WRITTEN TESTIMONY OF
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BEFORE THE SUBCOMMITTEE ON SURFACE TRANSPORTATION AND MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY

Good morning, Mr. Chairman and members of the Committee. Pipeline safety is a critically important issue, and I commend you for the bipartisan support that members of Congress have provided over the years to ensure that America has one of the safest, most reliable pipeline system in the world.

I am here testifying today on behalf of the American Gas Association (AGA), which was founded in 1918, and represents over 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 70 million residential, commercial and industrial natural gas customers in the U.S., of which 91 percent — more than 65 million customers — receive their gas from AGA members. AGA is an advocate for natural gas utility companies and their customers and provides a broad range of programs and services for member natural gas companies, pipelines, marketers, gatherers, international natural gas companies and industry associates.

Natural gas pipelines, which transport approximately one-fourth of the energy consumed in the United States, are an essential part of the nation's infrastructure. Natural gas is delivered to customers through a safe, 2.4-million mile underground pipeline system. This includes 2.1 million miles of local utility distribution pipelines and 300,000 miles of transmission pipelines that stretch across the country, providing service to more than 175 million Americans. The recent

development of natural gas shale resources has resulted in abundant supplies of domestic natural gas, which has meant affordable and stable natural gas prices for our customers. America needs clean and abundant energy and America's natural gas provides just that. This has made the safe, reliable and cost-effective operation of the natural gas pipeline infrastructure even more critically important, as it is our job to deliver the natural gas to the customer.

CRITICAL PIPELINE INFRASTRUCTURE

AGA believes that the domestic abundance of natural gas and the resulting price stability, when combined with the other advantages of natural gas—including its environmental attributes and efficiency of use—presents us with an unprecedented opportunity. There is direct use of natural gas in core residential and commercial markets, expanding use for gas-fired electric generation, and the transportation market where natural gas vehicles can displace some traditional diesel- and gasoline-based vehicles. These actions will save consumers billions of dollars in related energy costs, reduce greenhouse gas emissions and enhance America's energy security by reducing our reliance on imported oil. Our industry can help meet America's need for clean and abundant energy by delivering more of America's fuel -- natural gas -- not just in 2011, but also well into the future. Indeed, natural gas should now be considered a foundation fuel for the country.

Shale production grew from about 1 billion cubic feet (Bcf) per day in 2000 to about 15 Bcf per day by year-end 2010, thus forming nearly twenty-five percent of all domestic dry natural gas production. U.S. shale gas production is now spread between Appalachian states, the mid-continent, Texas, Louisiana, Arkansas and even the Michigan basin. The pipeline infrastructure is being expanded to accommodate large shale gas resources in the Northeast and other parts of the nation. As shale production and the natural gas infrastructure grow to take advantage of this abundant resource, it must be done with a focus on safety. The AGA Board of Directors recently adopted principles for Responsible Natural Resource Development. These principles address a foundation for the sustainable and responsible development of all natural gas resources in our country and underscore the commitment of local natural gas utilities to the communities they serve. Not only will this significant production help to ensure a stable supply of natural gas, it will also provide new jobs. Estimates are that in 2011, the Marcellus Shale region alone will

directly or indirectly create 122,000 new jobs. All told, 2.8 million people are directly or indirectly employed by the natural gas industry.

INDUSTRY'S DEMONSTRATED COMMITMENT TO SAFETY

The industry has demonstrated that it can increase the delivery of natural gas while continuously making improvements in safety. The data from the Department of Transportation's Pipeline & Hazardous Materials Safety Administration (PHMSA) shows a continual downward trend in pipeline incidents of approximately 10% every three years. AGA has analyzed data from the PHMSA database and leaks, serious incidents, and significant incidents are continually being reduced.

Over the last twenty years, we have seen improvements in leak reduction (49%), as well as significant incidents (29%) and serious incidents (49%). But clearly more needs to be done. The tragic incident in San Bruno, California reminds us that one accident is one too many. The leadership of AGA believes that commitment must start at the top in any organization or business. Our actions as leaders in reducing incidents and leaks clearly demonstrate that we are fully committed to achieving the goal of improving pipeline safety.

AGA'S REVIEW OF THE NTSB REPORT, LEGISLATION AND REGULATIONS

AGA commends the committee for developing a solid bipartisan bill for pipeline safety. Everyone has the common goal of continuing to have a safe, reliable and efficient national pipeline infrastructure. Congressmen, public utility commissioners, regulators, gas utility leaders, and utility hourly employees all agree that safety is the top priority.

It is important to highlight that the NTSB investigative process, pipeline safety reauthorization, and rulemaking by PHMSA are separate and distinct processes. AGA has provided support for each of these processes. AGA and its Operations Section chairman, Charles Dippo, Vice President of Engineering Services and System Integrity for South Jersey Gas, testified at the NTSB San Bruno hearing in March 2011 on activities that operators and the association are doing to promote pipeline safety. Mr. Dippo also testified at several House and Senate hearings.

AGA technical committees have engineers from its operating companies reviewing the NTSB report, legislation and PHMSA proposed rulemaking.

The investigative process of this tragic accident is complete and there are important lessons to learn. Industry must be prudent in moving forward to enhance its safety practices. On the positive side, the facts associated with this accident appear to be unique and not part of a systemic problem. The NTSB investigation showed that there were good engineering practices in place as early as the 1940s that required gas transmission pipe to use high grade steel, to be pressure tested at the mill, to be properly field inspected, and to operate at a maximum allowable operating pressure (MAOP) with a margin of safety. All of the 42 miles of the Line 132 that failed were constructed to industry standard and in good condition, except six approximately four foot sections that were installed when 1,825 feet of the line was relocated in 1956. The NTSB stated that the proximate cause of the San Bruno incident was,

> *"the Pacific Gas and Electric Company's (PG&E) (1) inadequate quality assurance and quality control in 1956 during its Line 132 relocation project, which allowed the installation of a substandard and poorly welded pipe section with a visible seam weld flaw that, over time grew to a critical size, causing the pipeline to rupture during a pressure increase stemming from poorly planned electrical work at the Milpitas Terminal; and (2) inadequate pipeline integrity management program, which failed to detect and repair or remove the defective pipe section."*

AGA has circulated the full NTSB report to its members companies and they are analyzing the facts and the recommendations for consideration in their operations. AGA believes that the NTSB staff did an excellent job investing this unique incident and now it is time to address their findings through the regulatory process.

There was one NTSB safety recommendation to AGA. The recommendation states,

> *"Report to the National Transportation Safety Board on your progress to develop and introduce advanced in-line inspection platforms for use in gas transmission pipelines not*

currently accessible to existing in-line inspection platforms, including a timeline for implementation of these advanced platforms. (P-11-32).”

On October 4, AGA hosted a meeting that was attended by all of the national pipeline trade associations and the following research organizations; Gas Technology Institute, NYSEARCH, Operations Technology Development, and the Pipeline Research Council International (PRCI). The meeting was designed to develop answers to NTSB Safety Recommendation P-11-32 and created a path forward for near and long-term R&D for the pipeline industry.

AGA commends the Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety, and Security for developing a comprehensive pipeline safety bill for reauthorization. AGA believes the bill provides a balance of prescriptive mandates from Congress that leaves technical details to be implemented by the Secretary of Transportation through regulation. AGA sent a letter to Congress urging the immediate passage of the bill. There has already been thorough discussion on every aspect of the bill and we urge Congress to pass the bill by unanimous consent so that regulators and industry can begin immediate implementation of the safety improvement ordered by Congress.

Finally, PHMSA has already begun the regulatory process to address many of the integrity management issues related to the NTSB San Bruno investigation and contained within Senate bill 275. PHMSA issued an advance notice of proposed rulemaking on August 25 that contained 191 questions, many with subparts. AGA and its member companies have a number of technical committees reviewing the questions and developing responses that are due December 2. The notice includes all aspects of integrity management including in-line inspection, pressures testing, expanding high consequence areas (HCAs), installation of automatic or remotely controlled valves, and managing pipe that has not had a post construction hydrotest, but has a long history of stable operation below established MAOPs.

RAISING THE BAR FOR SAFETY

Along with addressing the findings in the NTSB investigation, new legislation and the PHMSA proposed rulemaking, industry must keep its focus on key safety initiatives that are already

underway and are showing success. AGA has been, and continues to be, actively engaged in all aspects of pipeline safety. This includes the following:

- **Engaging CEOs and executive leadership in safety improvement –** In 2007, AGA created a board-level safety committee that focuses on pipeline safety, customer safety in the home, employee safety, contractor safety and vehicular safety. The committee meets regularly to share lessons learned, review safety statistics, and identify ways to further improve safety. This committee has developed a Safety Information Resource Center that includes safety alerts, safety messages, safety statistics, information on motor vehicular safety and case studies. In addition, AGA and our executive leadership hold an annual Safety Summit that brings together key safety personnel and leaders in safety from government and a variety of industries to share lessons learned.

- **Sharing Safety Information** - AGA has 14 technical committees and an operations managing committee focusing on a wide range of operations and safety issues. The technical committees develop and share information, including those issues raised by Secretary LaHood, PHMSA and the National Transportation Safety Board. In addition, AGA has three Best Practices Programs (distribution, transmission and supplemental gas) focused on identifying superior performing companies and innovative work practices that can be shared with others to improve operations. AGA is also the Secretariat for the National Fuel Gas codes and the Gas Piping Technology Committee.

- **State Safety and Rate Mechanisms** - Gas utilities operate under the safety and rate making jurisdiction of state utility commissions. AGA serves as a clearinghouse to document the effective cost-recovery mechanisms that various states have used to fund infrastructure maintenance and replacement projects. AGA provides technical and regulatory information at regional and national meetings of state utility commissioners and pipeline safety regulators.

- **Publications** – AGA has developed a number of publications dedicated to improving safety and operations. This includes publications on corrosion control, gas control, integrity management, odorization, plastic piping, purging principles and practices, repair

and replacement, worker safety practices, contractor safety, natural gas pipelines and unmarked sewer lines, alarm management, directional drilling and emergency shutdown.

ACTIONS SUPPORTING THE NTSB AND DOT SECRETARY CALLS TO ACTION

AGA has taken a number of voluntary steps to promote safety in direct response to the NTSB recommendations and Secretary LaHood's call to action on pipeline safety. This includes creating technical task forces focused on addressing a pipeline's fitness for service, records, maximum allowable operating pressure, automatic and remotely controlled shutoff valves, and emergency response. We have held a number of workshops, teleconferences and other events to share information, and have initiated a Safety Information Safety Study with other pipeline trade associations, including our Canadian counterparts. In addition, the AGA Board of Directors has finalized and adopted a Safety Culture Statement to show its commitment to promoting positive safety cultures and, today, the Board will adopt AGA's Commitment to Enhancing Safety, a list of commitments that AGA and its members are willing to take to improve safety. Additional details are listed below:

- **Pipe Fitness for Service** – AGA brought together two task forces to develop guidance on how to determine a distribution or transmission pipeline's fitness for service, including the critical records needed for this determination, and the maximum allowable operating pressure on a transmission pipeline. Distribution and transmission piping serve different purposes and have very different characteristics for examining fitness for service. The initial documents were submitted for the DOT Report to the Nation. Also under development are more comprehensive documents focused on the fitness for service considerations, the level of accuracy needed for critical records, how to address gaps in records, and how to obtain new information to address record gaps and update records. These documents are expected to be finalized in Fall 2011.

- **Transmission Records Verification Process** – AGA developed a technical paper to provide guidance on determining the maximum allowable operating pressure of a transmission pipeline. This technical paper was finalized in April and distributed to operators and federal and state regulators. Additional work is being conducted by the

task forces listed above and a companion document to the April technical paper will be issued in the Fall of 2011.

- **Safety Information Sharing Study** – In order to share safety information amongst all operators, AGA is working with the Interstate Natural Gas Association of America (INGAA), the American Petroleum Institute (API), the Association for Oil Pipelines (AOPL) and our Canadian counterparts, the Canadian Gas Association and the Canadian Energy Pipeline Association, on a comprehensive study to explore safety sharing initiatives currently utilized by other sectors in the economy, as well as the pipeline industry. It is our hope that by learning from others, the energy pipeline industry can identify and implement a model that will measurably improve pipeline system safety. The safety management study is expected to be completed as early as February of 2012.

- **Gas Utility Emergency Response** – The safety performance of the natural gas pipeline industry is largely attributed to a well designed and maintained infrastructure. Operators must also be prepared to respond quickly to address potentially dangerous situations. Consistent with PHMSA advisories, an AGA task group is developing a checklist that will enable operators to enhance their emergency response communications and education programs. This emergency check list will be completed in the fall of 2011.

- **Automatic and Remotely Controlled Valves** – AGA has developed a technical paper on Automatic and Remotely Controlled Valves. The technical paper presents the benefits and disadvantages of their installation on new, fully replaced and existing transmission pipelines, especially as it relates to the gas transmission pipelines embedded into distribution systems. The initial technical document was completed in March 2011 and AGA is developing a more comprehensive technical paper that is expected to be completed by December of 2011.

- **Safety Culture Statement** – In February of 2011 the AGA Board of Directors adopted a Safety Culture Statement to show its commitment to promoting positive safety cultures among employees throughout the natural gas distribution industry. All employees, as well

as contractors and suppliers providing services to AGA members, are expected to place the highest priority on employee, customer, public and pipeline safety. The Safety Culture Statement addresses the commitment by management to promoting open and honest communications across all levels of an organization, identifying hazards, managing risks, planning the work and working the plan, and promoting a learning environment and personal accountability.

- **Infrastructure Replacement Rate Mechanisms** – AGA, INGAA and API have developed a document to explain to the public the ratemaking mechanisms used for the pipeline infrastructure. A well designed rate reflects the input of all stakeholders and the importance of factors such as expanded safety programs, infrastructure repair and replacement. Such a rate design also recognizes the changing methods of cost recovery and other factors.

- **Technical Workshops, Teleconferences and Other Events to Share Information** – Information sharing is critical to improving safety. AGA has held a number of workshops, teleconferences and other events to promote the sharing of pipeline safety information. This includes numerous technical committee meetings; workshops on emergency response, transmission integrity management, vintage pipelines and utility contractor management; regional operations executives' roundtables; and roundtables on external corrosion, damage prevention and marking and locating. In addition, the AGA Operations Conference and Exhibition, which was held in May of 2011 and included technical sessions on the management of vintage pipe, distribution and transmission integrity management, emergency management, pipe replacement, welding repair qualification procedures, leak detection, corrosion assessment, MAOP, qualification of personnel, control room management, sewer cross bores, compression fittings, worker safety, weld failure mechanisms, safety culture, contractor management, improving communications, and new construction. AGA also participated in the workshops that PHMSA held on weld seams and integrity assessments and its revised annual and incident reporting forms.

THE SAFETY PATH FORWARD

AGA has developed additional actions that distribution and intrastate transmission pipeline operators can take to enhance pipeline safety. This plan will be voted on by the AGA Board of Directors at its October 2011 meeting.

In addition to the actions identified above, AGA believes additional safety actions need to continue in order to improve pipeline safety consistent with the intent of Congress. AGA supports timely reauthorization of the pipeline safety law and in July sent a letter to the Senate requesting passage of the Senate bill 275. This is a constructive vehicle to meet our common objective for a safer system that also can effectively meet our nation's energy needs. AGA members are already engaged to take action on the following:

Damage Prevention – AGA is a founder of the Common Ground Alliance and supports programs that address excavation damage, which is one of the leading causes of pipeline safety incidents. Based upon 2008 data collected by the Common Ground Alliance, excavation damages for all underground facilities have decreased by approximately 50 percent compared to 2004 data. AGA believes a significant cause of this reduction is the work done by the pipeline industry in promoting the use of 811, the national number for people to call before they dig. AGA members are working at the state level to promote participation in One-Call programs by all underground operators and all excavators. They also want state legislation with flexible and effective enforcement that prohibits municipalities, state agencies or their contractors from being exempt from One-Call notification requirements.

Transmission Integrity Management Enhancements - AGA's distribution company members operate approximately 45,000 miles of natural gas transmission pipeline in the United States. These pipelines generally have different operating characteristics from interstate natural gas pipelines. Transmission pipelines operated by distribution companies are often embedded within the distribution network that serves residential, commercial and industrial customers, and they operate at lower stress levels.

AGA members are committed to immediately engaging in public discussions to evaluate whether gas transmission integrity management should be expanded beyond HCAs, and the benefits and disadvantages of applying the integrity management principles to additional areas. Many AGA members are required to manage Distribution Integrity Management Programs (DIMP) and Transmission Integrity Management Programs (TIMP) programs, so the effectiveness, inefficiencies and duplication of multiple integrity management programs must also be explored. AGA members are committed to evaluating how various low-stress pipelines operating below 30 percent SMYS would benefit by using elements from either or both programs.

Data Collection and Sharing - Collecting accurate data and data analysis are integral to determine areas for pipeline safety improvement. AGA is committed to working with PHMSA, state regulators and the public to create a data quality team made up of representatives from government, industry and the public, similar to the PHMSA technical advisory committees. The team could analyze the data that PHMSA collects and determine opportunities to improve pipeline safety based on the data analysis. The team could also identify gaps in the data that are collected by PHMSA and others, identify ways to improve the collected data, and communicate consistent messages about pipeline incident data.

Research & Development - More industry research is necessary to improve in-line inspection tool quality, operator use of tool data, direct assessment tools, non-destructive testing and leak detection. Many pipeline companies have direct memberships in research consortiums and contribute towards research. These research consortiums include Pipeline Research Council International (PRCI), NYSEARCH and Operations Technology Development (OTD), Utilization Technology Development (UTD) and Sustaining Membership Program (SMP). In the last five years, hazardous liquid and gas pipeline operators have contributed more than $115 million to research and development. However, R&D cannot be successful without cooperative planning between industry and government. As noted above, AGA is committed to improving the transparent collaborative relationship with PHMSA that has historically enhanced pipeline safety R&D.

Emergency Response - AGA members are committed to finding new and innovative ways to inform and engage stakeholders, including emergency responders, public officials, excavators, consumers and safety advocates and members of the public living in the vicinity of pipelines. AGA and INGAA sponsored a workshop on September 26 that was presented by the National Association of State Fire Marshals. The workshop had approximately 60 emergency responders, PHMSA staff and 40 operator personnel in attendance.

AGA, PHMSA, NTSB, and the public have the common goal of continuing to keep the pipeline infrastructure the most safe and efficient mode of energy transportation in America. AGA is confident that the commitments to safety listed above will indeed achieve that goal.

SUMMARY

In conclusion, the natural gas utility industry has a strong safety record. Recognizing the critical role that natural gas can and should play in meeting our nation's energy needs, we are committed to working with all stakeholders to improve. To that end, we applaud this committee's focus on the common goal: to enhance the safe delivery of this vital energy resource.