



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
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Senate Policy Committee Hearing on Pipeline Safety

Thank you, Chairman Erickson and distinguished members of the committee, for the opportunity to appear here today. My name is Paul J. Metro. I am employed by the Pennsylvania Public Utility Commission as Chief Engineer for Gas Safety. The Gas Safety Division regulates, inspects, and enforces state and federal regulations as they apply to natural gas and hazardous liquid pipelines.

My testimony today will discuss the Marcellus Shale impacts to pipeline safety. Production pipelines, gathering pipelines, and intra-state transmission lines will need to be sited, safely constructed, and continually maintained as per the federal regulations to transport the Marcellus Shale gas to the market. This stage of development is associated with pipeline safety. There are two stages to the development of the Marcellus Shale natural gas resource. The first stage is the work performed for exploration, well drilling and environmental impact. The second stage is the infrastructure planning, siting and pipeline construction. Much emphasis has been placed on the first stage of Marcellus Shale development, however, the second stage is equally important and without this stage, the Marcellus Shale development will not succeed. Pennsylvania's current transmission pipeline infrastructure cannot be utilized for the Marcellus Shale gas due to the high pressures and volumes of gas. Pennsylvania's intra-state transmission lines have limited capacity and were designed for lower pressure shallow well gas. The Marcellus Shale development will require larger diameter pipelines operated at higher pressures.

The Pennsylvania Public Utility Commission has a vested interest in Marcellus Shale gas development since its development may have profound impacts on natural gas consumers in Pennsylvania and the northeastern United States. The increase in natural gas supply may reduce and stabilize natural gas prices in the region. In addition, reduced gas prices may reduce wholesale and retail electric rates via natural gas fired electric generation plants. The Marcellus Shale gas development may also affect the quality and quantity of Pennsylvania water supplies, which could ultimately affect the rates and service of Pennsylvania regulated water and wastewater customers.

The Public Utility Commission was established by the legislature and has only those duties, powers, responsibilities, and jurisdiction given to it by the legislature. The public utilities regulated by the Commission are private, investor owned companies. The only exceptions are municipalities; the Commission regulates only that municipal service rendered outside the municipality's boundaries, except for Philadelphia Gas Works. In enacting the Public Utility

Code and creating the Public Utility Commission, the legislature sought to establish statewide standardization of all facets of operation of public utilities under jurisdiction of a Commission. The Public Utility Commission has exclusive regulatory jurisdiction over the implementation of public utility facilities. The Public Utility Commission is a forum for the adjudication of rates, services, and facilities of public utilities operating within the Commonwealth. As such, one of the responsibilities of the Commission is to monitor utilities to ensure that they are providing safe and reliable service at a reasonable cost. In doing so, the Commission established a Gas Safety Division that regulates and enforces the state and federal regulations as they pertain to pipeline safety.

The Pennsylvania Public Utility Commission has adopted the federal pipeline safety regulations, 49 CFR 190-193 and 198 and 199. The Public Utility Commission enforces 49 C.F.R. 190-193 and 198 and 199 regulations through pipeline inspections, non-compliance letters, and informal and formal complaints against regulated natural gas utilities. The Pennsylvania Public Utility Commission also enforces gas safety regulations found in 52 Pa Code Chapter 59.

The Pennsylvania Public Utility Commission participates in the U.S. Department of Transportation's pipeline safety program through a certification pursuant to Chapter 601, Section 60105, Title 49 of the United States Code. Under a certification, the State agency assumes inspection and enforcement responsibility with respect to intrastate facilities over which it has jurisdiction under State Law. To qualify for Section 60105 of Chapter 601 gas or liquid certification, the State agency must meet the following requirements:

1. The State Agency must have adopted each Federal safety standard applicable to intrastate pipelines under its jurisdiction;
2. The State Agency must be enforcing each safety standards by injunctive and monetary sanctions that are substantially the same as those provided for in Chapter 601 of the U.S. Code;
3. The State Agency must have substantially the same authority as that provided by the U.S. DOT. Thus each person who owns or operates pipeline facilities subject to the State's agency's jurisdiction must establish and maintain records, make reports, provide information, conduct inspections, and prepare and have on file plans for inspection and maintenance;
4. The State Agency must encourage and promote the establishment of a program designed to prevent damage by demolition, excavation, tunneling, or construction activity to the pipeline facilities to which the certification applies and subject persons who violate the applicable requirements to civil penalties and other enforcement actions;
5. The State Agency must file with the U.S. DOT, on an annual basis, a summary of the previous year's pipeline inspection statistics and enforcement actions.

Chapter 601 provides the statutory basis for the pipeline safety program and establishes a framework for promoting pipeline safety through exclusive Federal authority for regulation of interstate pipeline facilities and Federal delegation to the States for all or part of the

responsibility for intrastate pipeline facilities under an annual certification. Chapter 601 authorizes Federal grants-in-aid of not more than 80 percent of a State agency's personnel, equipment, activities and other allowable costs for its pipeline safety program. The resulting Federal/State partnership is the cornerstone for ensuring uniform implementation of the pipeline safety program nationwide.

The Federal role for pipeline safety is performed by the Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA is responsible for protecting the people and environment in the United States through a comprehensive pipeline safety program. Under delegation from the Secretary of the U.S. Department of Transportation, PHMSA directly administers the program and develops issues and enforces minimum safety regulations for interstate and intrastate pipelines. The federal pipeline safety regulations can be found at 49 C.F.R. 192. These regulations are written to ensure safety in (1) the design, construction, testing, operation, and maintenance of pipeline facilities and in (2) the siting, construction, operation, and maintenance of liquefied natural gas (LNG) facilities. PHMSA ensures compliance with regulations through operator inspections, enforcement actions, and accident investigations. In addition, PHMSA's Training and Qualification Program (TQ) conducts training in application of the regulations.

In order to fulfill its pipeline safety inspection and enforcement agreement with the U.S. DOT, the Pennsylvania Public Utility Commission's Gas Safety Division employs eight safety inspectors across the state. Three inspectors are located in Western Pennsylvania, two inspectors are located in South Central Pennsylvania, two inspectors are located in Southeastern Pennsylvania, and one inspector is located in Northeastern Pennsylvania. The gas safety inspectors are trained and certified by PHMSA's Training and Qualification Program located in Oklahoma City, Oklahoma. Currently each gas inspector is required to complete approximately 20 courses. The courses are an intensive one week course followed by a written test. Each inspector must satisfactorily complete each course to be a certified federal/state gas safety inspector. The PAPUC gas safety inspectors are the only U.S. DOT certified pipeline inspectors performing inspections within the Commonwealth.

The Pennsylvania PUC Gas Safety Division performs approximately 32 different types of inspections on regulated public utilities under the PAPUC jurisdiction. The division inspects 36 natural gas distribution facilities, 4 LNG facilities and 11 intra-state jurisdiction transmission lines across the Commonwealth. We inspect approximately 40,000 miles of pipeline located within Pennsylvania. Currently there are approximately three and a half million natural gas customers within the Commonwealth.

As stated above, the PAPUC only regulates public utilities. A public utility is defined by the statute as:

Public utility—

- (1) *Any person or corporations now or hereafter owning or operating in this Commonwealth equipment or facilities for:*

- (i) *Producing, generating, transmitting, distributing or furnishing natural or artificial gas, electricity, or steam for the production of light, heat, or power to or for the public for compensation.*
- (ii)
- (v) *Transporting or conveying natural or artificial gas, crude oil, gasoline, or petroleum products, materials for refrigeration, or oxygen or nitrogen, or other fluid substance, by pipeline or conduit, for the public for compensation.*

(2) *The term does not include:*

- (iii) *Any producer of natural gas not engaged in distributing such gas directly to the public for compensation. **66 Pa. C.S. A. Section 102.***

In essence, the statute identifies two types of natural gas public utilities. The first is the traditional natural gas distribution utility that delivers natural gas to homes, businesses, and industrial customers. The second type of natural gas public utility is a type of common carrier. This type of gas utility transports natural gas, via a pipeline, for the public, for compensation. For example, a pipeline is constructed to transport natural gas for several well owners. The pipeline company charges the well owners a set fee to transport the gas from point A to point B. As I stated above, the Pennsylvania Public Utility Commission only has jurisdiction to regulate and inspect public utilities or “entities defined as public utilities”.

PHMSA’s pipeline safety jurisdiction encompasses all pipeline facilities, including gathering lines, intra-state transmission lines and inter-state pipelines. The Pennsylvania Public Utility Commission’s agreement with PHMSA to inspect and enforce the federal pipeline safety regulations is limited to jurisdictional utilities, i.e. entities that have received a certificate of public convenience from the PUC. Therefore, the pipelines not inspected or regulated by the Pennsylvania Public Utility Commission are the responsibility of the U.S. DOT (PHMSA). However, PHMSA has limited resources and performs inspections based upon complaints and a risk assessment strategy. For several years, PHMSA has urged the Pennsylvania Public Utility Commission to augment their jurisdiction to include non-jurisdictional pipelines. Included within PHMSA’s testimony provide to the Public Utility Commission’s en banc hearing regarding Marcellus Shale, PHMSA stated the following:

“The latest PUC Gas Safety Division’s evaluation resulted in reduced grant funding since the PUC lacked full authority to inspect all intrastate pipelines subject to the federal pipeline safety regulations. To receive the maximum grant funding available, the state legislature must give the PUC the authority to inspect all intrastate pipelines including but not limited to municipals, co-ops, and privately owned transmission pipelines.”

According to the Department of Energy's Energy Information Administration, there are thirty one states that produce natural gas within the United States. Of those thirty one gas producing states, twenty nine have the statutory authority to regulate gas gathering within their boundaries. Responsibility for regulatory oversight of gathering lines in Alaska rests solely with PHMSA, since the state does not participate in the pipeline safety program. Pennsylvania remains the only other state without this full authority, since Pennsylvania only regulates safety for facilities that meet its definition of a public utility.

As Marcellus Shale develops, the PUC will likely experience a substantial increase in applications related to pipelines that request public utility status. Many or some of these applications will be filed on behalf of gathering pipelines. One of the issues surrounding these type of applications is the definition of a gathering line. A gathering line is defined in the pipeline safety regulations as "a pipeline that transports gas from a current production facility to a transmission line". Congress recognized that some rural gathering lines might present unacceptable risks and authorized the U.S. DOT to regulate lines where the risk warranted regulation. PHMSA determines which gathering lines are to be regulated based on locations. Locations are divided into Classes. Class locations are further defined in 49 C.F.R. 192.5. The following criteria apply to classifications under this section.

(1) A "class location unit" is an onshore area that extends 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) of pipeline.

(2) Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(b) Except as provided in paragraph (c) of this section, pipeline locations are classified as follows:

(1) A Class 1 location is:

(i) An offshore area; or

(ii) Any class location unit that has 10 or fewer buildings intended for human occupancy.

(2) A Class 2 location is any class location unit that has more than 10 but fewer than 46 buildings intended for human occupancy.

(3) A Class 3 location is:

(i) Any class location unit that has 46 or more buildings intended for human occupancy; or

(ii) An area where the pipeline lies within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of

public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. (The days and weeks need not be consecutive.)

(4) A Class 4 location is any class location unit where buildings with four or more stories above ground are prevalent.

(c) The length of Class locations 2, 3, and 4 may be adjusted as follows:

(1) A Class 4 location ends 220 yards (200 meters) from the nearest building with four or more stories above ground.

(2) When a cluster of buildings intended for human occupancy requires a Class 2 or 3 locations, the class location ends 220 yards (200 meters) from the nearest building in the cluster.

PHMSA has elected not to regulate gathering lines located in Class 1 areas based upon their current risk assessment model. PHMSA currently regulates onshore gas gathering in areas identified as Class 2, Class 3, and Class 4 locations.

The Marcellus Shale development, based on the number of well permits issued in 2009, will create a large number of gathering lines. During 2009, the Pennsylvania Department of Environmental Protection issued 1,984 Marcellus Shale well permits. Of course the number of gathering lines depends on the number of wells, well locations, rights of ways, transmission line locations and other variables.

Many of the Marcellus Shale gathering lines will be located in Class 1 locations and thus exempt from PHMSA regulation. Based on the current risk data, PHMSA had and continues to elect not to regulate gathering lines in Class 1. Other states have imposed additional requirements beyond the federal pipeline safety regulations on gathering lines. For example, the Colorado Public Utility Commission, through authority from the state legislature, has enacted regulations requiring operators of gathering lines in Class 1 locations to install pipeline markers at all crossings of public road, highways, and railroads. Colorado also imposes requirements for leakage surveys on certain gathering lines located in Class 2, 3, and 4 locations. In 2007, the Texas Railroad Commission initiated a rulemaking to extend its regulatory authority to cover production lines residing in urban and suburban areas in the Barnett Shale region. Texas modified its administrative code in January 2009 and subjects production lines in Class 2, 3, and 4 locations to the same requirements as gathering lines. Production pipelines refer to piping or equipment used solely in the process of extracting natural gas from the earth for the first time and preparing it for transportation or delivery.

Under the federal pipeline safety regulations, gathering pipeline facilities typically end or begin at the outlet of a processing facility used to extract heavy hydrocarbons from the gas stream or a compression facility used to boost the pressure into a transmission line. Transmission begins at a

defined point where gathering ceases. Transmission pipelines are regulated in all Class locations.

The Pennsylvania Public Utility Commission recommends that the Pennsylvania Legislature extend the PUC's regulatory authority to include safety jurisdiction over otherwise non-jurisdictional pipelines covered by the U.S. DOT Pipeline Safety Regulations at 49 C.F.R. 192. As partners with PHMSA, the PUC Gas Safety Division routinely inspects gas distribution and some intrastate transmission lines within Pennsylvania's borders. The Pennsylvania Public Utility Commission requests the legislature to extend the PUC authority to inspect the remaining intrastate transmission and gas gathering lines within the Pennsylvania borders, including the Marcellus Shale development. The Pennsylvania Public Utility Commission is not seeking to assert such jurisdiction over pipelines located in Class 1 areas. By extending Pennsylvania inspection authority and enforcement to the Pennsylvania Public Utility Commission, the legislature would be insuring adequate protection against the risks of life, property and the environment, posed by pipeline transportation infrastructure that will be constructed from the development of Marcellus Shale gas reserves. The Pennsylvania Public Utility Commission strongly supports the safe development of the Marcellus Shale gas resources so that the ratepayers and citizens of the Commonwealth receive the maximum benefits from the resource.

The Pennsylvania Public Utility Commission does not request rate regulation associated with the recommended extension to Commission's pipeline authority on otherwise non-jurisdictional pipelines. The Commission would continue to regulate rates of any pipeline that operates as a public utility.

The Commission would also need to charge a fee related to the proposed non-utility inspection authority. The PUC would recommend that the fee be based only on the cost of providing the inspection and enforcement authority and be calculated on total pipeline mileage.

Finally, the Commission, as safety partners with the Pennsylvania One Call System, recommends that all underground gathering, production, and transmission pipelines be subject to the Pennsylvania One Call Act. Pipeline excavation damage is the number one safety issue facing the Pennsylvania natural gas industry as well as the rest of the country. Pennsylvania averages three reportable incidents a year as a result of pipeline excavation damage. A reportable incident is a release of gas and \$50,000 in damages, or death or injury, or a significant event as decided by the operator. The majority of Pennsylvania's damaged pipeline reportable incidents are incidents that result in house explosions.

I appreciate the opportunity to be here today. I am happy to answer any questions you may have today or in the future.