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September 5, 2019

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Pennsylvania Public Utility Commission

Commonwealth Keystone Building

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VIA: Electronic Submission

RE: Comment: Advance Notice of Proposed Rulemaking: Hazardous

Liquid Public Utility Safety Standards at 52 Pa. Code Chapter 59:

L-2019-3010267

SECRETARY/ COMMUNICATIONS

Steven R. Farrell
CSE, CCSP, VSP, NASP
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Commissioners and Secretary Chiavetta:

Pipeline Safety Coalition (PSC) is a 501(c)(3) located in Chester County Pennsylvania. We work with partners internationally, focusing our relationships on public, personal and environmental safety by providing a high level of equal access to information and by facilitating respectful relationships between citizens, environmental groups, government officials and pipeline operators.

ENVIRONMENT/MAPPING

Dr. Nathan Phillips
Professor of Earth and
Environment
Boston University
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PSC respectfully submits comments on the June 13, 2019 Advance Notice of Proposed Rulemaking (ANPR) regarding amendments and enhancements to Chapter 59 to comprehensively regulate the design, construction, operations and maintenance of public utilities transporting petroleum products and other hazardous liquids under the jurisdiction of

EMERITUS

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the Commission. The time is indeed ripe for more extensive and prescriptive regulations that are created by non partisan, inclusive stakeholders with a broad palate of expertise. This palate must include members of communities who live with pipelines in their landscapes.

INTRODUCTION:

PSC applauds the Commission for taking the bold step afforded under the authority of United States Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) safety programs¹ for the Commission to adopt more stringent standards than PHMSA's for regulating public utilities that transport petroleum products and other hazardous liquids in intrastate commerce.

By nature of their unique qualities and dangers, petroleum products and other hazardous liquids require specific regulations both in operation and in emergency response. We must take this opportunity to craft regulations that reflect the needs of the public, environment and pipeline infrastructure in a rapidly changing human and natural landscape. This is a responsibility that we must not take lightly. Most importantly, we must have fortitude and be guided by the knowledge that rules that become regulations are most often less stringent than the aspirational rulemaking itself. PSC's aspiration is that both these rules and regulations to follow be ambitious enough to advance the overall safety of petroleum and hazardous liquids pipelines within the Commonwealth of Pennsylvania.

To PSC, that means working with current and on-going accomplishments that can be molded into structural change. We will provide examples of resources in our conclusion. Most importantly, this rule making must be viewed as a precursor to regulations that can be monitored, are enforceable, and that adhere to pipeline safety engineering standards and best practices, yet do not bend toward pipeline industry "promises," malfeasance or unsafe engineering and labor practices. We also need rules and regulations that meaningfully require and provide for public engagement and participation in state pipeline safety.

Most comments to this Docket are specific to incidents in Pennsylvania focused on Energy Transfer/Sunoco/Mariner Projects (Mariner). PSC will focus on broader subjects

¹ <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/about-phmsa/working-phmsa/state-programs/2861/2017-state-guidelines-final-appendices-2017-1-31.pdf>

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for consideration in this ANPR to illustrate industry based safety standards and broader public safety needs. First, we need to recognize that nationally, relationships among regulators, pipeline operators and communities is contentious at best. Pennsylvania is no exception. PSC sees a need for the Commission to begin important groundwork to regain public trust in their ability to competently regulate pipeline safety in the Commonwealth.

The Commission must begin regaining public trust

- 1) Assure the public that violations of regulations have consequences in the state of Pennsylvania by crafting primarily prescriptive standards while allowing for performance-based risk management standards, such as integrity management regulations² after a pipeline operator has met certain safety and risk criteria required by the PUC.
- 2) Review and appropriately enforce open violation and potential enforcement cases. Address comments to the Docket citing ongoing state permit violations being “settled” with fines rather than enforcement; particularly repeat violations. The Commission has a historic database of oil and gas pipeline violations that can and should be reviewed as part of the rule making in order to assure the public that egregious actions will no longer be tolerated and that the public and environment will be protected by the Commission by establishing prescriptive standards of excellence in the Commonwealth.
- 3) Use this rulemaking as a way to begin public education and communications based on verifiable pipeline safety data, and as an illustration that the Commission is assessing recent experiences towards improvement.
- 4) Use this rulemaking to require best practices in pipeline operator public relations and communications based on prescriptive standards under state regulations similar to the enhancements anticipated in the API Recommended Practice 1162 revisions³.

² <https://primis.phmsa.dot.gov/comm/IM.htm?nocache=209>

³ <https://community.apga.org/blogs/john-erickson/2019/01/24/rp-1162-revision-task-group-considers-revisions-to>

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- 5) Establish an on-line public bulletin of all pipeline violations under PUC authority as they occur and with the ability for the public to easily understand the enforcement protocol.
- 6) Initiate public engagement and information sharing efforts based on locally relevant safety concerns and community needs; include emulating the PSC Community Awareness Network PHMSA TAG⁴ being developed in Chester County⁵.
- 7) The Commission should investigate and act upon insubordination of existing safety standards of the Commonwealth that may still be open in order to send a clear message to all pipeline operators that insubordination will no longer be tolerated in the Commonwealth. As an example, please see PSC's letter sent to the Commission on September 5, 2019.

ANPR SUBJECT AREAS

A. Construction

1. Pipeline Material and Specification

ANPR: Section 195.8 provides that hazardous liquids must be transported in pipelines constructed with steel pipe. Specifically, Section 195.8 states, "No person may transport any hazardous liquid...through a pipe that is constructed after October 1, 1970...of material other than steel."⁶ 49 CFR § 195.8. The Commission seeks comment regarding the treatment of hazardous liquid public utility pipelines constructed with materials other than coated steel, including bare steel and vintage materials.

PSC Comment:

- 1) The ANPR provides only partial language in §195.8. The full text allows a party to apply for an exemption to the rule. These exceptions to pipeline materials/specifications regulations in §195.8. should be eliminated in the Commonwealth.

⁴ Technical Assistance Grant

⁵ A pre-meeting assessment of pipeline knowledge is part of this ongoing program that strives to build informed, safety conscious communities who live and work with pipelines in their landscapes. Intrinsic to these Networks is transparent and two-way communications by all stakeholders.

⁶ An exception exists where the person has notified PHMSA of the following in writing at least 90 days before transportation is to begin: (1) whether a hazardous liquid...will be transported, (2) the chemical name, common name, properties, and characteristics of the hazardous liquid, and (3) the material used to construct the pipeline. 49 CFR § 195.8. If PHMSA determines that transportation in the proposed manner would be unduly hazardous, however, it will order the person not to do so until further notice. 49 CFR § 195.8.

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- 2) The INGAA Foundation, Inc.⁷ published Integrity Characteristics of Vintage Pipelines considers types of anomalies that can be found in historic steel and the time periods over which the pipe with these anomalies were known to occur. In addition, it identifies factors that increase or decrease the likelihood that an anomaly or defect will activate or grow in service and summarizes historic pipe-body anomalies along with their potential impact on pipeline integrity. PSC recommends this publication be referenced when considering utilization of vintage pipe in the Commonwealth.
- 3) Societal sprawl has resulted in public, environmental and pipeline encroachment. Debates over public/private/pipeline encroachment along right of ways have past efficacy. Regulations should now be crafted with an eye to evaluating existing and proposed materials and specifications, without exemptions, to improve safety.
- 4) Independent engineers, NARUC⁸ members, PHMSA, local officials in Pennsylvania and citizen public safety representatives should participate in crafting regulations on pipeline materials and specifications.
- 5) The ANPR does not directly address High Consequence Areas (HCAs)⁹ however, HCAs require consideration in most categories of the ANPR. In the category of material and specification, a thin walled pipe in a rural area may over time become a pipeline of inappropriate material located in an HCA. In such a case, materials and specifications will be below standards and in order to remain in compliance, an operator has the option to:
 - 1) reduce the operating pressure
 - 2) where the class is changing only one class rating, such as from a Class 1 to Class 2 location, conduct a pressure test at a higher pressure
 - 3) apply for special permits to prevent the need for pipe replacement or pressure reduction after a class location change
 - 4) replace/upgrade the pipe to HCA standards.

⁷ <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/technical-resources/pipeline/gas-transmission-integrity-management/65296/integritycharacteristicsofvintagepipelineslbcover.pdf>

⁸ <https://www.naruc.org/about-naruc/about-naruc/>

⁹ An area where transmission pipeline failures could have greatest consequences to health, life, environment: [49 CFR 195.452](#) (US DOT PHMSA)

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6) The National Transportation Safety Board (NTSB) published Integrity Management of Gas Transmission Pipelines in High Consequence Areas (NTSB SS-15/01¹⁰) in 2015. This report was initiated in response to three (3) major gas transmission explosions where deficiencies with operator Integrity Management (IM) programs and PHMSA oversight were identified as a concern. The study found that there was no evidence that the overall occurrence of gas transmission pipeline incidents in HCAs had declined. Notably, IM requirements had kept the rate of corrosion failures and material failures low, rather location in an HCA appeared to be significant. Location rather than product was significant in the study, again highlighting the need for prescriptive standards in HCAs.

PSC recommends more consistent, higher materials standards, such as coated steel, for all hazardous liquid public utility pipelines throughout Pennsylvania.

2. Cover Over Buried Pipelines

49 CFR § 195.248 requires all pipe to be buried so that it is below the level of cultivation and 48" in inland bodies of water with a width of at least 100 feet; 36" in drainage ditches at public roads and railroads, and 49 CFR § 195.248(a). The Commission sought input on the appropriate amount of cover for hazardous liquid public utility pipelines, including whether additional cover should be required at installation and how cover is to be maintained.

PSC Comment:

- 1) The term "level of cultivation" is vague and should be defined. Peas and potatoes are cultivated at different levels.
- 2) Ground cover is subjective to any locality and to weather; particularly erosion.
- 3) Monitoring erosion and sediment control over time should be a Pennsylvania state requirement and the physical and fiscal responsibility of the pipeline operator. Oversight should be provided by Conservation Districts. Funding should be made directly to the specific District for their purview. Operators who violate erosion and sediment control best practices should be responsible for remediation and fines, as would be any citizen of the Commonwealth.
- 4) If it is deemed "impracticable" for a pipeline to conform to construction Best Practices, a review board created by members of the Conservation District, public, independent engineers, and pipeline operators should review siting plans and alternatives. A No Action alternative must be considered.

¹⁰ <https://www.nts.gov/safety/safety-studies/Documents/SS1501.pdf>

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- 5) Reassess current standards under 49 CFR § 195.248(a) for the Commonwealth with independent engineers and consider removing the “grandfathering” of cover requirements for pipelines constructed before 1970, especially in HCAs. The expectation of self regulation by the operator is not realistic.
- 6) The State should create a periodic reassessment requirement of pipeline cover in order to collect data and create long term best practices based on factors such as soil/water erosion, environment changes above and around a pipeline. The assessment should track success or failure of ROW maintenance plans, social impacts such as development and increased HCAs, developing and/or changing agricultural practices.
- 7) Oversight of operator compliance to maintaining the new regulations for erosion and sediment control should be the purview of the Pennsylvania Association of Conservation Districts.
- 8) Regarding 49 CFR § 195.248(a) “48 inches depth of cover in inland bodies of water with a width of at least 100 feet,” should be amended in Pennsylvania to be a more preventative standard. A 100 feet wide requirement for a body of water is unrealistic as there are many streams much narrower that are tributaries of larger bodies of water. This may include any drainage ditches that have a continuous flow of water to them and are near residential areas. It is much easier to contain a HAZMAT release in a small stream or drainage ditch than on a stream 100 feet or wider. If we consider the ability to mitigate the impacts of HAZMAT to the environment early before it recharges 100 feet wide or larger streams, the potential for reducing the amount of damage to the environment will improve dramatically.

3. Underground Clearances

The Commission sought comment regarding the proper minimum amount of clearance between hazardous liquid public utility pipelines and underground structures. 49 CFR § 195.250 provides that pipe installed underground must have at least a 12-inch clearance between the outside of the pipe and the extremity of any other underground structure. Where a 12-inch clearance is impracticable, the clearance may be reduced provided that adequate provisions are made for corrosion control.

PSC Comment:

- 1) Remove the use of vague terms such as “impracticable” and “adequate” in the State of Pennsylvania’s safety regulations. Vague terms open the doors to subjective

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interpretation that in turns open the doors to manipulating the intent of pipeline safety for the sake of corporate interests and the need for speed in today's atmosphere of expediting pipeline construction.

- 2) 49 CFR § 195.250 uses language that is unscientific and facilitates pipeline stacking; starting from a 12" clearance, with exception to 12" and finally to stating "the clearance may be reduced if adequate provisions are made for corrosion control." Pipeline stacking should simply not be allowed. The potential for different products with different properties and specific gravities to mix is too great if both pipelines rupture at the same time. For example, if one pipeline is carrying butane with a specific gravity of 2.0061 (heavier than air) and the other pipeline is carrying natural gas, with a specific gravity of 0.60-.070 (lighter than air) the mixture of the two products would make it virtually impossible for HAZMAT responders to manage the impacts of the release as the different products have different responses protocols.
- 3) Communicate with legislators, such as Representative Committa, on proposed legislation dictating the number of pipelines permitted in a single right of way and how to deal with increased residential and business development along existing rights of way.

4. Valves

49 CFR § 195.260(a)-(f). The Commission sought comments on the location of valves on hazardous liquid public utility pipelines, particularly as it pertains to the third requirements (See 49CFR § 195.260(c), valve spacing for highly volatile liquid¹¹ pipelines as well as the timeframe needed for installation of additional valves.

PSC Comment:

- 1) Section 195.260(c) specifically seeks to minimize damage of terrain in open county, offshore, or populated areas. The State should determine proper valve installation to control release; particularly near bodies of water and populated areas.
- 2) Section 195.258 requiring valves be installed at a location that is accessible to authorized employees and protected from damage or tampering should be reassessed to modernize requirements in Pennsylvania The current regulation does not take into consideration the current trend to repurpose pipelines and redirect

¹¹ A highly volatile liquid is a hazardous liquid which will form a vapor cloud when released to the atmosphere and which has a vapor pressure exceeding 276 kPa (40 psia) at 37.8 °C (100°F) 49 CFR § 195.2.

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- flow, necessitating changes in the current locations and spacing of valves, blow downs and changes in infrastructure due to product change and flow reversal. Relocating valves and other infrastructure in repurposing pipelines changes their proximity to homes, schools and HCAs; potentially creating more HCAs and/or risk.
- 3) Require automatic shut off valves with no grandfathering exemption.
 - 4) Time frame: valves should be required to be installed prior to product flowing on new lines and after the passing of a new rule, or within 180 days on existing pipelines.

B. Operation and Maintenance

The Commission provided an overview of current minimum operation and maintenance standards, highlighting: pipeline conversion, construction compliance, pressure testing and maximum operating pressure, line markers, inspection of pipeline rights-of-ways, emergency flow restricting devices, leak detection, and corrosion control and cathodic protection.

1. Pipeline Conversion

The Commission sought comment on the procedure used to bring hazardous liquid public utility pipelines into compliance with the requirements of Part 195 and whether enhancements are needed and on a repair schedule to comply with Part 195, taking into account items requiring immediate correction.

PSC Comments: PHMSA Advisory Bulletin (ADB-2014-04): Guidance to Operators Regarding Flow Reversals, Product Changes and Conversion to Service¹² was released in response to two major incidents: The Tesoro High Plains Pipeline rupture was discovered on September 29, 2013, after leaking an estimated 20,000 barrels of crude oil in a North Dakota field. The location of pressure and flow monitoring equipment had not been changed to account for the reversed flow. The Pegasus Pipeline failed on March 29, 2013, releasing about 5,000 barrels of crude oil into a neighborhood in Faulkner County, Arkansas. The pipeline flow had been reversed in 2006. Due to these accidents and other information, PHMSA used this Advisory Bulletin to alert operators of hazardous liquid and gas transmission pipelines to the potential significant impact reversals, product changes and conversions to service may have on the integrity of a pipeline. As the Advisory states: *"Failures on natural gas transmission and hazardous liquid pipelines have occurred after these operational changes. This advisory bulletin describes specific notification requirements and general operating and maintenance (O&M) and integrity*

¹² [2014 PHMSA Advisory Bulletin \(ADB-2014-04\)](#): "Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service," (the Bulletin)

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management actions regarding flow reversals, product changes and conversion to service..." The PHMSA Advisory Bulletin (ADB-2014-04) also includes a warning of impacts to emergency response. Although PHMSA Advisory Bulletins are data driven and PHMSA's swiftest mode of advising the public and operators of safety risks and approaches to mitigating risk, these Bulletins are in fact advisory only. Operators are neither required to read nor follow Bulletin recommendations. While the Commission does not appear to be seeking opinions on these warnings, PSC strongly recommends following the warnings gained by experience as documented in these Advisory Bulletins in the Commissioner's rule making for pipeline conversions in the Commonwealth. The appropriate retirement age of a pipe should be reconsidered before presuming a pipe can or should be repurposed. This ANPR provides an opportunity to extract valuable data from the Advisory to be used in rulemaking and Pennsylvania regulations.

2. Construction Compliance

The Commission seeks comment regarding the operation and maintenance of hazardous liquid public utility pipelines constructed prior to the dates contained in Section 195.401(c), including additional cathodic protection requirements for bare steel pipelines and other vintage pipelines.

PSC Comments:

- 1) §195.401 (c) provides for extensive exception opportunities in §195.5 (Conversion to service). PSC continues to recommend more consistent, higher standards for hazardous liquid public utility pipelines. These exceptions to regulations in §195.401 (c) in the Commonwealth should be eliminated.
- 2) The preponderance of data appears to be leaning toward safety in replacement of vintage pipelines rather than the current approach of exemptions that allow for additional cathodic protection and other modes of extending the life of a pipeline. The Pegasus Pipeline, first constructed in the 1940's and 1950's failed on March 29, 2013, releasing about 5,000 barrels of crude oil into a neighborhood in Faulkner County, Arkansas. According to the PHMSA Failure Investigation Report¹³: "The pipe failed as a result of defects that were present from the original manufacture of the pipe. Over the life of the pipeline, the defects grew and failed when they could no longer support the internal hoop stresses, resulting in the final failure."

¹³ https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/FIR_redacts_marked_2016_06_16_Redacts_applied.pdf

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- 3) In regard to cathodic protection requirements for bare steel pipelines and other vintage pipelines, as long as bare steel and vintage pipelines are functioning, cathodic protection should be required to be installed and third-party verified for accuracy.

3. Pressure Testing and Maximum Operating Pressure

The Commission sought comment on pressure testing requirements for all public utility pipelines transporting hazardous liquids, including the frequency at which pressure testing should be conducted, pressure testing record requirements and record requirements for maximum operating pressure.

PSC Comments:

- 1) PSC again notes that each requirement provided in the ANPR contains exceptions. For the State of Pennsylvania, we recommend a thorough review and elimination of exemptions that allow, for example, older hazardous liquid pipelines to function subject to the risk-based criteria program under Section 195.303.
- 2) Not requested in the ANPR but of prime concern to PSC when discussing pressure testing and MAOP are HCA regulations. As noted in our comments under Construction: Pipeline Material and Specification, elevating standards in HCAs should be a primary focus in this rulemaking. PSC not only opposes a current federal effort to create a "mid HCA" designation, we strongly urge the Commission to use this rulemaking as an opportunity to strengthen HCA regulations in Pennsylvania, particularly for hazardous liquid pipelines. (See Construction: Pipeline Material and Specification)

4. Line Markers

The Commission sought comment regarding the adequacy of line marker requirements for hazardous liquid public utilities. We also seek comment on the use of markers for assets attached to mains, such as valves.

PSC Comments:

- 1) First responders, One Call, operators and the public may rely on line markers, but they are only valuable when the information is current and accurate.. Prescriptive protocols for maintaining accurate, legible information must be mandated.
- 2) EMS and local officials should have the electronic capabilities to obtain information without need for line markers. The Chester County Pipeline Information Center (PIC)¹⁴ is an electronic database of all transmission pipelines in Chester County. PIC

¹⁴ <http://www.chescoplanning.org/pic/introduction.cfm>

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can be accessed online, provides the name, phone number, website and fuel being transported for each transmission operator in the County. In some ways, this online resource is more productive and accurate than line markers. The PIC mapping system evolved through a PSC facilitated PHMSA TAG and is based on the National Pipeline Mapping System (NPMS) Public Viewer. Valves, pump stations, compressor stations and other apertures not included on the NPMS are not included on the PIC mapping, and the Commission should investigate additions of apertures to this map. The Chester County PIC is a template ready for adoption throughout the Commonwealth.

5. Inspections of Pipeline Right-of-Ways

The Commission sought comment on the appropriate method of inspection and the frequency at which inspections should occur beyond the requirements of Part 195.

PSC Comments:

- 1) The practice of clear cutting to maintain an unobstructed inspection of a right of way (ROW) is an outdated, environmentally unsound practice.
- 2) ROWs can and should be planted with native species to maintain environmental health, community aesthetics, soil and erosion control.
- 3) Used correctly the practice also provides a source of bio-identification in leak detection, enhancing the speed and accuracy of both aerial and foot patrol.
- 4) Creating natural habitats on ROWs is a good environmental practice, aesthetically preferable and provides a community and carbon sensitive approach to antiquated clear cutting methods that are neither environmentally nor socially sustainable.
- 5) Rulemaking could in fact include a mandate for “Keeping Pennsylvania Safe through Environmental Stewardship” similar to “Adopt a Highway” programs. The pipeline operator would assume costs; the reduction in mowing would easily pay for the program. Pipeline operator name and contact information on signage would supplement line marker contact information in with positive reinforcement to community engagement and enhancement of pipeline location awareness.
- 6) One Call information could be partnered in signage further enhancing pipeline safety awareness.

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- 7) The uses of native vegetation and more environmentally sustainable methods of right of way maintenance and monitoring have been well-studied and are already being employed across the United States¹⁵.

6. Emergency Flow Restricting Devices

The Commission sought comment regarding installation of remote-control valves on hazardous liquid public utility pipelines, including valve location, the number of valves and valve spacing in high consequence areas.

PSC Comments:

- 1) The ANPR states, "If an operator determines that an Emergency Flow Restricting Device (EFRD) is needed on a pipeline segment to protect a high consequence area in the event of a hazardous liquid pipeline release, an operator must install the EFRD." [49 CFR § 195.452(i)(4).] PSC strongly disagrees. This should not be up to the operator to determine. The State, in consultation with local county, township, borough, and city planning officials, should mandate EFRD be installed at every high consequence location.
- 2) The PUC should establish strict regulations regarding the spacing of safety valves along pipelines carrying natural gas liquids (NGLs) in HCAs.

7. Leak Detection

The Commission sought comment on the leak survey requirements for hazardous liquid public utility pipelines as well as a discussion of whether minimum threshold requirements can be established for leak detection systems in all pipelines and what leak detection technologies are appropriate for use.

PSC Comments:

- 1) Leak detection relates directly to EFRD. 195.452(3) cites Leak Detection as a component of Risk Analysis (195.452(2)) as an assessment of need for EFRD in an HCA is based in part on the operator considering the swiftness of leak detection capabilities, rate of leak and shut down capabilities. Again, PSC asserts EFRDs be required in all HCAs regardless of risk assessment via leak surveys.

¹⁵ [US Forest Service, Penn State University: Integrated Vegetation Management a Plus for Pollinators and Pipelines, USDA Establishment of Native Species on a Natural Gas Pipeline, PSC/PSC TAG #DTPH56-10-SN-0002: Forest Vegetation as a BioIndicator to Detect Leaking Natural Gas Pipelines.](#)

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- 2) Section 195.452(3) states an operator must have a “means to detect leaks” and to evaluate and modify as necessary to protect HCAs, but does not specify “means” nor what is an “acceptable” leak or grading of leaks consistent with immediate action. In fact the statute asks (j) “What is a continual process of evolution and assessment to maintain a pipeline’s integrity?”, followed by (1) General baseline assessment and “specified interval” with periodic evaluations. PSC strongly recommends consultation with both industry and non industry engineers in order to create prescriptive language in this most important aspect of pipeline safety: leak detection.
- 3) Language in §195.50 & §195.52(a) Notice requirements says: “pipeline operators should report leaks at the earliest practicable moment following discovery of a release of the hazardous liquid ... but no later than one hour after confirmed discovery.” This standard is unacceptable. The shorter the response time of emergency services the less impact to lives and the environment. While all pipeline leaks are not catastrophic, one does not necessarily know immediately at release how the leak will impact humans or the environment over the short or long-term. Best practices should always be the benchmark in a hazardous release. PSC recommends prescriptive language for requirements of reporting releases and that the Authority Having Jurisdiction (AHJ) or pipeline operator be designated the reporting agent.
- 4) Regarding: “resulted in pollution of any stream, ” PSC recommends the standard should be “any leak that may potentially pose a threat to any bodies of water” and should include “potential for release to impact groundwater or drinking water wells within an erasable radius of product released depending on the product (natural gas vs liquid petroleum products).
- 5) PSC recommends a State Panel initiate research in early leak detection technology for hazardous liquids (such as Picarro for natural gas leak detection).

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8. Corrosion Control and Cathodic Protection

The Commission sought comment on the measures necessary to protect hazardous liquid public utility pipelines against both external and internal corrosion.

PSC Comments:

1) Reiterating our position, regulations are currently more industry biased toward exemptions and exclusions than to the bottom line of safety. 49 CFR §195.585(a) states that “replacing the pipe *can be avoided* (emphasis added) by reducing the maximum operating pressure commensurate with the strength of the pipe needed... or by repairing the pipe using a reliable method shown by engineering tests and analyses to permanently restore the pipe.” Rather than exempting old pipes, we recommend taking them out of service when conditions dictate exemptions and exceptions would be required for safe operation. Note our previous observation that the Pegasus/Mayflower failure was due to defects that were present from the original manufacture of the pipe. Over the life of the pipeline, the defects grew and failed when they could no longer support the internal hoop stresses, resulting in the final failure.

C. Additional Subject Areas for Public Comment

The Commission sought public comment on additional areas: PSC would like to take this opportunity to share input from the community that has been shared with PSC.

- 1) Pennsylvania is “Penn’s Woods” - establish siting authority to protect forests and ecosystems of our namesake.
- 2) Codify a regulatory process for pipeline siting in Pennsylvania.
- 3) Utilities should be required to inform local and State emergency management of any changes in product being transported in a pipeline. Each product requires a different response and depends on volume of release, specific gravity and location of the release. While recognizing the information may be sensitive for security purposes, reporting a product change or reversal of flow of products can make for more informed and effective response by first responders.
- 4) Tabletop and Functional exercises which involve State and local emergency management and local first responders will be the key to preparing an effective response. Realistic After Action Reports (AAR) should be created by an impartial entity and not any State or local entity. The operators of the pipeline should play a

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role but not have primary control over the exercise design or the After Action Report (AAR) findings.

- 5) Frequency of utility interactions with local government officials, including but not limited to such topics as emergency planning and emergency response coordination, periodic drills with utility/municipal coordination should be established with schedules conducive to local government officials' schedules. Organizations such as PSATS¹⁶, CCATO¹⁷, CCAP¹⁸ and County EMS should be considered partners.
- 6) Periodic public engagement meetings by operators coordinated with municipal officials and the public should be required.
- 7) Land Agents contracted by pipeline operators in the Commonwealth should be required to be trained in the practice of Real Estate. Pennsylvania rules for enhancements in operator training and verification of qualification should be created. (See: PSC TAG The Practice of Real Estate Disclosures of Gas, Oil and Hazardous Liquids Pipeline Siting and Safety Concerns¹⁹)
- 8) Create rules/regulations and State programs that allow for enhancing transparency and sharing of safety data among operators, regulators, emergency responders, local governments, and the public while protecting confidential infrastructure security and corporate proprietary information similar to the recently recommended pipeline safety Voluntary Information Sharing System.²⁰
- 9) In the regulation of construction techniques such as horizontal directional drilling (HDD), require immediate notification of inadvertent releases associated with HDD. The operator/contractor should not have discretion in determining if the volume of

¹⁶ Pennsylvania State Association of Township Supervisors

¹⁷ Chester County Association of Township Officials

¹⁸ County Commissioner Association of Pennsylvania

¹⁹ <http://www.psccoalition.org/content/upload/documents/TAG%20Grants/Real%20Estate%20Disclosures%20of%20Transmission%20Pipeline%20Siting%20and%20Safety-%20PSC.pdf>

²⁰ <https://www.phmsa.dot.gov/standards-rulemaking/pipeline/voluntary-information-sharing-system-working-group>

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release is reportable. If a release is reported to the AHJ before it becomes a major release, further damage and mitigation can be prevented.

Communications/ Public Awareness:

- 1) Codify rules and regulations for the purpose of providing civil order in areas where pipelines are currently located or proposed to be located through establishing clear communication protocols.
- 2) Require pipeline operator communication early and often with local officials, companies, township officials, landowners, EMS, and schools in the event of changes to pipeline operations, including maintenance and changes in product or flow, pipeline safety violations and emergencies.
- 3) Require specialized training for planning officials, emergency services personnel, conservation district staff and other local government officials on the roles and responsibilities of state agencies regarding pipeline permitting and safety and responses to hazardous liquid releases.
- 4) Require operators to provide opportunities for property owners to be engaged early and often in the pipeline siting and land use development process, including education on the impacts to future development or subdivision of the property as well as to the property's value.
- 5) Establish a statewide Pipeline Safety near Schools educational program. Hazardous liquids, natural gas, as well as the infrastructure that supports the transportation of fuel, should be part of the education program.
- 6) Similar to API RP 1162, the Commission should require hazardous liquid pipeline operators to provide educational events to review safety protocols and address individual community concerns.

PSC Summary Comments:

Current federal minimum pipeline safety regulations set the maximum frequency for assessment intervals at five-year intervals; not to exceed 68 months for continually assessing a pipeline's integrity in HCAs. Reassessment intervals may be shorter than maximum five-year interval for various reasons, however running assessments should not be based on an established frequency alone. We mentioned earlier that the type and

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quality of an assessment in leak detection is not prescriptive. Are assessments based on relevant coordinates and cross referenced to similar coordinates and threats? Frequency of assessments may miss a myriad of factors that relate to local threats. As Einstein noted, repeating the same thing over and over and expecting a different result is Insanity. Perhaps this ANPR is an opportunity to rethink standards based on practical real-world examples and therefore improve safety. Enacting clear, prescriptive standards through this ANPR is the Commissions' opportunity for clear and significant change in pipeline safety. The Commission has resources in hand created by thoughtful and dedicated minds to aide in swiftly addressing issues in this rule:

- 1) 2010: Pipelines and Informed Planning Alliance (PIPA)²¹ Partnering to further Enhance Pipeline Safety in Communities Final Report
- 2) 2013: Chester County Pipeline Notification Protocol (PNP)²². In 2012 the Chester County Commissioners realized the need for a notification protocol in order to assure that county and municipal governments are aware of proposed pipeline development. The PNP is to be followed by both operators and community in order to promote communication between all parties about pipeline projects in the County. The framework for the PNP was facilitated by PSC and crafted largely by interpretations and input from PIPA. The concept of Consultation Zones (Cz) in PIPA required notification to pipeline operators by proposed development within 500 feet of an existing or proposed pipeline. The Chester County PNP adjusted their Cz to require any development within 1,000 feet of center point of a pipeline notify the Planning Commission via the PIC. The goal is to prevent further HCAs from being created in Chester County. A PHMSA Technical Assistance Grant funded the creation of this program which is transferable to all counties.
- 3) 2013: Simultaneously, the Commissioners took a bold move and created a Pipeline Information Center (PIC) which they house in the Planning Commission. [The site](#) is viewed by thousands each month, provides a technically diverse mapping system of all operators and pipelines in Chester County, operator contact information, type of fuel, aerial landscape views identifying environmentally sensitive areas, population density, schools, police and fire departments, historic areas, and Consultation Zones

²¹ <https://primis.phmsa.dot.gov/comm/pipa/LandUsePlanning.htm>

²² <http://www.chescoplanning.org/pic/introduction.cfm>

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viewable at address/street levels. The PIC was funded through the same PHMSA Technical Assistance Grant and is transferable.

- 4) 2014: PHMSA Advisory Bulletin (ADB-2014-04): "Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service,²³" (Bulletin) to "...alert operators of hazardous liquid and gas transmission pipelines of the potential significant impact flow reversals, product changes and conversion to service may have on the integrity of a pipeline...(and the Advisory states) Failures on natural gas transmission and hazardous liquid pipelines have occurred after these operational changes. This advisory bulletin describes specific notification requirements and general operating and maintenance (O&M) and integrity management actions regarding flow reversals, product changes and conversion to service. This advisory bulletin also recommends additional actions operators should take when these operational changes are made including the submission of a comprehensive written plan to the appropriate PHMSA regional office regarding these changes prior to implementation."
- 5) 2015 PHMSA and FEMA released hazard mitigation guidance document: "Hazard Mitigation Planning: Practices for Land Use Planning and Development near Pipelines²⁴" to reduce risks from pipeline incidents.
- 6) 2015: National Transportation Safety Board "Integrity Management of Gas Transmission Pipelines in High Consequence Areas²⁵" for data on integrity management in HCAs
- 7) 2016: Governor's Pipeline Infrastructure Task Force²⁶ (PITF) Pipeline Safety and Integrity Report specific to the Commonwealth
- 8) 2019: Bipartisan Legislative Pipeline Bills for their subjective input in various counties in the Commonwealth.

²³ [2014 PHMSA Advisory Bulletin \(ADB-2014-04\)](#): Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service, (the Bulletin)

²⁴ https://www.fema.gov/media-library-data/1422297186422-e43ce828d6821027c258e96eae10fd6d/PIPA_Hazard_Mitigation_Primer_Final.pdf

²⁵ <https://www.nts.gov/safety/safety-studies/Documents/SS1501.pdf>

²⁶ <http://files.dep.state.pa.us/ProgramIntegration/PITF/PITF%20Report%20Final.pdf>

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The Commission asked for comments that would help begin the process of crafting new rules aimed at improving the safety of construction, operation, maintenance, and other functions of hazardous liquid public utilities. The Commissioners noted, "The time is ripe to move forward with specific proposals to enhance pipeline safety in Pennsylvania." While we agree that cautious action is prudent, the state of the Commonwealth requires expeditious action as well.

PSC has commented and provided just a small sampling of opportunities available from work accomplished inside the industry, regulatory authorities, and by interested parties anxious to regain the level of peace and tranquility that comes from feeling safe in one's home and community.

It is your opportunity and obligation to illustrate to the communities of the Commonwealth and to all future pipeline operators seeking to be granted a social license to operate in the Commonwealth by constructing within our boundaries, that rules and regulations that protect citizens and Penn's Woods are not negotiable. Working in the Commonwealth requires adherence to rules and future regulations that will be crafted by adhering to Federal Code and by exercising our right to adopt more stringent standards for regulating public utilities that transport petroleum products and other hazardous liquids in intrastate commerce.

Pipeline to Farmer, we can only preserve the essence of Pennsylvania through immediate relief from a lack of needed pipeline safety regulations and enforcement.

This PUC rulemaking must create enforceable rules now. It will be a harsh new environment for some operators, and we believe a relief to many other operators who are already following best safety practices on a consistent basis. In the end, the safety of our communities, environment and pipeline infrastructure will be served by your diligence.

Respectfully Submitted



Lynda K Farrell, Founder, Executive Director, President, Community Outreach

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