



Written Testimony of
Andrew J. Black, President and CEO, Association of Oil Pipe Lines (AOPL)

U.S. Senate Committee on Energy & Natural Resources
Hearing to examine oil and gas pipeline infrastructure and the economic, safety, environmental, permitting, construction, and maintenance considerations associated with that infrastructure

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Thank you. I am Andy Black, President and CEO of the Association of Oil Pipe Lines (AOPL). AOPL represents transmission pipeline owners and operators who deliver crude oil, refined products like gasoline, diesel fuel and jet fuel, and natural gas liquids such as propane and ethane.

Our U.S. pipeline network extends over 199,000 miles throughout the country delivering over 16 billion barrels of crude oil and petroleum products annually. Crude oil pipelines stretch nearly 67,000 miles delivering crude oil from production areas and import terminals to refineries around the nation. Refined products pipelines cover 61,000 miles delivering jet fuel to airports and gasoline and diesel to regional terminals where trucks pick it up and deliver transportation fuels to local gas stations. Natural gas liquids pipelines travel over 65,000 miles delivering industrial raw materials, such as ethane, from production areas to manufacturers and propane to farmers and consumers.

The U.S. pipeline network plays a critical role in delivering energy needed by American workers and families. Without pipelines, American drivers cannot get the gasoline and diesel fuel they need to driver their cars and trucks to commute to work or drive on the job. Propane delivered by pipeline allows farmers throughout the heartland to dry their grain production and keep their livestock barns warm in the winter. Propane delivered by pipeline is also essential to heating millions of homes in rural America.

American workers rely upon pipelines to deliver the raw material feedstocks needed for good-paying manufacturing jobs in plastics, chemicals, fabrics and pharmaceuticals. Ethane is produced as a by-product of crude oil or natural gas production. Plentiful, low-priced ethane production has fueled an industrial renaissance in America with billions of dollars in investment building new petrochemical plants and creating new jobs.

A recent example of energy and pipelines bringing manufacturing jobs to American workers is Shell Chemical's announcement last week to build a multi-billion dollar petrochemical plant in Pennsylvania northwest of Pittsburgh. The project will employ 6,000 workers building the facility and provide 600 workers permanent jobs at the plant. Thousands more in surrounding communities will benefit from the payroll spending and economic activity

needed to support workers at the plant. None of that could happen without pipelines capable of delivering over 100,000 barrels of ethane per day from the nearby Marcellus shale gas fields to the plant.

In addition to pipelines supporting good-paying manufacturing jobs, pipeline construction also creates jobs. A recent government analysis found a proposed major pipeline project would provide over 42,000 U.S. jobs and \$2.1 billion in U.S. worker payroll. While the pipeline would support 6,800 construction jobs with \$420 million in payroll, it would also lead to 4,600 manufacturing jobs with \$309 million in payroll, 4,400 jobs in trade with \$172 million in payroll, 2,200 jobs in finance and insurance with \$131 million in payroll, 5,100 jobs in other professional services with \$343 million in payroll, 2,700 jobs in health services with \$141 million in payroll, and 5,700 jobs in food and accommodations with \$278 million in payroll.

Pipeline operation also supports good-paying jobs. As an example, the Trans-Alaska Pipeline System (TAPS) supports a workforce of 2,500 men and women operating an 800-mile pipeline, a dozen pump stations, and a marine terminal. According to the Alaska Oil and Gas Association, in 2013, oil and gas production provided 5,300 direct jobs in Alaska with \$780 million in wages. Direct, indirect and induced jobs related to oil and gas production accounted for 51,000 jobs and \$3.5 billion in wages. Oil and gas taxes and royalties spurred another 65,000 jobs and \$6.4 billion in wages. In total, the petroleum industry supports over 110,000 jobs or one-third of all jobs in Alaska. Most of this would not be possible without pipelines like TAPS delivering crude oil from production to market. While doing this, TAPS provides the crude oil that supports millions of American consumers and workers on the Lower 48 West Coast.

In addition to economic benefits of jobs and wages provided or facilitated by pipelines, pipelines are an exceedingly safe way to deliver the energy America needs. A barrel of crude oil or petroleum products reaches its destination safely 99.999 percent of the time. Liquid energy pipelines are also getting safer. Since the year 2000, pipeline incidents impacting the public or environment are down 55 percent. Since 2000, corrosion caused incidents are down over 70 percent.

Government pipeline safety regulations contribute to pipeline safety. Regulations issued by the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) provide the benefits of requiring minimum pipeline safety standards, accountability for pipeline safety shortfalls and a trusted, independent source of pipeline safety. We will always want regulations to be reasonable, thoughtful and cost-effective. But we also benefit when the public understands the government is watching over pipeline operators and deterring pipeline violations.

Current PHMSA pipeline safety regulations also address the need for proactive safety actions to prevent pipeline incidents before they occur. So-called pipeline integrity management regulations require pipeline operators to regularly inspect their pipelines and perform preventative maintenance on issues they may find long before they are able to grow into problems. This program of proactive prevention of pipeline incidents is largely responsible for the 70 percent drop in corrosion incidents. It also addresses a key public desire to see pipeline operators proactively addressing pipeline safety. Each year, pipeline operators spend over \$2 billion to evaluate, maintain and perform preventative maintenance on their pipelines.

It is also important for the government to be responsive to pipeline problems that crop up from time to time. Indeed, PHMSA is in the midst of proposing and finalizing several new pipeline safety regulations. Last summer, PHMSA proposed a new federal rule raising training requirements for pipeline personnel performing pipeline safety-related tasks. They also provided details on a new requirement for prompt notification to authorities of pipeline incidents.

Last fall, PHMSA proposed a large set of new regulations on liquids pipeline operators. The new rules would expand inspections of pipelines after extreme weather events, expand the number of pipeline segments requiring intensive inspection, shorten timelines for performing pipeline maintenance and expand requirements for pipeline leak detection. This spring, PHMSA proposed a similar set of new regulations for natural gas pipeline operators.

We have Congress to thank for both the direction to PHMSA to issue these requirements and oversight of PHMSA to ensure it completes its legislative mandates. Congress has also taken action to improve pipeline safety by increasing funding at PHMSA. In FY 2015, Congress funded over 100 new PHMSA personnel, many of them inspectors and enforcement personnel. This action represented bipartisan agreement to provide PHMSA additional resources to perform its pipeline safety mission.

Congress is also joining to pass new, bipartisan federal pipeline safety legislation. Last week, the House of Representatives passed by voice vote legislation reauthorizing federal pipeline safety programs. Negotiated and supported by both Republican and Democratic members, the Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2016, or PIPES Act of 2016, will ensure pipeline operators receive timely post-inspection information from the government to allow them to maintain and improve their safety efforts, increases inspection requirements for certain underwater oil pipelines to enhance safety, ensures that product composition information is quickly provided to first responders after an incident and improves protection of coastal areas, marine coastal waters, and the Great Lakes by explicitly designating them as unusually environmentally sensitive to pipeline failures.

The PIPES Act was based in large part on legislation passed by the Senate in March and was negotiated in advance with Senate Republican and Democratic staff along with their House counterparts. AOPL urges Senate adoption of this bipartisan pipeline safety bill.

While statutory and regulatory requirements for pipeline safety are important, the pipeline industry believes it is important we are proactively improving pipeline safety. Even though pipelines are one of the safest modes of energy transportation, as a pipeline industry we have established our ultimate goal at zero pipeline incidents. Pipeline incidents compared to the amount of product we deliver may be rare, but we continue to develop new ways to improve pipeline safety.

In 2014, pipeline member companies of AOPL and the American Petroleum Institute launched the *Pipeline Safety Excellence* initiative. This comprehensive safety effort embodies the work of nearly a dozen industry-wide pipeline groups to improve pipeline operations and safety. Together, we are funding research and development on pipeline inspection technologies, enhancing our threat detection and response capabilities, expanding safety culture and management systems, and boosting our response capabilities.

In 2015, liquids pipeline operators completed development of a number of industry-wide programs to improve our ability to detect pipeline cracking, integrate safety data, manage safety efforts holistically, manage leak detection programs and better plan for and respond to pipeline emergencies.

2016 marks the two-year anniversary of our new pipeline specific training program for first responders. Small and rural fire departments, many of them staffed by volunteers, told us they sometimes do not have the time or resources for pipeline specific emergency response training. Liquids pipeline operators responded by developing a free, online training course for pipeline emergencies. Now first responders can go online anytime, whether they are on the day shift or night shift, working weekends or weekdays, from the firehouse or their own homes, to get the training they need to respond to a pipeline emergency.

For liquids pipeline operators, 2016 is a year of implementing newly developed safety programs industry-wide. A prime example is our effort to encourage and assist implementation of the American Petroleum Institute (API) 1173 Recommended Practice (RP) for Pipeline Safety Management Systems. Recommended by NTSB and developed in conjunction with PHMSA and state pipeline regulators, this program will help pipeline operators comprehensively and holistically manage all the safety efforts underway across a company. Other industry sectors such as aviation, nuclear power and chemical manufacturing have benefited from safety management systems. Now, pipeline operators will benefit too.

In addition to these implementation activities, pipeline operators within AOPL and API in 2016 will complete expansion of industry-wide guidance on river crossings, develop a new recommended practice for construction quality management, and update our industry-wide recommended practice for pipeline integrity program management, API RP 1160.

Many of these efforts have technical names such as recommended practices or technical reports. But the bottom line is we are learning the lessons of past experiences to make safety improvements. We are taking action in key safety areas of detecting leaks, using technology to inspect pipelines, better planning and training to respond to pipeline incidents, and proactively finding and fixing problems on pipelines before they result in an incident.

Through participation in these industry-wide safety improvement efforts, pipeline operators are proactively preventing pipeline incidents, protecting their pipelines with advanced technology, and have a plan and are prepared for a pipeline emergency should it occur. The result is an even safer network of liquids pipelines.

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