, and so forth.

We have been to that specific plant three times in recent history; for inspections in November 1996, April 1999, and November 2001. I am pleased to say that in the November 2001 inspection, concerns had been corrected that had been raised in previous inspections.

We are looking at all aspects of security. We have issued several security advisories, and we have put together a direct action group with industry, local responders, State officials, and a variety of participants to identify and inspect security issues that you raised.

We think it is very important to first understand what are the vulnerabilities, and to look at daily operating procedures, and to look at action plans and response plans that are in place.

And to heighten the awareness of the individual employees, as well as anyone who would be involved in interaction with the product in question. This is literally a daily activity for us as we continue to operate in conjunction with the Office of Homeland Security and our new Transportation Security Administration.

From that, we have weekly and biweekly conversations with owner-operators, and individual facilities that we believe to be at risk. So we have a very aggressive—and though it is not publicized, but a very aggressive security overview and response that we are looking at.

Mr. MARKEY. Okay. So you visited there once since September 11; is that correct?

Ms. ENGLEMAN. Yes. There was an inspection in November of 2001.

Mr. MARKEY. Now, was that to implement the standards that have been in place prior to September 11, or was it to evaluate what the security level was post-September 11 given the new level of threat which the plant obviously now had to prepared against?

Ms. ENGLEMAN. Sir, that inspection was based on prior inspection concerns that had been raised.

Mr. MARKEY. So, it did not raise, in other words, the new level of security threat. It was before September 11 that terrorists arrived in waves of three, and they were technically unsophisticated, and they were non-suicidal, and they were not heavily armed.

We know that since September 11 that they arrived in waves of perhaps 19, that they are suicidal, highly technically skilled, and very heavily armed, and suicidal. Have you upgraded, in other words, or did the inspection in November of 2001 take into account that level of threat?

Ms. ENGLEMAN. Yes, sir, and in fact they greatly exceeded the minimum requirements, if you will, at that particular plant.

Mr. MARKEY. So there has been an enhancement since September 11 of the security requirements?

Ms. ENGLEMAN. There has been an enhancement of response by the facilities themselves. We have not enhanced the security requirements in a regulatory fashion.

Mr. MARKEY. Well, why have you not increased the minimal requirements that each of these facilities have to put forth?

Ms. ENGLEMAN. We are in the process of reviewing all applications in a formal way, and informal way, sir, through individual correspondence, individual discussion, individual inspections, as well as the direct action group. These efforts have increased the awareness of the issue of security.

So while regulations may not be formally on the books as a result of the heightened awareness, on an inspection in November 2001 we found that facility had exceeded the minimum requirements.

Mr. MARKEY. Did you provide all correspondence which you have had with LNG Distrigas since September 11 to the subcommittee?

Ms. ENGLEMAN. Yes, sir.

[The following was received for the record:]

Following the events of September 11, RSPA sent Security Alert Notices to all natural gas and hazardous liquid pipeline and LNG facility operators, including LNG District Gas (Distrigas). On December 5, 2001, RSPA received a letter from Distrigas describing the actions taken at the facility as a result of the November 26-30 inspection by the RSPA Office of Pipeline Safety (OPS). These actions included updating of the Fire Protection Plan, the establishment of semi-annual drills, and specific security training for security officers. (Copy enclosed)

Additionally, RSPA/OPS has actively been involved with Distrigas and other Federal and State agencies regarding LNG facility concerns, since September 11:

—Between 9/11 and October 1, RSPA/OPS held numerous telephone conversations with Distrigas and Federal officials (Coast Guard, FERC, DOE) about security issues regarding LNG ships and the LNG plant. For example, RSPA/OPS learned of additional security staffing, coordination with local authorities, and more stringent entry procedures to the LNG plant.

—On October 5, OPS participated in a security meeting in Boston with DOE, FERC, Massachusetts Emergency Management Agency (MEMA), USCG, City of Everett, and Distrigas to discuss a vapor dispersion and fire radiant study prepared by Quest (at the request of DOE and RSPA/OPS), and other security concerns. At this time, an RSPA/OPS inspector also checked to see that additional safety precautions were in place at the plant. Security enhancements include hiring additional security guards, working with the City of Everett to assign local police to help protect the perimeter of the plant, and installation of "Jersey Barriers" to restrict traffic.

—On October 10-11, DOE personnel from the Office of Security and Emergency Office and the Office of Independent Oversight and Performance Assurance conducted a security review of procedures and protection measures in place at the LNG facility in Everett, Massachusetts. It is important to note that this review focused on the LNG facility and not on a LNG tanker or tanker transit. DOE's overall assessment reflects that Distrigas's industrial security practices and procedures at the LNG Everett facility are consistent with or exceed those in place at other industrial facilities. Distrigas informed RSPA/OPS that all existing Distrigas employees and security contractor employees' background checks were completed and that all new Distrigas employees and contractors will receive background checks.

—On November 26-30, OPS staff conducted an inspection of the Distrigas LNG plant and reviewed operations and maintenance procedures. New Security procedures for the LNG plant were verified to be in place. During this inspection the RSPA/OPS inspector noted that contract security guards needed additional training regarding existing Distrigas security procedures. Distrigas reported to RSPA/OPS, in a letter dated December 5, that this security training was conducted by December 1, 2001. These security training records were reviewed by RSPA/OPS with an onsite inspection on April 11, 2002. RSPA/OPS is currently developing the appropriate correspondence to be issued to Distrigas as a result of the November 2001 and April 2002 inspections.

Mr. MARKEY. Do you require force on force exercises to test security at the facility?

Ms. ENGLEMAN. Not at this time. However, one of the things that we are addressing in our training program that we are developing is the issue of exercise and that very type of thing that you are talking about, where we actually go in and have specific exercises, and these are being discussed as part of our training.

Mr. MARKEY. You have not decided yet whether or not force-on-force exercises are necessary to determine the actual security at facilities, at the LNG facility?

Ms. ENGLEMAN. It is part of that which is on the table, and it is part of the discussion on how we can best frame and prepare for a response.

Mr. MARKEY. I would recommend very strongly that you adopt a force-on-force exercise test for LNG facilities, and I think that it would be eye-opening to you to find how ill-prepared these facilities are for such drills.

Do you ever do surprise inspections at LNG facilities to see if the security at Distrigas or the other two LNG facilities in the United States is adequate?

Ms. ENGLEMAN. Surprise inspections do occur. I am not aware of any specific surprise inspections that have occurred at that facility.

Mr. MARKEY. Since September 11, have you conducted any surprise inspections at this LNG facility or the other two in the United States?

Ms. ENGLEMAN. Not surprise inspections, sir, not to my knowledge.

Mr. MARKEY. I recommend to you that you do in fact conduct surprise inspections. I recommend that you do it at approximately 5:30 a.m. in the morning. In other words, the time at which a terrorist attack is likely to occur at these facilities.

I think you would be shocked at the low level of resistance which a surprise mock terrorist assault would receive at this facility. Do you know whether there are any foreign nationals employed at the Distrigas LNG facilities, or in its security force?

Ms. ENGLEMAN. Sir, I am not aware of that, but I will be happy to gather that information and respond accordingly.

[The following was received for the record:]

No, we do not know if foreign nationals are employed at the Distrigas LNG facilities. Our regulations do not prohibit the employment of foreign nationals. Distrigas has informed OPS that all initial background checks have been completed and that all new employees and contractors received background checks. Distrigas did not distinguish between foreign nationals or U.S. citizens.

Mr. MARKEY. I appreciate that. Do you know how many security guards are employed at the facility and what their qualifications or training is?

Ms. ENGLEMAN. Sir, I do not have the specific data on that facility, but I would be happy to provide it to you. However, if I may, when we have been looking at security overall, the majority, if not all of the facilities and industry participants that we have spoken to, had implemented new security profiling and plans, and have addressed these issues, and are doing so on a case-by-case basis.

I am very encouraged by industry's response to security issues.

[The following was received for the record:]

Since 9/11, Distrigas more than quadrupled the security guard force at the plant and additional security guards supplemented by the Everett Police Department are also deployed when a LNG ship is in port for security reasons. However, due to security concerns, we cannot provide the specific number of guards deployed at a plant. This information is considered security sensitive information not to be disclosed in a public document.

The Federal LNG Safety Code requires a written training plan for personnel responsible for security. The initial training must include instruction in recognizing breaches of security, conducting security patrols, methods to identify all persons entering the plant, and instructions for notification of other plant personnel and law enforcement officials when there is any indication of an actual or attempted breach of security. The written security training plan must include continuing instruction at intervals of not more than two years. Distrigas reported that all contract security guards, including the additional guards deployed after 9/11, completed the required training by December 1, 2001.

Mr. MARKEY. I don't want you to be spies, but I have many reports that guards at Distrigas are asleep in construction trailers at the site, and that guards bring in sleeping bags into work so that they can sleep on the job, and that access badges are not turned in. Would any such allegations be of a concern to you?

Ms. ENGLEMAN. Absolutely, sir.

Mr. MARKEY. Do you have any process to investigate in and evaluate such concerns when unsure of the adequacy of the security at the Distrigas LNG facility, or to ensure that if there was a terrorist attack against a facility that there would be a combination of physical safeguards and trained guard forces, and a coordinated Federal, State, and local force to protect these facilities?

Ms. ENGLEMAN. Sir, we are establishing new protocols for that very issue, and if I could share with you that in all inspections, whether it is oil or gas, we have procedural reviews, and we have come in and have record evaluations and physical inspections.

So this is ongoing for safety issues, and as you are aware, many security issues are a component of safety.

Mr. MARKEY. When can I tell my constituents in Everett that you will have a formal set of requirements in place that guarantee that a high level of security is guaranteed at the facility? What is that date?

Mr. BARTON. This will have to be the gentleman's last question.

Ms. ENGLEMAN. Sir, first of all, we work in conjunction with the Transportation Security Administration, the Office of Homeland Security, and the other appropriate agencies on all security issues.

Second, I can never suggest to you that I could guarantee functional 100 percent security on every aspect of it.

Mr. MARKEY. I am not suggesting that, but I am suggesting that I need a date. Will it be completed by the first anniversary of September 11? Will there be in place a protocol for LNG facilities such as the Distrigas by the first anniversary?

Ms. ENGLEMAN. Sir, I cannot guarantee any specific date; however, I can guarantee that we are on the job and we are looking to address all security and safety issues as soon as possible.

Having lived through September 11, sir, and having participated in all the aspects of it, I assure you that we take it very, very seriously.

Mr. MARKEY. If I may indulge the chairman for 30 seconds and say that is an inadequate response. The people who live near these facilities are entitled to know that there is a date upon which the Federal Government has settled that will guarantee that as best as

humanly possible a new set of safety guides have been put in place and has been implemented.

I don't think we can leave you with the misimpression that your answer satisfies us that you are going to do the best that you can. I think that you have to give us a date and meet that deadline so that we have some level of expectations against which we can match the actual plan which you put in place.

And at this point I think your testimony is leaving us with an unanswered question that is very important to the safety and security of the people who live near these facilities.

Ms. ENGLEMAN. Sir, again, I cannot give you a time specific. However, we will work to address these issues and problems.

Mr. MARKEY. Thank you.

Mr. BARTON. Thank you. We are going to excuse this panel. There may be additional written questions, and for the record, we do plan to go to mark-up some time this spring, and so if we submit written questions, we would hope that you would answer them expeditiously.

Thank you for your time and effort, and thank you for your testimony, and you are excused. We will now call forth our second panel.

Well, welcome, gentleman. We apologize for the crowded situation. We have now in our second panel, we have Mr. Mark Hereth, who is the Senior Vice President of HSB Solomon, in Atlanta, Georgia, and we appreciate you being here.

And Mr. William Haener, who is a Vice President of Natural Gas for CMS Engineer Corporation, appearing on behalf of Interstate Natural Gas Association of America. We appreciate you being here.

And Mr. William Shea, who is President and CEO of Buckeye Pipeline Company, who is here on behalf of the Association of Oil Pipe Lines.

And Mr. Herman Morris, Jr., who has testified before our subcommittee before, and he is the President and Chief Executive Officer of Memphis Light, Gas, and Water, and he is here on behalf of the American Gas Association. Good to see you again, sir.

And Mr. Robert Kipp, who is the Executive Director for the Common Ground Alliance, in Chantilly, Virginia. Welcome. Mr. Edward Sullivan, who is the President of the Building and Construction Trades Department of the small organization known as the AFL-CIO. Glad to have you, sir.

And last, but not least, Mr. Bruce Nilles, who is a Staff Attorney for Earthjustice, in Oakland, California. We have your statements in the record, and we will start with Mr. Harris, and give each of you 5 minutes to summarize, and then we will have some questions.

STATEMENTS OF MARK L. HERETH, SENIOR VICE PRESIDENT, HSB SOLOMON; WILLIAM J. HAENER, VICE PRESIDENT OF NATURAL GAS, CMS ENGINEER CORPORATION, ON BEHALF OF INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA; WILLIAM SHEA, PRESIDENT AND CEO, BUCKEYE PIPE LINE COMPANY, L.P., ON BEHALF OF ASSOCIATION OF OIL PIPE LINES; HERMAN MORRIS, JR., PRESIDENT AND CHIEF EXECUTIVE OFFICER, MEMPHIS LIGHT, GAS AND WATER, ON BEHALF OF THE AMERICAN GAS ASSOCIATION; ROBERT R. KIPP, EXECUTIVE DIRECTOR, COMMON GROUND ALLIANCE; EDWARD C. SULLIVAN, PRESIDENT, BUILDING AND CONSTRUCTION TRADES DEPARTMENT, AFL-CIO; AND BRUCE E. NILLES, STAFF ATTORNEY, EARTHJUSTICE, OAKLAND REGIONAL OFFICE

Mr. HERETH. Good afternoon. My name is Mark L. Hereth, and I am a senior vice president of HSB Solomon, a subsidiary of the Hartford Steam Boilers Inspection Insurance Company.

I am here today on behalf of my company to share our perspectives on how we are taking the tools and processes that we use historically to help our customers manage adversity by applying them to group safety, reliability, and profitability of their operations.

Improving pipeline safety is not a 1 year, a 5 year, or even a 10 year project. It is a journey on which you must strive for continuous improvement.

I believe I can speak of a journey as I work for a company that has been on a journey to improve safety and reliability of industrial equipment since the Civil War.

Our founders examined the historical experience of steam boilers in a number of applications in the early 1860's following a number of fatal accidents.

They developed processes to inspect how operators designed, built, operated, and maintained boilers. They believed in this enough to indemnify operators in the event of accidents through an insurance policy.

These processes were the predecessors of what have become the ASME standards for pressure containing equipment. Periodic analysis of historical experience remains as important today as it was in the 1860's.

An examination of experience with respect to leaks and spills will address areas where there are gaps in technology, or the processes demanding integrity. Additional research and development will develop and demonstrate technology to improve the way in which integrity is managed.

And likewise technology is demonstrated, as technology is demonstrated, or where it is necessary to ensure that work is conducted in a manner to ensure safe operation, or produce quality data, the national consensus standards organizations will develop applicable standards.

We have entered a time when it is more important than ever that we continually work to gain and maintain public trust and confidence. One of our clients has described the way in which they view the importance of ensuring that work is conducted the same way, regardless of who is doing the work.

They recognize that a supervisor cannot be with his or her employees day in and day out, all day long. They have developed a simple phrase to capture this intent, and it is "you would do as I would do."

I would share with this subcommittee that this simple phase probably has applicability far beyond pipeline safety and liability in ensuring the public interest is being met. But we certainly see its value in the context in which we speak today.

The consensus standards developing organizations are leading the way in furthering "you would do as I would do," and they are developing these standards for integrity management, for hazardous liquids, and natural gas pipeline.

They are working on standards for in-line inspections, pressure testing, direct assessment, as well as communications in public awareness programs. These standards will become integral parts of integrity management programs.

We have seen that as this information becomes more and more prevalent, operators and Office of Pipeline Safety have about risk in the condition of pipelines, the expectation and demand on the tools that an operator can apply demand that pipeline integrity grow.

We are concerned in the aftermath of the Bellingham accident that as many parties had grabbed on to internal inspection as a apparent silver bullet. While inspection does play a key role, it alone is not the answer.

Our experience is that sustainable improvement is best realized by applying prevention, detection, and mitigation in a comprehensive systematic fashion. We encourage you to set expectations through legislation, and to put the spotlight on those areas that need improvement.

And to ensure that we are making progress on the journey to improvement pipeline safety and reliability. This will encourage operators in the Federal Government to engage in cooperative research to develop better tools, and to improve prevention, detection, and mitigation measures to protect our pipeline infrastructure.

This will provide guidance for consensus standards developing organizations to development standards needed to ensure that "you would do as I would do." We encourage you to enable the Office of Pipeline Safety to develop rules that meet your expectations and those of your constituents.

Mr. Chairman, I want to thank you and the other members of this subcommittee for providing me with the opportunity to share our perspectives this afternoon. Thank you.

[The prepared statement of Mark L. Hereth follows:]

PREPARED STATEMENT OF MARK L. HERETH, SENIOR VICE PRESIDENT, HSB SOLOMON

My name is Mark L. Hereth. I am a senior vice president of HSB Solomon, a subsidiary of The Hartford Steam Boiler Inspection and Insurance Company. I have been an employee of the company for 23 years. I served as a project engineer on engineering and environmental projects, as a department head, as the business unit manager of our Oil and Gas insurance operations, and now as the business unit manager of our energy pipeline consulting practice. I lead a business today that is taking the tools and the processes we have used historically to help our customers manage adversity, by applying them to helping improve the safety, reliability and profitability of their operations.

Improving pipeline safety is not a one-year, a five-year or even a ten-year project. It is a journey on which you must strive for continuous improvement.

I believe I can speak of a journey as I work for a company that has been on a journey to improve safety and reliability of industrial equipment since the Civil War. Our founders noted the increase in the frequency of steam boiler explosions in the early 1860s. They examined the historical experience of steam boilers in a number of applications and developed an engineering basis for reducing and possibly even eliminating boiler explosions. They believed that with the appropriate materials to construct the boiler, fine workmanship, careful operation and periodic inspection, boiler explosions could be eliminated. They believed in this enough to indemnify boiler operators in the event of accidents through an insurance policy. They developed processes to inspect how operators designed, built, operated and maintained boilers. It is from this that our company name was derived; we inspect before we insure, hence the name, Hartford Steam Boiler Inspection and Insurance Company.

Our founders later codified these ideas into the *Hartford Code* and the *Hartford Standard.* These documents were the predecessors of the Code developed by the American Society of Mechanical Engineers (ASME) for boilers and pressure-containing equipment. The ASME Code, as embodied in Sections B31.4 and B31.8, serves today as the foundation upon which pipeline safety regulations are based for hazardous liquid and natural gas pipelines.

Periodic analyses of historical experience remains as important today as it was in the 1860s. Even though we have been able to evaluate historical performance and demonstrate improvements with the data collected over the time, many stakeholders recognized that the incident reporting data forms could be improved and as such so could the analyses. The Office of Pipeline Safety recently issued notices updating the incident reporting forms. We especially commend OPS for updating the forms during the same time it was finalizing and promulgating rules for integrity management in high consequence areas for hazardous liquid pipelines and proposing rules for the definition of high consequence areas for natural gas pipelines. New reporting forms will provide additional data and more precise data regarding the cause of incidents. Periodic examination of historical experience with respect to leaks and spills will continue to be of value in understanding where we are on the journey. It will enable each party, the Office of Pipeline Safety, State pipeline safety organizations, pipeline operators and the public to provide input on where they can provide additional improvements.

We have learned through the years that way to improve safety is through the use of risk assessment. Risk assessment is applied to identify and evaluate threats to the integrity of the pipeline, whether it outside force and corrosion, among others. It is then through the application of prevention, detection and mitigation measures that one can continually improve safety.

I have applied risk assessment techniques for over twenty years of my professional career; in environmental applications related to industrial point source emissions and hazardous waste disposal, in evaluating the risk of failure and loss in insurance underwriting, and in managing pipeline integrity. However, I never appreciated the value of risk assessment and risk management any more than the day I walked down the hill from the water treatment plant in Bellingham and into the ravine where the product flowed along a stream where two boys were playing and another was fishing. It was so apparent at that moment that this is why we assess risk, both the likelihood and consequence; and it is why it is important to understand not just what is the condition of the pipe, but where is the pipe. For those of you that may have been skeptical of the value of the risk management demonstration program, take a walk down from the water treatment plant and into the ravine.

The rules related to integrity management that the Office of Pipeline Safety has been developing over the past three years, build upon the risk management efforts undertaken in the mid-1990s. Risk assessment is now a key part of the process for managing integrity as reflected in API RP-1160 for hazardous liquid pipelines and ASME B31.8S for natural gas pipelines.

We have seen that as information that operators and the Office of Pipeline Safety have about risk and the condition of pipelines, the expectations and demands on the tools an operator can apply to managing pipeline integrity grow. We were concerned in the aftermath of the Bellingham accident as many parties grabbed onto internal inspection as an apparent silver bullet. While inspection does play a key role, it alone is not the answer. In our experience, sustainable improvement is best realized by applying prevention, detection (inspection) and mitigation in a comprehensive, systematic and integrated fashion.

Examination of experience with respect to leaks and spills can help address areas where there are gaps in technology or the processes for managing integrity. Additional research and development can be undertaken to develop and demonstrate technology to improve the way in which integrity is managed. Likewise as technology is demonstrated or where it is necessary to ensure that work is conducted in a manner to ensure safe operation or produce quality data, the national consensus standards organizations can develop applicable standards and recommended practices. In talking about the importance of training and qualification programs, one of our clients described how they view the importance of ensuring that work is conducted the same way, regardless of who is doing the work. They recognized that a supervisor cannot be with each of his or her employees all day long, day in and day out. They have developed a simple phrase to capture the intent; it is,

"You would do, as I would do"

That phrase probably has applicability far beyond pipeline safety and reliability in ensuring that the public's interest is being met, but we certainly see its value in the context in which we speak here today.

The consensus standards developing organizations are leading the way in furthering, "You would do, as I would do." There have developed and issued standards for integrity management for hazardous liquid and natural gas pipelines. They are working on standards for in-line inspection, pressure testing as well as direct assessment. They are also working on standards for qualification of in-line inspection tools as well as the analysts who analyze and interpret the tool run data. And they are working on standards for communications and public awareness programs. These standards will become integral parts of integrity management programs.

I have spoken today about historical analyses and I will finish with a review of an example that we believe demonstrates what we have spoken of today. We believe that Congress established an effective model in the design of the Transportation Equity Act for the 21st Century in 1998. It put the spotlight on unintentional damage to underground facilities as a leading cause of natural gas and liquid hazardous pipeline accidents. It recognized that excavations performed without prior notification or with inaccurate or untimely marking of underground facilities can cause damage that results in serious injuries, fatalities, harm to the environment and disruption of vital services to the public. Finally, it recognized that protection of the public and the environment can be enhanced by a coordinated national effort to improve one-call notification programs, as well as the effectiveness and efficiency of such programs. Congress then established its expectations, as a set of minimum standards, as follows:

1. appropriate participation by underground facility operators;
2. appropriate participation by all excavators; and,
3. flexible and effective enforcement under State law with respect to participation in, and use of one-call notification systems.

Understanding these expectations, pipeline operators, excavators, one-call centers, locators, state pipeline safety organizations, utility contractors and others involved in damage prevention for underground facilities took steps to improve their existing programs. This was accomplished by a numerous initiatives including the Dig Safely Campaign, as well as public outreach and public education programs, among others. Representatives from the Office of Pipeline Safety, State pipeline safety organizations, natural gas and hazardous liquid pipeline operators and members of the public had undertaken an effort to examine and report on the best practices used in preventing damage to pipeline infrastructure. This group spent over two years evaluating and documenting best practices from across all types of energy pipeline systems. These best practices were shared in a report referred to as *Common Ground, Damage Prevention Best Practices Report* in 1999.

We are now beginning to see the benefits of this model in reduced numbers of incidents caused by outside force. We have seen a reduction of more than 25% in the annual incidents from outside force from 1996 through 2001, when examining reportable incidents recorded by the Office of Pipeline Safety.

We encourage you to set expectations and where you deem appropriate minimum standards. This will provide the guidance for consensus standards developing organizations to develop the standards needed to ensure that "you would do what I would do." This will also encourage pipeline operators and the Federal government to engage in cooperative research to develop better tools and improve prevention, detection and mitigation measures for protection of pipelines. We encourage you to enable the responsible regulatory agency to develop the performance and prescriptive-based rules that meet the expectations and minimum standards. Operators that truly seek a competitive advantage will do so by complying with and going beyond those rules. We believe that managing integrity is the price of admission to play in

the energy game, a game that has undergone fundamental change and will continue to do so for years to come.

Mr. Chairman, I want to thank you and the other Members of the House Commerce Subcommittee on Energy and Air Quality for providing me the opportunity to share our perspective this afternoon.

Thank you.

Mr. BARTON. Thank you, Mr. Hereth.

Next we will have Mr. William J. Haener, the Vice President of Natural Gas of CMS Engineer Corporation. Mr. Haener, you have 5 minutes.

STATEMENT OF WILLIAM J. HAENER

Mr. HAENER. Thank you, Mr. Chairman. My name is Bill Haener, and I am the Executive Vice President of the Natural Gas of CMS Energy Corporation, and President of CMS Gas Transmission.

I am testifying both on the behalf of CMS Energy and the Interstate Natural Gas Association of America, the trade association that represents interstate natural gas industry. My written testimony focuses on the commitment of the interstate natural gas pipeline industry to improve the safety and security of our pipeline systems, as well as to improve communications with the public.

We support the issuance of a pipeline integrity rule and hope that the rulemaking process will be finalized this fall. We support the efforts of this subcommittee and the Transportation and Infrastructure Committee to develop and introduce legislation that provides for additional improvements in our already strong safety record.

And hope that as you move forward that you will continue to recognize practical limitations in technology and the need to maintain safe and reliable service to our customers.

Natural gas pipelines are the safest form of transportation and we have a very good safety record, but we are committed to continuous improvement and incident free operations.

We have and will continue proactively to support research programs, while working to improve risk assessment and risk analysis to reach this goal. For example, outside force, or third party damage, has been a significant cause of damage to natural gas pipelines, and the incident that Congressman Sawyer just pointed out in his opening remarks.

And this is the cause of the majority of our serious accidents. We have participated in OPS's review of one-call best practices and the development of the common ground alliance to help reduce outside force damages to our pipelines.

We have also been involved in the Risk Assessment Quality Action Team, the Mapping Quality Action Team, and have participated in other activities proposed by OPS, including efforts to coordinate and improve research on pipeline safety.

OPS has released a notice of proposed rulemaking on the definition of high consequence areas as an important component of the natural gas integrity rulemaking process. INGAA provided constructive comments in an effort to insure the rule is practical, workable, and enforceable.

Integrity management has always been a key component of our safety plan. The industry recognizes the need for a national tech-

nical standard with greater emphasis on risk analysis and sophisticated risk assessment that will provide a comprehensive, systematic and integrated program to further improve the safety of pipeline systems.

The interstate pipeline industry has been working with the American Society of Mechanical Engineers, ASME, the National Association of Corrosion Engineers, NACE, and the American Society for Non-Destructive Testing, ASNT, to develop technical standards.

ASME has issued a comprehensive standard which natural gas pipelines, will use to perform their integrity inspections. We recommend that OPS adopt this standard in their natural gas integrity rulemaking, with a transition period to minimize consumer impacts.

INGAA supports three alternative methods to assess the integrity of natural gas pipelines; hydrostatic testing, internal inspection devices, smart pigs, and direct assessment. Each of these methods, including their benefits and drawbacks, is described in my written testimony.

INGAA, however, does not support a mandated 5 year integrity inspection program. Complying with such a requirement would have detrimental effects on the consumer. It does not have a technical justification, would require an unprecedented effort of material and service providers, and would result in minimal safety improvements.

A Gas Technology Institute report prepared by Battelle, Proposed Re-Verification Intervals for High Consequence Areas, asserts that under worst-case conditions, a periodic review interval of 15 years would be scientifically and structurally appropriate for 95 to 98 percent of all natural gas pipelines.

What we are asking for is flexibility in timing and methodologies to make sure our inspections and repairs occur when the demand for natural gas is lower and we can work with our customers to assure that they have other supply options.

Another aspect of pipeline safety that the industry is in the process of implementing is operator qualification. OPS has recently adopted an Operator Qualification rule that is expected to enable OPS to document that employees who operate and maintain the pipeline are and continue to be qualified for these tasks.

The interstate pipeline industry is currently in the process of completing the initial qualification of individuals performing covered tasks. The deadline for this effort is October 28, 2002.

We have also developed a common methodology to qualify contractors and service providers so we can be effective and efficient at verifying their qualifications. Regarding accident reporting by cause, OPS has adopted a more detailed and specific reporting system with 25 categories.

This new system should provide both OPS and industry with more specific information to better refine risk assessment technologies.

We are also focusing on security of our infrastructure in light of September 11 terrorist attacks and the potential threat of subsequent attacks on our industry. Immediately after September 11,

our industry responded to security and began an assessment of ways to reduce and respond to these terrorists.

As part of this effort, INGAA formed a Board Task Force, which I chair, to oversee the security efforts for the interstate natural gas pipelines, and our focus is on critical onshore and offshore pipelines and related facilities, as well as liquefied natural gas facilities.

We are working with numerous government agencies, including OPS, DOE, FERC, and Homeland Security. Three issues where we may need government assistance are the need for pre-approved waivers for response and recovery to a terrorist attack to occur; relief from antitrust provisions for regional planning and coordination of a critical spare parts inventory; and exemption from the Freedom of Information Act for sensitive information pipelines are required to file with FERC or OPS, while assuring that hose with a need to know can obtain the information they need to participate in the regulatory process.

In closing, Mr. Chairman, I want to assure you that the interstate natural gas pipeline industry takes safety seriously, and we are committed to safety. Thank you.

[The prepared statement of William J. Haener follows:]

PREPARED STATEMENT OF WILLIAM J. HAENER, EXECUTIVE VICE PRESIDENT—NATURAL GAS, CMS ENERGY CORPORATION ON BEHALF OF THE INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

Mr. Chairman and Members of the Committee, my name is William J. Haener. I am Executive Vice President—Natural Gas, of CMS Energy Corporation and President of CMS Gas Transmission, its pipeline and field services division. 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 Panhandle Companies, a unit of CMS Gas Transmission, 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, owns and operates a local distribution company and an intrastate pipeline and storage company located in Michigan.

I appreciate this opportunity to appear at this oversight hearing before the Subcommittee today on behalf of the Interstate Natural Gas Association of America (INGAA). INGAA is the trade association that represents interstate natural gas pipelines in the United States, the inter-provincial pipelines in Canada and PEMEX in Mexico. These pipeline systems transport 90 percent of the natural gas consumed in the United States from the producing areas to the local gas companies.

Millions of Americans rely on clean, efficient natural gas to fuel homes and workplaces, with no 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.

This record is the product of a great deal of hard work and dedication to continuously improve the performance of our industry. While the interstate natural gas pipeline industry has had only 31 deaths and 91 injuries in the last sixteen years, we need to keep working to have none. The interstate natural gas pipeline industry has a long-standing commitment to target zero failures as evidenced by our financial and physical investments not only in the facilities and the people that operate them, but to research and development as well. We have supported research and development of new technologies to help to improve safety for over sixty years mainly through two research groups, the Pipeline Research Council International (PRCI)

founded by the natural gas pipeline industry in 1952, and the Gas Technology Institute (GTI), formerly GRI, which was organized in the 1970s. We have voluntarily spent more that $100 million in the last five years, mainly through these organizations in the development of improved technologies, materials, industry consensus standards and operation and maintenance practices to improve safety.

I want to commend this Subcommittee for holding this oversight hearing on pipeline safety. I would like to give this Subcommittee some background on our industry regarding pipeline safety as well as an update on recent developments regarding integrity management, pipeline security and other actions taken either by OPS or the interstate pipeline industry over the last few years.

BACKGROUND

From the inception of the natural gas pipeline industry in the 1930s to current day, pipeline companies have utilized consensus standards to improve the level of pipeline safety. In 1968, Congress paved the way to adopting and augmenting these standards by passing the Natural Gas Pipeline Safety Act and establishing the Office of Pipeline Safety (OPS).

Currently, natural gas pipeline operators monitor and control safety in many ways. These safety measures include, but are not limited to the use of high quality pipelines materials and corrosion coatings, the use of cathodic protection (a low voltage electric charge) to prevent corrosion of below-ground pipelines, ground and aerial surveys to identify and report unusual activity or to detect leaks through use of gas detectors or discoloration of plants and grasses, hydrostatic pressure testing of new and existing facilities, the use of internal inspection devices (smart pigs) and by following all of OPS's prescriptive regulations.

For example, natural gas pipeline operators are required to constantly monitor the area around the pipeline for changes in population density, a process commonly known as class location analysis. These categories of population density or "class locations" range from rural (Class 1) to heavy urban (Class 4). Natural gas pipelines are required to increase the level of safety of pipelines as the population density around a pipeline increases. When these changes occur, the pipeline operator is required to insure that the installed pipeline design characteristics are commensurate with the new class location design requirements. If it does not meet these requirements, the installed pipe is replaced with new pipe with the appropriate design characteristics or the operating pressure is reduced to increase the safety margin and the frequency of inspections within the new class location is increased. OPS has refined these regulations over the years as additional knowledge is gained.

I also want to assure you that interstate natural gas pipelines' practices are continually being inspected by OPS. As an example, the Panhandle Companies pipeline systems have been inspected by OPS nineteen (19) times, which required approximately forty-eight (48) days over the last two years.

PIPELINE INTEGRITY RULE

As we have stated in our comments to OPS, INGAA and its member companies support development of a natural gas pipeline integrity rule. We are pleased that OPS has released a Notice of Proposed Rulemaking (NOPR) on the definition of "high consequence areas" as an important component of the natural gas integrity rulemaking process. The comment period on this NOPR closed last week. INGAA, as well as members companies and others, have provided what we hope are constructive comments in an effort to insure that the rule is practical, workable and enforceable. We hope that we will see a NOPR on the integrity rule itself in April or May. We would like to have this rulemaking process finalized sometime this fall.

While integrity management has always been a key component of our business plan, the interstate natural gas pipeline industry recognizes the need for a technical standard with greater emphasis on risk analysis and sophisticated risk assessment that will provide a comprehensive, systematic and integrated program to further improve the safety of pipeline systems. The standard should provide a consistent process that an operator of a pipeline system can use to assess and mitigate risks in order to reduce both the likelihood and consequences of incidents. It should require documentation that the inspections, and any necessary follow-up, have been performed. It should also provide a method to enable an operator to allocate resources for prevention, detection and mitigation activities that will result in improved safety and a reduction in the number of incidents.

Over the past few years, the natural gas pipeline industry, along with the American Society of Mechanical Engineers, the National Association of Corrosion Engineers and others, has undertaken a number of technical initiatives to provide answers and solutions to the engineering and scientific issues related to the integrity

process. After two years of intensive work by a number of technical and scientific experts under the auspices of the Gas Technology Institute, 20 reports have been issued that now provide the technical basis for an integrity management standard. These reports have been shared with OPS and the state pipeline safety regulatory bodies. The American Society of Mechanical Engineers has just now issued a comprehensive standard for natural gas pipelines regarding integrity inspections. As OPS develops their integrity rule for natural gas pipelines, OPS can chose to adopt this standard in whole or in part.

During the course of these initiatives, INGAA has assessed the effectiveness of our present integrity management practices from three perspectives—scientific analysis, impact on consumers and actual results. As a result, INGAA has recommended to OPS that three alternative methods be used to assess the integrity of pipeline systems on a periodic basis: hydrostatic testing, use of internal inspection devices (smart pigs) and direct assessment. Each of these methods has advantages and disadvantages.

For example, although hydrostatic testing is a useful tool to prove structural integrity, a pipeline must be taken out of service for a number of days and sealed off during the test. Water is pumped into the pipe and pressurized to approximately 125 percent of the design operating pressure of the pipeline. This pressure is maintained for at least 8 hours and the pipeline is checked for water leaks. At the conclusion of the test, the water is released in a manner that ensures safety and compliance with approved environmental requirements; the pipeline is then dried and placed back in service.

Internal inspection devices or smart pigs provide another integrity assessment tool. They have been in use over the last two decades. Smart pigs are large cylindrical vehicles containing sophisticated sensors and data collection devices that measure the wall thickness and internal geometry of the pipe. The information a pig run provides is used to determine the structural integrity of the pipe. Smart pigs have a limited application because they can typically only be utilized in pipelines with a constant inside diameter and they have difficulty traversing around sharp bends. Much of the industry's pipeline system was designed and constructed long before the concept of smart pigging was developed. Such pipeline systems contain reduced-sized valves and lack the facilities required for launching and receiving smart pigs. Because of these restrictions, only about 30 percent of interstate natural gas pipelines are designed or have been modified to be piggable, i.e., capable of accommodating the passage of a smart pig. Approximately 25 percent more can be made piggable by adding launchers and receivers, i.e., the facilities required to insert and remove a smart pig from the pipeline, and minor modifications (we expect a great deal of this will be made piggable as a result of the rule). Another 43 percent can only be made piggable with very extensive modifications (changing out of pipes, valves, bends, etc), while 2 percent cannot be pigged at all. After modifications are made, the smart pigging of a pipeline can be completed with the pipeline in-service and only requires a pressure reduction at the time of inspection.

Hydrostatic testing and modifying a pipeline to make it "piggable" require that the pipeline be taken out of service for a period of time (average 18 days for the former and 30 days for the latter).

The third integrity assessment process is the direct assessment inspection process. In this instance, electronic measurements of the pipeline—including data from the cathodic protection system—are combined with statistical methods to identify portions of a pipeline to be excavated and exposed. The pipeline is visually inspected for loss of coating, external corrosion, etc, measurements are made to detect the presence of internal corrosion and other tests are performed. This occurs while the pipeline remains in service, though often at a reduced pressure. This avoidance of pipeline downtime is a critical factor in many system operations.

The rule should permit pipeline operators to avail themselves of new technology as it becomes proven and practical. New technologies may improve an operator's ability to prevent certain types of failures, detect risks more effectively or improve the mitigation of risks. As I had mentioned earlier, the natural gas pipeline industry has spent approximately $100 million over the last five years on pipeline safety and OPS is obtaining additional funding this year for R&D. INGAA is also working to obtain funding for DOE pipeline R&D. A coordinated effort amongst all of these organizations will be imperative to insure that available research funds are optimized in order to bring new technologies to bear on the challenges that face the industry.

Congress should not mandate that the rule require a specific frequency of inspection, such as five years, as this can have detrimental effects on the consumer, does not have technical justification and has minimal safety impact. The GTI report prepared by Battelle, "Proposed Re-Verification Intervals for High-Consequence Areas" asserts that, under worse case conditions, a periodic re-verification interval of 15

years would be scientifically and structurally appropriate for 95 to 98 percent of all natural gas pipelines.

Energy and Environmental Analysis, Inc. has prepared a new report called "Consumer Effects of the Anticipated Integrity Rule for High Consequence Areas" for the INGAA Foundation. This study reports that the price impact to consumers due to pipeline capacity reductions is the sum of mainline and delivery lateral impacts and is dependent on the frequency of testing. Under the best circumstances, the projected impact ranges from $6.3 billion for the 14-year inspection cycle to $17.6 billion for the 5-year inspection cycle. These costs, for the most part, would result when demand for natural gas is high and the pipeline capacity to deliver the natural gas is not available because of these inspections or modifications. These costs would be incurred by consumers on pipelines that run at high capacity and/or on laterals that are the sole source of supply for a local distribution company, gas-fired electric generation or an industrial load.

There are additional costs to consumers that are not accounted for in the study. The study does not include the cost to the pipeline companies or local distribution companies of implementing the integrity management rule. These costs are expected to be $2.5 billion over 10 years for transmission pipelines and $4.5 billion over 10 years for local distribution companies. The study also does not include cost impacts to industrial users such as the need to reduce output or shut down a plant due to lack of needed capacity during integrity inspections.

In spite of this point, I do want to emphasize that the industry can and will support the integrity management rule. However, what we need is flexibility in timing and methodologies to make sure our inspections and repairs occur when the demand for natural gas is lower. That way we can work with our customers to assure that they have alternate supplies or sufficient storage to meet their short-term needs and allow us to use the technology and processes that are effective.

OPS has received a significant increase in their budget over the last two years. This will enable them to improve their risk analysis and risk assessment protocols as well as improve the training that they give their inspectors and state inspectors to better prepare these inspectors to oversee implementation of the integrity rule by pipeline companies.It is clear that OPS has the statutory authority to implement these rules, given the fact that they have issued rulemakings for hazardous liquid pipelines and are moving forward on a rule for natural gas transmission pipelines. INGAA encourages OPS to move quickly on this rule.

OPERATOR QUALIFICATION STANDARDS

The Operator Qualification rule required that pipeline operators must have a written qualification program by April 27, 2001. This new program is expected to enable OPS to document that employees who operate and maintain the pipeline are and continue to be qualified for these tasks. The interstate pipeline industry is currently in the process of completing the initial qualification of individuals performing covered tasks and the deadline for this effort is October 28, 2002. INGAA and its member companies have also developed a common methodology to qualify contractors and service providers, so we can be effective and efficient at verifying their qualifications.

PIPELINE ACCIDENT REPORTING BY CAUSE

The natural gas pipeline industry has been reporting detailed information regarding pipeline accidents by, in essence, five categories of causes—outside force damage, construction/material defect, external corrosion, internal corrosion and a category called "other" since the inception of the OPS program. We have been and continue submitting an annual report to OPS regarding all accidents that occurred within that year along with an inventory of our pipe. This information has been used by OPS and the industry for extensive data analysis and trending.

OPS has now adopted a more detailed and specific reporting system. This new system will have 25 categories. These categories are basically grouped into three headings: time dependent—examples are internal and external corrosion; time independent—examples are third party damage, operator excavation damage and earth movement; and stable—such as pipe manufacturing or construction defects. This will provide both OPS and the industry with more specific information on causes of accidents to better refine our risk assessment technologies and to make other necessary changes to further mitigate accidents.

COMMUNICATIONS

INGAA is sensitive to the importance of public perception. The demand for natural gas is growing and is anticipated to increase 32 percent (from 22.8 Tcf today

to 30 Tcf) by about 2010 to 2012. The current natural gas pipeline infrastructure cannot support this increase in demand. New pipelines will need to be built.

The current environment provides both opportunities and challenges for growth of natural gas use. INGAA and its member companies are undertaking a project to improve our communications with the public. We are convening member company representatives to collect and develop "best practices" that will then be deployed by holding industry workshops. We will also be working with OPS/RSPA and FERC. Out of these efforts, we expect to improve our communication with the public so that they can better understand pipeline safety and other issues. We hope to complete this effort before the end of this year.

PIPELINE SECURITY

In the wake of the September 11 attacks, our industry immediately increased security and began an assessment of ways to reduce and respond to terrorist threats. As part of this effort, INGAA formed a Board Task Force, which I chair, to oversee the security efforts for interstate natural gas pipelines. The focus is on critical onshore and offshore pipelines and related facilities, as well as liquefied natural gas (LNG) facilities. We have reached out beyond our membership to others in the industry who have these types of natural gas transmission pipeline facilities and included them on the task force.

To date we have ensured that every INGAA company has designated a member of its senior management and made them responsible for security. Our task force has assessed our industry security practices, given the new threats, and are developing common risk based practices that can be utilized by our members. These practices will cover preparation (having a plan), detection, deterrence, response to an incident and recovery from an incident. We are categorizing those facilities that are critical either to the operation of the pipeline or in areas where there is high population density near the pipeline. We are also categorizing those facilities that are critical to public service, i.e.; provide needed service to the military, government, industrial complexes, electric power plants and communities.

INGAA has been working with our customers and suppliers, AGA, APGA, EEI and API to develop a common understanding and nomenclature for threats and security practices. We are working with DOT and DOE and others in the natural gas industry on consensus security practices that all pipelines will implement. This should be completed later this spring. We have determined that we can be more prepared to respond to a terrorist incident if we formalize cooperation among companies on spare parts exchange. Additionally, we are assessing the need for separate regional inventory systems of critical items. We are also reviewing the effectiveness of our present communications concerning security with the public, local emergency planning committees, local, state and federal law enforcement and government officials. We are working cooperatively with a number of federal departments and agencies including the Office of Pipeline Safety, DOE, FERC, the FBI, Homeland Security, and CEQ. INGAA would like to work with the Committee so that any legislation regarding security reflects the efforts being made with government agencies and others in the natural gas industry.

We are also currently working with the Administration on issues that need resolution and that may require assistance from Congress. The first issue is the need to have pre-approved permit waivers for response and recovery to a terrorist attack. If a facility experiences a terrorist attack, it will become a crime scene and we will be denied access. However, the need will exist for us to continue transporting natural gas and we will have to quickly find a new site upon which to rebuild at the minimum, a temporary facility. Physically, we can reconstruct quickly and we are verifying the availability of the needed spare equipment, but we need a quick permit approval process to expedite the reconstruction.

Our second issue is the possible implication of antitrust law to industry/regional planning to deal with supply disruptions as well as development and coordination of a critical spare parts inventory. We are currently performing a review of antitrust implications and are preparing to talk to the Department of Justice and others about what flexibility we may have under the laws to participate in regional tabletop tests to better coordinate planning for and reaction to a terrorist event. Our industry needs to be assured that we can communicate among pipelines, with producers, our customers and others to ensure the flow of natural gas in the event of a significant incident.

Finally, under these extraordinary conditions, INGAA has concerns with the tension between the need to restrict access to sensitive pipeline infrastructure and operational information and the public's right to know. We want to make sure that this sensitive information about pipelines is exempt from disclosure under the Free-

dom of Information Act (FOIA) and, therefore, will not able to be distributed or displayed to permit easy access by terrorist groups. This type of information includes detailed pipeline maps, information that can make a specific area attractive to a terrorist (such as pipeline locations near hospitals, schools, etc.), and engineering information that identifies the strategic importance of a pipeline facility including schematic flow charts. We need assurance that FOIA specifically exempts the release of critical energy infrastructure information. If not, once an agency releases the information for legitimate requests under FOIA, it cannot prevent its release to any other requestor—even a terrorist.

But we also need to make sure that those who have the "need to know" about a pipeline in their local area have adequate access to information. This includes emergency responders, our neighbors who live next to a pipeline, and key state and federal officials. However, under FOIA, once the information is released to them, it is then considered to be "public" and released to anyone who asks for it. For example, a recently published National Environmental Policy Act (NEPA) report for a new pipeline shows exactly where the pipeline is in relationship to schools, hospitals, etc. Although it is clearly of importance to a community to know where there is underground infrastructure, such information, in the wrong hands, could pose a security threat. Pipelines and our regulators need to walk a fine line to assure that those who need the information get it (perhaps with requirements that they can't release it or put it on their websites) while limiting general distribution of detailed information so that it does not get into the wrong hands.

There are other issues on which we are working with the Administration and hope that they will be resolved. We are pleased about the recent announcement by the Head of Homeland Security Governor Tom Ridge regarding a government-agreed upon alert system and the use of comment nomenclature. This is a good step forward.

CONCLUSION

I want to thank this Subcommittee for inviting me to testify today. INGAA and its member companies take pipeline safety and security as top issues of importance. We want to work with this Subcommittee and the full Committee to obtain sound pipeline safety reauthorization legislation in this Congress.

Mr. BARTON. Thank you, sir.

We now would like to hear from Mr. Shea.

STATEMENT OF WILLIAM SHEA

Mr. SHEA. Mr. Chairman, and members of the subcommittee, my name is Bill Shea, and I am President and CEO of Buckeye Pipeline Company. Buckeye owns and operates facilities in 11 States in the Northeast, Midwest, Texas, Louisiana, and Florida. Buckeye is headquartered in Emmanaus, Pennsylvania.

I am here today representing the Association of Oil Pipelines and the Liquid Pipeline Companies of the American Petroleum Institute. Together, these two organizations represent the vast majority of domestic oil pipelines.

The 200,000 miles of crude oil and petroleum product pipelines in this country are essential to keeping our economy moving. Oil pipelines provide about 68 percent of domestic transportation for crude oil and petroleum products.

Another 27 percent is moved by water, and about 5 percent by truck or rail. Pipelines are also very efficient. While gasoline prices vary considerably from time to time, and place to place, average pipeline transportation costs is consistently around 2 to 3 cents per gallon.

The oil pipeline industry also has the best safety record of any of the transportation modes and one that is getting safer as this chart, or the two charts over to your left would indicate.

The industry is committed to improving that record until all incidents are eliminated. In order to achieve that goal the liquid pipe-

line industry has undertaken first to use comprehensive risk management tools and techniques to reduce the likelihood of pipeline incidents and eventually to eliminate them.

Second, collect, analyze, and understand the industry's safety and environmental performance, and use that information to reduce risks and drive accidents to zero.

Third, to take responsibility for all aspects of excavation damage prevention, even those that pipeline operators can only influence and not control. Fourth, provide the best possible geographic information on pipeline systems to be used by all stakeholders and pipeline safety.

And fifth to drive industry sponsored initiatives for improved safety and environmental performance that exceed government requirements.

As a result of a 1994 pipeline safety summit, OPS and industry undertook a collaborative effort to explore risk-based solutions as a way to drive continuous improvement in safety.

Congress approved that effort and authorized the risk demonstration program to test and measure the application of risk management to the concepts of pipeline safety. OPS found those approved risk demonstration projects enhanced safety on the individual systems, and enabled OPS to learn much more about the operations of the affected pipeline and the pipeline operator, than would have been learned from periodic inspections.

The Office of Pipeline Safety's integrity management rule build on those lessons. These rules, the last of which became final earlier this year, stress risk assessment, prioritization, data and information integration from multiple sources, and performance measurement and tracking.

OPS has already begun assessing the progress under the rulemaking in a series of quick hit reviews reviewing individual operator's programs for effectiveness. Now, I have had the personal experience with the quick hit program, as Buckeye was the first pipeline operator to go through this process.

We believe that our focus on risk-based approaches is showing results. The number of liquid pipeline incidents in 2000 and 2001 significantly declined, and may signal the beginning of a new long term trend.

OPS has also issued a number of recent risk-based rulemakings and undertaken other initiatives aimed at fostering improved risk management.

Our industry has supported these efforts, which include enhanced data collection, support for the Common Ground Alliance, and improved mapping in the form of a GIS based national pipeline mapping system, stronger corrosion rules, and operator qualification rules that require operators to objectively demonstrate to regulators that their employees, and/or contractors are qualified to perform specific tasks and can recognize and respond to conditions that may be abnormal.

But the liquid pipeline industry is not only working with OPS to foster continuous improvement through regulation. Industry recognizes that there are still significant advances to be made in the understanding of pipeline performance and have formed an industry-wide environmental and safety initiative.

Our efforts in 2002 aim at fostering strong and effective Federal regulation of pipelines, refining data management, and performance methods, engaging with Common Ground Alliance to target improvement and underground damage prevention, and many other initiatives.

In summary, we believe that the movement to a risk-based approach in pipeline safety regulation has resulted in significant achievement and enhancements in DoT's pipeline safety program, improvements in pipeline management by operators, and what we believe is a trend in an improved safety record.

Congress should foster these improvements through appropriate support for risk based decision and a rulemaking process aimed at addressing the greatest risks first. Thank you.

[The prepared statement of William Shea follows:]

PREPARED STATEMENT OF BILL SHEA, PRESIDENT AND CEO, BUCKEYE PIPE LINE COMPANY, L.P. ON BEHALF OF THE ASSOCIATION OF OIL PIPE LINES AND THE AMERICAN PETROLEUM INSTITUTE

INTRODUCTION

Mr. Chairman, Members of the Subcommittee, my name is Bill Shea. I am President and CEO of Buckeye Pipe Line Company, L.P. Buckeye owns and operates nearly 3,900 miles of pipelines carrying refined petroleum products, including gasoline, jet fuel, diesel fuel, heating oil and kerosene. We also operate approximately 1,200 miles of pipeline for other owners. We own or operate facilities in 10 states: Illinois, Indiana, Ohio, New York, Pennsylvania, New Jersey, Connecticut, Massachusetts, Texas, and Florida. Buckeye is headquartered in Emmaus, Pennsylvania.

Currently I serve as Chairman of the Executive Committee of the Association of Oil Pipe Lines (AOPL) and a member of the Pipeline Committee of the American Petroleum Institute (API). I am here today testifying on behalf of both AOPL and API. The Association of Oil Pipe Lines is a trade association of owners and operators of crude oil and refined petroleum product pipelines. AOPL's members move over 80% of the oil transported in this country. The American Petroleum Institute represents over 400 companies involved in all aspects of the oil and gas industry, including exploration, production, transportation, refining, and marketing. Together, these two organizations represent the vast majority of domestic oil pipelines.

THE LIQUID PIPELINE INDUSTRY

Mr. Chairman, the background information for my testimony is presented in the information packet included with my testimony. I am also releasing to the Committee our most recent publication, *The U.S. Oil Pipeline Industry's Performance,* an updated report prepared by Cheryl J. Trench of Allegro Energy Group.

There are approximately 200,000 miles of crude oil and petroleum products pipelines in this country. This liquid pipeline infrastructure is an essential tool in keeping our economy moving. On a barrel-mile basis, pipelines provide about 68% of the crude oil and petroleum products transportation domestically. Another 27% is moved by water and about 5% by truck or rail. (One barrel transported one mile is a barrel-mile.)

The gasoline you put in your car most likely gets to you in large part by pipeline. Pipelines deliver directly to our nation's military bases and airports the jet fuel that powers our air force and our aviation industry. The trucking system relies on diesel fuel delivered by pipeline. Millions of heating oil and propane customers rely on pipelines to bring fuel into their area. Industries across America rely on pipelines to deliver the feedstock they use to make many products that are essential to our homes and businesses, like plastics and pharmaceuticals.

Pipelines are an extremely efficient petroleum transportation system. While gasoline prices at the pump may vary considerably from time to time and place to place, the pipeline transportation contribution to the cost is consistently around 2-3 cents. We accomplish our job so efficiently that America's oil pipelines transport 16.8% of all U.S. freight, but represent only 1.9% of the nation's freight bill.

Pipelines also have very low air emissions compared to other modes of transportation. Pipelines move oil in a closed environment, usually underground, propelled by centrifugal force motors, usually electric. For this reason, pipelines are able to

move huge amounts of fuel without contributing to our ambient air pollution problems.

THE INDUSTRY'S SAFETY RECORD

The U.S. liquid pipeline industry has a strong safety record. Yet it is a record that we in the industry are striving constantly to improve. In the ten years ending with 2001, there were 21 deaths and 117 injuries associated with liquid pipeline accidents. In three of those years, including 2001, there were no fatalities, and that is the goal we seek. Pipeline transportation of fuel is far and away the safest form of transportation. For example, on a per gallon basis, deaths are 60 times more likely to occur when transportation is by truck rather than by pipeline. Many industries would be envious of our record. However, we industry members believe that pipeline incidents, especially those that involve injury to persons or the environment, are unacceptable. In this way, we are like those impacted by these incidents. We would like to see them eliminated.

Our efforts to improve safety have shown results over the long term. 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 markedly, whether measured in number of spills or volumes released. The number of pipeline incidents has decreased by 56% and the volume released has gone down by more than 60%. These improvements have occurred at the same time that the volume transported to serve our nation's energy needs has increased. Viewed on a barrel-mile basis, volumes spilled have decreased by over 70%.

The year 2000 set record lows for both the number of incidents and the volumes spilled, and 2001 looks even better. The low numbers have not happened coincidently. They reflect a concerted effort by the industry and its regulator to improve safety over the long term. The records set in 2000 and 2001 are encouraging, but we are determined to do all we can to turn these recent promising short-term results into a new long-term trend. No spill of any size should be tolerated, and our goal must be to eliminate spills entirely.

GOAL FOR TODAY'S TESTIMONY

It is wise periodically to step back and review long term objectives and our progress towards those objectives. Today I would like to review five major long-term objectives the pipeline industry has undertaken and our progress toward meeting those objectives.

Those five objectives are:

- To focus the pipeline industry on risk reduction as a better way to eliminate incidents, rather than on chasing individual actions or activities directed at preventing specific types of accidents;
- To collect, analyze, and understand the pipeline industry's safety and environmental performance and use that information to reduce risk and drive accidents to zero;
- To take responsibility for all aspects of excavation damage prevention, even those which pipeline operators can only influence, not control;
- To provide the best possible geographic information on pipeline systems to be used by all stakeholders in pipeline safety; and
- To undertake an industry driven initiative focused on improved safety and environmental performance.

As an oversight committee, it is your charge to evaluate the overall progress the industry has made and the role of the federal government through the Office of Pipeline Safety in policing the pipeline industry.

RISK REDUCTION—CHANGING OUR EXPECTATIONS

Today's pipeline safety record is the result of a long-range plan that had its inception back in the early nineties. There were several initiating events. In 1992, the Congress reauthorized the pipeline safety program to add protection of the environment to the mandate of the Department of Transportation's Office of Pipeline Safety (OPS) pipeline safety program. This was similar to mandates imposed on the maritime industry by the Oil Pollution Act of 1990.

The OPS is a relatively small agency that had previously been responsible primarily for public safety as it relates to pipeline operations. In addition to expanding the scope of the OPS's responsibilities, the 1992 act had also included a number of prescriptive directives to the agency and to the industry, each a specific solution to a single accident.

After a number of proposed rules were severely criticized, the OPS called a Pipeline Safety Summit in June 1994 to discuss with all stakeholders the state of pipeline safety. The public, state and local regulators, and members of the pipeline industry expressed significant concerns over the acceptability of then operational practices, regulations, and their enforcement. Participants also identified evolving environmental sensitivities and priorities as a factor affecting pipeline risks and operations, and the limited resources available to the agency and the industry to address the many expectations of Congress and the public. The OPS and the liquid pipeline industry recognized the need to address these risk-related concerns in a thoughtful way, with an emphasis on reducing risks while communicating and demonstrating to all stakeholders that industry and government can work together in a responsible manner.

The OPS and the API's General Committee on Pipelines formed the Risk Assessment Quality Action Team as a cooperative joint venture to explore the applicability and potential benefits to the liquid pipeline industry of formalized risk management programs, such as those that had been used successfully by the nuclear, chemical and refining industries to improve safety performance. For over a year, the Team sought input from many risk management experts including those at the Harvard Center for Risk Analysis. On June 20, 1995, the Team issued a formal report on the use of risk management in the liquid pipeline industry, identifying a number of areas within the OPS program and the liquid pipeline industry that would benefit from risk management techniques and practices. The Team adopted a number of action items aimed at improving the management of pipeline risk, including development of industry guidelines on the application of risk management, a decision to initiate training of OPS and industry personnel in risk management techniques, and adoption of collaborative efforts to improve the quality of risk models and pipeline failure and operating data necessary to support these models. The Team also agreed to move forward with risk management demonstration projects to test the validity of using risk management in the administration of a pipeline safety program.

RISK-BASED INTEGRITY MANAGEMENT RULES

After Risk Assessment Quality Action Team finalized its recommendations, OPS began considering how to incorporate the concept of risk reduction into the pipeline regulatory program. OPS began by developing a program for risk-based demonstration projects to test and measure the application of these new concepts into pipeline safety. Congress sanctioned these efforts through revisions to the pipeline safety program adopted as part of the reauthorization of the pipeline safety act in 1996. Ultimately, OPS approved seven demonstration projects testing alternatives to the pipeline safety regulations that offered equal or greater safety than the prescribed rules. Under the program, companies volunteering to participate also agreed to significant involvement in their operations by OPS inspectors and other personnel. At the end of the demonstration period, OPS found these projects had enhanced safety on the individual systems and had enabled OPS to learn much about the operations of the affected pipeline, as well as the pipeline operator, beyond the portion of the pipeline involved in the demonstration project.

OPS then focused on developing new regulations around managing system integrity, and concentrated on four desired outcomes:

- Accelerating integrity assessment of pipelines in High Consequence Areas;
- Improving integrity management systems within companies;
- Improving the government's role in reviewing the adequacy of integrity plans; and
- Providing increased public assurance that risks are being effectively reduced.

As now published, the hazardous liquid integrity management rules propose initial, or baseline, inspections of all pipeline systems that are in or could affect High Consequence Areas. These inspections, typically conducted using sophisticated electronic in-line inspection tools or physical strength tests of the pipeline, will be concentrated in areas where hazardous liquid pipeline releases could have more severe consequences. Based on the initial assessment, operators will be required to repair defects, take specific mitigative actions to protect certain High Consequence Areas, reevaluate response plans, as well as integrate other integrity improvement efforts and activities, such as the effectiveness of one-call programs, into post assessment risk reduction actions.

One of the major efforts under this rulemaking was defining those resources that require additional protective measures. OPS assembled a team of government and private stakeholders to develop definitions based on the guidance offered by Congress in the 1996 reauthorization. This multi-year effort resulted in the final rule defining specific areas based on their ecological sensitivity or their use as drinking water supplies.

Under the integrity management rules, operators of more than 500 miles of pipelines must develop a baseline integrity plan by March 31, 2002. Smaller operators are required to have their plan in place by February 13, 2003. In the baseline plan, an operator must identify the highest risk 50% of segments covered under the rule and schedule those segments for inspection and evaluation within three and a half years. The remaining 50% must be evaluated within seven years. Subsequent inspections must then occur on a cycle of no longer than five years. Many operators are finding that the efficient use of internal inspection tools and the tool vendors' resources will lead to as much as 90% of the actual mileage being inspected in the early period.

OPS has already moved to enforcement of the new rule and is conducting a series of "Quick Hit" inspections to review operators' diligence in identifying High Consequence Areas along their pipeline systems and taking a first look at baseline assessment plans. These inspections, generally conducted by three inspectors visiting the offices of the affected pipeline, are more in-depth and require a better understanding of pipeline operations than traditional pipeline inspections. The Quick Hit inspection teams are not only identifying strengths and weaknesses in the operators' baseline plans, but also are training inspectors to conduct comprehensive reviews of pipeline systems. The Quick Hit inspections will be completed by the end of April and comprehensive reviews of operator integrity management plans will follow.

The comprehensive risk-based approach under the new rules requires a real change in culture for many operators and inspectors. OPS is stressing risk assessment, prioritization, data and information integration from multiple sources and performance measurement and tracking. Judging from other industries where this approach has been proven, real risk reduction and improved system integrity will be the result. However, the effectiveness of this approach can only be proven over time. We hope that the significantly reduced number of incidents in 2000 and 2001 are the beginning of a long-term trend that shows a steady improvement in pipeline integrity and a decrease in pipeline incidents.

USING DATA TO REDUCE RISK

The recommendations from the Risk Assessment Quality Action team also formed the basis for a new set of initiatives. Risk-based decision-making is very much dependent on data that can be used to identify and prioritize risk. The OPS and industry began to look at existing data in new ways and tried to determine what additional information might need to be collected. OPS data was reviewed and analyzed to look for strengths, weaknesses, and means to improve the data that would support analytical work.

As a result, the industry (with the encouragement of OPS) initiated in 1999 the Pipeline Performance Tracking System (PPTS), a groundbreaking effort to collect more meaningful data on spills, information that would first aid in understanding spills and thus in preventing them. Participants in this voluntary program (currently more than 50 oil pipeline operators) report any spill of five gallons or more, and any smaller spills to water. For spills of five barrels or more, participants provide detailed data on the incident's causes and consequences. In addition to accident information, PPTS collects system-wide information once a year on mileage, commodities moved, decade of construction, pipeline diameter and so forth that will allow industry also to look at *rates* of incidents, not just total numbers.

OPS has taken advantage of the industry's experience with data collection to develop a new regulation reducing the federal reporting threshold from 50 barrels (2100 gallons) to 5 gallons, requiring more concise cause differentiation, and providing greater detail about specific accidents. The final rule revising the pipeline incident reporting form—issued January 8, 2002 (FR Doc. 02-266)—is designed to gather much better information from which the causes and consequences of accidents can be assessed.

OPS is also planning to move forward with a rule to collect infrastructure information about hazardous liquid pipelines that will enable OPS to conduct accident evaluations, including trend analysis. The hazardous liquid pipeline industry supports this effort.

A HOLISTIC APPROACH TO UNDERGROUND DAMAGE PREVENTION

Excavation damage is the cause of the largest amounts of lost volumes on liquid pipelines and the greatest cause of gas pipeline incidents. Pipeline operators must often depend on the actions of others to reduce and eventually eliminate excavation accidents. The work on risk assessment and risk management provided a model for another major joint OPS/industry effort—the Damage Prevention Quality Action Team. OPS worked first with the liquid pipeline industry and then with all stake-

holders to develop recommendations on reducing excavation damage to pipelines—and ultimately to all underground facilities. The key to preventing excavation damage is to ensure that every party does its job well, using proper procedures and understanding the impact of their task. At the center of excavation damage prevention is the "one-call" program. Under a one-call program, an excavator (or homeowner) telephones the state or regional one-call notification center to give notice of intent to dig in a specific area. The center then acts as a clearinghouse, informing the operator of any potentially-affected underground facility: liquids and natural gas pipelines, utility and telecommunications cables, and water and sewer lines. The facility operator then provides specific location information to the excavator and marks its underground facility in the area of the proposed digging. One-call programs are generally governed by state law. One-call centers are typically funded by the underground utility operators, usually on a per call basis.

The excavator must make a phone call, the operator must understand whether its facilities are involved in the area of work, the locating service must mark utilities accurately, and the excavating contractor must dig with care. Any breakdown in the chain can lead to accidents.

One of the keys to preventing excavation damage to underground facilities through one-call centers is awareness. OPS and the industry next turned to developing and testing a new communications program to raise excavator awareness of underground utilities. The Dig Safely campaign, now in use nationwide, has developed a video, a national 800 number where excavators can obtain information about their local one-call program, and a universal dig safely logo that all excavation companies and equipment rental companies are encouraged to place on all equipment.

All parties to the damage prevention effort also supported the passage of Subtitle C of Title VII of the Transportation Equity Act for the 21st Century (P.L. 95-178), a one-call notification program to promote enhancements in state underground damage prevention programs. This statute also authorized a multi-stakeholder study of underground damage prevention best practices that came to be called the "Common Ground" study. Building on the success of this study process in brining together the key interests in underground damage prevention, OPS and the participants in the damage prevention effort created the Common Ground Alliance to provide for an ongoing private sector based focus on damage prevention best practices. The purpose of this nonprofit organization is to ensure public safety, environmental protection, and the integrity of services by promoting effective damage prevention practices. The Common Ground Alliance provides a forum where all affected interests can participate as equals to address issues in underground damage prevention. The Alliance's activities include the promotion of R&D efforts to develop new damage prevention technologies, the identification and dissemination of best practices, and acting as a clearinghouse for the collection, analysis and dissemination of damage prevention data. The Alliance has also taken responsibility for implementing the Dig Safely campaign.

OPS and industry are also seeking further improvements to underground damage prevention in the current reauthorization of the pipeline safety program. Among these are increased penalties for those who fail to contact their one-call system and damage a pipeline facility as a result. We also seek broaden application of these proven one-call systems to all excavation activities, including requiring use of one-call systems by state and municipal excavators and their contractors. In many states, government excavators and contractors are not required to use the one-call system.

GEOGRAPHIC INFORMATION—CREATING THE NATIONAL PIPELINE MAPPING SYSTEM

Critics of the pipeline industry, including the National Transportation Safety Board, Congress, public safety advocates and communities expressed a desire for much better geographic and system information about pipelines. Building again on the team approach, the OPS formed a Mapping Quality Action Team to determine how best to address these concerns and expectations. The result of the multiyear team effort was the creation of the voluntary National Pipeline Mapping System (NPMS). Under this program, pipelines provide information in certain prescribed formats to state-based pipeline mapping information depositories. This information is then incorporated into a GIS-based National Pipeline Mapping System.

The liquid pipeline industry (through its individual operators) has voluntarily provided necessary information on 90% of systems to the NPMS. The natural gas industry, which has significantly more mileage than the liquid pipelines, has supplied information on 50% of the industry's mileage.

This information was available on-line until the events of September 11, 2001. The OPS has taken this information off the publicly accessible internet based NPMS

and now provides access to emergency responders, local officials, industry members and others upon a specific determination based on need. As appropriate security measures are put in place, OPS expects to make more of this information available upon request, if not on-line.

IMPROVED AND UPDATED CORROSION RULES

A detailed review of incident data revealed that corrosion (internal, external, micro-biological) is the leading cause liquid pipeline incidents (although more volume is released through third party damage). Industry engages in a number of different activities to combat corrosion ranging from the application of enhanced coatings to cathodic protection, and from the performance of close interval surveys to internal inspections. Corrosion control is a challenge for the entire pipeline industry. OPS also initiated a number of different approaches focused on reducing corrosion on pipelines, with mixed success. In 1998, OPS began a coordinated rulemaking process seeking input from corrosion experts, particularly the National Association of Corrosion Engineers, and all stakeholders. The resulting rule, issued December 27, 2001, updates and expands OPS regulations designed to prevent pipeline incidents involving corrosion.

OPERATOR QUALIFICATIONS

Today's pipeline workforce is very well qualified. Operator error is not a significant contributor to accidents when compared with excavation damage or corrosion, for example. Even so, we recognize OPS needs to be able to assure the public that operators do have a qualified workforce and that federal inspectors are routinely evaluating employee capabilities and knowledge. Under rules promulgated several years ago, OPS crafted a set of requirements based on specific tasks required to be performed under the pipeline safety regulations.

OPS has not mandated a single procedure or test by which operators are qualified. Instead, OPS's rule requires the operator to demonstrate that its employees and/or contractors are qualified to perform specific tasks and that they can recognize and respond to conditions that may be abnormal. These skills must be demonstrated using various types of evaluations, including written and performance testing. The burden is on the operator to demonstrate to OPS that employees or contractors will be able to perform as expected.

The pipeline industry, through the API Subcommittee on Training and the Consortium on Operator Qualifications, has developed guidance materials, a recommended practice, and standardized assessments, and is developing supporting curricula for all the pipeline safety and maintenance tasks that fall under the operator qualifications requirements.

PIPELINE SECURITY

In the aftermath of the terrorist attacks of September 11, 2001, liquid pipeline operators took prompt action to protect the public, employees and facilities. Employees were made aware of the severity of the threat and the operator's commitment to address this newly defined risk. Operators went on alert and remain on alert. Operators began reviewing procedures, reducing and restricting access to facilities, tightening security procedures, rerouting transportation patterns near key facilities, closely monitoring visitors and activities near key facilities and making capital improvements to harden facilities. These actions were undertaken without direction from government but in coordination with the Office of Pipeline Safety and later, the Department of Energy and the Office of Homeland Security. Pipeline operators, like other industries, are looking to government to provide information about threats wherever possible, to deploy police power quickly and intelligently, and to assist in recovery in the event of an attack.

The federal government could provide additional assistance in the aftermath of an attack to ensure quick restoration of critical pipeline services and to minimize the disruption of energy supplies to consumers. With regard to recovery, we believe there is a particular need for the government to review its emergency authorities and develop workable plans for emergency access to provide alternate rights-of-way around attack sites. After a successful terrorist attack, the attack site may be inaccessible to the pipeline operator for some time due to contamination or because it has become a crime scene. Yet the public interest will be in the earliest resumption of service possible. Without emergency rerouting authority, service resumption may be unnecessarily delayed.

With respect to pipeline security, there is little question in our minds that planning for and putting deterrence in place against potential terrorist attacks, and planning for recovery from such attacks fit well into a risk based approach to pipe-

line integrity. Without government mandate, the pipeline industry is developing specific guidance for incorporating security planning into operator pipeline integrity plans. This is being done in consultation with the Office of Pipeline Safety and other federal agencies with experience and expertise in security planning and implementation. Liquid pipeline operators are familiar with the techniques of risk management in safety planning, so it seems to us entirely appropriate and natural to extend these techniques to security planning.

INDUSTRY INITIATIVES

The development and implementation of all of these rulemakings and standards have absorbed significant resources over the last several years. But industry recognizes that progress has been made in pipeline integrity management and that there have been significant advancements in the understanding of pipeline performance. The liquid pipeline industry is determined to continue the effort. Thus, chief executive officers of leadership operators in the liquid pipeline industry began in December 2000 and recently expanded an Environmental and Safety Initiative.

The Environmental and Safety Initiative is guided by a shared vision of the oil pipeline industry. We use the vision as a preface to communications with the public and internally in our companies to communicate at all levels a clear statement of purpose and priority for our work on a day-to-day basis.

Our vision is an oil pipeline industry that—

- *conducts operations safely and with respect for the environment;*
- *respects the privilege to operate granted to it by the public; and*
- *provides reliable transportation of the crude oil and refined products upon which America and all Americans rely.*

We commit to fulfill this vision by:

- supporting effective federal oversight of pipeline operations in cooperation with states and local communities;
- promoting cooperation among communities, public officials, employees and companies by sharing information on pipelines and pipeline safety;
- employing proven pipeline safety technologies and investing in new technologies to further improve performance; and
- achieving operational excellence through sound risk management approaches.

The Initiative is made up of multiple teams, each captained by a CEO and focusing on one aspect of pipeline safety and performance. The Initiative in 2002 consists of multiple teams with the purposes stated below:

1. Pipeline Safety Reauthorization and Pipeline Integrity:

Promote strong, effective and credible federal regulation of the liquid pipeline industry by the Office of Pipeline Safety (OPS); understand the agenda of OPS and be proactive in cooperating with the OPS, its stakeholders and its regulatory oversight of liquid pipelines; support fair and effective enforcement of OPS regulations to establish a floor of performance for all companies; and improve procedures for permitting necessary to perform pipeline inspections and repairs.

2. Data Management and Performance Metrics:

Continue efforts begun in 1999 to improve OPS incident reporting; continue to expand and refine the voluntary Pipeline Performance Tracking System incident and infrastructure database; use both industry and OPS databases to foster credible analyses of important data-driven policy issues; develop metrics for evaluating changes in pipeline performance upon implementation of the integrity management rules; and evaluate and set leading (as opposed to lagging) performance measures for the pipeline industry.

3. Underground Damage Prevention/Rights-of-Way

Assume a full and enthusiastic role in the Common Ground Alliance (CGA) in cooperation with other industries with interest in underground damage prevention; foster enhanced data collection and analysis by CGA to better target improvements in damage prevention; help develop land use best practices and industry standards on setbacks; and work to improve zoning ordinances to protect pipeline rights-of-way from encroachment.

4. Research and Development

Help design and identify funding for a liquid pipeline integrity technology research and development program and establish an appropriate organizational home for the program; work with the Department of Transportation and the Department of Energy to facilitate collaboration in research and development on pipeline integ-

rity issues; and identify liquid pipeline integrity research and development projects of the highest priority.

5. Public Information and Communication

As part of an industry-wide communications plan, develop guidance for activities that each member company would deploy to communicate with elected officials and the public to foster understanding of pipeline operations; make maximum use of the internet to make information available; establish outreach and active liaison with key state and local groups; exceed OPS requirements for availability of information and communication with need-to-know constituencies; and establish mechanisms to assess the effectiveness of communications efforts on a continuous basis.

6. Liquid and Natural Gas Pipeline Coordination

Continue to use industry connections at the company level to increase communications between liquid and gas industries on the issues of integrity management, corrosion control, communications and other pipeline safety initiatives.

7. Pipeline Security

Finalize drafted security conditions and countermeasures and industry guidance document on security; conduct an evaluation of the vulnerability of the industry to escalating levels of threats resulting from possible terrorist activity; work with OPS and other federal agencies on security issues (background checks, critical facilities, threat information, etc); and address other security issues as they arise.

8. Integrity/Operational Best Practices

Promote inter-company learning to improve pipeline operations and integrity; develop integrity and operational best practices for adoption by the industry drawing upon the resources of the Pipeline Performance Tracking System, the OPS audits of Integrity Management Programs and company experience in implementing risk-based integrity management programs.

These team efforts are direct progeny of that initial Risk Assessment Quality Action Team begun in 1995 and the primary focus of the industry in 2002. All are aimed at finding the necessary tools to constantly improve pipeline safety and environmental performance.

SUMMARY

We believe the movement to a risk-based approach to new pipeline safety regulations since the early 1990s has resulted in significant advancements and enhancements in the DOT's pipeline safety program, improvements in pipeline management by operators and what we believe is a trend in an improved safety record. Risk management has at times been controversial in Congress. We hope many of these concerns are behind us, because risk assessment, risk-based decision-making and risk management are essential to addressing the risks of pipeline operation under normal times and are vital in preparing for the never-to-be-normal-again world we are part of since September 11th.

Mr. BARTON. Thank you, Mr. Shea.

We will now hear from Mr. Morris, and both Mr. Bryant and Mr. Gordon send you their best. They are both attempting to get here, but they wanted me to let you know that they appreciate you being here.

STATEMENT OF HERMAN MORRIS, JR.

Mr. MORRIS. Thank you, Mr. Chairman, and members of the committee, I am pleased to appear here before you here today, and I want to thank the committee for calling this hearing on this very important matter of pipeline safety and the Nation's natural gas distribution system.

My name is Herman Morris, and I am president and CEO of Memphis Light, Gas, and Water Division. We are the largest three-service municipally owned utility in America, as well as having the lowest combined rates thanks to a very abundant source of God's best water.

I have spoken to this committee before on the issues of importance to our electric customers, some 400,000. I am here today to testify on behalf of the American Gas Association and the American Public Gas Association on behalf of our 300,000 gas customers.

We currently transport gas across two interstate pipeline companies to MLGW from Williams Texas Gas Transmission Corp and from CMS Truck Line Gas Company. We transmit more than 60 billion cubic feet of gas per year.

Together, AGA and APGA represent the gas utilities like our local distribution company, LDC, that deliver virtually all of the natural gas to consumers in the United States. In a municipal utility like ours, the mayor or some elected official, is usually the chief chairman of the board.

Mr. Chairman, many U.S. energy experts consider natural gas an ideal energy solution for our country. It is home grown, and it is efficient, and it is the cleanest fuel, fossil fuel, possible.

And over the next two decades going into the natural gas market will bring tremendous benefits for all Americans. But industry faces some interesting challenges. Local distribution companies are the last critical link in the natural gas delivery chain.

We are the face of the industry for our customers, and we place a high priority on being safe and efficient providers of these services.

Regulatory Authorities. As part of an agreement with the Federal Government, State pipeline safety authorities, which have primary responsibility to regulate natural gas utilities, as well as interstate pipelines, routinely adopt as minimum standards the Federal safety standards promulgated by the DOT.

In addition to our strong voluntary programs, we as LDCs comply with regulatory programs that provide stringent attention to design, construction, testing, maintenance, operation, replacement, and inspection, and monitoring practices.

Natural gas utilities spend an estimated $6.4 billion each year on safety related activities. We all know the leading cause of accidents on distribution pipelines comes from excavators unintentionally striking lines, commonly called third-party damages.

Sixty percent of the total ruptures of utility lines over the past few years, and the vast majority of injuries, resulted from such problems. While many may lump all gas pipelines together, there are indeed significant differences between the liquid transmission systems and natural gas transmission systems, and natural gas distribution systems like our own.

We believe that natural gas utilities should not support and do not support prescriptive legislative approaches. In fact, we believe that the one size fits all solutions simply do not work and divert limited resources from areas that could most benefit ultimately the customers, and could affect the reliability of gas delivered to consumers.

As of September 11, we all know that our world changed. And in our industry, first and foremost, a step needs to be taken to establish a single point of contact in the government from which consistently defined threat levels are disseminated to the industry.

It is critical that there is a coordinated effort throughout the agencies that have jurisdiction over natural gas transmission and

distribution sectors. The current rules which require operator qualifications encompass evaluation, testing, qualification, and additional training if needed.

This rule, when fully implemented in October of 2002, we believe will provide an appropriate approach to this critical concern. We strongly recommend that no further action be taken in this area of operator qualification until the DOT and Congress have sufficient time to review the rules' impact on pipeline safety.

We also recognize the Nation's heightened security concerns, and we urge Congress to consider carefully what information should be released to the public at large, and what information should be restricted to those public officials and emergency and law enforcement agencies that need it.

We support the research and development efforts, and particularly the NARUC water commission committee's meeting and resolution supporting Congressional legislation for operation safety, research, and development, and we encourage the Congress and this committee to consider that.

In conclusion, I would thank you for providing the opportunity to present our views on the important matter of pipeline safety, and we look forward to working with the Congress, Federal and State, and local authorities in that regard in the future.

[The prepared statement of Herman Morris, Jr. follows:]

PREPARED STATEMENT OF HERMAN MORRIS, PRESIDENT AND CEO, MEMPHIS LIGHT, GAS AND WATER DIVISION ON BEHALF OF THE AMERICAN GAS ASSOCIATION AND THE AMERICAN PUBLIC GAS ASSOCIATION

Good morning, Mr. Chairman and members of the Committee. I am pleased to appear before you today and wish to thank the Committee for calling this hearing on the important matter of pipeline safety and the nation's natural gas distribution system. My name is Herman Morris, and I am President and CEO of Memphis Light, Gas & Water (MLGW). MLGW was founded in 1939 and serves more than 400,000 households and customers in Memphis and Shelby County, Tennessee. We are the largest three-service municipal utility system in the nation. Additionally, we recently instituted a telecom division.

MLGW currently transports natural gas to Memphis across two interstate pipeline companies, Williams Texas Gas Transmission Corp. and CMS Trunkline Gas Co. MLGW transports more than 60 billion cubic feet of gas per year by pipeline to our 300,000 gas customers.

I am testifying on behalf of the American Gas Association (AGA) and the American Public Gas Association (APGA). We look forward to working with Congress, the Administration, the states and other stakeholders to reach consensus on a bipartisan pipeline safety reauthorization bill this year.

AGA is a national trade association representing 187 natural gas utilities collectively serving over 52 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 AGA and APGA represent the gas utilities or local distribution companies (LDCs) that deliver virtually all of the natural gas to consumers in the United States. MLGW is a member of both organizations.

Unlike most gas utilities, the chairman of the board of the municipal utility often is usually the mayor or some other locally elected public official. Local governments operating utility systems view that Congress, the regulators and utilities need to find safety solutions that are responsible, balanced, and cost effective.

Natural Gas Use Benefits Americans

Mr. Chairman, many U.S. energy experts consider natural gas the ideal energy solution for our country. It's a homegrown fuel, it's efficient and it's the cleanest-burning fossil fuel. Over the next two decades, growing the natural gas market will bring tremendous benefits for all Americans.

Increasing the use of natural gas over the next 20 years could cut foreign oil imports by more than 4.5 million barrels per day. And since natural gas is the cleanest fossil fuel, using more of it could reduce carbon dioxide in the air we breathe by 930 tons per year—about 10 percent of total emissions. Fifty-five percent of America's homes are heated with natural gas and nearly 70 percent of all new single-family homes are equipped with natural gas. Abundant at home, clean to use and highly efficient, its perfectly suited to meet our nation's energy needs today, tomorrow and beyond.

"Face of the Industry"

Local distribution companies are the last, critical link in the natural gas delivery chain. To most customers, utilities are the "face of the industry". Our mission is to continue to deliver natural gas to our communities safely, reliably and affordably. Our companies and facilities are a vital part of the communities we serve. We participate in many community programs and charitable activities. We fuel area businesses and therefore, the local economy. The health of the community is the health of our company.

Regulatory Authorities

Natural gas pipelines are thoroughly regulated. As part of an agreement with the Federal government, State pipeline safety authorities have *primary* responsibility to regulate natural gas utilities as well as intrastate pipelines. However, state governments routinely adopt as minimum standards the federal safety standards promulgated by the U.S. Department of Transportation (DOT). Therefore, what Congress does will affect state regulations and our companies.

Safety Is Our Top Priority

Natural gas utilities are committed to safety. Year in and year out, safety is our top priority. Indeed, delivering natural gas safely and reliably to our customers is essential for us to continue conducting our business. That is why our industry is constantly working to develop technologies that will enhance the safety, reliability and efficiency of the nation's gas delivery system. Our industry's commitment to safety is borne out each year through the National Transportation Board's annual statistics. Delivery of energy by pipeline is consistently the safest mode of energy transportation. Natural gas utilities are dedicated to seeing this continue.

Safety Record and Expenditures

In addition to our strong voluntary programs, LDCs comply with a regulatory program that devotes stringent attention to design, construction, testing, maintenance, operation, replacement, inspection and monitoring practices. We continually refine our safety practices. Natural gas utilities spend an estimated $6.4 billion each year in safety-related activities. Approximately half of this money is spent in compliance with federal and state regulations. The other half is spent, as part of our companies' voluntary commitment to ensure that our systems are safe and that the communities we serve are protected.

Safety is a top priority, a source of pride and a matter of corporate policy for every company. These policies are carried out in specific and unique ways. Each company employs safety professionals, provides on-going employee evaluation and safety training, conducts rigorous system inspections, testing, maintenance, repair and replacement programs, 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.

Clarification of GAO Reports

Some pipeline safety critics have seized on a statement in the May 2000 U. S. General Accounting Office (GAO) Report entitled "The Office of Pipeline Safety is Changing How It Oversees the Pipeline Industry", that indicated that "major" pipeline safety incidents (those causing a fatality, injury, or more than $50,000 in property damage) have increased by 4% per year over the 10-year period 1989-1998. This implies that accidents are increasing and that pipelines are becoming increasingly unsafe. *This information needs to be put into context.*

What the GAO report does not recognize is the fact that the increase in "major", or reportable incidents, is due to the ever-increasing cost of "property damage" associated with accidents that include loss of product and remediation costs. These have increased drastically over the time period examined. Further, the $50,000 threshold is not adjusted overtime for inflation and therefore the trend lines are skewed.

The GAO report does recognize (see footnote on page 10 of this report) that the total number of accidents has decreased by 1.5 percent annually over this same timeframe. This trend continues. According to AGA's study of the data, incidents involving natural gas distribution systems decreased by over 10 percent while the volume of natural gas used nationwide has increased by 25 percent over the period of 1987-1999. Thus, while more citizens are now enjoying the benefits of using natural gas, the safety of the delivery system continues to improve.

While, our industry is rightly proud of our excellent safety record, we are constantly striving to improve it.

The Leading Cause of Accidents—Excavation Damage

The leading cause of accidents on distribution pipelines comes from excavators unintentionally striking our lines. It is known as excavation damage, also commonly called 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.* This problem has been highlighted again in two recent accidents—one in Perry, Oklahoma and another in Marble Heights, Ohio.

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. Congress should urge states to require government agencies and their contractors to participate in One-Call programs. This would help eliminate some exemptions some state agencies currently have in several states from participation in One-Call.

The 105th Congress recognized this problem and created a federal program to reward States with strong One-Call laws. These laws require excavators to call before they dig, and utilities to mark their underground facilities accurately. 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. DOT has also supported the creation of a broad-based public/private organization—the Common Ground Alliance—to promote the adoption of the best practices across the nation. This group includes underground pipelines, utility owners, constructors, excavators, and One-Call organizations, with over 400 current members.

We support efforts to provide for additional funding for both state grants and promotion of best-practices adoption. This additional funding is provided through general revenue funding as the efforts provide for clear public benefit and include other utilities beyond just gas and oil pipelines. Reduction of third party damage incidents provides for the safety of the public and also helps ensure the unimpeded flow of natural gas to consumers.

Other 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 materials; pipeline system integrity standards; operator fatigue surveys; improved data gathering on transmission and distribution systems, and many other efforts. We view these as investments in our customers and the communities we serve.

Collaboration and Professional Organizations

Company safety professionals also participate in a variety of professional and national standard-setting 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 Testing Materials (ASTM), American Society of Non-Destructive Testing (ASNT), American Society of Mechanical Engineers (ASME), American Society of Civil Engineers (ASCE), and the American Society of Safety Engineers (ASSE).

Natural Gas Systems are Different From Liquid Systems

There are important differences between the natural gas and liquid pipeline systems that Congress should recognize and understand when crafting new requirements. While many may unintentionally link all "pipelines" together, there are indeed significant differences between the liquid transmission systems, natural gas transmission systems and natural gas distribution systems. Each industry faces different challenges, operating conditions and consequences of ruptures.

Interstate transmission systems are generally made up of long runs of generally straight pipelines, having large diameter, and operated at high volumes and high pressures. Distribution systems, in contrast, are constructed in configurations that

look like a network or web, use smaller diameter pipe, and operate at lower volumes and pressures.

Federal regulations recognize the differences between these 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.

Natural gas pipelines move a single product, which is mainly methane, by periodic compression along the length of the pipelines. Natural gas transmission lines take our product from the producing areas to our towns where the utility receives it and delivers our gas to homes and businesses. Liquid transmission pipelines, in contrast, move several different commodities such as crude oil, gasoline, heating oil, jet fuel, diesel, propane and other liquids. These products are physically pumped, sometimes in different batches, through the pipeline to distribution terminals, refineries, and end-users.

Legislation

Congress must periodically reauthorize the natural gas pipeline safety act. The current authorization has expired. Last year, Congress began the reauthorization process but was unable to pass a bill. Today, we are once again fully engaged in this process. In addition, the Department of Transportation is in the process of issuing significant new integrity management rules for natural gas and is expected to complete the effort this year. And all of our natural gas utilities are on schedule to comply with DOT's new Operator Qualification rule by completing the qualification of natural gas utility and contractor workers performing safety-related jobs by the rule's October 2002 deadline. The industry also is engaged actively in finding new mechanisms to fund research, development and demonstration projects for pipeline safety technologies.

Mr. Chairman and members of the Committee, we urge you to frame the current debate by recognizing that the world has changed since this committee held its last congressional hearing on this topic in 1999. Much progress has been made on several important new regulations. Further, the September 11 terrorist attacks have brought about a new focus on security for preventing, deterring, detecting and responding to potential attacks. Companies now must focus significant attention on security issues, in addition to safety matters.

"One Size Fits All" Does Not Fit Our Pipelines

Natural gas utilities do not support prescriptive legislative approaches. In fact, we believe that "one-size-fits-all solutions" divert limited resources from the areas that could most benefit and ultimately, could affect the reliability of gas deliveries to consumers. All pipelines are not the same. They vary physically and operationally and face unique challenges related to their locations, trajectories, construction and operating characteristics.

Given this context, I would like to comment on several issues and suggest reasonable approaches for addressing them for municipally and investor owned natural gas distribution utilities.

The issues that I will cover are:

- Security from Terrorist Attacks
- Causes of Accidents
- System Integrity Rule
- Operator Qualification
- Public Education/Community Right to Know

Security from Terrorists Attacks

The industry has been actively involved in addressing the security of the natural gas transmission and distribution system since the events of September 11. In addition to taking immediate steps to secure critical facilities, the industry has been meeting—through the trade associations—to determine appropriate threat levels and responsible actions that reflect the current heightened state of security.

Additionally, utilities are coordinating and cooperating fully with federal and state law enforcement and regulatory authorities to find ways to protect our natural gas pipeline system. The effectiveness of security-response measures is dependent on the threat levels that trigger their execution. The first and foremost step in this process is to establish a single point of contact in the government from which consistently-defined threat levels are disseminated to the industry. It is critical that there is coordination throughout the agencies that have jurisdiction over the natural gas transmission and distribution sector, including DOT, DOE, FEMA and FERC. This will result in commonly understood and effective operator response actions.

We are committed to identifying further additional practices for the current state of condition and higher threat levels, as well as refining vulnerability assessments to assist in the identification of critical facilities. At this time, our companies have in place, or are developing, plans to respond to higher alert levels, including activating corporate security plan(s), emergency response plan(s) and business recovery plan(s); engaging emergency personnel; and securing facilities as appropriate.

Ensuring security of the nation's natural gas infrastructure is a fundamental part of the industry's ordinary course of business. We are constantly refining methods, performing risk assessment and reviewing our practices.

We encourage Congress to focus on a coordinated approach to the protection of energy infrastructure—recognizing the growing interdependencies between different industry and government sectors.

To achieve this, we recommend that industry and government work together to:

- Heighten efforts in providing the tools and access necessary to help assure critical infrastructure protection from potential terrorist activities;
- Ensure all public dissemination of infrastructure and business information is reviewed, in advance, with respect to potential security concerns, and;
- Develop a coordinated strategy with a clearly delineated organizational structure to protect our nation's infrastructure against potential terrorist attack, while minimizing redundancy in information collection and government reporting.

System Integrity Rule

DOT has responded to congressional and public concerns and has moved forward aggressively in this area. Having issued a new set of integrity management rules for liquid pipelines, DOT is moving expeditiously on new rules for natural gas transmission lines. As outlined above, the liquid and natural gas transmission systems are very different from one another. The system integrity rule for natural gas transmission is going to be issued soon, but it is important to understand that it will be different from the one for liquid transmission.

We urge Congress to allow DOT to finish its work on developing a new rule for increased inspection requirements for natural gas transmission pipelines in high-consequence areas. DOT is well on its way to completing its work on this matter and issued a proposed rule for the definition of high-consequence areas for natural gas in January 2002. DOT is expected to issue a Notice of Proposed Rulemaking for the integrity management plan for natural gas transmission lines in these areas in mid-2002. Legislating in advance of DOT's rule seems hasty and unnecessary. DOT understands the distinguishing characteristics between liquids and gas systems and is taking these into consideration in the rulemaking process.

Natural gas utilities own and operate 40,000 of the 300,000 miles of transmission pipeline in the United States. Most of these transmission lines are smaller in diameter than the typical interstate transmission line and operate at lower pressures. However, almost 40% of these 40,000 miles of transmission lines are likely to fall within "high consequence areas," and therefore utilities will be greatly affected by the new rules. Unlike most liquid transmission lines, the physical characteristics of natural gas transmission and distribution lines preclude the use of internal inspection devices in many cases. Thus, natural gas distribution companies must use a variety of inspection tools and methodologies to ensure the integrity of their lines.

Some would like to require that natural gas transmission lines be inspected with specific tools and within a mandatory inspection period. We strongly oppose this type of approach, as it does not provide necessary flexibility needed to the operator in order to maintain the integrity of the system. Further, requiring utility-owned transmission lines to be tested with smart pigs or hydrostatically would result in these lines being out of service for extended periods of time. This poses a separate problem, as many of these lines are the sole source for natural gas delivery to systems serving large numbers of consumers. This would not increase safety; in many ways it could, in fact, undermine many of the safety-related measures that are in place for distribution systems. For residential customers, interruption of service can cause additional problems and risks as each individual service must be isolated, relit inside the house and then inspected again. This is a time consuming and laborious process, and expensive.

Utilities know that their lines must be inspected regularly but inspection decisions, including the types or tools used and inspection frequencies, should be based on objective risk analysis and resources directed accordingly. It is important to note that the regulatory requirements for natural gas transmission lines already incorporate additional operational safety and increased inspection requirements based on the population levels around the pipeline.

Pipelines are required to have personnel patrol and inspect their lines each year and account for the houses and buildings along the right-of-way. The segment of

pipeline in question is "classed" 1, 2, 3 or 4, with Class 1 being rural and Class 4 being the most urban. As population around the pipeline increases regulations require pipelines to lower operating pressure, increase pipeline wall thickness, and inspect more frequently. This class location system for natural gas transmission lines recognizes that pipelines must provide greater safety margins when operating in more populated areas. The new integrity management rules will add to these existing requirements. Inspection methods and inspection intervals under the new integrity management rule should be based on an assessment of risks balanced by the need to maintain reliability of gas service at a reasonable cost to consumers.

Some critics base their demand for a statutorily required inspection period or use of specific inspection technology or methods on the fear that without them pipelines will not be inspected. Nothing could be further from the truth. Pipelines are continually inspected today. A natural gas utility company's greatest asset is its reputation for the safe and reliable service of natural gas. We actively monitor our systems on a continuous basis. This is an essential part of doing business.

Operator Qualification

Concerns have been raised about expertise and the abilities of the natural gas industry's workforce. Even though our excellent safety record shows that our employees are qualified to do their jobs, utilities are fully participating in the new Operator Qualification (OQ) rule that was issued by DOT in August 1999. For the first time operators will be required to verify and document this qualification in writing. There are two parts to this rule.

Phase 1. Written Plan. Phase 1 is complete. All pipeline operators were required to have a written OQ Plan in place by April 2001. All OQ Plans are now subject to audit by the state regulatory authorities. In the event of an accident, the operator's OQ Plan is subject to discovery in court.

Phase 2. Qualification of Individuals. Using the written plan, all pipeline operators must qualify every individual who performs a covered task on the pipeline, under the provisions set forth in the operator's OQ Plan. This requirement is effective October 27, 2002.

Some have suggested that we shift the focus from ensuring an individual is qualified to perform their operations and maintenance tasks on the pipeline, to a requirement for training and/or federal certification. The current rule already encompasses evaluation, or testing, and qualification, which may mean additional training if needed, and further testing. Thus, employees are actually certified by the company under an enforceable federal rule. This rule is not yet fully implemented. We strongly recommend that no further action be taken in the area of operator qualification until DOT and Congress have had sufficient time to review the rule's impact on pipeline safety.

It is estimated that pipeline operators will incur over $500 million in compliance costs associated with this rule. This is both a significant undertaking for pipeline operators and another cost for natural gas consumers.

Some of the House bills that have been introduced call for some form of federal certification of these employees. We do not agree that this approach is warranted or the best use of limited federal and company resources. We urge Congress to allow the Operator Qualification Rule to be implemented fully before deciding whether it needs to be significantly changed or additional requirements layered over it.

The fact that there are still very few accidents on our nation's 1.5 million miles of natural gas pipelines is in itself a testament to the workers' skills and qualifications. Issues such as training requirements, portability of qualifications, qualification process modifications and the overall effectiveness of the rule are most appropriately worked out among the stakeholders and federal and state regulators. Utilities are actively engaged in this process and do not believe that further legislative action is justified at this time.

Public Education/Community Right-to-Know

Given the nation's heightened security concerns, we urge Congress to consider carefully what information should be released to the public at large and what information should be restricted to those public officials and emergency and law enforcement agencies that need it. Typically, in the utility industry, those that need the information can readily obtain it from the operator upon request. We also support planning officials understanding how pipelines interact with their communities to allow them to incorporate needed safeguards into their land use decisions.

We 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.

AGA and APGA 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. However, detailed information such as very accurate locations, product flow rates, valve placement, control center locations, accident scenarios and other potentially sensitive information should be restricted. A balance needs to be found and implemented.

In many instances, improving public information is a cooperative effort between the natural gas utility and communities it serves. 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.

Research, Development and Demonstration

AGA and APGA support increased funding for research and development. However, the current funding for the Office of Pipeline Safety is provided through user-fee assessments on pipeline operators. We urge Congress to authorize and appropriate funds from general revenues for additional pipeline research and development dollars. Where user fees are used to fund research and development, the Office of Pipeline Safety should coordinate with the industry to help make sure that efforts focus in areas where needs exist in the field and are used as efficiently and effectively as possible.

Several focus groups have been held with government, industry and research organizations to identify the areas of most interest for RD&D. These groups have consistently suggested that RD&D funding address the development of better technologies and improvements for excavation damage prevention and detection, in-line inspection tools, small leak detection, monitoring and technologies for meeting any new security requirements.

Utilities contribute to research and development through such organizations as the Gas Technology Institute 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 and will continue with these initiatives.

Last month at NARUC's Winter Committee Meetings here in Washington D.C., NARUC passed a resolution entitled "Resolution Supporting Congressional Legislation for Operations and Safety Research and Development (R&D) Funding for Gas Distribution Utilities". A copy of that resolution is attached to my testimony.

In summary, NARUC's R&D Resolution 1) expresses NARUC support for Congressional legislation establishing an R&D funding program for gas distribution utilities to ensure essential research for distribution delivery systems in the amount of approximately $65 million per year; 2) states that the annual funding of $65 million would be collected through a legislatively designed volumetric charge designed to collect an average of less than $1 per year for residential customers, and average $5 per year for commercial customers, with a cap of $250 per year for very large volume customers; and 3) states that funds collected for R&D would be focused on improving infrastructure security, safety, reliability and efficiency. This research will benefit all users of natural gas by improving the delivery systems. The funds will not be used to conduct R&D for end use applications and will not be used to promote natural gas usage by advertising. We believe that this research program will enable utilities to directly address those safety and security related concerns that Congress has raised over the course of the pipeline safety debate. Clearly, this program is critical to the utility industry meeting expectations of an enhanced safe, secure and reliable system. As several members of this and other committees have proposed, there is going to have to be a significant and dynamic change in the way we currently fund research.

State Jurisdiction for Interstate Pipelines

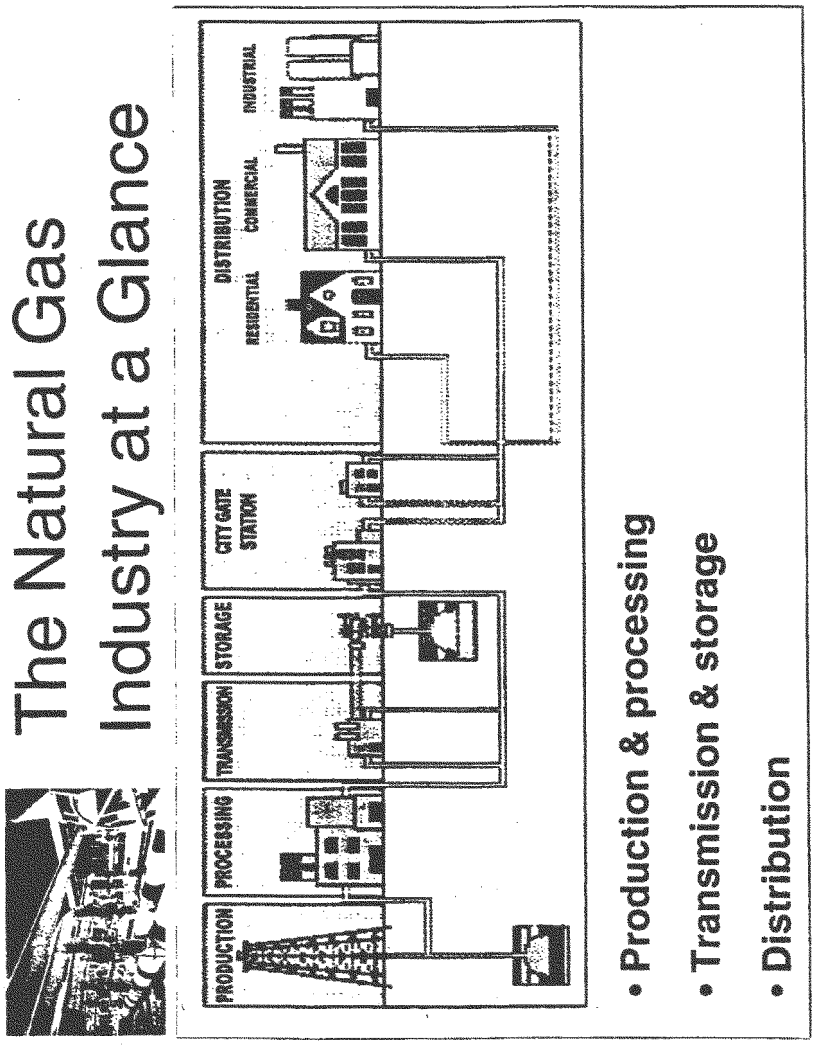
Utilities are concerned that different requirements imposed by States on interstate transmission could lead to supply disruption to our customers. One state could make a requirement that could in fact cause customer shut-offs in another state. Uninterrupted flow is critical to natural gas systems. If interstate gas flows are interrupted, the ability of a utility to maintain adequate pipeline pressure to serve customers is immediately and often severely impaired. In such situations, our companies must manually turn off service to each individual customer in the area affected by the gas outage. When gas 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 utility industry is proud of its safety record. Natural gas has become the recognized fuel of choice by both citizens and the federal government. Customer growth and confidence also carry with them an added responsibility.

Public safety is the top priority of natural gas utilities. We invite you to visit our facilities and observe for yourselves our employees' dedication to safety. We will continue our dedication and efforts to operate safe and reliable systems and to strengthen One-Call laws and systems in every state.

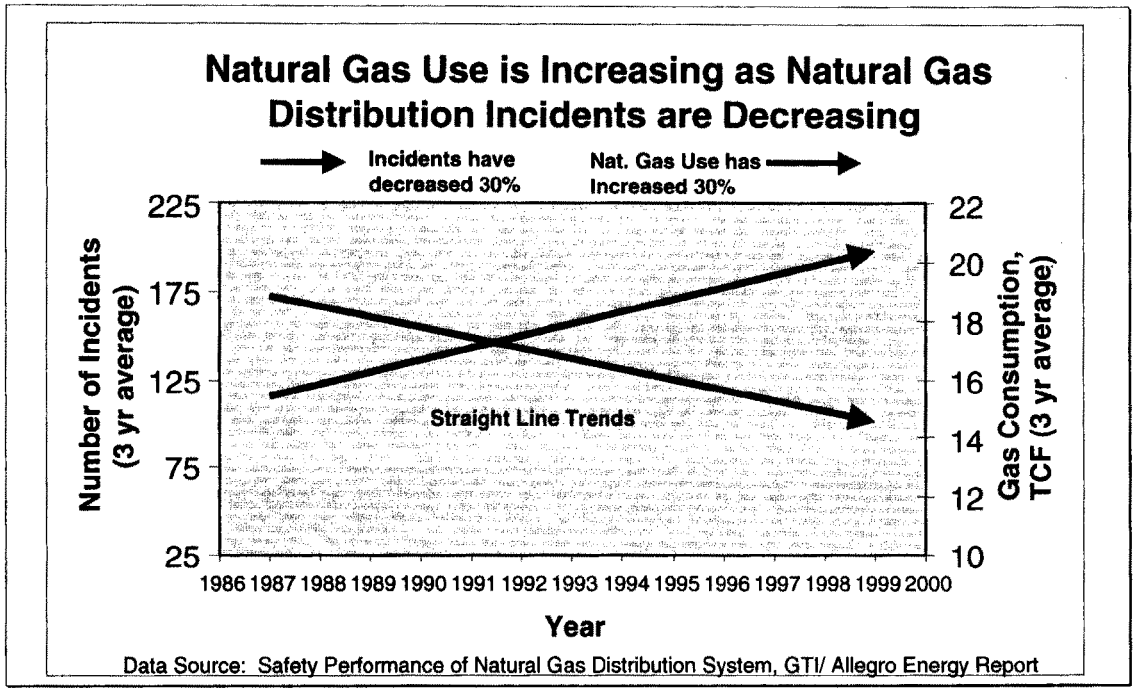
Thank you for providing the opportunity to present our views on the important matter of pipeline safety. We look forward to working with federal, state and local authorities and representatives, as well as within our industry, to achieve the highest possible level of public and employee safety.



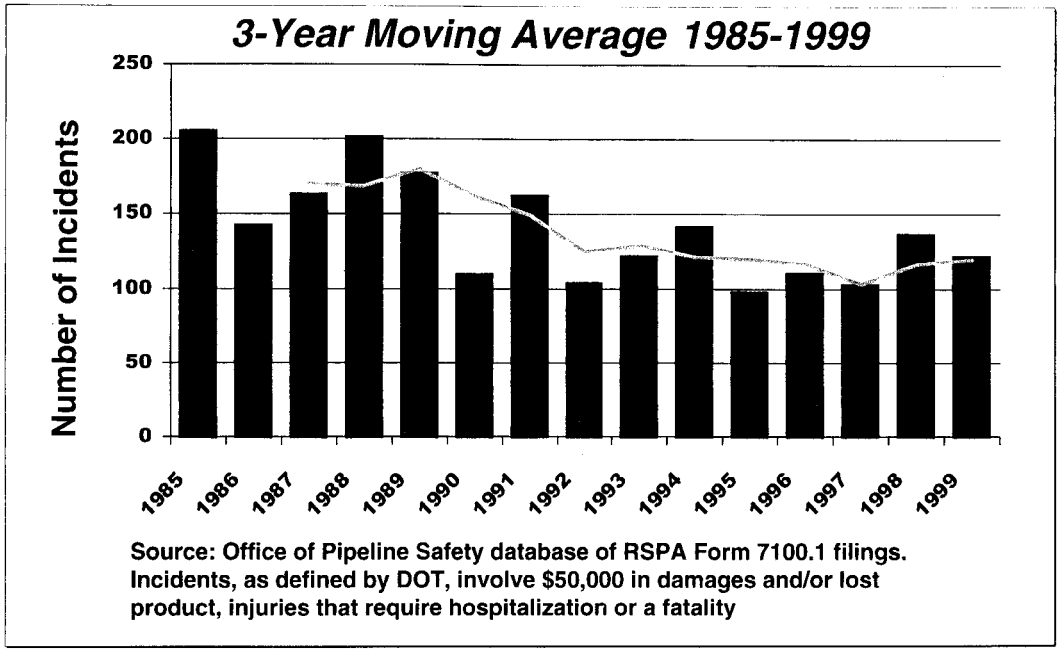
LDC-Operated Transmission Lines

- Generally operate at lower pressures
- Less prone to fracture-type failures
- Generally are under pavement
- Serve multiple customers
- Usually not piggable

Natural Gas Use vs. Incidents



Safety Performance of Distribution Systems



Source: Office of Pipeline Safety database of RSPA Form 7100.1 filings. Incidents, as defined by DOT, involve $50,000 in damages and/or lost product, injuries that require hospitalization or a fatality

American Gas Association American Petroleum Institute
Association of Oil Pipe Lines American Public Gas Association
Interstate Natural Gas Association of America

March 12, 2002

The Honorable Thomas E. Petri
Chairman
Subcommittee on Highways and Transit
Committee on Transportation and Infrastructure
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

All of our industries are united in support of enactment of sound pipeline safety reauthorization legislation in this Congress. We the undersigned leaders of our respective associations and companies urge the Members of the Subcommittee on Highways and Transit to mark-up a reauthorization bill soon. After reviewing the bill proposed by you, the Chairman of the full committee and others (H.R. 3609), we believe that this is a good mark up vehicle. This bipartisan pipeline safety reauthorization bill raises new issues that will improve the safety of our nation's pipelines and protect our employees, customers and the public living near pipelines. We pledge to work with you to pass sound pipeline safety legislation and we will urge Members to support you in the amendment process. As the Subcommittee moves forward to consider H.R. 3609 we want to address and clarify our positions on key issues before you.

New requirements for increased inspections of pipelines located in high consequence areas, operator employee qualifications and what information to provide to the public is being actively debated. Reauthorization legislation should allow the Office of Pipeline Safety (OPS) to complete its issuance of new integrity management rules and companies to fully implement the Operator Qualification Rule and focus on areas that need additional statutory attention.

Security is one such area that is extremely important to all Americans. We are grappling with our response to this challenge and support efforts to protect sensitive information about pipelines while striking a balance to provide the public with the information it needs. H.R. 3609 seeks to provide this balance. We are committed to dealing with security concerns in a responsible and effective fashion.

The OPS has completed a rulemaking requiring integrity management programs for hazardous liquid (petroleum) pipelines and is expected to issue a Notice of Proposed Rulemaking on a natural gas pipeline integrity management rule. The pipeline industry strongly supports these rules, and we are committed to implementing them. OPS is tailoring the specific inspection intervals and techniques to the unique characteristics of natural gas transmission lines, liquid transmission lines, and natural gas distribution lines. This is the most effective way to insure that pipeline integrity is adequately validated, while maintaining essential services to consumers.

The pipeline industry is opposed to a statutory requirement for mandatory five-year integrity inspection frequency. The reason is simple. There is no technical or scientific basis for this frequency interval. The timing of inspections should be based on engineering analysis of the information available and frequency and type of inspections be determined accordingly. Under this approach, some pipelines will be inspected more frequently than others. All pipelines in a high consequence area will be inspected.

It is important that integrity inspection requirements not require disruptions of service. The inspection schedule needs to recognize the unique differences between liquid and natural gas pipelines. Understanding these differences is key to prevent unintended disruptions of service leading to significant costs to consumers in times of high demand. For example, too frequent inspections would have both natural gas consumer cost and operational implications for natural gas pipelines. The pipeline safety statute should not force OPS to create these kinds of disruptions.

Under the new OPS Operator Qualification Rule, all employees in safety related jobs will be certified by their companies to be qualified to perform their jobs under both normal and abnormal conditions by October 2002. Tests, training, observation and performance requirements are contained in each company's qualification plans. Evidence of each employee's qualification procedures will be documented and open to inspection. OPS will ensure our compliance with this rule and where deficiencies are found, require them to be addressed. This rule should be allowed to be fully implemented and the results known before being judged or modified further.

The pipeline industry is committed to the safest pipeline systems possible, but we also must be able to deliver the fuels American consumers need. We pledge to continue to work with the Congress, the Department of Transportation and the Bush administration to pass proactive, effective and responsible pipeline safety reauthorization this Congress.

Sincerely,

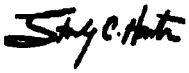
Joseph M. Monroe
President
Unocal Pipeline Company
Unocal Natural Gas Pipeline Company

John W. Somerhalder II
President
Pipeline Group
El Paso Corporation

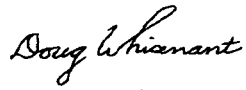
Fred J. Fowler
President
Energy Transmission Group
Duke Energy Corporation

George M. Rootes
President
Equilon Pipeline Company LLC

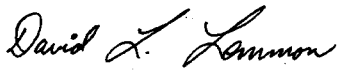
Thomas O. Miesner
Vice President
Conoco Pipe Line Company



Stanley C. Horton
Chairman and CEO
Enron Transportation Services Company



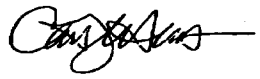
J. Douglas Whisenant
President and CEO
Williams Gas Pipeline



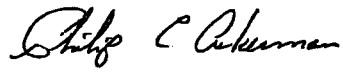
David L. Lemmon
President and CEO
Colonial Pipeline Company

Richard G. Reiten
Chairman and CEO
NW Natural Gas

Richard A. Rabinow
President
ExxonMobil Pipeline Company

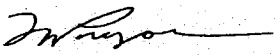


Christopher A. Helms
President and CEO
CMS Energy
CMS Panhandle Companies

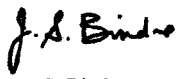


Philip Ackerman
Chairman, President and CEO
National Fuel Gas Company

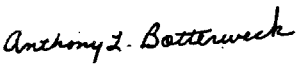
William L. Thacker
Chairman and CEO
TE Products Pipeline Company
Limited Partnership (TEPPCO)



Fred Pryor
General Manager
Okaloosa Gas District
Valparaiso, Florida



Jeet S. Bindra
President
ChevronTexaco Pipeline Company



Anthony L. Botterweck
President
Koch Pipeline Company, LP

William H. Shea, Jr.
President and CEO
Buckeye Pipe Line Company

J. Richard Bird
Group V.P., Transportation North
Enbridge, Inc.

George Leland Edwards
President
BP Pipelines (North America)

Gary L. Neale
Chairman, President and CEO
NiSource Inc.

Wm. Micheal Warren, Jr.
Chairman, President & CEO
Energen Corp.

D. N. Rose
President and CEO
Questar Gas Company

Herman Morris
President and CEO
Memphis Light, Gas and Water

David N. Parker
President and CEO
American Gas Association

Jerald V. Halvorsen
President
Interstate Natural Gas Association
of America

Red Cavaney
President and CEO
American Petroleum Institute

Bob Cave
President
American Public Gas Association

Benjamin S. Cooper
Executive Director
Association of Oil Pipe Lines

PIPELINE OPERATOR QUALIFICATION AND TRAINING
BRIEFING PAPER

By the American Gas Association and
The American Public Gas Association
March 19, 2002

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). All employees performing "covered tasks" are required to be qualified by the operators by October 27, 2002.

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 of 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 need 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, record-keeping 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 beyond those required in the OQ rule could result in the premature submittal of plans in a wide variety 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 DOT rule 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.

GJM
3/18/02

LIST OF CURRENTLY MANDATED INSPECTIONS

The following list includes most but not all periodic inspections mandated by 49 CFR Part 192. This list does not include mandated inspections and tests performed as part of construction, or repairs on the pipeline.

Transmission Pipelines & Facilities

1. Buried pipeline corrosion protection electrical current readings at test stations spaced along the pipeline must be checked at least once a year

2. Buried pipeline external corrosion control systems must be checked at least 6 times a year

3. Equipment monitoring for internal corrosion at points where the risk of such exists must be checked at least once in 6 months

4. On shore pipelines exposed to the atmosphere must be checked for external corrosion at least once in every 3 years; off-shore pipes exposed to the atmosphere must be checked at least once a year.

5. Operator carries out continuing surveillance of its facilities to determine and take appropriate action concerning changes in population density near the pipeline, failures, leakage history, corrosion and other unusual operating and maintenance conditions.

6. If a segment of pipe is determined to be in unsatisfactory condition, but no immediate hazard exists, the operator must initiate a program to recondition that segment or phase it out. If this is not possible, the operator must reduce the operating pressure of the pipeline, in accordance with prescribed guidelines. If an immediate hazard exists, the operator must take prompt action to repair the segment.

7. Each operator must patrol its transmission pipeline trajectory, at intervals between 4 times and once a year, depending on certain risk factors.

8. Transmission pipelines carrying odorized gas must be checked for leaks at least once a year.

9. Emergency shutdown devices at gas compressor stations must be tested at least once a year.

10. Each pressure limiting and pressure regulating station on the transmission pipeline must be inspected and tested at least once a year. This includes inspecting the gas pressure history recorded at these stations.

11. Pressure relief devices on the pipeline or at compressor stations to must be tested at least once a year for the ability to protect the pipeline from overpressure.

12. Each transmission line valve must be inspected and partially operated at least once a year.

13. If larger than 200 cubic feet in size, each underground vault housing pressure regulating or pressure limiting equipment must be tested for gas leaks at least once a year.

Distribution Systems

1. Buried pipeline corrosion protection electrical current readings at test stations spaced along the pipeline must be checked at least once a year

2. Buried pipeline external corrosion control systems must be checked at least 6 times a year

3. Equipment monitoring for internal corrosion at points where the risk of such exists must be checked at least once in 6 months

4. Distribution pipelines exposed to the atmosphere must be checked for external corrosion at least once in every 3 years.

5. Operator carries out continuing surveillance of its facilities to determine and take appropriate action concerning changes in population density near the pipeline, failures, leakage history, corrosion and other unusual operating and maintenance conditions.

6. If a segment of pipe is determined to be in unsatisfactory condition, but no immediate hazard exists, the operator must initiate a program to recondition that segment or phase it out. If this is not possible, the operator must reduce the operating pressure of the pipeline, in accordance with prescribed guidelines. If an immediate hazard exists, the operator must take prompt action to repair the segment.

7. Distribution pipelines in places or structures where anticipate physical movement or external loading could take place must be patrolled at least 4 times a year in business districts and twice a year outside business districts.

8. Distribution pipelines in business districts must be checked for leaks at least once a year including tests for gas presence in subterranean facilities and other areas in the vicinity of a leak.

9. Distribution pipelines outside business districts must be checked for leaks at least once every 5 years. Where electrical readings for corrosion protection are impractical, the leak checks must be at least once every 3 years.

10. Disconnected gas service lines must be re-tested before being reconnected.

11. Each distribution line valve that may be necessary for the safe operation of the system must be inspected at intervals not exceeding one year.

12. If larger than 200 cubic feet in size, each underground vault housing pressure regulating or pressure limiting equipment must be tested for gas leaks at least once a year.

GJM
3/18/02

HOW A PIPELINE IS INSPECTED

Pipeline right-of-way is driven or walked to check for evidence of excavation or other activity over or in the vicinity of the buried pipeline. Special attention is paid to construction areas, highway and railroad crossings, populated areas, business districts, areas where ground movement is likely, or where water may erode the ground above the pipeline.

Changes in population (e.g. housing density) in the vicinity of the pipeline are also observed and noted, if the pipeline is in a sparsely populated location.

Where permitted by regulation, visual evidence of gas leaks is first sought. If preliminary evidence of a gas leak is found, the location is then checked with an instrument, if not previously done. The rate of leakage is established and monitored to determine the criticality of the leak (depends on location of leak, pressure inside line, size of line and rate of gas leak).

Depending on initial the criticality, the location may then be made secure and immediately excavated to find the cause of the leak. If it is corrosion, the exposed portion of line is checked for corrosion until the location where there is no evidence of corrosion.

The exposed portion of the line may be checked with x-ray or ultrasound equipment to determine the extent of the anomaly and its effects on the pipe wall.

If no immediate hazard exists, the operator establishes a program to repair or recondition that portion of the pipeline.

Above-ground sections of line are visually inspected for corrosion or other damage (e.g. vandalism, erosion, vehicular damage). Mechanical piping joints are checked for leaks.

Corrosion protection electrical current readings are taken at stations on the pipeline and checked for evidence of unusual readings. Where corrosion readings are impossible (e.g. near other electrical facilities, or under extensive paved areas), leak surveys with leak detector equipment are conducted to check for evidence of gas leaks over and near the pipeline path.

Equipment for monitoring internal corrosion is checked.

Each transmission line valve is inspected visually and checked for operability.

Each pressure relief device on the pipeline is checked for proper setting and operation, to ensure the maximum pressure on the pipeline is not exceeded.

Pressure recording charts at specific locations are retrieved and inspected for evidence of unusual pressure excursions.

Maintenance records are filled out to record the observations made and the conditions found.

PIPELINE OPERATOR QUALIFICATION AND TRAINING BRIEFING PAPER

BY THE AMERICAN GAS ASSOCIATION AND THE AMERICAN PUBLIC GAS ASSOCIATION

March 19, 2002

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3. Equipment monitoring for *internal corrosion* at points where the risk of such exists must be checked at least once in 6 months
4. On shore pipelines exposed to the atmosphere must be *checked for external corrosion* at least once in every 3 years; off-shore pipes exposed to the atmosphere must be checked at least once a year.
5. Operator carries out *continuing surveillance* of its facilities to determine and take appropriate action concerning changes in population density near the pipeline, failures, leakage history, corrosion and other unusual operating and maintenance conditions.
6. If a segment of pipe is determined to be in unsatisfactory condition, but no immediate hazard exists, the operator must initiate a program to recondition that segment or phase it out. If this is not possible, the operator must reduce the operating pressure of the pipeline, in accordance with prescribed guidelines. If an immediate hazard exists, the operator must take prompt action to repair the segment.
7. Each operator must *patrol its transmission pipeline trajectory,* at intervals between 4 times and once a year, depending on certain risk factors.
8. *Transmission pipelines carrying odorized gas* must be checked for leaks at least once a year.
9. *Emergency shutdown devices at gas compressor stations* must be tested at least once a year.
10. Each *pressure limiting and pressure regulating station* on the transmission pipeline must be inspected and tested at least once a year. This includes inspecting the gas pressure history recorded at these stations.
11. *Pressure relief devices* on the pipeline or at compressor stations to must be tested at least once a year for the ability to protect the pipeline from overpressure.
12. Each *transmission line valve* must be inspected and partially operated at least once a year.
13. If larger than 200 cubic feet in size, each *underground vault* housing pressure regulating or pressure limiting equipment must be tested for gas leaks at least once a year.

Distribution Systems

1. *Buried pipeline corrosion protection electrical current readings* at test stations spaced along the pipeline must be checked at least once a year
2. *Buried pipeline external corrosion control systems* must be checked at least 6 times a year
3. *Equipment monitoring for internal* corrosion at points where the risk of such exists must be checked at least once in 6 months
4. Distribution pipelines *exposed to the atmosphere* must be *checked for external corrosion* at least once in every 3 years.
5. Operator carries out *continuing surveillance* of its facilities to determine and take appropriate action concerning changes in population density near the pipeline, failures, leakage history, corrosion and other unusual operating and maintenance conditions.
6. If a segment of *pipe is determined to be in unsatisfactory condition,* but no immediate hazard exists, the operator must *initiate a program to recondition that segment or phase it out.* If this is not possible, the operator must reduce the operating pressure of the pipeline, in accordance with prescribed guidelines. If an immediate hazard exists, the operator must take prompt action to repair the segment.
7. Distribution pipelines in *places or structures where anticipate physical movement or external loading* could take place must be patrolled at least 4 times a year in business districts and twice a year outside business districts.
8. Distribution pipelines in *business districts* must be checked for leaks at least once a year including tests for gas presence in subterranean facilities and other areas in the vicinity of a leak.
9. Distribution pipelines *outside business districts* must be checked for leaks at least once every 5 years. Where electrical readings for corrosion protection are impractical, the leak checks must be at least once every 3 years.
10. *Disconnected gas service* lines must be re-tested before being reconnected.
11. Each *distribution line valve* that may be necessary for the safe operation of the system must be inspected at intervals not exceeding one year.

12. If larger than 200 cubic feet in size, each *underground vault* housing pressure regulating or pressure limiting equipment must be tested for gas leaks at least once a year.

HOW A PIPELINE IS INSPECTED

Pipeline right-of-way is driven or walked to check for evidence of excavation or other activity over or in the vicinity of the buried pipeline. Special attention is paid to construction areas, highway and railroad crossings, populated areas, business districts, areas where ground movement is likely, or where water may erode the ground above the pipeline.

Changes in population (e.g. housing density) in the vicinity of the pipeline are also observed and noted, if the pipeline is in a sparsely populated location.

Where permitted by regulation, visual evidence of gas leaks is first sought. If preliminary evidence of a gas leak is found, the location is then checked with an instrument, if not previously done. The rate of leakage is established and monitored to determine the criticality of the leak (depends on location of leak, pressure inside line, size of line and rate of gas leak).

Depending on initial the criticality, the location may then be made secure and immediately excavated to find the cause of the leak. If it is corrosion, the exposed portion of line is checked for corrosion until the location where there is no evidence of corrosion.

The exposed portion of the line may be checked with x-ray or ultrasound equipment to determine the extent of the anomaly and its effects on the pipe wall.

If no immediate hazard exists, the operator establishes a program to repair or recondition that portion of the pipeline.

Above-ground sections of line are visually inspected for corrosion or other damage (e.g. vandalism, erosion, vehicular damage). Mechanical piping joints are checked for leaks.

Corrosion protection electrical current readings are taken at stations on the pipeline and checked for evidence of unusual readings. Where corrosion readings are impossible (e.g. near other electrical facilities, or under extensive paved areas), leak surveys with leak detector equipment are conducted to check for evidence of gas leaks over and near the pipeline path.

Equipment for monitoring internal corrosion is checked.

Each transmission line valve is inspected visually and checked for operability.

Each pressure relief device on the pipeline is checked for proper setting and operation, to ensure the maximum pressure on the pipeline is not exceeded.

Pressure recording charts at specific locations are retrieved and inspected for evidence of unusual pressure excursions.

Maintenance records are filled out to record the observations made and the conditions found.

Mr. BARTON. Thank you, Mr. Morris.

We will now hear from Mr. Kipp.

STATEMENT OF ROBERT R. KIPP

Mr. KIPP. Thank you, Mr. Chairman, and members of the committee. My name is Bob Kipp, and I am the Executive Director of the Common Ground Alliance, an alliance of 15 stakeholder groups created some 2 years ago.

Common Ground Alliance is a non-profit organization dedicated to shared responsibility and damage prevention to underground facilities. The CGA was created upon the completion of a common ground study of one-call systems, and damage prevention best practices.

This landmark study, sponsored by the U.S. Department of Transportation, Office of Pipeline Safety, was completed in 1999 by 161 experts from the damage prevention stakeholder community.

And in my comments today, I would like to focus on three key areas. First, NTSB recommendations to risk to the Office of Pipeline Safety. As stated in the written testimony, the CGA comprises members from 15 stakeholder groups, and they are gas, oil, road builders, excavators, one-call systems, locators, engineers, regu-

lators, insurance, electric, telecom, private water, equipment manufacturers, railroad and public works.

When the CGA makes a recommendation to the Office of Pipeline Safety, or any other government or private body, all 15 stakeholder groups have agreed to the wording in those recommendations. We believe this to be a very powerful statement.

Our recommendations are not those of any one industry, but those of a group of industries, with belief that damage to our infrastructure is a shared responsibility. In the past few months, we have undertaken a review of eight NTSB recommendations to risk by OPS.

We believe that the first of these recommendations P0001, related to the use of E-911 when damage to a pipeline results in the release of gas or other hazardous substance, has been resolved with a change to the best practices and recommendations to OPS earlier this year.

The second NTSB recommendation, P-0101, on the separation of gas and electric utilities in common trenches, is under review and a recommendation will be forthcoming later this year, which we believe will satisfy the action outstanding and close this recommendation.

Of the six remaining items under review, P-97-16, 17 and 18, and P-97-22, 23, and 24, three relate to data gathering, while the three others have to do with locating technologies and the certification of these.

Both of these series of recommendations will take more time, and may or may not completely satisfy the NTSB recommendation, and in the case of data gathering recommendations will require fairly substantial funding.

Our more than 700 members, of which some 200 are currently working on five committees and numerous subcommittees, volunteered their time and traveling expenses to work through the issues and recommendations.

We are thankful to OPS for the seed money in getting the CGA off the ground, and are working with the office of pipeline safety toward a 2002 cooperative agreement to help fund the above work and a great number of other initiatives in the CGA.

We are also hopeful that the grants that the CGA proposed in 3609 will be passed as proposed to help us continue our work. The second item, 3 or 4 digit dialing. Three digit dialing, or in the case of call dig, four digits, is of great interest to our industry.

It is generally accepted by infrastructure owners that between 33 percent and 60 percent of third-party damages are caused by individuals who did not call prior to digging. There are numerous reasons why people do not call before digging.

And included in the various reasons are the lack of knowledge or awareness of the need to call, or the number to call. The CGA believes that a single nationwide 3 or 4 digit number would increase awareness and consequently increase calls to various one-call centers, resulting in fewer instances of third-party damage.

A number of wireless companies have programmed some of their switches to direct pound dig to the appropriate one call center served by these various switches. We believe that the extension of this program to all wireline and wireless switches in the country

would be a major step in the direction of damage prevention to the infrastructure.

The CGA also realizes that such a program would be costly to the various call center providers, and hope that a solution to this potential issue in deployment of the truncated universal number can soon be implemented.

Item 3, regional CGAs. Like many other programs, much of the success and payoff is derived from the buying at local levels.

The CGA has as one of its key programs the assistance to local groups in creating regional damage prevention committees, be they State CGAs, regional damage prevention organizations, or any other form of group interested in the implementation of best practices, and bringing industries together to work toward damage prevention.

We are thankful to OPS for making State grants available for those working toward best practices implementation, and are grateful to the provision in 3609 to make a million a year available to States from 2002 to 2005.

In summary, we have numerous other activities under way. Our education committee has pages of initiatives stated for 2002. Our best practice committee is tackling the issue of security with respect to our stakeholders, and the CGA mandate.

Last, damage prevention is truly a shared responsibility, and no one industry should be singled out in the general discussion of incidents. The CGA believes that stakeholders working together at both national and regional levels will make a difference in reducing damage to our underground infrastructure. Thank you.

[The prepared statement of Robert R. Kipp follows:]

PREPARED STATEMENT OF ROBERT KIPP, EXECUTIVE DIRECTOR, COMMON GROUND ALLIANCE

Good afternoon, Mr. Chairman and members of the Committee. My name is Robert Kipp and I am the Executive Director of the Common Ground Alliance (CGA). I am pleased to appear before you today to represent the CGA.

Background: The Common Ground Alliance is a nonprofit organization dedicated to shared responsibility in the damage prevention of underground facilities. The Common Ground Alliance was created just over two years ago at the completion of the "Common Ground Study of One-Call Systems and Damage Prevention Best Practices." This landmark study, sponsored by the U.S. Department of Transportation Office of Pipeline Safety, was completed in 1999 by 161 experts from the damage prevention stakeholder community.

The "Common Ground Study" began with a public meeting in Arlington, VA in August 1998. The study was prepared in accordance with, and at the direction and authorization of the Transport Equity Act for the 21st Century signed into law June 9, 1998 that authorized the Department of Transportation to undertake a study of damage prevention practices associated with existing one-call notification systems. Participants in the study represented the following stakeholder groups: oil; gas; telecommunications; railroads; utilities; cable TV; one-call systems and centers; excavation; locators; equipment manufacturers; design engineers; regulators; federal, state, and local government. The Common Ground Study concluded on June 30, 1999 with the publication of the "Common Ground Study of One-Call Systems and Damage Prevention Best Practices."

At the conclusion of the study, the Damage Prevention Path Forward initiative led to the development of the nonprofit organization now recognized as the *Common Ground Alliance* (CGA). Building on the spirit of shared responsibility resulting from the Common Ground Study, the purpose of the CGA is to ensure public safety, environmental protection, and the integrity of services by promoting effective damage prevention practices. The CGA works to prevent damage to the underground infrastructure by: fostering a sense of shared responsibility for the protection of underground facilities; supporting research; developing and conducting public aware-

ness and education programs; identifying and disseminating the stakeholder best practices such as those embodied in the Common Ground Study; and serving as a clearinghouse for damage data collection, analysis and dissemination.

The CGA now counts more than 700 individuals representing 15 stakeholder groups and over 120 member organizations. Each of the 15 stakeholder groups has one seat on the CGA Board of Directors, regardless of membership representation or financial participation. CGA members populate the organization's five working committees: Best Practices, Research & Development, Educational Programs, Data Reporting & Evaluation, and Marketing, Membership, & Communications.

WORKING COMMITTEES

The CGA working committee guidelines include:

- All stakeholders are welcomed and encouraged to participate in the Committees' work efforts.
- Committee members represent the knowledge, concerns and interests of their constituents.
- A "primary" member is identified within each Committee for each particular stakeholder group as the spokesperson for consensus decisions.

A. Best Practices Committee

It is important that all stakeholders implement the damage prevention Best Practices. The Best Practices Committee:

- Identifies Best Practices appropriate for each stakeholder group to minimize the possibility of damages;
- Gauges current levels of implementation and use of Best Practices in each industry;
- Encourages and promotes increased implementation;
- Updates Best Practices to incorporate recent developments in damage prevention processes, procedures, practices, and technology.

Current Activities:

Resulting from the NTSB report, "*Natural Gas Pipeline Rupture and Subsequent Explosion, St. Cloud, Minnesota, December 11, 1998*"—a review of safety recommendations regarding the use of E-911 when excavation damage occurs for inclusion to CGA Best Practices. As a result of this report, the Office of Pipeline Safety requested that the CGA review the existing Best Practice and determine if the NTSB recommendation P-00-1 should be included as a "New Best Practice".

The recommendation from the NTSB report read: "To advise excavators to call '911' if the damage to the pipeline results in a release of gas or other hazardous substance or potentially endangers life, health or property."

Prior to the Recommendation the Best Practice on this issue left it to the excavator to determine if the release of gas or hazardous substance posed a danger, and if so, to determine if 911 should be called.

The CGA Best Practices Committee reviewed the recommendation and unanimously approved a change to the Best Practice to reflect the following:

Practice Statement (Best Practices Committee Approved by Consensus 11/27/01)

"If the damage results in the escape of any flammable, toxic, or corrosive gas or liquid or endangers life, health, or property, the excavator responsible immediately notifies 911 and the facility owner/operator."

The CGA Board of Directors subsequently unanimously approved the change to this practice. The Executive Director wrote Ms. Stacey Gerard of the Office of Pipeline Safety earlier this year informing her of this change.

Resulting from the NTSB report, "*Natural Gas Explosion and Fire in South Riding, Virginia, July 7, 1998*"—a review of July 1, 2001 Virginia State legislation regarding minimum separation of utilities located in common trenches;

The Office of Pipeline Safety wrote the CGA regarding the NTSB recommendation P-01-1 on the separation of gas and electric utilities in common trenches. It is expected that our Best Practices committee will soon approve a change to the existing practice increasing the distance in radial separation of the gas and electric in common trenches, similar to what has been recommended by the NTSB, and consistent with the National Electric Safety Code.

The review of the HDD Consortium *Horizontal Directional Drilling, (HDD) Good Practices Guidelines,* for potential endorsement by the CGA;

The review of NULCA and APWA "*Address Marking, Color Codes and Marking Paint";*

Condensing language of current Best Practices document.

The Best Practices Committee has begun an in-depth review of Security Practices across the stakeholder groups. Once assembled, these practices will be reviewed, and if appropriate, either integrated into the existing Best Practices, or implemented as a separate section in the Common Ground Alliance Best Practices document.

Though all of the work is done voluntarily through the members, the Office of Pipeline Safety has been instrumental in funding start " up costs associated with getting the CGA up and running. The CGA is currently negotiating a cooperative agreement with the Office of Pipeline Safety to enable the CGA to pay for support, materials, and external services required to accomplish its ambitious mandate.

It is important to note that any changes to the Best Practices have unanimous approval from the 14 industry groups represented on the committee, and subsequent approval of a minimum of 10 of the14 Board members.

B. Research and Development Committee

The CGA promotes damage prevention R&D and serves as a clearing house for information on damage prevention technologies and practices. The Research and Development Committee's mandate is to:

- Seek to identify new and existing technologies that can be adapted to improve damage prevention efforts;
- Encourage the sharing of non-proprietary information concerning technologies;
- Search for opportunities, including sponsoring conferences, for the CGA to promote damage prevention R&D.

Current Activities:

- Standardized National Mapping—Standardized mapping technologies are being reviewed. Vendors are being invited to make presentations to the committee. Existing mapping technologies in railroads and pipelines are being studied.
- One-Call Center 3-digit dialing " review and recommendation—Three digit-dialing (or 4 digits such as #DIG) is of great interest to our industry. It is generally accepted by infrastructure owners that between 33% and 60% of third party damages are caused by individuals who did not call prior to excavating (digging). There are numerous reasons people do not call before digging. Included in the various reasons is the lack of knowledge or awareness of the need to call or the number to call. The CGA believes that a single nation-wide, 3 or 4 digit number, would increase awareness and consequently increase calls to the various One-Call Centers resulting in fewer instances of third-party damage. A number of wireless companies have programmed some of their switches to direct #DIG (#344) to the appropriate One-Call Centers served by these various switches. We believe that the extension of this program to all wireline and wireless switches in the country would be a major step in the direction of damage prevention to the infrastructure. The CGA also realizes that such a program would be costly to the various Telecom providers and hope that a solution to this potential issue and deployment of the truncated universal number can soon be implemented.
- Compendium of Locating Technologies under review—The committee is reviewing and compiling all available Locating Technologies and locating products. The committee working in concert with NULCA (National Utility Locating Contractors Association), hope to make available on both websites and available to the stakeholders of all industries involved, a complete library of all products and technologies. We are working with OPS and the NTSB in order to attempt to satisfy NTSB recommendations P-97-16, P-97-17, and P-97-18 addressing the Certification of Locating Technologies. Again, we are working closely with the OPS on a cooperative agreement to help defray external costs associated with this initiative.
- Root Cause of Damage—The R&D Committee requests that the Data Reporting and Evaluation Committee have begun to initiate collection of comprehensive data on the root cause of underground utility damage. The R&D committee suggests that each stakeholder group encourage their members to use the form developed in Best Practices (figure 9.1 of the Common Ground Best Practices Study) to report root cause data. The 2 committees will now negotiate the work to be done. If successful, the CGA will have the first comprehensive database of the causes of damage to our underground infrastructure across all industries.
- Encroachment Monitoring
- Uniform One Call Laws—The task team is working on a survey to be used to interact with one-call centers to gather information on uniformity in one-call laws. They are looking for 100% participation and some of the data will include answers to the following questions: What type of software do One-Call centers

use? Who will use the results after the information is gathered? Which Best Practices are being used by the One-Call center? These answers will facilitate the decision-making regarding the development of a nation-wide mechanized database of calls to the One-Call Centers.

C. Educational Programs Committee and Dig Safely Sub-committee

One of the purposes of the CGA is to develop and conduct public awareness and education programs to promote damage prevention. The Educational Programs Committee:

- Identifies existing programs for opportunities where the CGA can have significant impact in furthering their reach and effectiveness;
- Evaluates aspects of existing programs for areas where additional emphasis is needed; and
- Continues to promote Dig Safely and develop other educational programs to reduce damage to underground facilities

Current Activities:

- Create 8 Best Practices brochures summarizing best practices from Common Ground Study:
  - LOCATING AND MARKING BEST PRACTICES
  - MAPPING BEST PRACTICES
  - ONE-CALL CENTER BEST PRACTICES
  - PLANNING AND DESIGN BEST PRACTICES
  - PUBLIC EDUCATION AND AWARENESS BEST PRACTICES
  - REPORTING AND EVALUATION BEST PRACTICE
  - COMPLIANCE BEST PRACTICES
  - EXCAVATION BEST PRACTICES
- Dig Safely video—"Get the Dirt"
- Public Dig Safely Awareness Survey
- Working with M&MC to coordinate participation at various shows and conventions
- Best Practices on CD Rom
- Public Dig Safely Awareness Survey
- Work with MM&C to coordinate participation at various shows and conventions
- Review of Corporate Dig Safely Programs
- Damage Prevention State Laws
- Develop materials to target specific stakeholder groups, in addition to the current materials that reflect the best practices in general;
- Review and evaluate homeland and evaluate homeland and infrastructure security as an underlying benefit/purpose for damage prevention education;
- Develop videos, DVDs and other media depicting each individual best practice "in action";
- Develop the "Locate Accurately" educational program;
- Develop materials for priority audiences
- Seek data on damage causes (note the R&D and Data Reporting Committees' efforts);
- Establish graphics standards for the CGA and Dig Safely logos;
- Analyze the results of the latest public Dig Safely survey and develop and implement appropriate recommendations;
- Finalize criteria for the CGA endorsement or "seal of approval" for 2nd party materials;
- Resolve and begin the production and distribution of a CGA newsletter; and
- Evolve/improve the distribution process for CGA materials
- In summary, this large committee has an extremely ambitious program. We are working closely with OPS on funding issues associated with the dissemination of educational information.

D. Data Reporting and Evaluation Committee

The Common Ground Study determined that consistent & meaningful damage data is needed. The Data and Reporting Evaluation Committee looks at available data, data gaps, and how data can best be gathered and disseminated. Reporting and evaluation of damage data is important to:

- Measure effectiveness of damage prevention programs;
- Assess the risks and benefits of different damage prevention practices being implemented by various stakeholders;
- Assess the needs and benefits of education and training programs.

Current Activities:

- Survey on available damage data and reporting
- Studying requirements for funding to establish mechanized database for damage reporting " NTSB Recommendations P-97-22, P-97-23, and P-97-24
- It is essential that data gathering on a mechanized objective basis, and a substantial nation-wide report on the analysis of all damages be developed. The CGA, in concert with and through a co-operative agreement from OPS have begun the work necessary to determine the parameters and feasibility of such a report or series of report. An RFP will be issued in March/April to companies specializing in data gathering. Once the responses have been received we will evaluate the submissions and determine our next course of action.
- Our intent is to work with OPS in an effort to respond to NTSB Recommendations P-97-22, P-97-23, and P-97-24. These recommendations deal with the development of a method to gather damage data, consistently gather the data, and utilize the data to periodically assess the effectiveness of various excavation damage prevention programs.

E. Marketing, Membership, & Communication Committee

The Committee: Identifies opportunities and needs for promoting the organization to increase sponsorship and membership; Identifies opportunities for obtaining outside funding such as grants to promote the development of the organization; Evaluates communication opportunities and methods to ensure the CGA is effectively communicating with its members, sponsors, and all other stakeholders.

Current Activities:

- Ongoing booth presence and presentations at trade shows
- This year the CGA will make presentations to more than 50 companies, municipalities, associations, trade-show attendees and conventioneers.
- Regional CGA effort
- Partner with existing DP entities.
- Disseminate CGA information.
- Collect local information.
- Strengthen cooperation amongst stakeholders.
- Create opportunities for stakeholder involvement.
- Establish new councils where none exist.
- Find new members.
- *Purpose is NOT to absorb or control any existing Damage Prevention organization!*
- Support in recruiting new sponsors and members
- Development of booth theme and promotional materials
- Development and distribution of press releases
- Publication of a bi-monthly CGA newsletter
- Website monitoring and development

H.R. 3609 " PIPELINE INFRASTRUCTURE PROTECTION TO ENHANCE SECURITY AND SAFETY ACT

In December of 2001, Mr. Young as well as Mr. Petri, Mr. Tauzin, and Mr. Barton tabled H.R. 3609, the Pipeline Infrastructure Protection to Enhance Security and Safety Act.

The CGA supports this Bill. In addition to recognizing the Best Practices developed by the 161 volunteer experts across the stakeholder groups, it also encourages States through financial incentives, to implement these Best Practices. The Bill also recognizes the work of the CGA and encourages continued funding of the CGA from 2002 through 2005.

We encourage the committee to delete reference to "construction-related" damages, as our goal is to reduce all damages regardless of the circumstances. Lastly, we recommend that the final version of the Bill include language encouraging the implementation of a nation-wide 3 or 4 digit number to call before digging.

SUMMARY

The Common Ground Alliance is a true member-driven organization. Members from the 15 stakeholder groups work together to determine direction and problem-solve, making the CGA a truly unique forum. We would not exist without the immense dedication and effort of our members as well as the financial and logistical support of Ellen Engleman and Stacey Gerard of RSPA and OPS.

Our greatest strengths can be summarized as follows: When the CGA proposes a policy, solution or response to a government or corporate body, the wording of such a proposal has been agreed to by primary members representing every stake-

holder group within the CGA. The receiving body of a CGA proposal knows that no one industry has a vested interest, and that all stakeholder groups agree with the content and wording of such a proposal.

In addition, the CGA has brought together industry leaders on a National basis to work together and help fund the Alliance in its effort to reduce damage to our nation's underground infrastructure.

Lastly, in addition to all of the wonderful accomplishments in education, best practice development, data gathering, and research and development, the CGA is now reaching for and succeeding in bringing together stakeholders at a local effort. We believe to be successful, we must continue to encourage and promote communication, problem resolution, and the following of the Best Practices at a local level.

Thank you.

Mr. BARTON. Thank you, Mr. Kipp, and now we will hear from Mr. Sullivan.

STATEMENT OF EDWARD C. SULLIVAN

Mr. SULLIVAN. Thank you, Mr. Chairman. On behalf of the 3 million members and 14 affiliated unions of the Building and Construction Trades Department, I am pleased to be here to help this committee and inform this committee about the current status of the pipeline industry.

Let me take this opportunity to thank Chairman Tauzin, Ranking Member Dingell, Subcommittee Chairman Barton, and Ranking Member Boucher, for holding this hearing.

All our members care very deeply about passing an effective pipeline safety bill that will protect the public, the pipeline workers, and the environment, from pipeline accidents, and from new national security threats.

The building trades represent a large contingent of members in different crafts who work on and around pipelines. They construct, operate, and maintain gas, oil, and other pipelines all over this country.

It is critically important to our workers that these pipelines are safe and secure. Unfortunately, after the events of September 11, protection of the pipelines and their related facilities from terrorist attack have become a new concern.

The building trades men and women who work on pipelines have one priority, and that is safety. We want to protect our country's pipelines from new terrorist threats, and protect communities from future accidents, like the tragedies that occurred in Bellingham, Washington, and in New Mexico.

While the building trades is actively working with Congress to help shape the best pipeline safety bill possible, today I would like to talk about our biggest safety concerns.

I request that the committee please enter my entire statement into the record, even though I won't have time to speak on all of the aspects of the bill today. In general, a worker on a pipeline will tell you that the standards issued by the Office of Pipeline Safety are good enough.

The problem lies in the enforcement. More enforcement is needed to make sure that the pipelines are tested for leaks, but more importantly are tested for integrity. When a leak is detected, pipeline companies notify a contractor with whom they have an agreement to do repair work.

The contractor is usually called out to replace only the section of the line that is leaking and not the entire line. This often leaves

our members wondering when will they be called on to fix the other sections of the same pipeline.

Although leaks often pose a threat to public safety, when a pipeline rupture occurs, human lives are put at risk. A pipeline will come apart when its integrity fails. When your product is flowing through a pipe that has a compromised integrity at a high pressure, heat is created, and an explosion is imminent.

The best means of testing the integrity of a pipeline is called hydrostatic testing. This is accomplished by purging the section of pipe to be tested, and then filling the pipe with water, and putting it under constant pressure for a specified number of hours.

Pipeline companies will complain that this test is costly, and it will shut a line down and interrupt service. It will put pressure on the pipe that is above its normal operating pressure and may damage the pipe.

These are all true. If the pipe is damaged, however, it is because the pipe's integrity was failing. But wouldn't the members of this committee rather have water spilling out of a weak and deteriorating pipe than have it blow up and only then find out that the integrity was failing.

This test will tell you if the pipe integrity is in good condition, and the pipeline in Bellingham, Washington had been tested only weeks before the pipe ruptured by the smart pig testing.

A pig test only reveals corrosion and leaks, and it does not conclusively tell an operator how the integrity of the pipeline is holding up. A pipeline's integrity must be tested. Testing for leaks only is not sufficient.

Although half of the Nation's pipelines were originally constructed before 1970, those lines are subject both to external and internal corrosion, and their integrity must be periodically tested.

The building trades support require periodic inspection of pipelines that look for leaks and integrity failures. The building trades is also aware of the major cost factor to the operating companies to do this type of testing.

We are therefore also suggesting for the safety of the U.S. citizens and in these times of uncertainty the U.S. Government should give these pipeline operators some type of incentive or tax relief to perform these tests on a periodic basis.

Pipelines are not a national security issue because there are approximately 2.2 million miles of them in the United States. They are a unique national security concern because many of them run underneath communities and the above ground pumping stations are visible with little protection.

Just as in New York City when the planes struck the Twin Towers, construction workers from all over New York State dropped their tools to help with the rescue and recovery.

If a pipeline would be attacked, our members would again be rushing to the site to help with the rescue and recovery.

Our members know how to clear debris, shut down a pipe, and repair it, and restore product flow. If a pipeline in Upstate New York was blown up by terrorists in the middle of winter, thousands of people would go without heat until the pipeline operators and constructors could repair the lines to restore service.

How long would it take to repair the line and restore full service? The answer to that question depends on the cooperative response of local fire fighters, Federal, State, and local emergency management officials, and the area's pipeline workers.

Apparently, we are not aware of coordinated response plans already in place in the majority of this country's communities. If such an attack were to take place, we would have difficult responding because of the following obstacles.

Only pipeline workers who are certified to work on that company's pipeline would be allowed to do the repair work. Workers on a nearby line employed by another company would not be able to help because they are not certified by that company to work on their lines.

This presents the problem of having enough workers immediately on the scene. Chances are that replacement pipe would not be nearby and would take time to locate and retrieve.

Large bodies of tools and operating equipment would have to be easily accessible in a plan to redirect product flow would need to be in place. These are just a few of the immediate concerns that would have to be dealt with for an effective response.

The building trades believes that the emergency response teams need to be assembled and coordinated as soon as possible. The building trades men and women and contractors working on pipelines today are ready and willing to work with officials to enhance safety around the pipeline and to create an emergency response plans.

We believe that the new Office of Homeland Security should be consulted and involved in helping communities create an emergency plan and response teams to aid in this effort.

We would like to see national standards put in place that would give workers certification to come on different company lines during an emergency. The building trades strongly urges Congress to pass a pipeline safety bill as soon as possible.

Our members fear that without better enforcement effective pipeline integrity and detection of leaks another explosion will certainly happen again. Emergency response teams must also be coordinated immediately around the country to help prevent terrorist attacks on pipelines and to create swift and effective responses to such attacks.

We are committed to making sure that this country's pipeline infrastructure is operated properly, safely, and is protected from national security threats. As pipeline legislation evolves in the House, we look forward to working with the members of this committee to pass the best pipeline safety bill possible. Thank you.

[The prepared statement of Edward C. Sullivan follows:]

PREPARED STATEMENT OF EDWARD C. SULLIVAN, PRESIDENT, BUILDING AND CONSTRUCTION TRADES DEPARTMENT, AFL-CIO

On behalf of the three million members and fourteen affiliated unions of the Building and Construction Trades Department, I am pleased to be here to help inform this committee about the current status of the pipeline industry. Let me take this opportunity to thank Chairman Tauzin, Ranking Member Dingell, Subcommittee Chairman Barton and Ranking Member Boucher for holding this hearing. Our workers care very deeply about passing an effective pipeline safety bill that will protect the public, pipeline workers and the environment from pipeline accidents and from new national security threats.

The Building Trades represent a large contingent of workers in different crafts who work on and around pipelines. They construct, operate and maintain gas, oil, and other pipelines all over the country. It is critically important to our workers that these pipelines are safe and secure. Unfortunately, after the events of September 11, protection of the pipelines and their related facilities from terrorist attack has become a new concern. The Building Trades men and women who work on pipelines have one priority: safety. We want to protect our country's pipelines from new terrorist threats, and protect communities from future accidents like the tragedies that occurred in Bellingham, Washington and New Mexico.

While the Building Trades is actively working with Congress to help shape the best pipeline safety bill possible, today I'd like to talk about our biggest safety concerns. I request that the committee please enter my entire statement into the record even though I won't have time to speak to all the aspects of the bill today.

In general, a worker on a pipeline will tell you that standards issued by the Office of Pipeline Safety are good enough. The problem lies in the enforcement. More enforcement is needed to make sure that pipelines are tested for leaks, but more importantly that they are tested for integrity.

When a leak is detected, pipeline companies notify a contractor with whom they have an agreement to do repair work. The contractor is usually called out to replace only the section of the line that is leaking and not the entire line. This often leaves our members wondering, when will they be called on to fix the other sections of the same pipeline?

Although leaks often pose a threat to public safety, when a pipeline rupture occurs human lives are put at risk. A pipeline will come apart when its integrity fails. When you have products flowing through a pipe that has a compromised integrity, at a high pressure, heat is created and an explosion is imminent.

The best means of testing the integrity of a pipeline is called hydrostatic testing. This is accomplished by purging the section of pipe to be tested and then filling the pipe with water and putting it under a constant pressure for a specified number of hours. Pipeline companies will complain, that this test is costly, it will shut a line down and interrupt service, it will put pressure on the pipe that is above its normal operating pressure and may damage the pipe. These are all true. If the pipe is damaged however, it's because the pipe's integrity was failing. But wouldn't the members of this committee rather have water spilling out of a weak and deteriorating pipe than have it blow up, and only then find out that the integrity was failing? This test will tell you if the pipe's integrity is in good condition. The pipeline in Bellingham, Washington had been tested weeks before the pipe ruptured by a smart pig testing device. A pig test only reveals corrosion and leaks, it does not conclusively tell an operator how the integrity of the pipeline is holding up.

A pipeline's integrity must be tested. Testing for leaks only is not sufficient. Over half of the nation's pipelines were originally constructed before 1970. Those lines are subject to both internal and external corrosion and their integrity must be periodically checked. The Building Trades supports required periodic inspections of pipelines that look for leaks and integrity failures. The Building Trades is also aware of the major cost factor to the operating companies to do this type of testing. We are therefore also suggesting for the safety of U.S. Citizens and in these times of uncertainty the U.S. Government should give these pipeline operators some type of incentive or tax relief to perform these tests on a periodic basis.

Pipelines are now a national security issue because there are approximately 2.2 million miles of them in the United States. They are a unique national security concern because many of them run underneath communities and the above ground pumping stations are visible with little protection. Just as in New York City when the planes struck the twin towers, construction workers from all over New York State dropped their tools to help with rescue and recovery, if a pipeline were to be attacked, our members would again be rushing to the site to help with rescue and recovery. Our members know how to clear away debris, shut down a pipe, and repair it to restore product flow.

If a pipeline in upstate New York was blown up by terrorists in the middle of winter, thousands of people would go without heat until the pipeline operators and constructors could repair the lines to restore service. How long would it take to repair the line and restore full service? The answer to that question depends on the cooperative response of local fire fighters, federal, state and local emergency management officials and the area's pipeline workers.

Currently, we are not aware of coordinated response plans already in place in the majority of this country's communities. If such an attack were to take place, we would have difficulty responding because of the following obstacles. Only pipeline workers who are certified to work on that company's pipeline would be allowed to do the repair work. (Workers on a nearby line employed by another company would

not be able to help because they are not certified by that company to work on their lines, this presents the problem of having enough workers immediately on the scene.) Chances are, that replacement pipe would not be nearby and would take time to locate and retrieve. Large volumes of tools and operating equipment would have to be easily accessible and a plan to redirect product flow would need to be in place. These are just a few of the immediate concerns that would have to be dealt with for an effective response.

The Building Trades believes that emergency response teams need to be assembled and coordinated as soon as possible. Building Trades men and women and contractors working on pipelines today are ready and willing to work with officials to enhance safety around pipelines and to create emergency response plans. We believe that the new Office of Homeland Security should be consulted and involved in helping communities create emergency plans and response teams. To aid this effort, we would like to see national standards put in place for workers that would give them certification to work on different company lines during an emergency.

The Building Trades strongly urges Congress to pass a pipeline safety bill as soon as possible. Our members fear that without better enforcement for testing pipeline integrity and detection of leaks another explosion will certainly happen again. Emergency response teams must also be coordinated immediately, around the country, to help prevent terrorist attacks on pipelines and to create swift and effective responses to such attacks.

The Building Trades are committed to making sure this country's pipeline infrastructure is operated properly, safely and is protected from national security threats. As pipeline legislation evolves in the House, we look forward to working with the members of this committee to pass the best pipeline safety bill possible.

Thank You.

The Building and Construction Trades Department is committed to working with Members of Congress to make sure that all pipelines are safe and secure. To craft the best pipeline safety bill possible and in order to take steps to protect our pipelines from new threats, the Building Trades would like to see a pipeline safety bill pass the House that includes the following provisions.

- Required periodic inspections of pipelines, with priority going to those lines that are at the greatest threat to life and property (based on proximity to persons and property, age, and time since last inspection). The use of independent third party inspectors should be encouraged to help do inspections. Congress should consider setting up a system of monetary incentives to help operators perform efficient, periodic inspections.
- Community right to know, worker right to know and emergency preparedness provisions must be included. Municipalities must have secure access to maps of local pipelines.
- Whistleblower protections for employees. This is already included in the McCain-Murray bill and must be included in a House passed bill.
- We support the certification of safety programs and standards; in addition individual employees performing safety-sensitive work on pipelines should also be certified. We also support a national standard to certify workers to work on any line in case of an emergency.
- Pipeline Integrity Management Programs that include the best leak detection technologies and detection for integrity failures. The Secretary of Transportation needs to continue with or initiate further research and development to identify innovative technology that can aid in leak detections and in detecting pipeline integrity failures.
- Federal studies to recommend and implement solutions for the multifaceted problems of population encroachment. There need to be adequate amounts of pipeline right-of-way so that pipeline construction, operation and maintenance work may be performed safely. This should also be taken into consideration in future planning and permitting processes.
- Language that would give the Secretary of Transportation, in consultation with the Office of Homeland Security, the authority to work with industry, labor, communities, federal and state agencies to implement new safety and security measures in light of the new threats to our nation's energy infrastructure after September 11.
- Increased security around pumping stations and metering facilities is a must. There also needs to be a special team of people from the pipeline crafts to assist along with the firefighters and state, local, and federal officials in drafting a plan to help control and repair any problems that may arise. Based on the recent experience with key building trade craft unions at the World Trade Center and at the Pentagon, we know first hand many of the problems which arise for emergency first responders.

- The Building Trades recommend that this Committee consider amending Section 4(b) of the Accountable Pipeline Safety and Partnership Act of 1996, 49 U.S.C. 60102(b), so that it provides that the courts may not review a minimum safety standard adopted by the Office of Pipeline Safety solely on the basis of the standard's satisfaction of the cost-benefit analysis requirement. In 1996, Congress adopted a requirement that the Office of Pipeline Safety must perform a risk assessment and a cost-benefit analysis whenever it prescribes a new minimum safety standard. Cost-benefit analysis is an inappropriate means of controlling federal administrative agencies, because such provisions often require estimates of hard-to-measure things like human lives and environmental amenities. The Building Trades are concerned about the effect that the cost-benefit analysis requirement in the current pipeline safety statute has on the ability of the Office of Pipeline Safety effectively to prescribe minimum safety standards at all. That is, there is nothing in the current pipeline safety statute that prohibits judicial enforcement of the cost-benefit analysis requirement. Consequently, the single greatest impediment to the adoption of a minimum safety standard may well be the threat of judicial challenge by opponents of the standard. This proposed change in the law would enable Congress and the President to retain control over the agency's incentives to comply with the cost-benefit analysis requirement rather than leave it to the courts.

Mr. BARTON. Thank you, Mr. Sullivan.

Last, but not least, we will hear from Mr. Nilles, and he is going to summarize his testimony in 5 minutes.

STATEMENT OF BRUCE E. NILLES

Mr. NILLES. Good afternoon, Mr. Chairman, and Representative John. My name is Bruce Nilles and I am very pleased to have this opportunity to meet with you to discuss pipeline safety.

I am currently a staff attorney with Earthjustice in Oakland, California. Earthjustice is a non-profit public interest law firm that presents without charge hundreds of public interest clients, both large and small, throughout this country.

We work through the courts to safeguard public lands, to reduced air and pollution, to preserve endangered species, and to achieving environmental justice for all Americans. Before joining Earthjustice 2 years ago, I had the pleasure of working at the United States Department of Justice in the Environment and Natural Resources Division, where I spent 6 years working on pipelines.

It was in this position that I had the primary responsibility for the Department to review all pending pipeline legislation, and all regulations that were being proposed by the Office of Pipeline Safety, to determine how effectively the existing law could be changed to improve compliance, as well as how the civil and criminal enforcement provisions could be strengthened to enforce the law and ensure that our communities are safe.

My testimony today focuses solely on the issue of enforcement, and how, as you reauthorize this bill, that there might be ways to improve historical problems that have been experienced in the Office of Pipeline Safety.

By any measure the Office of Pipeline Safety has failed, and continues to fail, in its most basic mission of adopting and enforcing this regulation. It has one of the very worst enforcement records of any agency in the U.S. Government.

I know of no other agency that has a worse enforcement record than the Office of Pipeline Safety. GAO calculated in 1998 that OPS proposed and not imposed, but proposed a penalty in only 1 out of every 25 cases that it brought.

Imagine how many people would be speeding illegally if every time you got pulled over there was only a 4 percent chance that you might get a fine proposed. There is literally no enforcement going on at these critical pipeline safety regulations at the Office of Pipeline Safety.

More important than this lack of enforcement is showing up in terms of the number of spills reported by GAO has maintained about four every week. There are four major oil and gas spills every week where there is either an injury, a death, or more than $50,000 worth of damage.

Every week there are four of those kinds of incidents. More alarming, GAO reports that incidents are increasing and not decreasing, at about 4 percent per year. So the trend is exactly in the wrong direction.

So why is it occurring? I would suggest because of a lack of enforcement, and there is three primary things that could happen to improve this situation. First of all, OPS does lack, and the Federal Government as a whole, lacks some of the very basic elements of a modern enforcement program.

Any kind of meaningful enforcement program, like you have in the Clean Water Act, has a full range of tools that allow Federal officials to bring to or ensure compliance.

There are some basic elements that are missing in the Office of Pipeline Safety, or in the regulations that oversee pipeline safety.

For example, criminal sanctions in the Office of Pipeline Safety. The Office of Pipeline Safety has one of the highest burdens of criminal prosecutors to be able to bring a case.

Ignorance of the law in most situations is not a defense unless you happen to be a pipeline operator, and then the way the pipeline statute is constructed, it is practically impossible for Federal prosecutors to bring a criminal case.

It requires the prosecutors to show that the person knew what the law was and the law was violated. It is the only difference from most other environmental statutes.

The second thing is that there needs to be a modern equipment program in place so that the laws can actually be enforced. The second is that if we look at the laws that had a tremendous impact on building pipelines, one of the most successful to date is the Oil Pollution Act that was passed in 1990 in response to the Exxon Valdez oil spill.

Since that time the number of major spills from oil pipelines to water in the United States has decreased. The Oil Inclusion Act provides for penalties per barrel, across the line, of $1,000 per barrel, or if it is gross negligence, $3,000 per barrel for oil spills to water.

We need that same provision as to ground water and land, and that would provide the same deterrence that is shown to be successful in reducing the amount of oil spills in water in the United States.

Third, training for OPS. Congress has been on the record since 1979, for 23 years, Congress has identified the inability by the Department of Transportation to enforce the very laws that you have passed.

Without a strong and rigorous enforcement program, the laws that you have passed are unable to be implemented and provide the protections that we desperately need. We recommend that enough is enough.

What we are dealing with is 2.2 million miles of pipeline that undermine all of our communities. Every one of our constituents has pipelines that run through their communities. It is time to say that if the Office of Pipeline Safety is not up to the task of doing its job to enforcing these laws, then they should not be in the business.

What we recommend is to give them 24 months to show that they can run an effective enforcement program, and that they know how to do civil and criminal enforcement. To my knowledge they have never in that entire district referred a single civil case to the Department of Justice.

In 23 years there have been no civil enforcement cases to the Department of Justice. They have been basically unable to do the basic job as an enforcement agency. So it is critical that they been given a time line to shape up or get out of the business.

There is too much riding on the line between security and environmental protection.

So in closing I have some additional suggestions in my written testimony about how Congressman Young's Bill, H.R. 3609, and others bills may be strengthened. I think you have a tremendous opportunity to really improve the safeguards that have been placed to protect the American people.

And I would urge you to move quickly before we have another Bellingham or New Mexico tragedy, and with that I want to thank you for the opportunity to testify here today.

[The prepared statement of Bruce E. Nilles follows:]

PREPARED STATEMENT OF BRUCE E. NILLES, STAFF ATTORNEY, EARTHJUSTICE

Mr. Chairman and Ranking Member Boucher, I am very pleased to have this opportunity to meet with you and the Members of this Subcommittee to discuss pipeline safety and reauthorization of the existing pipeline statutes.

I am currently a staff attorney with Earthjustice in Oakland, California. Earthjustice is a non-profit public interest law firm dedicated to protecting the magnificent places, natural resources, and wildlife of this earth, and to defend the right of all people to a healthy environment. We bring about far-reaching change by enforcing and strengthening environmental laws on the behalf on hundreds of organizations and communities.

We represent—without charge—hundreds of public interest clients, large and small. Earthjustice works through the courts to safeguard public lands, national forests, parks, and wilderness areas; to reduce air and water pollution; to prevent toxic contamination; to preserve endangered species and wildlife habitat; and to achieve environmental justice. In short, with almost fifty lawyers in nine regional offices nationwide, we have extensive experience enforcing many of the laws that you enact.

Prior to joining Earthjustice in early 2000, I worked for four years as an attorney at the U.S. Department of Justice, in the Environment and Natural Resources Division. In my last year at the Justice Department I was Special Counsel to the former Assistant Attorney General. In this position I was intimately involved in various aspects of pipeline safety. First, I had the primary responsibility for coordinating the Department's review of all pending pipeline legislation, including the Administration's pipeline bill. My charge was to determine how the existing law could be changed to improve compliance, as well as how the civil and criminal enforcement provisions could be strengthened. Second, I worked very closely with the Office of Pipeline Safety ("OPS"') in the promulgation of the hazardous liquid pipeline Integrity Management Rule. 67 Fed. Reg. 75378 (Dec. 1, 2000). And, third, I coordinated the Department's review of several of OPS's Risk Management Demonstration Projects.

Today, I would like to discuss the importance of a robust enforcement program, OPS's history of nonenforcement, and then offer some suggestions as to how the enforcement situation could be improved. Finally, I will give some initial views on how Representative Young's pipeline bill, H.R. 3609, could be strengthened.

A. THE IMPORTANCE OF ENVIRONMENTAL ENFORCEMENT

Environmental and public safety statutes promote and encourage voluntary compliance. But it is a vigorous and fair enforcement program that drives widespread compliance. While many people may comply with the law for the good of the community, there are always some bad actors that would not comply but for the threat of meaningful sanctions. How many people would send the IRS their tax checks this April if tax violations carried no penalty? People comply with the tax laws in part because they run the risk of being caught, and sanctioned, if they do not. So too, we cannot expect voluntary compliance with environmental and public safety laws unless those laws are enforced, and enforced rigorously.

Enforcement actions are brought for several important reasons relating to achieving better compliance rates: to protect the environment and the public's health, to remedy environmental harm, to punish wrongdoers, to deter future violations, and to compel reluctant agencies to comply with their nondiscretionary duties.

Achieving compliance is important because environmental and public safety violations have real victims. When a toxic waste site pollutes an underground drinking water supply it can threaten the health of thousands of people. An oil spill that damages an entire ecosystem—such as the Exxon Valdez spill in Alaska—may undermine the economic foundation of surrounding communities. The harm from environmental violations may extend far into the future, affecting the healthy of generations yet unborn. Damage to natural resources can be permanent, as when a species is lost forever, a productive wetland is destroyed, or a drinking water aquifer or fishery is contaminated beyond repair. Thus, strong enforcement is critical if we are to reduce the number of victims harmed and the natural resources that are destroyed when pipeline operators fail to comply with federal law.

B. OPS'S HISTORY OF NON-ENFORCEMENT IS HAVING SERIOUS PUBLIC SAFETY AND ENVIRONMENTAL CONSEQUENCES

OPS administers the national regulatory program established to ensure the safe operation of nearly 2.2 million miles of natural gas and hazardous liquid pipelines in the United States. The mission of OPS is to develop, issue and enforce pipeline safety and environmental protection regulations. By any measure, OPS has failed, and continues to fail, in fulfilling this important mission. OPS has one of the very worst enforcement records of any federal agency. GAO calculated in 1998 that OPS proposed a civil penalty in just one out of every twenty-five enforcement actions.[1] This record was a precipitous decline from 1990 when OPS proposed a penalty in fifty percent of its enforcement actions.[2] Imagine how seriously anyone would take speed limits if each time you were pulled over for speeding that there was only a four percent chance that a fine would even be proposed, let alone collected? So too, pipeline operators facing such a low risk of any sanctions have little incentive to comply with safety and environmental protections.

This lack of enforcement may be one reason why pipelines incidents are increasing. The GAO reported in May 2002 that there were over four major oil and natural gas incidents per week between 1989 and 1998, with a major incident defined as one causing a death, an injury, or more than $50,000 in property damage.[3] Even more alarming, GAO determined that pipeline incidents were increasing at an average rate of four percent per year.[4]

C. RECOMMENDATIONS TO IMPROVE COMPLIANCE WITH SAFETY AND ENVIRONMENTAL PROTECTIONS

To reverse the upswing in pipeline incidents, and to make sure pipeline incidents become increasingly rare events, Congress should undertake five prudent actions: 1) Provide OPS, the Justice Department, and citizens with the full range of modern enforcement authorities necessary to enforce existing laws; 2) Keep the pressure on OPS to issue long overdue protections and comply with NTSB recommendations; 3) Extend the penalty provision of the Oil Pollution Act to include hazardous liquid

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[1] *Pipeline Safety The Office of Pipeline Safety Is Changing How It Oversees the Pipeline Industry,* U.S. General Accounting Office, GAO/RCED-00-128, May 2000, p.26 ("2000 GAO Report").
[2] *Id.*
[3] *Id.* at 10
[4] *Id.*

spills to land and groundwater; 4) Give OPS twenty-four months to demonstrate it is operating an effective civil and criminal enforcement program, and if it fails, transfer OPS's enforcement functions to a more responsive agency; and 5) Sunset the incredibly wasteful Risk Management Demonstration Projects Program—instead redirect the resources currently being used for this program towards OPS's basic mission of developing, issuing and enforcing pipeline safety and environmental rules.

1) Modernize the Pipeline Safety Enforcement Program

Pipeline operators have for too long operated in a world where the regulators are struggling to protect communities with one hand tied behind their backs. The current enforcement scheme lacks many of the basic aspects of a modern enforcement program, and so inhibits the ability of regulators to do their job. For example, under the current statute, the Department of Justice may not seek civil penalties in a judicial enforcement action. Instead, penalties may only be sought through a separate administrative proceeding. Thus, to bring a basic enforcement case to compel compliance with safety requirements and to impose a penalty it is currently necessary to commence two separate proceedings. This is both unwieldy and ineffective from the perspective of an efficient enforcement program. Citizens are barred from seeking penalties altogether. Another outdated aspect is that the criminal enforcement provision establishes a much higher burden on criminal prosecutors than other environmental statutes. Recommendations [5]:

* Authorize the Justice Department and citizens to seek civil penalties in a judicial action for violations of the pipeline safety statute up to $27,500 per violation without any limit on the total penalty for related violations. See e.g. Sections 311(b) and 304 of the Clean Air Act ("CAA"), 42 USC Secs. 7413(b) & 7604. Multi-million dollar penalties are sometimes necessary to serve as a meaningful sanction and deterrent against large corporations. This was the case in United States v. Smithfield Foods in which the judge imposed a fine of $12,600,000 for more than 5,000 violations of the Clean Water Act. 972 F.Supp. 338 (E.D. Va, 1997).

* Lower the mens rea threshold for criminal prosecutions to a straightforward "knowing" standard to mirror other environmental statutes. See e.g. CAA Section 311(c), 42 USC Sec. 7413(c).

* Add "economic benefit" as a factor for a court and the agency to consider when calculating the appropriate size of a civil penalty. Such an improvement would ensure that a bad actor that gained an unfair competitive advantage over its competitors by violating the law could be required to disgorge its ill-gotten gains. See e.g., CAA Section 113(e), 42 USC 7413(c). For example, just last month a federal judge in Pennsylvania imposed a $8,250,000 penalty against Allegheny Ludlum Steel Corporation for 1,122 days of Clean Water Act violations. Most of this penalty was based on the economic benefit that Allegheny achieved over its competitors by violating the law.

* Increase the number of civil and criminal inspectors. This could be done by both an increase in overall resources, as well as redirecting existing OPS resources away from its Risk Management Demonstration Projects and other similarly wasteful projects.

2) Keep the Pressure On OPS to Issue Long Overdue Protections and NTSB Recommendations

As the GAO reported in September 2001, OPS has begun to make modest progress in addressing its substantial backlog of overdue regulations.[6] However, GAO also found that OPS still has not implemented eleven regulations—including some significantly overdue regulations.[7] Moreover, as of September 2001, there were forty-four open recommendations from NTSB—or five more than were open in May 2000.[8]

Overdue regulations include integrity management rules for natural gas pipelines; leak detection performance standards for oil pipelines to ensure that leaks of a particular size are rapidly discovered; specific requirements for shut-off valve location and used for oil and natural gas lines (as Congress mandated in 1992 and 1996, respectively); regulation of gathering lines (as Congress mandated in1992); enhanced regulation of low-stress lines given their potential for serious environmental impacts; requirements that operators submit revised incident reports once the full

[5] Many of these recommendations were proposed two years ago by the prior Administration based on input from seasoned civil and criminal prosecutors.

[6] *Pipeline Safety: Progress Made, but Significant Requirements and Recommendations Not Yet Complete,* GAO-01-1075, Sept., 2001, at 1.

[7] *Id.*

[8] *Id.* at 2.

impact of the incident is determined (as recommended by the DOT IG); and failsafe requirements to prevent over-pressurization.

In addition to OPS failing to focus sufficient resources on rulemaking, OPS's ability to expeditiously issue new rules is impeded by the cost-benefit provision added to the pipeline statute in 1996. This provision bars OPS from issuing a new standard unless if can first determine that the "benefits of the intended standard justify its cost." 49 USC Sec. 60102(b)(5). All agencies, including OPS, should be mindful of the relative costs of their programs; however, OPS should not be hamstrung with an onerous cost/benefit requirement, which further impedes its already atrocious progress in issuing new protections.

Recommendations:

* Require GAO to report on OPS's progress in issuing the overdue rules and responding to NTSB recommendations every six months until all rules and recommendations are either adopted or responded to.

* Remove the onerous cost/benefit mandate in Section 60102(b)(5), and instead require the agency to select the most cost-effective protections.

3) Establishing Civil Penalties for Hazardous Liquid Spills to Land and Groundwater

One of the most serious gaps in pipeline regulation is the absence of meaningful penalties when hazardous liquids are spilled on land and into groundwater. Without the threat of meaningful penalties for such spills, operators have little incentive to prevent spills; instead there is an incentive to simply clean up the spill after-the-fact, and patch the pipeline. The industry's tendency to react to spills, rather than prevent spills, may explain why, as GAO reported, pipeline incidents are increasing by four percent per year.[9]

The Oil Pollution Act of 1990 ("OPA") imposes a flat penalty on a per barrel basis for oil spills to water—$1,000 per barrel unless the spill was the result of gross negligence and the fine increases to $3,000 per barrel. 33 USC 1321(b)(7). This penalty structure provides a tremendous incentive for companies to prevent spills to water in the first instance, and if spills should occur, to minimize the spills as much as possible. In fact, an EPA study showed that after passage of OPA that the number of large pipeline spills to water decreased by 43 percent.

Recommendation: Extend the penalty provisions of OPA to include spills of hazardous liquid to land and groundwater.

4) Give OPS Twenty-Four Months To Fix Its Enforcement Program

The history of OPS's failure to enforce the most basic public safety and environmental protections is legendary. Its record has been criticized by the public, states, DOT's IG, GAO and Congress. In fact, it appears everyone is unhappy with its performance except, of course, the pipeline operators who enjoy operating without any accountability.

Congress has been on record since at least 1979 regarding OPS's terrible enforcement record. The Senate Report to the bill that became the Hazardous Liquid Pipeline Safety Act ("HLPSA") criticized the OPS for "not doing an adequate job of regulating [liquefied natural gas] and [liquefied petroleum gas] safety . . . [T]he Committee has been concerned for several years that DOT has not placed sufficiently high priority on . . . programs in general." S. Rep. 96-182, 96th Cong. 1st sess. at 3 (1979), reprinted in 1979 U.S.C.C.A.N 1971, 1973.

Congressional criticism of OPS's enforcement efforts has continued to the present. In the House Report for the 1984 Amendments to the HLPSA, the House Committee criticized the pipeline safety program as a "poorly managed program that needs a reevaluation of its direction." H. Rep. 98-780, 98th Cong. 2nd sess. at 10 (1984), reprinted in 1984 U.S.C.C.A.N. 3154, 3163. See also, H. Rep. 102-247, 102nd sess. at 14 (1991) ("DOT's performance in implementing the laws since the last authorization in 1988 has been mixed."), reprinted in 1992 U.S.C.C.A.N 264, 2644. More recently Congress has removed its gloves in criticizing OPS during the debates on the Pipeline Safety Act of 2000 and the Pipeline Safety Improvement Act of 2001:

> [T]here is little to no enforcement of existing regulations. The General Accounting Office found that the Office of Pipeline Safety had not enforced 22 of the 49 safety regulations that are already on the book [sic]...It is enough to make me wonder if there is some collusion of some kind going on behind the scenes. Why else would this Federal agency be so lax in enforcing its own regulations? Madam Speaker, this inaction of the Office of Pipeline Safety will not be excused by this Congress.

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[9] 2000 GAO Report at 10.

146 Cong. Rec. H7841-42 (Rep. Pascrell)(200). See also, 147 Cong. Rec. S524 (Sen. Dominici) ("Unfortunately, the Office of Pipeline Safety has had a poor history of regulation and enforcement. It is true that the Office has traditionally been slow to act.") 2001).

Against this backdrop of uniform condemnation regarding its enforcement programs, there are some very preliminary indications the agency may be finally making some progress: Administrator Engleman has testified that the agency has completed a comprehensive review of its enforcement program, and has made several improvements. In addition, Ms. Engleman testified that the agency has proposed $9 million in fines in the past year and a half. These are important baby steps, but are far from building the type of robust enforcement program necessary to ensure all 2.2 million miles of pipeline are operating safety, and that pipeline incident rates decline rapidly.

Recommendations:

* Give OPS twenty-four months to build a robust enforcement program that is delivering results. If it does not make substantial progress, I strongly urge Congress to reassign the entire enforcement program to another, more responsive agency. OPS's progress should be measured against very clear performance standards, including: 1) the number of civil and criminal enforcement cases referred to the Justice Department (I am unaware of OPS ever referring a civil enforcement case to the Justice Department); 2) the number of cases where civil penalties are actually imposed, not just proposed; 3) the average size of the civil penalties imposed (not just proposed); and 4) the number of OPS staff reassigned from other duties to its enforcement program.

* As an interim measure I would suggest asking GAO and the DOT Inspector General to review OPS's internal review of its enforcement program, and determining if the improvements proposed are meaningful and achievable.

5) Congress Should Immediately Sunset OPS's Risk Management Demonstration Projects

As I described above, one of my prior tasks at the Justice Department was to review OPS's proposed Risk Management Demonstration Projects. The Justice Department's primary interest was how OPS exercised its authority to waive regulatory requirements for specific companies, and how such waivers would affect other enforcement actions. For example, the criminal section was concerned about its ability to argue to a jury in a criminal enforcement case the seriousness of a pipeline operator violating an OPS rule if at the same time OPS has granted a waiver of the same rule to another company.

In addition to undermining enforcement, the risk management program had two other serious defects. First, it consumed an inordinate amount of OPS resources. Second, the program never appeared to yield any meaningful data that was in turn used to promulgate additional, more protective regulations. There were even projects, such as the Equilon Demonstration Project where after years of investment of time and resources by OPS, the pipeline company never even exercised its option to operate under the OPS waiver. All the "risk management" projects undertaken by Equilon certainly appeared like good ideas, and generated good press for the company, but there was absolutely no need for any investment of OPS resources. OPS has much more important and pressing demands on its time than the feel-good activities of its Risk Management Demonstration Project.

Recommendation: Congress should immediately sunset OPS's Risk Management Demonstration Project program. As long as OPS cannot perform its most basic mission of developing, issuing and enforcing safety regulations, it should not be engaging in new and unproven activities.

D. INITIAL ASSESSMENT OF H.R. 3609

To strengthen the enforcement provisions of existing law, H.R. 3609 should include provisions implementing the recommendations listed above. In addition, I would propose three changes to the bill as currently drafted:

1) Delete proposed Section 60133(f), which would modify the National Environmental Policy Act ("NEPA") by allowing OPS to exclude the input of other agencies during the NEPA review process if the input is not timely. This provisions would have the exact opposite effect desired by its author—it would cause more, not less, delay. The most certain way to ensure a project is delayed and that it can be successfully challenged in court is to conduct an incomplete environmental review. The same streamlining goal of this provision could be achieved by ensuring that commenting agencies, such as the U.S. Fish and Wildlife Service, have the resources necessary to be able to participate early and fully in all environmental reviews.

2) Clarify Section 14 to ensure that OPS must provide all security sensitive information relating to a pipeline's vulnerability to EPA and the Justice Department, two agencies that serve a critical role in overseeing the nation's pipeline system.

3) Require OPS to extend the protections required by its hazardous liquid integrity management rule to the entire network of hazardous liquid pipelines. Currently, the reach of the rule is limited to approximately twenty percent of the nation's hazardous liquid pipelines. This is far too narrow, and excludes such important areas as many rivers and streams.

Thank you very much for inviting me to testify on the important issues surrounding pipeline safety. I am happy to answer any questions you may have.

Mr. BARTON. The Chair recognizes itself for 5 minutes of questions. Mr. Morris, you are here on behalf of the AGA, and you have heard what Mr. Nilles has said. If it is true that 60 percent of the accidents are third-party people out digging without checking.

What can OPS really do to prevent that? Take a few out and shoot a few every now and then?

Mr. MORRIS. I believe a more vigorous encouragement and enforcement of what we have in our area a one-call system, a call before you dig. There are several jurisdictions where perhaps it is a little more lax than in our State of Tennessee, but I think more attention and more effort to encourage and enforce a vigorous one-call, a call before you dig effort will solve that.

Mr. BARTON. What about Mr. Nilles saying that you just need a stronger penalty, and that we ought to refer some of these cases to the Justice Department?

Mr. MORRIS. Well, the referral of operators to the Justice Department for what is in effect a third-party trauma to a system I think is a bit extreme. And I don't believe quite frankly that the person doing the digging, although many may call without digging or intentionally trying to rupture a gas line.

I think that perhaps a system of more aggressive communication and requirement, or encouragement that all States impose and enforce that kind of call before you dig policy, or philosophy, or statute, would improve the performance on that particular industry.

Mr. BARTON. Now Mr. Kipp's testimony says we ought to go to this one-call system, and Mr. John up here spontaneously had the same idea without reading your testimony.

And when he saw that you were going to testify as to that, he felt pretty smart. Is there anybody who disagrees with this national one-call? Is that one thing that we all agree on?

Mr. KIPP. If I may, I am not proposing a national one call. I am proposing one number. But one-call centers, and there are 67 of them, would remain as is, but by dialing the number, the switch would point it to the right one-call center. It is not a national one-call center.

Mr. BARTON. Exactly what Mr. John said. Does anybody oppose what Mr. Kipp has said about this? Now, Mr. Sullivan puts in his testimony—I believe he is the only one that says that we should in some way use hydrostatic testing, where actually take the product out of the pipeline, and put water in, and pressurize it above the operating system's normal operating pressure. Mr. Hereth, what do you think of that idea?

Mr. HERETH. I think that's only one of the methods that are viable and we use and should be reserved for applications. The successes—whatever method is applicable.

It is expensive, and it is the best in terms of assessing if there has been other damage to the pipeline, and it takes the pipeline out of service for an extended period of time. There are environmental problems in controlling the water and a number of issues. It is not the——

Mr. BARTON. So there is no problem with making that an option as long as it has mandatory requirements?

Mr. HERETH. It certainly is an option and is a tool available to us, and my company does use it.

Mr. BARTON. Mr. Sullivan, what do you think about that?

Mr. SULLIVAN. Well, I think the pig testing that uses an imaging that can show its effect, and it cannot determine with a great deal of accuracy the pipeline integrity.

Mr. BARTON. Define integrity for me.

Mr. SULLIVAN. I will give an example. If you do the hydrostatic testing, and you use water as a medium, and then you pressurize it, you pressurize the entire pipeline, either 25 to 50 percent over what it is supposed to take.

If there is a problem that is going to come in the future, a very short time, this will show it because you will have to hold that pressure for a certain amount of hours. But instead of oil or gas leaking out on to the ground, you will have water leaking out on to the ground.

Like in my testimony, that line was tested in Washington just shortly before it went, and I just think that the hydrostatic testing is much better.

Mr. BARTON. Is there any other way to test? I guess when you say integrity, you mean the strength of the wall at that time?

Mr. SULLIVAN. Yes, where there may be some corrosion, either inside the pipe that the pig testing won't show. The hydrostatic testing will because it puts a little more, 25 or 50 percent more, pressure than is normally there. And the heat will make those things happen.

Mr. BARTON. But that is the only way? You can't test the pipe in a different way?

Mr. SULLIVAN. He mentioned that there was a third way and the industry may have some other tests today that I am unaware of, but I have only been told about the pig testing, and the hydrostatic testing.

Mr. SHEA. Mr. Chairman, with improvements in in-line inspection tools that have been realized in the past few years, you are actually able to now project the remaining strength in a pipe. So there are tools that are available are now in a position where they can provide a lot better information on the remaining integrity of a pipe.

Mr. BARTON. What tools?

Mr. SHEA. Typically high resolution tools.

Mr. BARTON. Well, is there any industry data on aid to pipelines that correlates to integrity? I mean, I would assume that pipelines built last year would have more integrity than a pipeline built 50 years ago.

Is it 4 years ago that they were 4 inches thick and a year ago they are a half-inch thick? So there is really no correlation to age integrity?

Mr. HAENER. It depends on the maintenance. It would depend on what kind of coating and what kind of soil it is in, and if it is constructed properly, and tested periodically, there shouldn't be any difference at all. Pipelines should last for 100 years.

Mr. BARTON. Mr. Sullivan.

Mr. SULLIVAN. Well, the pipe that is put in prior to 1970 does not have any cathodic protection and soil conditions, such as limestone, also offer high risks. Now, the pipe put in after 1970 has that protection.

It is protected against electrolysis, which will rot a pipe that is in the ground because of the soil conditions.

With the cathodic protection, that does not happen, but any pipe put in before 1970 doesn't have that.

Mr. SHEA. Mr. Chairman, I would disagree with that. At the Buckeye Pipeline, we have pipeline that has been in service since the turn of the century, the other century, 1900, and 100 percent of our pipeline is cathodically protected.

There have been studies that have been done on a decade of construction and whether or not there is——

Mr. BARTON. Well, the problem is that it was not required until 1970.

Mr. SHEA. Well, I am speaking for my company, but I believe most are cathodically protected 100 percent. It is a proven way to maintain pipeline integrity, and there are decades of construction of pipeline studies that have been done.

And as you would imagine, they indicate that older pipe has a higher incidence of failure, or potential failure. But maintenance as Mr. Haener said, maintenance is a key to the entire thing. We do have pipeline that has been in service for 60 or 70 years, and it is as good as pipeline that we have put in place in the last 10 or 15 years.

Mr. MORRIS. If I might add to that from the local distribution company perspective. It is just good business to maintain the infrastructure so that you continue to operate and stay in business, and continue to service your customers.

So we would suggest and encourage a number of options, and whatever seems appropriate for a given system at a given time to address their needs be available, but not that any of them be specifically mandated.

Mr. BARTON. Mr. Haener.

Mr. HAENER. I just wanted to echo Mr. Shea's comments.

Mr. BARTON. Mr. John.

Mr. JOHN. Thank you, Mr. Chairman. Mr. Haener, I think you were here earlier when Mr. Markey raised some concerns about the security of the district LNG facility?

Mr. HAENER. Yes.

Mr. JOHN. So obviously you know that CMS might have a small facility in my district, but LNG is all over the country. And I actually had the opportunity to go visit the facility down there, and it is quite a facility, but do you believe that the OPS and/or the Office of Homeland Security provided enough assistance relative to what Mr. Markey was talking about with security?

Mr. HAENER. I do believe that. The second day after September 11, I was on an airplane with a man in charge of our nuclear secu-

rity, and we implemented our security rolls, and we followed up with local authorities, the Coast Guard, and we had very good cooperation with local people, and the Coast Guard has been excellent, and we did change some operating procedures.

I did bring in an outside control and beyond that said you guys did a great job, but I think that Lake Charles is very safe, but we have made necessary changes to ensure that, and I feel very good about it.

Now, can I give 100 percent assurance that we won't have an incident? No. I think the other thing you have to understand is that LNG is not that big a problem. It is not explosive. It is very difficult.

Mr. BARTON. It's cold?

Mr. HAENER. It is cold, but you won't get the right air mixture to make it explode. Will it burn? Yes.

Mr. JOHN. Thank you.

And I shared some of Mr. Markey's same concerns myself, and of course being from Louisiana, we are somewhat vulnerable because of the petro-chemical industry, and being on top of the Gulf of Mexico, and the security meetings that I have been involved in with the government, and Mr. Tauzin, and other agencies across the State, I have been very proud on how they have handled things in Louisiana.

I would really like to direct the next question back to you, Mr. Haener, and also to Mr. Morris. As I mentioned in my opening statement, I believe that we have to recognize that there are differences between natural gas transmission lines, and natural gas distribution lines, or pipelines.

I really want to share with you the views of the subcommittee and some of my colleagues that we have had in discussing legislation about a date certain, and that seems to be a very contentious part of where we are hung up at this point in time.

What I would like to do is really get your opinion about how we maneuver through this issue, and how we get ourselves out of a seemingly four-sided box that is closing in on us to try to resolve this particular problem.

And I would address this to Mr. Shea, but obviously with the rule in place on integrity of oil pipelines, my final question is going to be to you and maybe you can shed some light on it.

Mr. SHEA. I would be glad to start. First of all, I think we should start with the facts and have some scientific backup for those facts. I think when we start setting arbitrary rules and one size fits all, you are going to have consequences.

And I think the consumer is going to get hurt, and I think we are going to get a false sense of security, because I don't think that the industry, in terms of supplying inspection devices, and inspectors, including the results, can keep up with the demand.

We have already got the liquid rule going into effect in 5 years, and we have got that situation, that is putting a real stress on the industry.

And I have to tell you that my company has spent $25 million this year on safety and integrity of our pipeline system, and part of that is requiring new line inspections, and getting results back now. We just can't get them on a timely basis.

I think there is some kind of answer, but I think it is going to depend upon really the circumstances, and what kind of inspection devices are used, and what were those results, and when was it inspected before.

And I think that is probably the best answer, and we will probably be able to even come up with consensus that makes sense for all of us, and I would be glad to work with you on that. We do have some time certains, but it is not one size fits all based on the data, and improving the pipeline system without really hurting the consumer.

Mr. JOHN. I think it is very helpful to hear you say that this is something that we can talk about, because I think that is where compromises start. Mr. Morris.

Mr. MORRIS. I would for the most part agree. We tend to think in our system that we have got a list of various types of inspections and tests that we conduct from every perspective, and the idea is to do it in such a manner that it doesn't cause any great problem for our infrastructure or for our customers.

Some of the tests or inspections that are being proposed would require us to basically shut down significant parts of our system, and shut down significant numbers of our 300,000 customers, and then have to go back and go through the process of bringing them back up, relighting pilot lights, and et cetera, and that creates a lot of anxiety for our customers when we have to do that.

We have got a system of review and analysis of our system that we think serves us, and I would dare say that most LDCs have similar protocols in place that are specifically tailored to address the needs of their system.

One example that I will offer is about 10 years ago we embarked on an effort through inspection to replace a lot of our cast iron system with plastic pipes, and we did it in response to perceived risk of earthquake.

This is ahead of any mandate or any requirement that it be done, but because of the knowledge of our system and our area suggested that this was an appropriate thing for us to do.

It is a 30 year project, and we are 10 years into it, and we are better than halfway there, but the point that I am making is that we know our system as most LDCs do. We know what the system needs, and we live with it every day, and we maintain it, and we keep it operational because that is what our customers demand, and that is what is good for business, and it is also what is good for safety.

And we think that guidelines and perhaps even options, alternatives, are far superior to any specific mandates, even in terms of time and specific dates, and tests.

Mr. JOHN. Okay. Thank you. Mr. Shea, if you could—you were right in the middle of implementing a similar program. Could you maybe shed your experiences and some light and giving us some direction as we move through?

Mr. SHEA. Certainly I will try. As you know, the liquid pipeline industry has had rules that are now in effect. We have to within 3½ years test 50 percent of our systems, which are prioritized as being the highest 50 percent risk pipeline, and then do the other 50 percent in the next 3 to 4 years, for a total of a 7 year cycle.

And at that point forward, we test every 5 years. What we have found is that there appears today anyways, and this is before the natural gas industry has to begin their program, that there are enough smart pigs out there and crews actually to run the smart pigs through the pipeline.

Of course, a lot of times that requires us to make modifications to our pipeline for various sized diameter pipes to be able to get the pigs in and out of the pipeline. Where the problem has been, and it has not been overly severe, but the issue has been in the interpretation of the data.

I mean, very sophisticated computer programs that are analyzing the data that is coming out of these tools, and the people and systems required to analyze and interpret the data are in short supply.

And so while you can run as many miles of smart pigs that you would like, getting the data back in a timely fashion to be able to then go out and inspect your pipeline where the anomalies are the greatest, there has been a time lag there.

Mr. JOHN. I think the three responses from the gentlemen here show a stark contrast in what I said earlier, and that it is almost impossible to try to cookie-cut the regulations.

And finally for Mr. Kipp, I want to congratulate you for putting in your testimony about my idea of (inaudible) and the way for a national one-call, and I appreciate you getting on that project very quickly. Thank you.

Mr. BARTON. Great idea. Well, I want to thank the panel. We do hope to move the markup of the bill sometime this spring. I can say with some degree of certainty that it is not going to be 100 percent consent bill.

We hope to work with Chairman Young and the Transportation Committee, and hopefully on a bipartisan basis come up with a House bill, and I would like to do that sooner rather than later.

I might also just say for those of you who are wondering what we are going to do on Thursday, we were scheduled to have a hearing on the nuclear waste issue at Yucca Mountain, and in consultation with Mr. Boucher and the Secretary of Energy, we have postponed that hearing.

It is expected that the House will not be in session on Thursday. Quite frankly, I didn't relish having myself and Mr. Boucher stay over as the only members that sit on that subcommittee. So we postponed that to some time in April, and April 16 is the last date that the Governor of Nevada can veto the site selection at Yucca Mountain.

So we would assume our hearing would be on or near April 16th. Again, thank you, gentlemen, and this hearing is adjourned.

[Whereupon, at 4:20 p.m., the subcommittee was adjourned.]