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On Behalf of and the
Association of Oil Pipe Lines (AOPL) and API
Before the House Committee on Energy and Commerce
Subcommittee on Energy and Air Quality
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Introduction

I am Tim Felt, President and CEO of Explorer Pipeline and Chairman of the Association of Oil Pipe Lines (AOPL). I appreciate this opportunity to appear before the subcommittee today on behalf of AOPL and API.

AOPL is an unincorporated trade association representing 48 interstate common carrier oil pipeline companies. The membership is predominately domestic, but also includes companies affiliated with Canadian pipelines. AOPL members transport nearly 85% of the crude oil and refined petroleum products moved by pipeline in the United States. API represents over 400 companies involved in all aspects of the oil and natural gas industry, including exploration, production, transportation, refining and marketing. Together,
these two organizations represent the vast majority of the U.S. pipeline transporters of petroleum products.

Explorer Pipeline operates a 1,880-mile pipeline system that transports gasoline, diesel fuel and jet fuel from the Gulf Coast to the Midwest. Explorer is based in Tulsa, Okla., and serves Houston, Dallas, Fort Worth, St. Louis and Chicago. Through connections with other products pipelines, Explorer serves more than 70 major population centers in 16 states. Explorer currently transports refined products with more than 72 different product specifications for over 60 different shippers. The company does not buy or sell petroleum products; it only provides transportation services. Explorer is owned by subsidiaries of Chevron, Conoco Phillips, Marathon, Sunoco, American Capital and Shell.

Summary

It has been over just over a year since enactment of the Pipeline Inspection, Protection, Enforcement, and Security Act of 2006 (PIPES Act). On behalf of the members of AOPL and API, I wish to thank the Members of this subcommittee, and the full committee, for their leadership in passing that important legislation. As the subcommittee reviews the current state of pipeline safety and the progress that has been made since the PIPES Act of 2006 became effective, I would like to update the committee on the ongoing safety activities of the oil pipeline industry. First, the oil pipeline industry will complete the seven year baseline testing for the Integrity Management Program by March 31, 2008. We are proud of the demonstrated
improvements in safety this program has produced and look forward to continuing the process used by PHMSA and industry that has brought about this improvement.

The Role of Pipelines in Petroleum Supply

About 40 percent of total U.S. energy supply comes from petroleum, 96 percent of the energy used in the transportation sector. Fully two-thirds of the ton-miles of domestic petroleum transportation are by pipeline. The major alternatives to pipelines for delivery of petroleum are tank ship and barge, which require the source and user be located adjacent to navigable waters. Trucks and rail also carry petroleum, but are limited in very practical ways in the volume they can transport. In fact, pipelines are the only reasonable way to supply large quantities of petroleum to most of the nation’s consuming regions. Pipelines do so efficiently, safely and cost-effectively. Liquid pipelines are the backbone of the fuels industry. Pipelines provide a transportation service only. As common carriers, pipeline rates are controlled by the Federal Energy Regulatory Commission. Pipelines have no influence over crude oil or refined product prices nor do they profit from their sale. The continued safe, reliable operation of this critical infrastructure is an appropriate public policy concern and an important joint responsibility of the industry I represent, the Department of Transportation and the Congress.
Progress Report on Pipeline Safety Integrity Management

Since March 2001 (for large operators) and February 2002 (for small operators), oil pipelines have been subject to a mandatory federal pipeline safety integrity management rule (Title 49, section 195.452) administered by the Pipeline and Hazardous Material Safety Administration (PHMSA). The oil pipeline industry’s experience with integrity management preceded the enactment of the Pipeline Safety Improvement Act of 2002. Large operators will complete the required 100 percent of their baseline testing of the highest risk segments by the March 31, 2008 deadline set by the integrity management regulations. PHMSA has inspected the performance of each of these operators under the regulations at least twice – an initial “quick hit” inspection and a subsequent full inspection. Regular inspections are a permanent part of the future.

Improvement in spill record

The oil pipeline spill record has improved dramatically in the last eight years as the attached exhibit shows. The Pipeline Performance Tracking System (PPTS), a voluntary industry program established by AOPL and API, has collected extensive oil pipeline performance data since 1999. The first page of the exhibit shows a decline of over 40% in both the number of spills and the volume released from pipeline facilities. When measured just along the pipeline right-of-way, the area with the most direct potential effect on the public and the environment, both the number and volume of spills have declined over 50%. As you can see in the breakdown on page 2 of the exhibit, the most
dramatic area of improvement from the integrity management program has been the
decline in corrosion related spills – nearly 70% in less than 8 years. The integrity
management program is clearly a major success.

**Damage prevention**

From the liquid pipeline perspective, the cornerstone of the PIPES Act was the focus on
underground damage prevention. While the number of spills caused by third party
damage has declined significantly, these incidents remain of critical concern to the
industry because they result in a disproportionate share of the consequences. Damage to
buried pipelines during excavation is a persistent, preventable and significant cause of
pipeline releases. Releases caused by excavation damage tend to be more dramatic,
larger and more likely to threaten the public and the environment in comparison to
releases from other causes. Damage prevention programs are almost totally controlled by
the laws of the states. The effectiveness of the framework and enforcement of damage
prevention laws varies among the states. The affected interests in damage prevention are
typically beyond the reach of any single regulatory authority, so often the most feasible
approach is a cooperative one that brings affected interests together in a voluntary
commitment to improvement.

As a board member and Chairman of the Common Ground Alliance, an organization that
Congress helped start to bring the key interests in damage prevention together in a
cooperative effort to improve safety, I can affirm the importance of federal leadership in
this area. The PIPES Act provided clear guidance for an effective state program in the “9
elements to effective damage prevention”. We hope the additional incentive in the form
of financial resources will encourage the states to review their programs – from
effectiveness of implementation to enforcement. We are very encouraged that the first
round of solicitations is expected to draw a meaningful number of applicants.

From the industry perspective, we have also stepped up our efforts, working with other
stakeholders, to approach the various states on legislative and or regulatory
improvements. We believe there are some model state programs that accommodate the
needs of the broad group of stakeholders – from underground utilities to the construction
industries – that could be emulated across a number of states. We have committed both
financial and staff resources at the company and association level to work for
improvements in these state programs. We are encouraged by the positive response from
the states and hope this program will produce real improvements in damage prevention
programs including increased state enforcement of laws and regulations. We commend
Congress for putting priority attention on this problem and PHMSA for reaching out to
the states and to the industry with such commitment to a common purpose.

Oil Pipelines Operated at Low Stress

The PIPES Act required new regulations for oil pipelines operating at low stress. We
support PHMSA’s approach of implementing the PIPES Act requirement in a two phase
approach. We support PHMSA’s decision to phase in the rule, addressing first the larger-
sized, riskier pipelines and addressing at a later date all other low-stress pipelines except
those exempt from PHMSA’s oversight as defined in §195.1(b).

We look forward to PHMSA finalizing the regulation for phase-one implementation.
Pipeline Control Room Management

The PIPES Act required the implementation of a plan to address human factors risks associated with control room operations. The liquid pipeline industry has held several workshops with industry controllers, alone and with PHMSA. Our members have a keen interest in the appropriate oversight of control room operations and already have some practices in place that address ergonomics, shift changes and schedules, alertness, appropriate training and qualification, definition of controller roles and responsibilities, and Management of Change. We have been in regular communication with PHMSA concerning an industry consensus standards effort underway to identify issues that operators should take into account when enhancing their plans and procedures. We believe that with the active participation of the senior PHMSA staff, these industry standards will inform as well as form the basis of the control room regulations.

Biofuels

While biofuels is not the subject of this hearing, I would like to take this opportunity to update the subcommittee on the status of the oil pipeline industry’s efforts in this area. Last year, the industry engaged in an accelerated R&D effort to understand and find solutions to the problem of stress corrosion cracking identified with the presence of ethanol in some pipeline and tank facilities. This research is being carried out under the auspices of the Pipeline Research Council International (PRCI) with the active support and participation of the PHMSA.
Members of the research team believe the test results to date are very encouraging signs that the industry will be able to address the safety and technical challenges to pipeline transportation of ethanol. We will be pleased to provide a more detailed technical briefing for the committee by the research scientists at some future date.

Dating to the early 1990's, operators have found that ethanol has lead to Stress Corrosion Cracking (SCC) in tankage and piping associated with blending, storage and distribution facilities. The safety concerns created by the development of SCC is the focus of the industry’s R&D efforts. The test results to date indicate the following:

* The origin and manufacturing process of ethanol has significant impact on development of Stress Corrosion Cracking (SCC)
* The development of SCC is significantly reduced by decreasing oxygen content of fuel grade ethanol, regardless of its origin
* Potential means to mitigate SCC have been identified and are being tested
* Early test results indicate a blend of 90% gasoline 10% ethanol may be transported on existing pipelines without causing SCC.

Another technical challenge to pipeline transportation of ethanol is maintaining product quality. Ethanol has an affinity for water which can be picked up as the product flows through the pipeline network. In current multi-product pipelines, small amounts of water enter the pipeline system through fuels as well as terminals and tank roofs. The industry expects that pipeline operators will be able to overcome this issue on an individual pipeline system basis.
We will continue to keep the subcommittee and the rest of Congress informed of developments.

**Conclusion**

We believe the industry efforts in concert with the PHMSA have clearly resulted in significant improvements in the safe operation of hazardous liquid and natural gas pipelines. We are committed to that program with a goal to continuous safety and environmental improvement.

Thank you for the opportunity to testify before the Subcommittee on these important matters.
Exhibit 1
Dramatic Improvement:
Liquids Pipeline Industry Spill Record

The graphs depict the pattern in the number of spills and the volume released, illustrating the dramatic decline in each measure. They show total incidents (top line) and break out those incidents that occurred along the right-of-way (bottom line), where there is greater risk to the public. The hurricanes of 2004 and 2005 (Ivan, Katrina and Rita) account for the increase in barrels released which affects 3-year averages ending in 2004, 2005 and 2006. These hurricane-related events primarily involved losses from storage tanks.

If you take out the hurricane volumes, the decline in the number of spills is about the same as the decline in the volume spilled for total incidents. For spills along the right-of-way, which had almost no impact from the hurricanes, the decline is even more rapid—56% for the number of spills, and 52% for the volume released.

Any spill is significant, and the industry and its individual operators have proactively developed a diverse set of strategies to improve the record. The data are shown per mile: number of incidents divided by number of miles, or barrels released divided by number of miles. Named years represent 3-year averages ending in that year.
Exhibit 2

Reduction in Spills along the Right-of-Way Reflects Diverse Strategies

This slide shows the number of spills along the ROW attributable to various causes at two points in time—the 3-year average ending in 2001 and the 3-year average ending in 2006. As demonstrated, each of the major causes has shown significant declines, with an overall decrease of 56% for all causes.

Corrosion is the largest cause of spills along the right-of-way, and has shown the largest reduction—68%. This decline came from the hundreds of millions of dollars of investment that operators put into integrity management programs over the period. These programs involved risk assessments, inspections and repairs for any pipe that goes through a populated or environmentally sensitive area, as well as additional miles of pipe that were included in the program either for efficiency or at the operator's discretion.

Third party damage—excavation or other mechanical damage to the pipeline by someone unrelated to the operator (a "third" party)—was the second largest cause, and has declined by 58%. The decline is particularly important because third party damage incidents tend to be large, and have impacted the public with fatalities, injuries, and other consequences. Operators once thought that these incidents were outside of their control—and they are to some extent. However, operators have employed a variety of prevention strategies that are bearing fruit.

Operator error, while a small cause of incidents along the right-of-way, has also shown a significant decline, 53%. This decline reflects the efforts of operators to "take ownership" of those issues which are clearly under their control. Operators have a new focus on broader "safety culture" issues to prevent incidents from the top down in personnel and through design, engineering, operations and maintenance.

Source: Pipeline Performance Tracking System, a voluntary spill reporting system involving 85% of the U.S. liquids pipeline mileage