

**BEFORE THE PIPELINE AND HAZARDOUS MATERIALS  
SAFETY ADMINISTRATION**

**Notice of Proposed Rulemaking on** :  
**Pipeline Safety: Safety of Gas Transmission** : **Docket No. PHMSA-2011-0023**  
**and Gathering Lines** :

**COMMENTS OF THE PENNSYLVANIA  
PUBLIC UTILITY COMMISSION**

The Pennsylvania Public Utility Commission (PAPUC) herein submits its Comments to the Notice of Proposed Rulemaking (NOPR) published on April 8, 2016, in the Federal Register, which proposes standards governing the safety of gas transmission and gathering lines. The PAPUC appreciates the opportunity to provide input on these important regulatory changes. The PAPUC supports PHMSA’s efforts to extend the scope of federal safety regulations over both transmission and gathering lines generally. The PAPUC believes increased regulatory oversight over the Pennsylvania’s gathering lines is particularly critical in light of recent increases in natural gas production and the corresponding build-out of natural gas infrastructure in the state.

## I. STATUS OF GATHERING LINES IN PENNSYLVANIA

Since 2007, Pennsylvania has been in the midst of a gas production renaissance due to the abundant resources provided by the Marcellus Shale. Pennsylvania's annual gas production for 2015 was 4.1 trillion cubic feet with 70,000 wells drilled.<sup>1</sup>

Pennsylvania is now the second largest producer of natural gas in the nation. Concurrent with the growth in production, a need for thousands of miles new pipelines to transport Marcellus Shale gas has arisen. The Energy Information Administration indicates that the construction of about 4,600 miles of new interstate pipelines could be completed by 2018, in addition to the 6,800 miles of existing pipelines in Pennsylvania as of April, 2014.<sup>2</sup>

In 2011, Pennsylvania lawmakers enacted the Gas and Hazardous Liquids Pipeline Act (Act 127) which, among other things, delegated to the PAPUC the authority to perform safety inspections over gathering lines.<sup>3</sup> Under Act 127, gathering lines are classified based on the population density of the area in which they are built. The PAPUC currently has jurisdiction over Class 2, 3, and 4 gathering lines, which include about 1,200 miles of pipeline. The PAPUC does not have jurisdiction over Class 1 lines that tend to be located in the most rural areas, are the smallest diameter and are completely unregulated. Class 1 gathering lines encompass the bulk of Pennsylvania's gathering pipelines. The PAPUC estimates that Pennsylvania has about 12,000 miles of these unregulated pipelines.

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<sup>1</sup> <http://www.eia.gov/state/?sid=pa>

<sup>2</sup> <https://stateimpact.npr.org/pennsylvania/tag/pipelines/>

<sup>3</sup> Act of Dec. 22, 2011, P.L. 586, No. 12

## II. GENERAL COMMENTS

The PAPUC has reviewed the NOPR in its entirety and supports PHMSA's recommendations, especially with reference to increased jurisdictional oversight over gathering lines. In Pennsylvania, gathering lines transport gas from production sites to central collection points which may be interstate transmission lines or gas treatment plants. Historically, these lines were of smaller diameter than gas transmission lines and operated at lower pressures. Due to changing demand factors, gathering lines are being constructed with diameters equal to or larger than typical transmission lines and are being operated at much larger pressures.

The PAPUC has also observed that the rise of shale gas production is changing both the extent and characteristics of gas gathering systems in Pennsylvania with gas fields expanding into new geographic areas. Pennsylvania producers are employing gathering lines with diameters as large as 36" and with operating pressures up to 1480 psig. These current parameters exceed historical design and operating pressures, thereby making these lines similar to transmission lines. Most new gas gathering lines are operated in rural areas, are unregulated and the PAPUC has little or no data on their location, design or operational details. Indeed, the NOPR highlights several well-publicized incidents involving injuries and property damage from gathering line explosions as a precipitating factor in development of this NOPR.<sup>4</sup>

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<sup>4</sup> 81 FR 20728.

The PAPUC supports PHMSA's pro-active proposal, as reflected in the NOPR, to devise a comprehensive strategy to protect the nation's pipeline system while accounting for a changing national population landscape and land use patterns. Specifically, the PAPUC endorses the following proposed regulation changes (made in response to recommendations from the National Transportation Safety Board) with regard to both transmission and gathering lines: (i) strengthening requirements to implement preventive and mitigative measures for pipeline segments in high consequence areas; (ii) modifying repair criteria; (iii) improving requirements for collecting, validating and integrating pipeline data; (iv) strengthening procedures for improving integrity management and operator qualifications; and (v) improving corrosion control measures.<sup>5</sup> The PAPUC is especially supportive of proposed requirements in the foregoing categories with reference to gathering lines. The PAPUC's position on this issue is consistent with the position expressed by the National Association of Pipeline Safety Representatives in its comments in this proceeding. The PAPUC looks forward to further dialog with PHMSA once these regulations are finalized.

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<sup>5</sup> It should be noted that the Gas Safety Division of the PAPUC participates as part of the National Association of Pipeline Safety Representatives (NAPSR) which represents gas safety personnel from all of the gas-producing states. The NAPSR will be filing its own set of comments on behalf of its members. These comments will endorse generally PHMSA's proposals throughout the NOPR. As such, the PAPUC's comments will be limited to areas of concern most applicable to Pennsylvania pipeline operations.

### III. SPECIFIC COMMENTS

In its comments below, the PAPUC cites to the Federal Register reference, reproduces that section of the proposed rule, and provides specific PAPUC comments regarding that provision.

#### § 192.3 Definitions (81 FR 20825)

*Onshore production facility or onshore production operation* means wellbores, equipment, piping, and associated appurtenances confined to the physical acts of extraction or recovery of gas from the earth and the initial preparation for transportation. Preparation for transportation does not necessarily mean the gas will meet “pipeline quality” specifications as may be commonly understood or contained in many contractual agreements. Piping as used in this definition may include individual well flow lines, equipment piping, and transfer lines between production operation equipment components. Production facilities terminate at the furthestmost downstream point where: measurement for the purposes of calculating minerals severance occurs; or there is commingling of the flow stream from two or more wells. (Emphasis added)

#### **Comment:**

The PAPUC agrees generally with the definition in the NOPR with the exception of the underscored language. The definition of gathering lines must precisely define where the production function ends and the gathering function begins. The first description references production facilities as follows: “... where measurement for the purposes of calculating minerals severance occurs.” This definition is reasonably specific. The second proposed definitional language referencing “commingling of the flow stream of two or more wells” is vague and could be subject to misinterpretation.

The PAPUC contends that the functional “commingling of gas” can occur anywhere in the pipeline system and defining gathering lines in this manner may create jurisdictional difficulties for state commissions in determining where their authority

begins. Defining “termination of production” at points of commingling will also create opportunities for producers to argue that certain gathering lines are not jurisdictional. The use of specific measurement points should be the preferred and only reasonable definition and would be consistent with other definitions found in 49 C.F.R. Section 192.3. For example, the definition of “service” uses measurement to establish the jurisdiction of a service line regardless of the owner of the pipeline. A service line ends at the outlet of the customer meter or at the connection to a customer's piping, whichever is further downstream, or at the connection to customer piping if there is no meter. The measurement point of the gas provides a definite point where the production pipeline ends and the gathering pipelines begin.

In contrast, the use of commingled gas creates points along a pipeline system that can change this designation based on where gas is introduced to the system. For example, Company A has two wells that flow gas in two separate 6” pipelines into a larger diameter pipeline that extends for five miles at what should be considered Class 1 gathering lines. The larger pipeline then picks up more gas from a third well and the line then continues for one mile into a transmission line. Company A can argue that the third well, five miles downstream of the first two wells, is a point of comingling and gathering only starts at that point not five miles upstream where the initial two 6” lines meet.

The PAPUC would recommend that the final rule eliminate the commingling of gas definition.

**§ 192.319 Installation of pipe in a ditch. (81 FR 20829)**

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(d) Promptly after a ditch for a steel onshore transmission line is backfilled, but not later than three months after placing the pipeline in service, the operator must perform an assessment to ensure integrity of the coating using direct current voltage gradient (DCVG) or alternating current voltage gradient (ACVG). The operator must repair any coating damage classified as moderate or severe (voltage drop greater than 35% for DCVG or 50 dB $\mu$ v for ACVG) in accordance with Section 4 of NACE SP0502 (incorporated by reference, see § 192.7) within six months of the assessment. Each operator of transmission pipelines must make and retain for the life of the pipeline records documenting the coating assessment findings and repairs. (emphasis added)

**Comment:**

The PHMSA is proposing to specify within Section 192.319 (d) specific coating requirements that have, up until now, been cross-referenced to the coating requirements of Section 192.461. This is the first time that PHMSA has specifically inserted language regulating coating requirements in a regulation separate from Section 192.461. Further, the PAPUC considers the current version of both Sections 192.319 and 192.461 as applying to both transmission and gathering lines.

The PAPUC suggests that Section 192.319 (d), as proposed, erroneously refers to just “transmission lines” and should also reference “gathering lines” for consistency purposes. Gathering lines, especially in more populated areas, should be held to the same standards as transmission lines with respect to integrity assessment of coatings, repair protocols and record retention.

In Pennsylvania, gathering lines are now increasing in both diameter and maximum allowable operating pressure in a manner that renders transmission and gathering lines indistinguishable. Because gathering line hazards in populated areas can

be every bit as serious as transmission line hazards, PHMSA should establish regulatory requirements for coating application, inspection and repair that apply to both gathering and transmission facilities. The PAPUC recommends that the language of Section 192.319 (d) be expanded to add “and gathering lines” after the reference to transmission lines.<sup>6</sup> Additionally, language should be added that makes specific reference to those portions of Section 192.461 that establish coating requirements for both transmission and gathering lines.

Transmission and gathering lines both need to be evaluated for coating flaws that occurred during construction of a pipeline. A pipeline that has coating flaws will have corrosion failures in the future. Gathering lines should be held to the existing requirements under 49 C.F.R. Section 192.461 as follows:

(c) Each external protective coating must be inspected just prior to lowering the pipe into the ditch and backfilling, and any damage detrimental to effective corrosion control must be repaired.

(d) Each external protective coating must be protected from damage resulting from adverse ditch conditions or damage from supporting blocks.

(e) If coated pipe is installed by boring, driving, or other similar method, precautions must be taken to minimize damage to the coating during installation.

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<sup>6</sup> For purposes of context, the initial portions of Section 192.319 (a) – (c) state as follows:

(a) When installed in a ditch, each transmission line that is to be operated at a pressure producing a hoop stress of 20 percent or more of SMYS must be installed so that the pipe fits the ditch so as to minimize stresses and protect the pipe coating from damage.

(b) When a ditch for a transmission line or main is backfilled, it must be backfilled in a manner that:

(1) Provides firm support under the pipe; and

(2) Prevents damage to the pipe and pipe coating from equipment or from the backfill material.

(c) All offshore pipe in water at least 12 feet (3.7 meters) deep, but not more than 200 feet (61 meters) deep, as measured from the mean low tide, except pipe in the Gulf of Mexico and its inlets under 15 feet (4.6 meters) of water, must be installed so that the top of the pipe is below the natural bottom unless the pipe is supported by stanchions, held in place by anchors or heavy concrete coating, or protected by an equivalent means. Pipe in the Gulf of Mexico and its inlets under 15 feet (4.6 meters) of water must be installed so that the top of the pipe is 36 inches (914 millimeters) below the seabed for normal excavation or 18 inches (457 millimeters) for rock excavation.



These regulations, as applied to gathering lines, require the operator to evaluate the coating conditions and the method of installation of the gathering line. The requirements of 49 CFR Section 192.461 should apply to all transmission and gathering lines to improve the pipelines' ability to provide adequate cathodic protection. These requirements should apply to, at a minimum, all coated pipe that is installed by boring, driving or other similar methods because the installation could create damaged coating that goes undetected.

The PAPUC recommends that PHMSA adopt its proposed language changes.

**§ 192.461 External corrosion control: Protective coating. (81 FR 20829)**

(a) \* \* \* \* \*

(4) Have sufficient strength to resist damage due to handling (including but not limited to transportation, installation, boring, and backfilling) and soil stress; and

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(f) Promptly, but no later than three months after backfill of an onshore transmission pipeline ditch following repair or replacement (if the repair or replacement results in 1,000 feet or more of backfill length along the pipeline), conduct surveys to assess any coating damage to ensure integrity of the coating using direct current voltage gradient (DCVG) or alternating current voltage gradient (ACVG). Remediate any coating damage classified as moderate or severe (voltage drop greater than 35% for DCVG or 50 dB $\mu$ v for ACVG) in accordance with section 4 of NACE SP0502 (incorporated by reference, see § 192.7) within six months of the assessment.

**§ 192.465 External corrosion control: Monitoring and remediation. (81 FR 20829)**

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(d) Each operator must promptly correct any deficiencies indicated by the inspection and testing provided in paragraphs (a), (b) and (c) of this section. Remedial action must be completed promptly, but no later than the next monitoring interval in § 192.465 or within one year, whichever is less.

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(f) For onshore transmission lines, where any annual test station reading (pipe-to-soil potential measurement) indicates cathodic protection levels below the required levels in Appendix D of this part, the operator must determine the extent of the area with inadequate cathodic protection. Close interval surveys must be conducted in both directions from the test station with a low cathodic protection (CP) reading at a minimum of approximately five foot intervals. Close interval surveys must be conducted, where practical based upon geographical, technical, or safety reasons. Close interval surveys required by this part must be completed with the protective current interrupted unless it is impractical to do so for technical or safety reasons. Remediation of areas with insufficient cathodic protection levels or areas where protective current is found to be leaving the pipeline must be performed in accordance with paragraph (d). The operator must confirm restoration of adequate cathodic protection by close interval survey over the entire area.

**§ 192.473 External corrosion control: Interference currents. (81 FR 20829-20830)**

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(c) For onshore gas transmission pipelines, the program required by paragraph (a) must include:

(1) Interference surveys for a pipeline system to detect the presence and level of any electrical stray current. Interference surveys must be taken on a periodic basis including, when there are current flow increases over pipeline segment grounding design, from any co-located pipelines, structures, or high voltage alternating current (HVAC) power lines, including from additional generation, a voltage up rating, additional lines, new or enlarged power substations, new pipelines or other structures;

(2) Analysis of the results of the survey to determine the cause of the interference and whether the level could impact the effectiveness of cathodic protection; and

(3) Implementation of remedial actions to protect the pipeline segment from detrimental interference currents promptly but no later than six months after completion of the survey.

**Comment:**

The PAPUC recommends that the proposed changes to Sections 192.461, 192.465 and 192.473 all add the language “and gathering lines” to the underscored portions of the regulation. Given the rapid expansion of gathering lines into more populated areas in

Pennsylvania, the hazards associated with failure to maintain adequate external corrosion controls relating to protective coatings, monitoring and remediation and interference currents are just as great as for transmission lines.

As with the prior comments, the new sections of the regulations are being written specifically for “onshore gas transmission pipelines.” As stated previously, the increased size and operating pressures of gathering lines often make them indistinguishable operationally from transmission lines. Also, Section 192.9 in Subpart I of Title 49 states that “an operator of a Type A regulated onshore gathering line must comply with the requirements of this part applicable to transmission lines...”<sup>7</sup>

In the past, the regulatory requirements of Subpart I of Title 49 (Requirements for Corrosion Control) have been applied to all metallic pipelines that are jurisdictional. Although the regulations may apply differently depending upon when the pipeline was installed, the federal corrosion control requirements were generally applicable for all jurisdictional pipelines. Application of the foregoing sections to gathering lines as well as transmission lines provides the same degree of safety for all pipelines transporting

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<sup>7</sup> §192.9 What requirements apply to gathering lines?

(a) Requirements. An operator of a gathering line must follow the safety requirements of this part as prescribed by this section.

(b) Offshore lines. An operator of an offshore gathering line must comply with requirements of this part applicable to transmission lines, except the requirements in §192.150 and in subpart O of this part.

(c) Type A lines. An operator of a Type A regulated onshore gathering line must comply with the requirements of this part applicable to transmission lines, except the requirements in §192.150 and in subpart O of this part. However, an operator of a Type A regulated onshore gathering line in a Class 2 location may demonstrate compliance with subpart N by describing the processes it uses to determine the qualification of persons performing operations and maintenance tasks. (Emphasis added).

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natural gas. Corrosion is still a leading cause of leaks in the pipeline industry. The final regulations at this docket should apply, with equal force, to all metallic jurisdictional pipelines.

## **Appendix A to Part 192 – Subpart J Test Requirements (81 FR 20848)**

### **§ 192.517 (b) Records**

PHMSA’s NOPR includes a table that identifies the record retention requirements associated with various sections of Title 49 Part 192. The focus of the PAPUC’s concern is the record retention requirement for Sections 192.509, 192.511 and 192.513.

Currently, Section 517 (b) mandates a five-year retention of records for activities relating to Sections 192.509, 192.511 and 192.513. The PAPUC recommends expanded requirements for record retention for tests performed under §§ 192.509, 192.511 , 192.513.<sup>8</sup>

### **Comments:**

The PAPUC recommends that the pressure tests performed in accordance with Sections 192.509, 192.511 and 192.513 should be retained for the life of the pipeline and not just five years as indicated in the NOPR. Most of the record retention requirements contained in the Subpart J Test Requirements establish a “life of the pipeline” retention requirement.

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<sup>8</sup> Section 192.509 (Test requirements for pipelines to operate below 100 psi), 192.511 (Test requirements for service lines), 192.513 (Test requirements for plastic pipelines).

The NOPR does not provide any explanation for why records for Sections 192.509, 192.511 and 192.513 should also not be subject to a “life of the pipeline” retention requirement. Hazardous conditions may arise involving all of the types of steel and/or plastic pipes covered under the requirement of Section 192.619<sup>9</sup> and the existence of pressure records for the aforementioned sections beyond five years may be useful in either preventing a potential line failure or determining the cause of a line failure event. The PAPUC recommends expanding the record retention requirement from five years to “life of the pipeline.”

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<sup>9</sup> 49 CFR 192.619 - Maximum allowable operating pressure: Steel or plastic pipelines.

#### IV. CONCLUSION

The Pennsylvania Public Utility Commission requests that its Comments herein be considered in finalizing the foregoing proposed regulation.

Respectfully submitted,

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Dated: July 7, 2016