

**PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265**

Public Meeting held February 22, 2024

Commissioners Present:

Stephen M. DeFrank, Chairman, Statement
Kimberly Barrow, Vice Chair
Ralph V. Yanora
Kathryn L. Zerfuss, Statement
John F. Coleman, Jr.

Rulemaking Regarding Hazardous Liquid Public
Utility Safety Standards at 52 Pa. Code Chapter 59

L-2019-3010267

FINAL FORM RULEMAKING ORDER

Table of Contents

I.	BACKGROUND AND SUMMARY	3
A.	Independent Regulatory Review Commission Comments	3
B.	Effective Date	4
C.	Contact Persons	4
D.	Statutory Authority And Legal Framework	5
E.	Need For The Regulations	10
F.	Minimum Federal Standards	20
G.	Public Participation Process	24
H.	Summary Of Regulatory Requirements	27
I.	Summary Comparison Of Proposed Annex To Final-Form Regulation	37
II.	DISCUSSION	39
A.	Gas Service And Facilities Provisions	39
B.	Hazardous Liquid Public Utility Safety Standards	40
1.	General Matters	40
a.	PUC Authority	40
b.	Act 127 Of 2011	43
c.	Implementation	45
d.	Economic Impact	47
e.	Disposition on General Matters	53
2.	§ 59.131. Purpose	56
a.	Comments On § 59.131	56
b.	Disposition On § 59.131	58
3.	§ 59.132. Definitions	59
a.	Comments On § 59.132	60
i.	Affected Public	60
ii.	API Recommended Practice 1130 And API Recommended Practice 1162	62
iii.	Covered Task	63

Table of Contents

iv.	Emergency Responders	64
v.	Geotechnical Hazard	65
vi.	Hazardous Liquid Pipeline Safety Act Of 1979	66
vii.	Hazardous Liquid	66
viii.	Hazardous Liquid Public Utility	67
ix.	Pipe Or Line Pipe And Pipeline Facility	67
x.	Trenchless Technology	68
xi.	Other Proposed Definitions	68
xii.	Additional Definitions	68
b.	Disposition On § 59.132	69
i.	Affected Public	69
ii.	API Recommended Practice 1130 And API Recommended Practice 1162	73
iii.	Covered Task	74
iv.	Emergency Responders	75
v.	Geotechnical Hazard	76
vi.	Hazardous Liquid Pipeline Safety Act Of 1979	76
vii.	Hazardous Liquid	77
viii.	Hazardous Liquid Public Utility	78
ix.	Pipe Or Line Pipe And Pipeline Facility	78
x.	Trenchless Technology	79
xi.	Other Proposed Definitions	79
xii.	Additional Definitions	80
4.	§ 59.133. General	83
a.	Comments On § 59.133.....	84
i.	IRRC	84
(a)	§ 59.133(a) Minimum Safety Standards	84

Table of Contents

	(b) § 59.13(d) Pipeline Conversion	84
ii.	Environmental Advocates	85
	(a) § 59.133(a) Minimum Safety Standards	85
	(b) § 59.133(b) Enforcement	85
	(c) § 59.133(c) Records	86
	(d) § 59.133(d) Pipeline Conversion	87
	(e) § 59.133(e) Best Practices Framework ..	89
iii.	The Associations	89
iv.	Sunoco	90
v.	East Goshen Township	90
vi.	Chester County	90
vii.	Senator Carolyn Comitta	91
b.	Reply Comments On § 59.133	91
	i. Environmental Advocates	91
	ii. Sunoco	92
	iii. Luke Bauerlein	94
	iv. Lex Pavlo	95
c.	Disposition On § 59.133	95
	i. Subsection §59.133 (a) Minimum Safety Standards	95
	ii. Subsection § 59.133(b) Enforcement	96
	iii. Subsection § 59.133(c) Records	98
	iv. Subsection § 59.133(d) Pipeline Conversion ...	99
	v. New § 59.133(e) Best Practices Framework	104
5.	§ 59.134. Accident Reporting	105
	a. Comments On § 59.134	106
	i. Environmental Advocates	106
	ii. The Associations	108

Table of Contents

iii.	Sunoco	109
iv.	IRRC	109
v.	Senator Comitta, Representative Howard, And Chester County	110
vi.	Other Comments	110
vii.	Ms. Fuller	110
viii.	Maureen Pontecorvo	111
ix.	Libby Madarasz	111
b.	Disposition On § 59.134	111
6.	§ 59.135. Construction, Operation And Maintenance, And Other Reports	117
a.	Comments On § 59.135	119
b.	Reply Comments.....	124
c.	Disposition On § 59.135	125
7.	Proposed § 59.136 Design Requirements; Final-Form § 59.136 Annual Reports	132
a.	Comments On § 59.136 Design Requirements.....	132
i.	IRRC	132
ii.	Environmental Advocates	133
iii.	The Associations	133
iv.	Sunoco	134
v.	George Alexander	134
vi.	Rosemary Fuller	134
vii.	Catherine Moran	135
viii.	Bill Wegemann	135
ix.	Johnston Area Regional Industries	135
b.	Reply Comments On Proposed § 59.136 Design Requirements	136
i.	Environmental Advocates	136
ii.	Sunoco	137

Table of Contents

c.	Disposition On Proposed § 59.136 Design Requirements.....	138
d.	Disposition On Final-Form § 59.136 Annual Reports	142
8.	§ 59.137. Construction	144
a.	Comments On § 59.137	145
i.	Environmental Advocates	145
(a)	Construction Materials And Methods	145
(b)	Impacts To The Quiet Enjoyment Of Neighboring Properties	146
(c)	Additional Considerations	146
ii.	Pennsylvania Chamber Of Business And Industry	147
iii.	The Associations	147
iv.	Sunoco	148
v.	Laurel	153
vi.	East Goshen Township.	155
vii.	IRRC	156
viii.	Senator Carolyn Comitta	157
ix.	Shirley Township	157
x.	Washington Township Supervisors	158
xi.	Ms. Fuller	158
xii.	Christine Pontecorvo	159
xiii.	Catherine Moran	160
xiv.	Burrell Township	160
xv.	Kristine Burton	160
xvi.	Consumer Energy Alliance	161
xvii.	Connor Young	161
xviii.	Marcellus Shale Coalition	162
xix.	Chester County	163
(a)	§ 159.137(a)	163
(b)	§ 159.137(g)	163

Table of Contents

	(c) §§ 159.137(h) And 59.137(f)	164	
b.	Reply Comments	164	
	a. Environmental Advocates	164	
	b. Sunoco	167	
	c. Connor Young	168	
c.	Disposition On § 59.137	168	
9.	§ 59.138. Horizontal Directional Drilling And Trenchless Technology, Or Direct Buried Methodologies	176	
	a. Comments On § 59.138	177	
		i. IRRC	177
		ii. Environmental Advocates	178
		iii. Pipeline Safety Trust	178
		iv. The Associations	179
		v. Shepstone Management Company, Inc.	179
		vi. Sunoco	179
		vii. Department Of Environmental Protection	181
		viii. Edgmont Township	185
		ix. Senator Carolyn Comitta	185
		x. West Whiteland Township (Accufacts)	188
		xi. Chester County	188
		xii. Marcellus Shale Coalition	190
	b. Reply Comments	191	
		i. Environmental Advocates	191
		ii. Sunoco	192
	c. Disposition On § 59.138	194	
10.	§ 59.139. Pressure Testing	204	
	a. Comments On § 59.139	204	
		i. Association Of Materials Protection And Performance (AMPP)	204

Table of Contents

ii.	Environmental Advocates	205
	(a) Testing Frequency	206
	(b) Testing Against Live Valves	206
	(c) Additional Safety Measures	207
	(d) Testing Water Disposal	207
iii.	Pipeline Safety Trust	207
iv.	PureHM – (AMPP)	208
v.	The Associations	208
vi.	Marcellus Shale Coalition	209
vii.	Sunoco	289
viii.	Department of Environmental Protection	210
ix.	East Goshen Township	210
x.	IRRC	210
xi.	West Whiteland Township	211
xii.	George Alexander And Patrick Robinson	214
b.	Reply Comments.....	214
	i. Environmental Advocates	214
	ii. Sunoco	215
	iii. Responses To Data Requests – MIPC, Laurel, and Sunoco	217
c.	Disposition On § 59.139	220
11.	§ 59.140. Operations And Maintenance	222
	a. Comments To § 59.140	224
	i. § 59.140(b) Emergency Procedures Manual And Activities.....	225
	ii. § 59.140(c) Liaison Activities With Emergency Responders.....	229

Table of Contents

iii.	§ 59.140(d) Liaison Activities With School Administrators When A School Building Or Facility Is Located Within 1,000 Feet, Or Within The LFL, Of A Pipeline Or Pipeline Facility, Whichever Is Greater	230
iv.	§ 59.140(e) Public Awareness Communication Requirements Beyond API RP 1162	232
v.	§ 59.140(f) Line Markers.....	232
vi.	§ 59.140(g) Inspection Of Pipeline Rights-Of-Way.....	233
vii.	Proposed § 59.140(h) Leak Detection and Odorization	234
viii.	Proposed § 59.140(i) Emergency Flow Restricting Devices In High Consequence Areas	236
ix.	Miscellaneous	237
b.	Reply Comments	237
c.	Disposition On § 59.140	239
i.	§§ 59.140(a)—(g)	239
ii.	§§ 59.140(h) And 59.140(i)	244
iii.	Proposed § 59.140(i), Final § 59.140(h)	246
12.	§ 59.141. Qualification Of Pipeline Personnel	247
a.	Comments On § 59.141	247
i.	Covered Task	247
ii.	Requalification Intervals	248
iii.	Construction Task And Federal Regulations	249
b.	Disposition On § 59.141	250
13.	§ 59.142. Land Agents	252
a.	Comments On § 59.142	252
i.	Standards For Land Agents	252
ii.	Notice To Landowners	254
iii.	Easements And Other Agreements	255
iv.	Reduction Of Land Agent Oversight	256

Table of Contents

b.	Disposition On § 59.142	258
14.	§ 59.143. Corrosion Control	260
a.	Comments On § 59.143	261
i.	Association Of Materials Protection And Performance (AMPP)	261
ii.	Environmental Advocates	265
(a)	Best Practices	265
(b)	Additional Reporting And Testing	265
(c)	Potential Electrical Interference	266
(d)	Aging And High-Risk Pipelines	267
(e)	Transparency	267
iii.	PureHM – (AMPP)	267
iv.	Associations	269
v.	Sunoco	269
vi.	Department Of Environmental Protection	270
vii.	IRRC	271
viii.	West Whiteland Township	271
ix.	County Commissioners Association of Pennsylvania	271
b.	Reply Comment	272
i.	Environmental Advocates	272
ii.	Sunoco	274
iii.	Responses To PUC Data Requests	275
c.	Disposition On § 59.143	278
15.	Other General Comments Supporting The Regulation	280
a.	Richard Cole	281
b.	Carrie Gross, Exton In Chester County	281
c.	Senator Tim Kearney	281

Table of Contents

d.	Theodore Strand	281
e.	Garret Wasserman, Coraopolis	282
16.	Comments Beyond The Scope Of The Rulemaking	282
i.	Greg Perry	282
ii.	Pittsburgh Works Together	283
iii.	Responsible Drilling Alliance, aka Responsible Decarbonization Alliance	284
iv.	Lora Snyder, Edgmont Township	285
v.	Uwchlan Township, In Chester County	285
vi.	Connor Young	286
III.	CONCLUSION	286
	Ordering Paragraphs	287

Annex A (separate document)

BY THE COMMISSION:

The Pennsylvania Public Utility Commission (PUC or Commission) adopts this Final Form Rulemaking Order¹ (FFRO) and the amendments to Chapter 59 of Title 52, 52 Pa. Code §§ 59.1—59.111, which are set forth in Annex A attached hereto. This final-form rulemaking relates to public utilities that transport highly volatile liquids (HVLs)², a/k/a natural gas liquids (NGLs) and other hazardous liquids, in intrastate commerce from and to points within Pennsylvania. The purpose of this final-form rulemaking is to establish State public utility safety standards addressing localized concerns for hazardous liquid public utilities constructing, operating, and maintaining pipeline facilities. The goal of these safety standards is to deter inadvertent returns, leaks, subsidence events, and water supply contamination events related to the construction, operation, and maintenance of HVL pipelines by hazardous liquid public utilities within Pennsylvania. While the standards a State may adopt may be more stringent than the minimum Federal standards at 49 U.S.C. §§ 60101—60503 and the regulations at 49 CFR Parts 195 and 199, they must remain compatible with those standards in such a fashion that a hazardous liquid public utility can continue to comply with the Federal standards even as it complies with the new PUC standards.

Major areas of this final rulemaking include accident reporting, notification requirements, pipeline location requirements, impact analysis requirements for horizontal directional drilling (HDD) and trenchless technology (TT) activities, identification of water supplies near HDD and TT activities, notification requirements to water supply owners near HDD and TT activities, coordination with emergency responders and school administrators, public education and outreach, and corrosion control. Significantly, the

¹ This FFRO consists of a PUC Order which serves as the “preamble” under 1 Pa. Code § 301.1 (relating to definitions) and an Annex A containing the text of the final regulation under 1 Pa. Code § 307.2 (relating to delivery of a final-form regulation).

² A highly volatile liquid or HVL 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 (relating to definitions).

final-form regulations set forth in Annex A are necessary to address specific issues and concerns that we have relating to pipeline construction, operation and maintenance, and public awareness in recent years in the Commonwealth.

To be clear, this rulemaking applies to intrastate hazardous liquid pipelines and facilities and does not apply to Act 127 of 2011, the Gas and Hazardous Liquid Pipeline Act, 58 P.S. §§ 801.101—801.1101 pipelines or solely interstate hazardous liquid pipelines. Additionally, there are no retroactive design or construction regulations for those pipeline facilities that exist when the rule is made effective by operation of law. However, the operations and maintenance, accident reporting, and public awareness regulations do apply to existing hazardous liquid pipeline facilities.

The Notice of Proposed Rulemaking (NOPR), comments, and reply comments at this rulemaking can be found on the PUC’s website at <https://www.puc.pa.gov/docket/L-2019-3010267> and on the website for the Pennsylvania Independent Regulatory Review Commission (IRRC) at <https://www.irrc.state.pa.us/regulations/RegSrchRslts.cfm?ID=3341>.

I. BACKGROUND AND SUMMARY

A. Independent Regulatory Review Commission Comments

IRRC filed comments to the NOPR on June 13, 2022, specifying regulatory review criteria that have not yet been met. Although IRRC does not question the PUC’s authority to promulgate regulations to protect the citizens and environment of the Commonwealth from potential danger associated with transporting petroleum products including hazardous liquids via pipelines, IRRC asks for further explanation of how the more stringent provisions are compatible with federal PHMSA standards and consider some revisions that do not create a stricter enforcement standard in the Commonwealth. IRRC asks the PUC to explain what its duties are under Act 127 and whether Act 127 is

applicable to public utility pipelines. It asks the PUC how it will regulate private and public utility pipelines if and when this rulemaking is finalized. IRRC also asks for more information regarding: (1) how the benefits of the regulation outweigh any costs and adverse effects; (2) the specific estimates of costs and/or savings to the regulated community and how the estimates were derived; (3) a summary of costs and savings estimates for the regulated community, local government and state government for the current fiscal year and next five fiscal years; and (4) whether data was the basis for this regulation.

In accordance with IRRC’s regulations at 1 Pa. Code § 307.2(b) when submitting a final-form regulation to IRRC and the standing committees, an agency must include a preamble along with the completed Regulatory Analysis Form (RAF) and response to comments. Section 301.1 defines “preamble” as “A part of the regulatory package that provides information about the following: . . . (ii) A final regulation that includes the effective date, statutory authority, purpose and explanation of the regulation, a description of any amendments made from the proposed stage, fiscal impact, contact person and a response to all comments received, unless that response is provided in a separate document.” 1 Pa. Code § 301.1. We address IRRC’s comments in detail under the topic headings that follow and in the RAF.

B. Effective Date

The effective date of this rulemaking will be sixty (60) days from the date of publication of this rulemaking in the *Pennsylvania Bulletin*.

C. Contact Persons

Contact persons for the rulemaking are Kriss Brown, Deputy Chief Counsel, kribrown@pa.gov; Elizabeth Barnes, Deputy Chief Counsel, Law Bureau,

ebarnes@pa.gov; and Karen Thorne, Regulatory Review Assistant, Law Bureau, kathorne@pa.gov.

D. Statutory Authority And Legal Framework

This final-form rulemaking is authorized under Section 501(b) of the Public Utility Code, 66 Pa.C.S. § 501(b), which grants the PUC the authority to “make such regulations, not inconsistent with law, as may be necessary or proper in the exercise of its powers or for the performance of its duties.” This final-form rulemaking is within that grant of rulemaking power and consistent with the purposes of the Public Utility Code. Under Section 501(b) also grants the PUC general administrative power and authority to supervise and regulate all public utilities doing business within the Commonwealth.

Section 102 of the Public Utility Code, in pertinent part, defines “public utility” as:

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

* * *

(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.

66 Pa.C.S. § 102 (relating to definitions). The term “petroleum products” includes refined petroleum products such as fuel oil and diesel as well as natural gas liquids such as ethane, butane, and propane. *See, e.g., Petition of Granger Energy of Honey Brook, LLC, for a Declaratory Order*, Docket No. P-00032043 (Order entered September 8, 2004) (“petroleum products,” as used in Section 102 of the Public Utility Code, has a broad meaning as a “catch all phrase” to include what would otherwise be an exhaustive

list of products) (*Granger*); *see also* 49 CFR 195.2 (relating to definitions) (defining a petroleum product as “flammable, toxic, or corrosive products obtained from distilling and processing of crude oil, unfinished oils, natural gas liquids, blend stocks and other miscellaneous hydrocarbon compounds”). Therefore, the PUC has jurisdiction over and authority to regulate, *inter alia*, the transportation of petroleum products transported via pipeline or conduit for the public for compensation. 66 Pa.C.S. §§ 102 and 501(b); *see also* 66 Pa.C.S. § 506 (inspection of facilities and records).

In particular, the PUC has jurisdictional authority over safety issues concerning all of Pennsylvania’s intrastate facilities, including hazardous liquids and underground natural gas storage facilities. Section 1501 of the Code, 66 Pa.C.S. § 1501, governs any allegations of unreasonable or inadequate service, including safety of the utility’s patrons, employees and the public. Under Section 1501, the PUC has original jurisdiction over the reasonableness and adequacy of public utility service. *Elkin v. Bell Telephone Co.*, 372 A.2d 1203 (Pa. Super. 1977), *aff’d* 420 A.2d 371 (Pa. 1977); *Behrend v. Bell Telephone Co.*, 243 A.2d 346 (Pa. 1968). As a general proposition, neither the Public Utility Code, 66 Pa.C.S. §§ 101—3316, nor the PUC’s regulations require public utilities to provide constantly flawless service or the best possible service, but the PUC does require public utilities to provide reasonable and adequate service. *Analytical Laboratory Services, Inc. v. Metropolitan Edison Co.*, Docket No. C-20066608 (Order entered December 21, 2007); *Emerald Art Glass v. Duquesne Light Co.*, Docket No. C-00015494 (Order entered June 14, 2002)³; *Re: Metropolitan Edison Co.*, Docket No. P-00920567 (Order entered November 19, 1993), (80 Pa.P.U.C. 662; 1993 WL 762244 (Pa.P.U.C.)), *rev’d* by *Popowsky v. Pa. Pub. Util. Comm’n*, 653 A.2d 1385 (Pa. Cmwlth. 1995) (*Popowsky 1995*) on different grounds.

³ <https://www.puc.pa.gov/PcDocs/330454.doc> (last accessed on January 3, 2024).

Currently, PUC regulations at 52 Pa. Code § 59.33 (relating to safety), promulgated under 66 Pa.C.S. § 1501 (relating to character of service and facilities), require that hazardous liquid public utilities that transport HVL shall have minimum safety standards consistent with the pipeline safety laws at 49 U.S.C. §§ 60101—60503 and the regulations at 49 CFR Parts 191—193, 195, and 199. The regulations adopt Federal safety standards for hazardous liquid facilities. These minimum Federal safety standards include what materials must be used for new hazardous liquid pipelines, how those pipelines are to be constructed, and requirements for corrosion control, maintenance, and testing of existing hazardous liquid pipelines. The standards also address emergency preparedness and public awareness plans. 49 CFR 195.440 (relating to public awareness). Further, a pipeline operator public utility shall “at all times” use every reasonable effort to properly warn and protect the public from danger and shall exercise reasonable care to reduce the hazards to which employees, customers and others may be subjected to by reason of its equipment and facilities. 52 Pa. Code § 59.33(a).

The PUC participates as a certified State in the pipeline safety program administered by the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration (PHMSA)⁴ under 49 U.S.C. § 60105(a) (relating to state pipeline safety program certifications).⁵ Consistent with that authority, effective September 22, 2012, the PUC amended its regulations at Chapter 59 to address the safety of petroleum products pipelines by incorporating the Federal pipeline safety regulations at 49 CFR Part 195 (relating to transportation of hazardous liquids by pipeline). *See Rulemaking Re Liquid Fuels Pipeline Regulations*, Docket No. L-2008-2034622 (Order

⁴ PHMSA, created in 2004, is responsible for developing and enforcing Federal regulations for the safe, reliable, and environmentally sound transportation of energy and other hazardous materials.

⁵ Certification is an annual process. To view the Commission’s 2023 certification status, refer to Appendix F – State Program Certification/Agreement Status, Year: 2023, PHMSA (Last accessed on December 22, 2023) <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2023-11/2023-Appendix-F-State-Program-Certification-Agreement-Status.pdf>.

entered March 1, 2012); 42 Pa.B. 5967 (September 22, 2012).⁶ The PUC must adopt the same minimum Federal safety standards but may adopt additional more stringent standards so long as they are compatible. *See* 49 CFR Part 195, Appendix A to Part 195 – *Delineation Between Federal and State Jurisdiction – Statement of Agency Policy and Interpretation*.

The PUC incorporated 49 CFR Part 195 in its regulations at Section 59.33(b), in part, to comport with the requirements of PHMSA’s pipeline safety program. Participating certified States are required to adopt the minimum Federal safety standards and are permitted to adopt additional more stringent regulations so long as they are compatible with the minimum Federal pipeline safety standards. As stated in Appendix A to Part 195:

For the remainder of pipeline facilities, denominated “intrastate pipeline facilities,” the [Hazardous Liquid Pipeline Safety Act (HLPSA)] provides that the same Federal regulation and enforcement will apply unless a State certifies that it will assume those responsibilities. A certified State must adopt the same minimal standards but may adopt additional more stringent standards so long as they are compatible.

49 CFR Part 195, *Appendix A to Part 195 – Delineation Between Federal and State Jurisdiction – Statement of Agency Policy and Interpretation*. Based on the foregoing, as a certified State in PHMSA’s pipeline safety program, the PUC may adopt additional standards beyond the minimum Federal pipeline safety standards.

Part 195 prescribes safety standards and reporting requirements for pipeline facilities used in the transportation of hazardous liquids. 49 CFR 195.0 (relating to scope). Under Part 195, hazardous liquids include “petroleum, petroleum products,

⁶ <https://www.pacodeandbulletin.gov/Display/pabull?file=/secure/pabulletin/data/vol42/42-38/1857.html&search=1&searchunitkeywords=> (last accessed on December 21, 2023). IRRC # 2887; Fiscal # 57-281.

anhydrous ammonia, or ethanol.” 49 CFR 195.2 (relating to definitions). In sequence, Part 195 addresses the following: General; Annual, Accident, and Safety-Related Condition Reporting; Design Requirements; Construction; Pressure Testing; Operation and Maintenance; Qualification of Pipeline Personnel; and Corrosion Control. *See* 49 CFR Part 195, Subparts A—H.

At present, the safety standards for hazardous liquid public utilities are limited to the PUC’s adoption in Chapter 59 of the minimum standards from Part 195. Presently, Section 59.33 provides, in relevant part, as follows:

(b) *Safety code.* The minimum safety standards for all natural gas and hazardous liquid public utilities in the Commonwealth shall be those included under the pipeline safety laws as found in 49 U.S.C.A. §§ 60101—60503 and as implemented at 49 CFR Parts 191—193, 195 and 199, including all subsequent amendments thereto. Future Federal amendments to 49 CFR Parts 191—193, 195 and 199, as amended or modified by the Federal government, shall have the effect of amending or modifying the Commission’s regulations with regard to the minimum safety standards for all natural gas and hazardous liquid public utilities. The amendment or modification shall take effect 60 days after the effective date of the Federal amendment or modification, unless the Commission publishes a notice in the *Pennsylvania Bulletin* stating that the amendment or modification may not take effect.

(c) *Definition.* For the purposes of this section, “hazardous liquid public utility” means a person or corporation now or hereafter owning or operating in this Commonwealth equipment or facilities for transporting or conveying crude oil, gasoline, petroleum or petroleum products by pipeline or conduit, for the public for compensation.

52 Pa. Code §§ 59.33(b)–(c).

There is national policy codified in the *Code of Federal Regulations*, but the PUC as an independent regulatory State agency is in a position to address localized issues such as those complained of in several complaint proceedings before the PUC involving at least one hazardous liquid public utility. It is the duty of regulation to harmonize the privilege of a privately-owned public utility with the public interest. The PUC has an interest and a duty in resolving conflicts between the public and public utilities and for the public utilities to tailor their practices and communications coverage areas to fit their pipeline operations in Pennsylvania's counties.

E. Need For The Regulations

IRRC asks the PUC to provide additional information related to why a more stringent standard is needed for each section of this rulemaking. In addition, IRRC asks the PUC to cite specific instances of pipeline spills, leaks, sinkholes, and water contamination caused by or related to hazardous liquid pipeline activity.

In Pennsylvania, there is a need for reducing frequency and consequences of failures related to incidents involving onshore transmission lines through prevention and early detection of threats to pipeline integrity. While this final-form rulemaking applies to a small subset of pipelines in this Commonwealth, the PUC has oversight of pipeline construction, operation and maintenance in Pennsylvania. Significantly, Pennsylvania's pipeline infrastructure is pervasive. Within the Commonwealth, there are approximately 10,000 miles of natural gas transmission pipelines, 2,000 miles of refined products pipelines, 1,500 miles of hazardous liquid pipelines, 48,000 miles of distribution mains, and 35,000 miles of distribution services pipelines. In Pennsylvania, specifically, there have been 71 hazardous liquid pipeline accidents since 2010—with only six due to natural forces—and each of those resulted in a release or spill. Since 2017, the Pipeline

Safety Section⁷ has investigated 243 instances of reported subsidence, *i.e.*, earth features, landslides, and/or complaints in that time. *Distribution, Transmission & Gathering, LNG, and Liquid Accident and Incident Data*, PHMSA (July 7, 2023) <https://www.phmsa.dot.gov/data-and-statistics/pipeline/distribution-transmission-gathering-lng-and-liquid-accident-and-incident-data>.

Currently, there are two certificated hazardous liquid public utilities: Sunoco Pipeline L.P. (Sunoco) and Laurel Pipe Line Company, L.P. (Laurel). Sunoco is a PUC-certificated public utility transporting or conveying, *inter alia*, butane, propane, and ethane for interstate and intrastate use under the PUC's governing statutes. *See* 66 Pa.C.S. § 102. By approving the transfer of assets and a certificate of public convenience at A-140001⁸ and later issuing Sunoco another certificate of public convenience for Washington County at A-2014-2425633,⁹ we held that Sunoco's public utility service of transporting petroleum and refined petroleum products is "necessary or proper for the service, accommodation, convenience, or safety of the public." 66 Pa.C.S. § 1103(a).

In 2012, Sunoco announced its intent to develop the Mariner East Project, an integrated pipeline system for transporting petroleum products and natural gas liquids such as propane, ethane, and butane from the Marcellus and Utica Shales in Pennsylvania, West Virginia, and Ohio to the Marcus Hook Industrial Complex (MHIC)

⁷ The Gas Safety Division began to reference itself as the Pipeline Safety Section in 2017, under the newly created Safety Division, which is comprised of three sections: Pipeline Safety Section (previously referred to as Gas Safety), Electric Safety Section, and Damage Prevention Section. To avoid confusion, references in comments and reply comments to the "Gas Safety Division" have been changed to refer to the "Pipeline Safety Section" without further specific notation.

⁸ *See Joint Application of jurisdictional utilities Sunoco [Pipeline] L.P., Sun Pipe Line Company and of Atlantic PipeLine Corp. for approval of the transfer of assets and merger of Sun Pipe Line Company and Atlantic PipeLine Corp. to Sunoco Pipeline L.P. and for the abandonment of services by Sun Pipe Line Company and Atlantic PipeLine Corp.*, Docket Nos. A-140001, et al., (Order entered January 14, 2002). <https://www.puc.pa.gov/docket/A-140001>.

⁹ *See Application of Sunoco Pipeline L.P. for Approval of the Right to Offer, Render, Furnish or Supply Intrastate Petroleum and Refined Petroleum Products Pipeline Service to the Public in Washington County, Pennsylvania*, Docket No. A-2014-2425633 (Order entered August 21, 2014). <https://www.puc.pa.gov/docket/A-2014-2425633>.

and points in between. *Delaware Riverkeeper Network v. Sunoco Pipeline, L.P.*, 179 A.3d 670, 674 (Pa. Cmwlth. 2018) (*en banc*), appeal denied, 192 A.3d 1106 (Pa. 2018) (*Riverkeeper 2018*). The Project consists of two main phases: (1) Mariner East 1 pipeline (ME1), which used Sunoco's existing pipeline infrastructure along with an extension; and (2) Mariner East 2 pipeline (ME2), which requires construction of a new 351 -mile pipeline, largely in the existing right-of-way of ME1. *Id.*

In 2013, Sunoco abandoned service of transporting petroleum products on a portion of its petroleum products pipeline (Mariner East 1) including from (1) Point Breeze to Eldorado, Delmont, Blawnox, and Pittsburgh; (2) Montello to Eldorado, Delmont, and Blawnox; and (3) Twin Oaks to Icedale, Malvern, Eldorado, Delmont, and Pittsburgh. *Application of Sunoco Pipeline L.P. for a certificate of public convenience to Abandon a Portion of its Petroleum Products Pipeline Transportation Service In Pennsylvania; Petition for Approval Of Temporary Suspension of a Portion Of its Petroleum Products Pipeline Transportation Service in Pennsylvania*, Docket Nos. A-2013-2371789 and P-2013-2371775 (Orders entered August 29, 2013, and October 17, 2013). When the PUC authorized Sunoco to suspend or abandon its service of transporting refined petroleum products from east to west, the PUC orders also contemplated that Sunoco in the future would use those same facilities to provide service through its proposed Mariner East project under the same certificated authority. *Id.*

On March 21, 2014, Sunoco filed 31 petitions with the PUC, naming 31 municipalities. Through the petitions, filed pursuant to Section 619 of the Pennsylvania Municipalities Planning Code (MPC), Act of July 31, 1968, P.L. 805, as amended, 53 P.S. § 10619, Sunoco sought an exemption from local zoning requirements for various buildings that Sunoco had constructed or sought to construct in connection with its repurposing of ME1 to carry NGLs. In the petitions, Sunoco represented that its ME1 would offer interstate service. During the course of proceedings, the PUC indicated that there was a presumption that Sunoco was a public utility based on Section 619 of the

MPC, which provides that Article VI of the MPC, 53 P.S. §§ 10601-10621, pertaining to Zoning, shall not apply to any existing or proposed building, or extension thereof, used or to be used by a public utility corporation, if, upon petition of the corporation, the PUC shall, after a public hearing, decide that the present or proposed situation of the building in question is reasonably necessary for the convenience or welfare of the public. The PUC directed the Office of Administrative Law Judges to hold hearings as required by Section 619 of the MPC, so that the PUC could make a determination as to whether Sunoco was exempt from local zoning requirements with regard to ME1.

On March 5, 2015, Sunoco withdrew all 31 petitions, stating that it no longer needed PUC exemption from zoning requirements because it either had obtained local zoning approval through the municipalities or would obtain such approval, thus rendering the petitions moot. As a result of Sunoco's withdrawal of the petitions, the PUC never issued a final decision on whether Sunoco is a public utility corporation with regard to ME1 and whether the repurposing of ME1 for transporting NGLs constituted a public utility service. *Lorenzen v. W. Cornwall Twp. Zoning Hearing Bd.*, 222 A.3d 893 (Pa. Cmwlth. 2019).

Since 2014, Sunoco has transported natural gas liquids a/k/a hazardous volatile liquids including butane, ethane and propane or some combination thereof between Delmont, Westmoreland County, and Twin Oaks, Delaware County under its certificates of public convenience (CPCs) that have been deemed to apply to both ME1 and ME2 pipelines as an authorized expansion of the same intrastate service. *In re Sunoco Pipeline, L.P.*, 143 A.3d 1000 (Pa. Cmwlth. 2016), *appeal denied*, 164 A.3d 485 (Pa. 2016). ME1 is an eight-inch diameter pipeline originally built in the 1930s that has been repurposed, replaced, and extended with new pipe to transport HVLs since 2014.

ME2 is a newly constructed and currently operational 20-inch diameter pipeline transporting HVLs and where it was unable to be built as planned for a couple of years, it

was connected to a twelve-inch workarround pipeline in West Whiteland Township, Chester County. The twelve-inch diameter workarround pipeline was also repurposed from transporting refined petroleum product (RPP) to temporarily transporting HVLs. The twelve-inch workarround pipeline was also built originally in the 1930s. ME2X is a newly constructed 16-inch diameter pipeline currently in operation. The final parts of construction of ME2 and ME2X took place in Delaware County and Chester County. When the construction was complete, ME1 and the twelve-inch workarround pipelines were purged of HVLs and currently transport RPPs again. ME2 and ME2X actively transport HVLs in an intrastate and interstate manner.

Pennsylvania has unique geophysical features underground that present unique issues for pipeline infrastructure. The portion of Pennsylvania's subsurface where pipelines are located consist of limestone and karst formations that are susceptible to erosion due to underground water flowing through these minerals and geophysical properties. Pennsylvania also has approximately 85,000 miles of streams and rivers, connecting over 700,000 acres of lakes, bays, and wetlands. These waters provide drinking water, offer recreation experiences, support farms and business and nourish our forests. To construct pipelines, hazardous liquid public utilities use different methodologies to cross waterways and roadways, including HDD, TT and direct buried technologies. Moreover, there are more than one million private water wells in Pennsylvania serving about 3.5 million people in rural areas. The average water well in Pennsylvania ranges between 100 and 200 feet deep.¹⁰

<https://centrecountypa.gov/691/Stream-Permits#:~:text=Pennsylvania%20has%20over%2085%2C000%20miles,its%20over%2046%2C000%20square%20miles>. HDD construction methods use high pressurized water underground and bentonite to assist the horizontal drill to cut the holes through which the pipes are then pulled. The PUC notes that the HDD construction that was used by

¹⁰ *Private Water Systems FAQs*, Penn State Extension (January 10, 2023), <https://extension.psu.edu/private-water-systems-faqs>.

Sunoco during the construction of its Mariner East Project correlated with incidents of newly discovered land depressions and subsidence events in, and in close proximity to, the rights of way of Sunoco's construction areas, particularly in the lower Southeastern Counties of the State through which the 350-mile project traverses, such as Delaware and Chester Counties.

Since 2016, Pennsylvania's Department of Environmental Protection (DEP) has fined Energy Transfer, L.P., the parent company of Sunoco, more than \$20 million for more than 120 alleged violations of the Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. 691.1—691.1001; Chapter 32 of Title 58 of the Pennsylvania Consolidated Statutes, 58 Pa.C.S. 3201, the Dam Safety and Encroachments Act, Act of November 26, 1978, P.L. 1375, as amended, 32 P.S. 693.1, Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended, 71 P.S. 510 – regulations promulgated thereunder. These violations arose from the stretch along the 350-mile-long Mariner East Project through 17 of Pennsylvania's counties, approximately 2,700 properties and beneath approximately 1,200 streams or wetlands. <https://www.attorneygeneral.gov/taking-action/case-update-energy-transfer-convicted-of-criminal-charges-related-to-construction-of-mariner-east-2-pipeline-revolution-pipeline-in-pennsylvania/>. Last checked February 7, 2024.

There have been substantial subsidence events and inadvertent return in Middletown Township, Delaware County and in West Whiteland Township, Chester County. In West Whiteland Township, the construction of Mariner East 2 and 2X through a residential neighborhood on Lisa Drive resulted in subsidence events and the hazardous liquid pipeline operator purchasing some of the homes and land on that residential street.

There was a pinhole leak in a girth weld discovered in Morgantown, Berks County, on Mariner East 1, and this was investigated by the PUC's Bureau of

Investigation and Enforcement (BI&E) and remediated through a PUC-approved settlement whereby Sunoco agreed to pay a \$200,000 civil penalty, conduct a remaining life study on ME1, implement additional anti-corrosive measures into its pipeline integrity management and cathodic protection programs, and apply these additional measures to the management of all of its pipelines (including the 12-inch pipeline). *Pa. Pub. Util. Comm'n, BI&E v. Sunoco Pipeline, L.P.*, Docket No. C-2018-3006534 (Order entered August 19, 2020).

In 2018, after a period of rain, a landslide occurred, and gas escaped from the Energy Transfer's Revolution Pipeline resulting in an explosion in Butler County. Although there were no fatalities, residents evacuated their homes as their barns, vehicles and homes burned and over two acres of trees burned. After this explosion, DEP initiated numerous enforcement actions under applicable environmental statutes and regulations. Additionally, nine counts of environmental crimes were charged against Sunoco and ETC Northeast Pipeline, LLC (ETC), related to their conduct during the construction of the Mariner East Project and the Revolution Pipeline, respectively. On August 5, 2022, Sunoco and ETC, both subsidiaries of Energy Transfer, L.P. plead guilty regarding some criminal environmental charges related to their conduct during the construction of two major pipelines in Pennsylvania, the Mariner East 2 Pipeline and Revolution Pipeline. It was alleged that Sunoco spilled thousands of gallons of drilling mud containing bentonite into streams and lakes in Pennsylvania. Specifically, 8,000 gallons of drilling mud spilled into Marsh Creek Lake in Chester County. *See* <https://www.attorneygeneral.gov/taking-action/case-update-energy-transfer-convicted-of-criminal-charges-related-to-construction-of-mariner-east-2-pipeline-revolution-pipeline-in-pennsylvania/> (last checked January 20, 2024).

On May 21, 2018, at Lenni Road in Chester County, an excavator for a water public utility using power equipment scraped the coating off of a non-operating ME2 pipeline at approximately 6 feet deep because the excavator had been informed via a PA

One Call request that the depth of the pipeline was nine feet deep where the excavator planned to dig. *Meghan Flynn, et al. v. Sunoco Pipeline, L.P.*, at Docket Nos. C-2018-3006116, *et al.*, (Order entered November 18, 2021) at 68. (*Flynn*). *See also Sunoco Pipeline L.P. v. Pa. Pub. Util. Comm'n*, 295 A.3d 37 (Pa. Cmwlth. 2023), affirming, in part, and reversing, in part, *Flynn*. (*Sunoco 2023*).

Pennsylvania is not a flat desert but rather a large forest-filled State with mountains, hills, valleys, rivers, lakes, and other waterways. The Commonwealth has densely populated and high consequence areas along the routes of the Laurel as well as Sunoco's Mariner East Project (which generally follows the Pennsylvania Turnpike across the State). The Mariner East pipelines traverse through towns close to other underground structures and pipelines. For these reasons unique to Pennsylvania and the activities of hazardous liquid public utilities, additional requirements are needed to address these activities that are more stringent than the minimum Federal safety standards.

This final-form rulemaking seeks to establish additional safety requirements regarding personnel qualifications, public awareness programs, accident reporting, and emergency responder training because the PUC heard complaints from many residents, school districts, townships, counties, and emergency responders that Sunoco cancelled meetings with them and did not properly inform or train the public and emergency responders regarding the project, the nature of the danger of exposure to vapor clouds if there were to be a leak, and proper procedures to take in the event of a leak. *Baker v. Sunoco Pipeline L.P.*, Docket No. C-2018-3004294 (Order entered September 23, 2020), at 10, 27-28 (The PUC agreed with the ALJ that "Although Sunoco's witnesses have testified that they have a public awareness program that engages the community, utilizing a variety of methods, including meetings, mailings, and specialized training (SUNOCO Exhibit No. 2 at N.T. 589—590), the evidence in this case is substantial to show there

have been insufficient public outreach meetings in Cumberland County.”) (*Baker*). *See generally Flynn*.

Additionally, the PUC heard complaints that the “safety pamphlets” distributed were not distributed to all residents within 660 feet of the centerline of ME1 while it was transporting HVLs and that the material was insufficient in that it only warned of contact dermatitis if contact occurred with the product and did not sufficiently warn of property damage, personal injury, burns, asphyxiation or death. *Flynn; Baker*. In light of this, further regulation of hazardous liquid public utilities by the PUC is prudent.¹¹ This rulemaking is necessary to ensure that hazardous liquid public utilities in Pennsylvania furnish and maintain adequate, efficient, safe, and reasonable service and facilities and make all such repairs, changes, alterations, substitutions, extensions, and improvements necessary and proper for the safety of the public. *See* 66 Pa.C.S. § 1501.

Clean air, pure water, and the preservation of the natural, scenic, historic and aesthetic values of the environment are rights provided by Article 1, Section 27 of the Pennsylvania Constitution also known as the Environmental Rights Amendment (ERA). These are key to the quality of life of the people of Pennsylvania. Additionally, natural resources held in trust by the Commonwealth for the benefit of the people are a major economic contributor to Pennsylvania through tourism, outdoor fish and game sports, and recreation. The PUC’s mission is to balance the needs of consumers and public utilities; ensure safe and reliable public utility service at reasonable rates; protect the public interest; educate consumers to make independent and informed public utility choices; further economic development; and foster new technologies and competitive markets in an environmentally sound manner. *See* <https://www.puc.pa.gov/about-the-puc/>.

¹¹ As IRRC noted, commentors in support of the rulemaking state that it is needed to protect the health, safety, and welfare of Commonwealth citizens, as well as the Commonwealth’s natural resources. We also recognize IRRC’s comment that some suggestions by commentors in support of this rulemaking would impermissibly expand the scope of the rulemaking or require legislative action but are worthy of discussion and consideration by means other than this rulemaking. IRRC Comments at 3.

Every provision in the instant final-form regulation is consistent with the Pennsylvania Constitution and statutes. Further, we conclude that every provision in the final-form regulation is fully authorized by Title 66 and consistent with case law. Our specific obligation under the Public Utility Code is that our decisions result in just, reasonable, and reliable public utility service, in this matter that means just, reasonable, and reliable service from the regulated community, *i.e.*, hazardous liquid pipeline utilities. We have considered the concerns addressed by the ERA, just as we considered them in various high voltage transmission line siting cases. *See Application of Transource Pennsylvania LLC, Docket No. A-2017-2587821* (Order entered January 23, 2018), affirmed in *Transource Pennsylvania, LLC and PPL Electric Utilities Corporation v. Pa. Pub. Util. Cmm'n*, 278 A.3d. 942 (Pa. Cmwlth. 2022). The PUC's regulations must adhere to its obligations under and within the Public Utility Code without conflicting with other Pennsylvania Constitutional, statutory and regulatory provisions or conflicting with the U.S. Constitution or Federal statutes or regulations. This regulation addresses, inter alia, construction, O&M and corrosion control standards for hazardous liquid pipelines, as well as accident and other reporting, personnel qualifications, and land agent qualifications for hazardous liquid public utilities operating in Pennsylvania, provisions which are squarely within the PUC's authority and obligations under Pennsylvania and Federal law.

A more comprehensive and complete regulatory framework for hazardous liquid public utilities would address concerns regarding aging pipeline infrastructure and pipeline integrity in the State. As such, this rulemaking aims to limit the occurrence of accidents, sinkholes, subsidence, landslides, and complaints in Pennsylvania by imposing more stringent requirements for hazardous liquid public utilities in the areas of: reporting, design, construction, HDD and TT or direct buried technologies, pressure testing, O&M, pipeline personnel, land agents, and corrosion control.¹² As noted in the *Compendium of*

¹² The ways in which each section of the proposed regulations will address concerns in Pennsylvania are delineated in the respective sections of this Final Rulemaking Order.

State Pipeline Safety Requirements & Initiatives Providing Increased Public Safety Levels compared to Code of Federal Regulation, many States have adopted more stringent requirements to satisfy specific local needs for public safety. *Compendium of State Pipeline Safety Requirements & Initiatives Providing Increased Public Safety Levels compared to Code of Federal Regulation*, National Association of Pipeline Safety Representatives, 3rd Ed., at 6-9 (February 2022) <https://www.phmsa.dot.gov/working-phmsa/state-programs/federalstate-legislative-authorities> (*Compendium*).

Moreover, in Section 59.133, this rulemaking provides that future amendments to the Federal regulations will automatically take effect for purposes of the PUC's regulations after 60 days, unless otherwise directed, and that future amendments to the Federal regulations that are more stringent than the PUC's requirements under proposed Sections 59.131—59.143 will control. To implement Section 59.133 and assist hazardous liquid public utilities with compliance, the PUC may issue secretarial letters, orders, or other guidance documents as changes in the Federal regulations take place.¹³ Section 59.133, coupled with such guidance documents, will ensure consistency with any changes in the minimum standard due to PHMSA rulemakings and ensure that any more stringent requirements imposed by PHMSA take precedent in Pennsylvania.¹⁴

F. Minimum Federal Standards

Title 49 of the Code of Federal Regulations Part 195 contains applicable minimum federal standards. 49 CFR §195.1 provides in pertinent part:

¹³ IRRC questioned how the PUC will ensure that the regulated community complies with the most current regulations when the Federal minimum standards are updated. IRRC Comments at 7. In addition to issuing secretarial letters, orders, and other guidance documents as changes in the Federal regulations take place, we note that the PUC is authorized to issue declaratory orders to terminate a controversy or remove uncertainty and that members of the regulatory community may request a waiver of a regulation or requirement, if necessary. 66 Pa.C.S. § 331(f) (relating to powers of commission and administrative law judges); 52 Pa. Code §§ 1.91, 5.42 (relating to applications for waiver of formal requirements; petitions for declaratory orders).

¹⁴ The consistency of each section of the proposed regulations with PHMSA rulemakings is addressed in the corresponding sections of this Final Rulemaking Order.

Which pipelines are covered by this part?

(a) *Covered*. Except for the pipelines listed in paragraph (b) of this Section, this Part applies to pipeline facilities and the transportation of hazardous liquids or carbon dioxide associated with those facilities in or affecting interstate or foreign commerce, including pipeline facilities on the Outer Continental Shelf (OCS). Covered pipelines include, but are not limited to:

(1) Any pipeline that transports a highly volatile liquid; . . .

The PUC and Sunoco have differed in their interpretations of Part 195 and its applicability to ME1, ME2 and ME2X. In *Baker*, at 30, the PUC held:

Upon review of the language of Part 195, we conclude that Sunoco's proposed restrictive reading of the statutory language is incorrect. We further conclude that the ALJ's analysis of the language was correctly applied in this case to conclude that Sunoco is obligated to meet the minimum standards required by Part 195. Accordingly, we shall deny Sunoco's Exception No. 11, and adopt the ALJ's conclusion that 49 CFR Part 195 is applicable to ME1 ME2 and ME2X, including the public awareness and outreach provisions.

By having our own State-specific regulations in addition to federal minimum standards, Pennsylvania may enforce greater public outreach, notification, training and other important standards in an effort to keep the public safe.

Sunoco and Laurel already must comply with public awareness standards at 49 CFR Section 195.440, which incorporates by reference API RP 1162. Despite the recommended practice calling for enhanced public awareness programs including: increased frequency of mailings to the affected public, holding public meetings prior to planned construction activities in a community, and increasing the buffer areas for mailings when the lines and product has changed properties to warrant a unique tailoring of this requirement to the fact-specific situation, Sunoco generally was of the opinion that

it need only comply with the bare minimal federal requirements, despite having simultaneously numerous open construction sites across 350 miles and 17 counties in Pennsylvania. There was at least one instance when Sunoco refused to meet with the affected public to address questions and concerns about ongoing construction activities in Lower Frankford Township, Cumberland County. There was one instance of Sunoco receiving a NOPV from PHMSA regarding inadequacies in its public awareness program.¹⁵

There are minimum design requirements for new pipeline systems constructed with steel pipe and for relocating, replacing or otherwise changing existing systems constructed with steel pipe. *See* Sections 195.100 – 195.115. Section 195.202 requires “each pipeline system must be constructed in accordance with comprehensive written specifications or standards that are consistent with the requirements of this part.” Inspections are governed by Section 195.204 which provides that no person may be used

¹⁵ *See* a pending proceeding at *Sunoco Pipeline, L.P. v. U.S. Dep’t of Trans., et al.*, Case No. 1:21-cv-01760-TSC, United States District Court for the District of Columbia. The appropriate remedial process for alleged deficiencies in a public awareness plan required under 49 CFR § 195.440 is for FERC or the United States Department of Transportation to issue a notice of amendment, a warning, or in rare occasions after all other enforcement methods have been exhausted, a compliance order with the potential for a civil penalty. (*Sunoco V. USDOT*). *See In re the Matter of Toledo Refining Company, LLC*, Case No. 3-2014-5001M (Dep’t of Transp.) (Closure Letter May 13, 2016), https://primis.phmsa.dot.gov/comm/reports/enforce/CaseDetail_cpf_320145001M.html?nocache=6907 (defendant ordered to amend public awareness plan distributed to the public because it did not include all baseline messages required by API RP 1162); *In re the Matter of Nova Chemicals (dba Vantage Pipeline)*, Case No. 3-2018-5006W (Dep’t of Transp.) (Warning Letter July 3, 2018), https://primis.phmsa.dot.gov/comm/reports/enforce/CaseDetail_cpf_320185006W.html?nocache=9516 (company issued warning letter for failure to include convey all baseline messages using printed material); *In re the Matter of ONEOK Partners LP*, Case No. 3-2017-5005 (Dep’t of Transp.) (Final Order March 29, 2018; Closure Letter March 30, 2018), https://primis.phmsa.dot.gov/comm/reports/enforce/CaseDetail_cpf_320175005.html?nocache=3204 (company issued warning regarding failure to include provisions in public education program to educate the public on all hazards associated with unintended release in 2013; company fined in 2018 after additional instance of failing to include these provisions); *In re the Matter of Mid-Valley Pipeline Company*, Case No. 3-2003-5022 (Dep’t of Transp.) (Final Order January 3, 2006), https://primis.phmsa.dot.gov/comm/reports/enforce/CaseDetail_cpf_320035022.html?nocache=6267 (company fined \$15,000 for failure to keep record of material distributed to affected public, emergency responders, local officials, and other appropriate figures).

to perform inspections unless that person has been trained and is qualified in the phase of construction to be inspected. Further any operator personnel used to perform the inspection must not have been the same personnel performing the construction task requiring inspection. Some other pertinent regulations include but are not limited to: 49 CFR 195.49 (relating to filing annual reports by June 15th to PHMSA), 49 CFR §195.50 (relating to accident reporting), 49 CFR §195.210 (relating to pipeline location , 49 CFR §195.248(a) (cover over buried pipeline and depth of cover), 49 CFR §195.248(d)-(e)(relating to nondestructive testing of welds), 49 CFR 195.440 (relating to public awareness), 49 CFR 195.452 (relating to pipeline integrity management in high consequence areas).

IRRC also notes commentors pointed to several PHMSA rulemakings that are underway and asks the PUC to ensure that this rulemaking is consistent with Federal rulemakings. We endeavor to achieve the goals of preventing accidents associated with natural and manmade occurrences as well as improved monitoring of design, construction, operations, and personnel concerns regarding pipelines in the Commonwealth transporting hazardous liquids while we continue to monitor and enforce compliance with federal regulations as set forth in 49 CFR Parts 195 and 199.

Since the PUC's rulemaking process began in this matter, PHMSA enacted a final rule in Pipeline Safety: Requirement of Valve Installation and Minimum Rupture Detection Standards, PHMSA-2013-0255, 87 FR 20940, Final Rule Publication: April 8, 2022, Effective Dates: October 5, 2022, and April 10, 2023. 87 FR 20940. In response to major catastrophic pipeline incidents, Congressional directives are the driving force behind the revisions to PHMSA's regulations, which apply to newly constructed and entirely replaced onshore Type A gathering lines and hazardous liquid pipelines with diameters of 6 inches or more. The revised regulations require operators to install automatic shut-off valves or equivalent technology for prevention or mitigation of pipeline ruptures. Stipulations for valve spacing, maintenance, inspection and risk

analysis are all addressed as well as requiring operators to immediately notify emergency service of a potential rupture and conduct a post-accident investigation, among other things. This final rule amends 49 CFR Parts 192 and 195. Because this rule addresses the concerns we had about valves and leak detection, we have decided not to promulgate some of the proposed regulations regarding valves, leak detection and odorant.

G. Public Participation Process

Prompted by the events described above, including several complaints against hazardous liquid public utilities constructing or repurposing pipelines to transport hazardous volatile liquids, the PUC opened two concurrent rulemaking proceedings in 2019 regarding pipeline regulations. Specifically, on June 13, 2019, a NOPR was entered in which the PUC proposed to require crude oil, gasoline, and petroleum products transportation pipeline public utilities to file annual depreciation reports, service life study reports, and capital investment plan reports in accordance with existing provisions which are presently limited to electric, water, and natural gas utilities. *See Rulemaking Regarding Depreciation Reporting and Capital Planning for Crude Oil, Gasoline or Petroleum Products Transportation Pipelines 52 Pa. Code Chapter 73*, Docket No. L-2019-3010270; 49 Pa.B. 5702 (October 5, 2019); IRRC # 3244; Fiscal # 326.¹⁶ (*Proposed Reporting Rulemaking* at L-2019-3010270). Chapter 73 would have related to annual depreciation reports, service life studies and capital investment plans.

On June 13, 2019, the PUC entered an advance notice of proposed rulemaking (ANOPR), at Docket No. L-2019-3010267, inviting comments on the amendment and enhancement of Chapter 59. The ANOPR was published in the *Pennsylvania Bulletin* on June 29, 2019. 49 Pa.B. 33166 (June 29, 2019). Over 90 comments were received and reviewed by the PUC.

¹⁶ <https://www.irrc.state.pa.us/regulations/RegSrchRslts.cfm?ID=3255>.

Thereafter, on July 15, 2021, at Docket No. L-2019-3010267, a NOPR was entered proposing the promulgation of new regulations at §§ 59.131—59.143. 52 Pa.B. 992 (February 12, 2022); IRRC # 3330; Fiscal # 57-335.¹⁷ The new regulations, building on the ANOPR, were proposed to be applicable to intrastate hazardous liquid public utilities. The PUC and PHMSA agree that the PUC is a certified State participating in PHMSA’s hazardous liquid pipeline safety program and that the PUC has adopted and enforces, at a minimum, all federal pipeline safety standards at 49 CFR Parts 195 and 199 (relating to transportation of hazardous liquids by pipeline and drug and alcohol testing, respectively), which govern the construction of and transportation through hazardous liquid pipelines. The regulations proposed in the NOPR included: accident reporting; construction; operation and maintenance; HDD and TT; public awareness and emergency responder training; design requirements; pressure testing; corrosion control; depth of cover and distance from other structures; qualification of pipeline personnel; and land agents. The NOPR requested public comment on proposed regulations to enhance the efficacy of Chapter 59 of Title 52 Pa. Code to enable the PUC to more comprehensively regulate public utilities transporting petroleum products including hazardous liquids in intrastate commerce. The PUC received approximately 70 comments to its NOPR.¹⁸

¹⁷ <https://www.irrc.state.pa.us/regulations/RegSrchRslts.cfm?ID=3341>.

¹⁸ The public comment period opened on February 12, 2022. Comments were due by April 13, 2022, and reply comments were due by May 13, 2022. Public comments to the NOPR were timely filed by: Alexander, George; Association of Materials Protection and Performance (AMPP); Association of Oil Pipelines (AOPL), American Petroleum Institute (API), American Fuel and Petrochemical Manufacturers (AFPM), and GPA Midstream Association (GPA) (collectively Associations); Baker, Earl; Bauerlein, Luke, Beaver County Chamber of Commerce; Boilermakers Local 13; Builders Guild of Western Pennsylvania; Burrell Township; Burton, Kristine; Chester County; Clear Air Council, et al., (collectively Clean Air Council, Delaware Riverkeeper Network, Del-Chesco United for Pipeline Safety, Environmental Integrity Project, Food and Water Watch, Mountain Watershed Association, PennFuture, and Pipeline Safety Coalition (collectively Environmental Advocates); Consumer Energy Alliance (CEA); Department of Environmental Protection (DEP); DiGiulio, Christina; East Goshen Township; Edgmont Township; Emory, Linda; Fuller, Rosemary; Howard, Rep. Kristine; International Brotherhood of Electrical Workers Local 654 (IBEW Local 654); International Union of Operating Engineers Local 66 (IUOE Local 66); Jackson Township; Jacobs, John; Johnston Area Regional Industries (JARI); Kearney, Senator Tim; Madarasz, Libby; Marcellus Shale Coalition (MSC); Marcille-Kerslake, Virginia; McClintock, Judith; Metcalfe, Rep. Daryl D., Chairman and several Representatives in the House Environmental Resources & Energy Committee (Metcalfe); Moran, Catherine; Otten, Rep. Danielle;

In the interim, *Proposed Reporting Rulemaking* at L-2019-3010270 was withdrawn by a final order entered on October 22, 2021. 51 Pa.B. 6924 (November 6, 2021). A copy of that final order was entered into the record at Docket No. L-2019-3010267. In closing that rulemaking, we considered incorporating a service life study requirement into this final form rulemaking. Since that time, the PUC sought direction from PHMSA and was advised that the PUC should determine whether the proposed service life study was preempted by the Pipeline Safety Act. Notwithstanding the guidance provided by PHMSA, PUC declines to add a service life study requirement to this rulemaking and notes that the rulemaking related to the service life study is closed.

Consistent with this rulemaking, on or about July 20, 2023, data requests were mailed to Pennsylvania's two regulated HVL pipeline operator utilities: Sunoco, and Laurel. On or about July 28, 2023, data requests were mailed to three Act 127 pipeline operators not considered to be public utilities within the meaning of 66 Pa.C.S. § 102. These Act 127 pipeline operators are: MIPC, LLC, Kiantone Pipeline Corp., and MPLX LP. The letters asked for responses within 20 days regarding: 1) estimations as to incremental cost to increase depth of cover of a HVL pipeline within an agricultural area if required by proposed regulations; 2) incremental costs to relocate a pipeline away from a building as required by the proposed regulations including costs related to taking an active pipeline out of service versus an inactive pipeline; 3) best and worst case cost estimates to relocate a pipeline to maintain a 12-inch clearance from other underground structures or pipelines; 4) construction costs regarding welding non-destructive tests

Pennsylvania Chamber of Business and Industry; Pennsylvania Energy Infrastructure Alliance (PEIA); Perry, Greg; Pittsburgh Works Together; Pontecorvo, Christine; Pontecorvo, Maureen; PureHM; Responsible Drilling Alliance(RDA); Range Resources – Appalachia, LLC (Range Resources); Robinson, Patrick; Salem Township, Westmoreland County; Shepstone Management Company, Inc. (SMCI); Shirley Township; Snyder, Lora; Steamfitters Local 420; Sunoco Pipeline, LP (Sunoco); Uwchlan Township; Washington County Chamber of Commerce; Washington Township; West Whiteland Township; Young, Connor. Premature comments were filed by: Comitta, Sen. Carolyn; Pipeline Safety Trust (PST); County Commissioners Association of Pennsylvania; and McClintock, Judith. Ms. McClintock filed timely comments during the reply comment period that ended May 13, 2022.

(NDT) during a pipeline construction project; 5) cost for protection of valve stations; pressure testing costs; in-line inspection (ILI) tool run costs; 6) leak detection and training costs; and 7) incremental cost of close interval survey runs including paved and unpaved areas in an urban environment.

On August 24, 2023, Laurel responded, and the response was attached to this docket on August 28, 2023. On September 20, 2023, Sunoco responded with a password-protected share file letter that could be viewed by Law Bureau Staff but not stored on the PUC's computer system, the entirety of which was marked as containing Confidential Security Information (CSI) not subject to disclosure to other parties under the provisions and procedures specified in the Public Utility Confidential Security Information Disclosure Protection Act (35 P.S. §§ 2141.1—2141.6) (PUCSIDPA) and the PUC's regulations implementing the PUCSIDPA at 52 Pa. Code §§ 102.1—102.4. Sunoco also claimed that some of its answers should not be disclosed to the public as they contained trade secrets/competitively sensitive information. Upon request of Law Bureau Staff, on December 12, 2023, Sunoco filed a non-proprietary version of its response to the data request redacting confidential portions.

On October 9, 2023, MIPC LLC emailed its response that was attached to this docket on October 12, 2023. To date, neither MPLX, LP, nor Kiantone Pipeline, Corp., has responded to the data request.

H. Summary Of Regulatory Requirements

With this final rule, hazardous liquid public utilities will have Pennsylvania-specific safety standards to comply with in addition to federal PHMSA regulations. These are summarized as follows.

- Make maps accessible to the Pipeline Safety Section upon request.

- Notify the Pipeline Safety Section no later than 60 days before conversion occurs.
- Adhere to *Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service*, PHMSA Advisory Bulletin ADB-2014-04, Docket No. 2014-0040; 79 FR 56121-56122.
- Following an accident that causes any of the results identified in 49 CFR 195.50 (relating to reporting accidents), provide to the Pipeline Safety Section an unredacted failure analysis report based on laboratory testing within 120 days of an accident or within 10 days of the report completion, whichever comes first. Thirty (30) days' extensions of the deadline may be requested. The Pipeline Safety Section has authority to grant or deny requests upon a showing of good cause for extensions of the deadline.
- The failure analysis must be conducted by a Pipeline Safety Section-approved independent third-party laboratory.
- Root cause analysis reports identifying the contributing factors to an accident must also be provided to the Pipeline Safety Section within 120 days of the accident or within 10 days of report completion, whichever comes first. The root cause analysis must be conducted by a Pipeline Safety Section-approved independent third-party consultant. If the root cause analysis report cannot be completed within 120 days, the hazardous liquid public utility shall request, in writing to the Pipeline Safety Section, a 30-day extension to submit this report. Additional 30-day extensions may be requested for good cause thereafter. The hazardous liquid public utility shall provide the Pipeline Safety Section with status reports every 14 days during an extension.
- Upon receipt of an accident notification from the Pipeline Safety Section, a hazardous liquid public utility shall submit a recommendation to the Pipeline Safety Section regarding the third-party laboratory that will

conduct the failure analysis and the third-party consultant that will conduct the root cause analysis within 20 days. The Pipeline Safety Section will review the hazardous liquid public utility's recommendation and will approve or disapprove the recommendation within 14 days of submission. If the recommendation is not approved or disapproved within 14 days, the hazardous liquid public utility's recommendation is presumed approved. If disapproved, the Pipeline Safety Section will describe in detail the reasons for disapproval.

- The hazardous liquid public utility may appeal the determination of the Pipeline Safety Section in accordance with § 5.44 (relating to petitions for reconsideration from actions of the staff).
- Once approved, a pipeline operator need not seek reapproval for its third-party vendor.
- At the earliest practicable moment following discovery of a release of the hazardous liquid transported resulting in an event described in 49 CFR 195.50, but no later than one hour after confirmed discovery, the hazardous liquid public utility shall report the accident to the Pipeline Safety Section and to emergency responders, via telephone call and electronic mail.
- Notify the Pipeline Safety Section of the following: (1) proposed major construction, major reconstruction, or major maintenance involving an expenditure in excess of \$300,000 or 10% of the cost of the pipe in service, whichever is less, 30 days prior to commencement; (2) maintenance, verification digs, and assessments involving an expenditure in excess of \$50,000, and the unearthing of suspected leaks, dents, pipe ovality features, cracks, gouges or corrosion anomalies, or other suspected metal losses 10 days prior to commencement; (3) excavation damages, washouts, or unplanned replacements of any pipeline section or cut out immediately; (4) a change in excavation technique (e.g., from open cut to TT or vice versa, as well as a change from one TT type to another TT type) to the hazardous

liquid public utility's established construction methodologies 48 hours prior to commencement; (5) the introduction of a hazardous liquid 30 days prior to the introduction. This notice must also be given to public officials in writing at least via electronic mail.

- Notices to the Pipeline Safety Section must contain certain information enumerated in the regulations.
- Provide annually on or before June 15 to the Pipeline Safety Division a copy of its annual report under 49 CFR 195.49 for each type of hazardous liquid pipeline facilities operated at the end of the previous year at the time it makes the Federal submission and a report that details its jurisdictional tariffed assets in the Commonwealth as reflected in its federal report.
- Neither construct a new nor relocate or convert an existing pipeline under any building or dwelling including private dwellings, industrial buildings, and buildings intended for human congregation. This requirement does not apply to the repair or replacement of existing pipelines.
- Nondestructively test all girth welds. Exceptions to non-destructive testing are adopted by reference from 49 CFR 195.248(d)-(e).
- Specify the intervals in its operations and maintenance procedures at which it verifies depth of cover and maintain the depth of cover required by federal law for all pipe actively in use for transporting hazardous liquids.
- Construct and subsequently maintain a minimum of 12 inches of clearance between the outside of the pipe and the extremity of any other underground structure, including structures owned by the hazardous liquid public utility and foreign structures. Pre-existing constructed pipelines on the effective date of this subsection are exempt from this requirement. This applies to new construction with no exception for circumstances where there is cathodic protection on the pipes.

- Install vehicle barriers at an above-ground valve station adjacent to a roadway to protect the above-ground valve station from vehicles. An exception is when the physical characteristics of a valve station render vehicle barriers unnecessary, i.e., the valve has a natural berm or barriers that would render an additional vehicle barrier unnecessary. This requirement is not retroactive to existing valve stations.
- At least 30 days prior to commencement of HDD, TT, or direct buried construction, a hazardous liquid public utility shall provide notice of the date construction will commence to: (1) The Pipeline Safety Section via electronic mail; (2) local government officials, and county emergency management through electronic mail; (3) the affected public, via door cards, regular mail and local newspaper notices. If the date of commencement of HDD, TT, or direct buried construction is extended or delayed, renotify the Pipeline Safety Section, local government officials, and county emergency management by electronic mail of the date the HDD, TT, or direct buried construction will commence.
- Hold at least one planned public meeting with local government, residents and emergency responders at least thirty days before the commencement of drilling within the boundaries of the jurisdictions of the local governments.
- Give twenty-four-hour notice via electronic mail and telephone call to the Pipeline Safety Division Supervisors and Managers. Provide the names of all municipalities affected and GPS coordinates of the entry point of the drilling operation. Provide the date when drilling will begin prior to the commencement of HDD, TT, or direct buried construction.
- Regarding a pipeline with a bore diameter 8 inches or greater, a bore depth greater than 10 feet, or pipeline length greater than 250 feet, conduct an analysis of geological and environmental impacts. An analysis similar in format to the Department of Environmental Protection's *Trenchless Technology Guidance, Document No. 310-2100-003*, as amended and

updated, or in a manner at least as protective of public health, public safety and the environment which meets all applicable statutory and regulatory requirements, satisfies this requirement. The analysis shall be made available to the Commission upon request.

- Develop a written preparedness, prevention and contingency plan that addresses: (1) potential environmental impacts from drilling fluid discharges; (2) potential impacts to public and private water supplies; and (3) underground mining and karst terrain. Provide this plan to the Commission upon request.
- Conduct a geotechnical evaluation of subsurface conditions before and after construction along a pipeline facility using appropriate geophysical techniques as recommended by a professional geophysicist, professional geologist or professional geotechnical engineer licensed in that field.
- Conduct geotechnical sampling at the locations where suspected anomalous conditions are identified through geophysics and conduct post-construction geophysics within 30 days of pipeline installation using the techniques as recommended by the professional geophysicist, professional geologist or professional geotechnical engineer.
- Maintain the integrity of affected pipeline facilities and take actions to mitigate risk including: (1) beginning mitigation of all adverse environmental impacts as soon as practicable and notifying the Pipeline Safety Section within two hours of determination with a follow-up action plan within 24-hours of determination of the impact if anomalous conditions are found; (2) performing pipeline shut in or pressure reductions; (3) following 49 CFR 195.55 (relating to reporting safety-related conditions) and applicable state laws and regulations.
- Provide the Pipeline Safety Section with design plans, project costs, geotechnical reports, proof of notifications, estimated start and completion dates.

- Establish and maintain liaison with emergency responders and consult with them in developing and updating an emergency procedures manual addressing emergency procedures and activities including the following: (1) reasonable and practicable steps to inform emergency responders of the practices and procedures to be followed to provide them with relevant information, including information regarding the product in the pipeline and the associated risk; (2) a continuing education program for emergency responders and the affected public to inform them of the location of the pipeline, potential emergency situations involving the pipeline and the safety procedures to be followed in the event of an emergency; (3) semi-annual tabletop drills and annual response drills to simulate a pipeline emergency. The table-top drills must be conducted on different pipelines and products and in the counties where the hazardous liquid public utility's pipelines are located.
- Communicate and conduct liaison activities at least twice a year with emergency responders in person, with some exceptions.
- Conduct an annual hazard assessment zone analysis and present its findings to emergency responders that have executed a nondisclosure agreement within 60 days of completion of the analysis.
- When a school building containing classrooms or school facility where students congregate located within 1,000 feet, or within the lower flammability limit (LFL), of a pipeline or pipeline facility, whichever is greater, a hazardous liquid public utility shall maintain and, upon request, provide the Pipeline Safety Section, with the following information: (i) The name of the school and the contact information for the school administrators; (ii) The street address of the school building or facility; and (iii) Pipeline identification information.
- Upon written request from a school administrator with a school building or facility where students congregate within 1,000 feet, or within the LFL, of a

pipeline or pipeline facility, whichever is greater, provide in writing parts of a pipeline emergency response plan that are relevant to the school and appear at a regularly scheduled meeting of school administrators, upon request by the school administration, to explain.

- Provide enhanced baseline messages, as prescribed in Table 2-1 of API RP 1162:
 - (i) To the affected public at least twice a year, with additional frequency and supplemental efforts as determined by specifics of the pipeline segment or environment under Section 6 of API RP 1162. The message must include a warning that a leak from the hazardous liquid pipeline can cause property damage, personal injury, burns, asphyxiation, or death, or any combination of these damages and injuries.
 - (ii) To emergency responders at least twice a year, with additional frequency and supplemental efforts as determined by specifics of the pipeline segment or environment under Section 6 of API RP 1162.
 - (iii) To public officials annually with additional frequency and supplemental efforts as determined by specifics of the pipeline segment or environment under Section 6 of API RP 1162.
- Hold at least one open house or group meeting annually whereby the affected public can receive information or an overview as part of the hazardous liquid public utility's Supplemental Activities for the Affected Public, as prescribed in Table 2-1 of API RP 1162.
- Meet with emergency responders once per quarter to discuss emergency response as part of the hazardous liquid public utility's Baseline Activities for Emergency Officials, as prescribed in Table 2-1 of API RP 1162.
- Meet with public officials annually, upon request.

- Evaluate a written continuing public education program annually. An update to a program must be provided to the Pipeline Safety Section for review for compliance with 49 CFR 195.440 (relating to public education).
- Place line markers for buried and above-ground pipelines as follows:
 - (1) Along a pipeline's right-of-way in such a manner that two line markers, one in each direction, are visible at any point while standing at ground level at the pipeline, except in a heavily developed urban areas where the placement of the markers is impractical. In a heavily developed urban environment, the hazardous liquid public utility shall use low-profile markers.
 - (2) At either side of a water crossing.
 - (3) At all above-ground pipeline appurtenances.
- Inspect pipeline facilities in non-high consequence areas (non-HCAs) using ground patrol at least twice a year, not to exceed every 6 1/2 months, and in high consequence areas (HCAs) using ground patrol at least four times a year, not to exceed every 3 1/2 months. The ground patrol must include inspection along the right-of-way to ascertain surface conditions on or adjacent to the right-of-way. The ground patrol path must not exceed lateral distance of 25 feet from the center of the right-of-way.
- Determine the need for remote controlled EFRDs in consultation with public officials in all HCAs. The need for emergency flow restriction devices in HCAs must be based on limiting the LFL to 660 feet on either side of a pipeline.
- Qualify an individual that performs covered tasks and construction tasks, on a pipeline facility. Qualification programs must include certain content, be maintained, and provided to the Pipeline Safety Section upon request.
- Be responsible for ensuring land agents hold a valid Pennsylvania professional license in one of the following fields: attorney, real estate

salesperson, real estate broker, professional engineer, professional land surveyor or professional geologist.

- A land agent's Pennsylvania professional license must be in good standing during the performance of the land agent's work or services on behalf of the hazardous liquid public utility. If not, the hazardous liquid public utility may be assessed a civil penalty pursuant to 66 Pa. C.S. § 3301, *et seq.*
- Have written procedures for the design, installation, operation and maintenance of cathodic protection systems. The procedures must be specific and written for each cathodic protection test, survey, and inspection and must be carried out by, or under the direction of, a qualified person.
- Each pipeline must be tested at least once each calendar year, with intervals not exceeding 15 months. Each impressed current ground bed must be tested as part of this monitoring.
- Each non-remote cathodic protection rectifier must be inspected once each calendar month with intervals not exceeding 37 days to ensure that it is operating properly. Remote monitoring devices are permissible to accomplish monitoring; however, if the remote device stops reporting or reports operations outside the expected parameters, then the remote device must be inspected within a reasonable time period not to exceed 7 days from date of discovery.
- Each reverse current switch, each diode, and each interference bond whose failure could jeopardize structure protection on a pipeline transporting HVLs must be electrically checked for proper performance 12 times each calendar year, with intervals not exceeding 37 days.
- Initiate actions to start remedial measures within 30 days upon discovery to correct any deficiencies indicated by the monitoring. At no point shall the completion of the remedial measures exceed the next scheduled inspection.

- Have a written continuing program to minimize the detrimental effects of stray currents from foreign pipelines, railways, mining operations or other current sources such as stray current. The program must include provisions for adequately documenting actions and activities for mitigating interference currents. Each impressed current system shall be designed and installed to minimize detrimental effects to foreign pipelines and other underground metallic structures.

I. Summary Comparison Of Proposed Annex To Final-Form Regulation

A summary comparison of the NOPR with this FFRO is as follows:

- Amendments to definitions: affected public, covered task, emergency responder, geotechnical hazard, ground patrol, pipe, and public official.
- New definitions: table-top drill, school, response drill, OQ, O&M, flow reversal, conversion to service, construction task, and commodity change.
- Removal of definition of HLPSA.
- Extensions to 120 – day deadline may be granted for providing failure analysis and root cause analysis reports.
- Once approved, there is no need to seek reapproval of a third-party laboratory vendor.
- Pipeline Safety Section may revoke approval for violations of approval standards.
- Additional notification requirements prior to construction.
- Removal of design requirements regarding external loads.
- New requirement to provide annual reports to Pipeline Safety Section by June 15th of each year showing each type of hazardous liquid pipeline facility operated at the end of the previous year and detailing jurisdictional tariffed assets in the Commonwealth of Pennsylvania as reflected in its federal report to PHMSA.

- Modification of construction of pipeline location regulation.
- Removal of prohibition of the use of miter joints of any deflection.
- Adding exceptions to nondestructive testing of welds.
- Removal of minimum requirement of 40 inches depth of cover in commercial farmland.
- Minimum clearance of 12 inches between outside of pipe and extremity of any other underground structures applies only to new construction. Pre-existing constructed pipelines on the effective date of this rule are exempt from this requirement.
- Removal of standards regarding valves for pipelines transporting HVLs.
- There is an exception for vehicle barriers applicable to new construction of valve stations.
- Modified notification requirements before HDD and TT construction.
- Amendments made to geological and environmental impact testing and reporting requirements.
- Removal of Pressure Testing requirements
- Amendments to operations and maintenance requirements include a new annual requirement to conduct response drills in addition to table-top drills.
- In baseline messages to the affected public, the message content must include a warning that a leak from a hazardous liquid pipeline can cause property damage, personal injury, burns, asphyxiation, or death, or any combination of these damages and injuries.
- Removal of leak detection and odorization requirements.
- Amendment to OQ and land agents' requirements.
- Amendments to corrosion control standards.
- Removal of additional criteria for cathodic protection.
- Removal of Close Interval Survey requirements.

II. DISCUSSION

A. Gas Service And Facilities Provisions

References herein are to the final-form regulation in Annex A. References in comments and reply comments have been adjusted to reflect the structure of the final-form regulation in Annex A.

In the NOPR, the PUC proposed revising the existing “Service and Facilities” undesignated center head for Sections 59.11—59.38 to “Gas Service and Facilities” and removing all references to “hazardous liquid public utilities” in Section 59.33. This revision was intended to indicate that Sections 59.11—59.38 of the PUC’s existing regulations are applicable to only natural gas distribution public utilities.

We also proposed that Section 59.33, relating to safety, would continue to fall under the heading for “Gas Service and Facilities.” Currently, Section 59.33 addresses both natural gas distribution utilities and hazardous liquid public utilities. We proposed to remove all references to “hazardous liquid public utilities” in Section 59.33. Thus, we proposed to amend Section 59.33(b)¹⁹ and mark Section 59.33(c) as “Reserved.”

The Association of Oil Pipelines (AOPL), the American Petroleum Institute (API),²⁰ the American Fuel and Petrochemical Manufacturers (AFPM), and the GPA Midstream Association (GPA), (collectively, The Associations), recommend changing the title from “Safety” to “Federal Pipeline Safety Standards,” asserting that it would more accurately reflect the purpose of this section. We agree with The Associations that the title of Section 59.33 should be amended but decline to adopt The Associations’

¹⁹ We have changed the citations to the United State Code from “U.S.C.A.” to “U.S.C.” in Sections 59.33 and 59.133 in the final-form regulation.

²⁰ API is the only national trade association representing all facets of the natural gas and oil industry. API was formed in 1919 as a standards-setting organization and, as of 2024, has developed more than 800 standards to enhance operational and environmental safety, efficiency, and sustainability. *See* <https://www.api.org/about> and <https://www.api.org/about#tab-origins> (last accessed 2/2/2024).

proffered title. Accordingly, we amended the title of Section 59.33 to read “Minimum Safety Standards.”

In conjunction with the revisions to Section 59.33, we proposed in the NOPR to create a new undesignated center head within Chapter 59 to encompass the “Hazardous Liquid Public Utility Safety Standards.” We have amended the title of Chapter 59 such that it will now be “Chapter 59. GAS SERVICE AND HAZARDOUS LIQUID SERVICE.” Additionally, we are still adopting by reference 49 CFR Parts 195 and 199 as minimum pipeline safety regulations applicable to intrastate hazardous liquid pipeline systems within the PUC’s jurisdiction. However, we have moved this provision from Section 59.33 to Section 59.133(a).

B. Hazardous Liquid Public Utility Safety Standards

As noted above, in the NOPR, we proposed to establish a new undesignated center head within Chapter 59 for the “Hazardous Liquid Public Utility Safety Standards.” We explained that the new regulations under this undesignated center head at Sections 59.131—59.143 would be applicable only to hazardous liquid public utilities. The stakeholders generally do not object to this approach, and that it is appropriate. Accordingly, this undesignated center head has been retained in Annex A.

1. General Matters

a. PUC Authority

IRRC notes that commentors opposing this rulemaking assert that it is not compatible with Federal pipeline safety standards, while commentors supporting this rulemaking state that it is within the PUC’s statutory authority. IRRC asks the PUC to explain how the more stringent provisions of this rulemaking are compatible with the Federal standards. IRRC states that the PUC should consider revisions to the rulemaking

that do not create a stricter enforcement standard in Pennsylvania. IRRC Comments at 1-2.

As explained in the NOPR, Section 60105(a) of the Federal Pipeline Safety Act (FPSA), 49 U.S.C. § 60105(a), which confers regulatory authority upon PHMSA, contains a preemption clause that expressly allows certified states, including Pennsylvania, to adopt additional or more stringent safety standards for intrastate pipeline facilities and intrastate pipeline transportation only if those standards are compatible with the minimum federal standards. Thus, there is no express preemption of non-conflicting regulations of intrastate pipelines by a certified state. The FPSA permits a State to obtain a certification from PHMSA to assume Federal responsibilities for intrastate pipeline facilities. When a State obtains a certification under Section 60105(a), that State must adopt the minimum Federal standards but may adopt additional, more stringent standards, if those standards are compatible with the minimum Federal standards. 49 U.S.C. § 60104(c); 49 CFR Part 195, Appendix A. Pennsylvania has obtained a Section 60105(c) certification and has adopted the minimum Federal pipeline safety standards. 52 Pa. Code § 59.33; Appendix F – State Program Certification/Agreement Status, Year: 2023, PHMSA (last accessed December 22, 2023) <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2023-11/2023-Appendix-F-State-Program-Certification-Agreement-Status.pdf>.

It is well-established that the FPSA certification program “recognizes that states have a legitimate function to perform with respect to the regulation of intrastate pipeline safety.” *S. Union Co. v. Lynch, et al.*, 321 F.Supp.2d 328, 341 (D.R.I. 2004) (addressing certification with respect to natural gas pipelines). The program allows a State “to add additional or more stringent requirements that can coexist with the federal framework.” *Id.* In other words, the certification “permits a state to lay strata of additional safety measures on top of its basic federal safety standards.” *Id.*

As noted in the *Compendium*, “the overwhelming majority of states do have more stringent requirements.” In particular, States may adopt more stringent requirements to “satisfy specific local needs for public safety.” Thus, Pennsylvania is not unique in establishing a more stringent standard for hazardous liquid public utilities due to its local needs.

In adopting regulations that are more stringent than the Federal standards, the New York Public Service Commission (NYPSC) has likewise recognized that the “Federal gas safety regulations are minimum standards and the Pipeline Safety Act specifically allows states to ‘adopt additional or more stringent safety standards for intrastate pipeline facilities and intrastate pipeline transportation . . . if those standards are compatible with the minimum standards prescribed under this Chapter.’” *Petition of NIC Holding Corp. for a Declaratory Ruling Concerning Compliance with Regulations for Converting and Establishing Maximum Allowable Operating Pressure of Holtsville to Plainview Pipeline*, 2016 N.Y. PUC LEXIS 186, at 27 (N.Y. Pub. Serv. Comm’n Order entered April 20, 2016).²¹ For example, the NYPSC has explained that, although there are both State and Federal requirements for particular testing to determine the design pressure of the weakest element in the segment when any variable necessary to determine the design pressure is unknown, “those requirements are not incompatible” and, therefore, the State requirements are not preempted. *Id.* at 27-34.

²¹ <https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterSeq=48347>

As such, it is well-within the PUC’s authority to establish a more stringent standard for hazardous liquid public utilities in Pennsylvania as other States have done.²² With this Final Rulemaking Order, the PUC ensures that any proposed regulations that are more stringent than the Federal regulations are compatible with the Federal regulations.²³ *See* 49 U.S.C. § 60104(c); 49 CFR Part 195, Appendix A.

b. Act 127 Of 2011

Range Resources – Appalachia, LLC (Range Resources) and Earl Baker commented that the Gas and Hazardous Liquid Pipeline Act, 58 P.S. §§ 801.101—801.1101 (Act 127), Act 127 directly limits the PUC’s authority in regulating any hazardous liquid pipelines. Others, including Marcellus Shale Coalition, International Union of Operating Engineers Local 66 (IUOEL Local 66), and Sunoco claim that the regulations run counter to the sentiment behind Act 127 restrictions. Multiple industrial commenters aver that Federal law preempts the instant rulemaking as it violates the Supremacy Clause of the U.S. Constitution. The Environmental Advocates commented that the PUC has authority and is not preempted by the Supremacy Clause.

IRRC notes that some commentors opposed to this rulemaking assert that the rulemaking conflicts with Act 127 which prohibits the PUC from promulgating regulations that are more stringent than the Federal standards. Conversely, commentors that support this rulemaking point out that Act 127 does not apply to public utilities and is

²² Virginia has rules establishing safety and inspection requirements for intrastate hazardous liquid pipeline systems at 20 Va. Admin. Code § 5-308-10. Maryland has safety standards for hazardous liquid pipelines at title 20, subtitle 58 of the Code of Maryland Regulations. Md. Code Regs. 20.58.01.01-20.58.02.9999. California has hazardous liquid pipeline safety regulations at title 19, Division 1, Chapter 14 of the California Code of Regulations. Cal. Code Regs. tit. 19, §§ 2000-2120. Oklahoma’s Gas & Hazardous Liquid Pipeline Safety regulations are found at title 165 of the Oklahoma Administrative Code, Chapter 20, Subchapter 7. Okla. Admin. Code 165:20-7-1 - 165:20-7-6. Texas’ safety regulations are found at title 16 of the Texas Administrative Code, Part 1, Chapter 8 (Pipeline Safety Regulations). 16 Tex. Admin. Code §§ 8.1-8.315.

²³ The substantive compatibility of each section of the proposed regulations is addressed in the corresponding sections of this FFRO Preamble.

not an impediment to the rulemaking. IRRC asks the PUC to address whether Act 127 is applicable to public utilities, explain the PUC's duties under Act 127, and explain how the PUC will regulate private and public pipelines in light of this rulemaking. IRRC Comments at 2-3.

As noted in the NOPR, the Public Utility Code provides the PUC with the authority to regulate the adequacy, efficiency, safety, and reasonableness of public utility service and facilities, including hazardous liquid public utility service and facilities. 66 Pa.C.S. §§ 102, 501(b), 1501. In particular, Section 1501, requires public utilities to provide “such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public.” 66 Pa.C.S. § 1501.

Act 127 provides the PUC with separate and distinct authority to supervise and regulate non-public utility pipeline operators in the Commonwealth pursuant to Federal pipeline safety laws. 58 P.S. § 801.501. Under Act 127, the term “pipeline operator” explicitly excludes “public utilities.” 58 P.S. § 801.102. As such, Act 127 is not applicable to public utilities, and the PUC does not regulate pipeline operators in the same manner that it regulates hazardous liquid public utilities or other public utilities. Rather, Act 127 gives the PUC authority to enforce Federal pipeline safety laws as they relate to non-public utility gas and hazardous liquid pipelines and non-public utility gas and hazardous liquid pipeline facilities. *Act 127 of 2011 – The Gas and Hazardous Liquid Pipeline Act; Assessment of Pipeline Operators – Jurisdiction over Class 1 Transmission*, Docket No. M-2012-2282031 (Final Order entered June 7, 2012). Pursuant to Act 127, the PUC maintains a registry of pipeline operators, conducts safety inspections of the lines of all pipeline operators in the Commonwealth, and assesses pipeline operators for the costs.

Importantly, this rulemaking does not implicate the PUC’s authority under Act 127 and does not impact Act 127 pipeline operators. We recognize that Act 127 states:

The [PUC] may adopt regulations, consistent with the Federal pipeline safety laws, as may be necessary or proper in the exercise of its powers and perform its duties *under this act*. The regulations shall not be inconsistent with or greater or more stringent than the minimum standards and regulations adopted under the Federal pipeline safety law.

58 P.S. § 801.501 (emphasis added). In this rulemaking, we are not establishing regulations pursuant to Act 127. Instead, we are establishing regulations pursuant to the Code and our certification under Section 60105(a) of the FPSA, 49 U.S.C. 60105(a). Thus, the prohibition in Act 127 on PUC regulations that are more stringent than the Federal standards is not applicable here. However, should an interstate pipeline or other pipeline that is not currently under the jurisdiction of the PUC become reclassified as an intrastate pipeline and become jurisdictional to the PUC as a hazardous liquid public utility, that pipeline shall then be subject to all the requirements of this rulemaking. This requirement is similar to California.²⁴

c. Implementation

IRRC notes that several commentors expressed confusion regarding the activities that trigger compliance obligations and whether the regulations are retroactive in nature. IRRC asks the PUC to clarify the meaning of the phrase “or otherwise changing existing pipelines” in the regulations. IRRC also asks the PUC to explain whether existing pipelines are grandfathered and, therefore, not obligated to comply with the regulations as well as whether the compliance requirements violate Section 60104(b) of the FPSA, 49 U.S.C. § 60104(b). IRRC Comments at 3-4.

²⁴ 19 CCR Section 2106 (relating to intrastate, interstate, and other non-jurisdictional pipelines).

Section 60104 contains a “grandfathering clause,” providing that a “design, installation, construction, initial inspection, or initial testing standard does not apply to a pipeline facility existing when the standard is adopted.” 49 U.S.C. § 60104(b). The application of new regulations to existing facilities covered by the grandfathering clause is not compatible with the FPSA.²⁵ PHMSA has explained, however, that certain circumstances nullify the grandfathering clause in Section 60104(c). PHMSA has stated that the grandfathering clause “remains effective until some condition is changed on the pipeline to nullify the grandfathering clause.” For example, PHMSA has noted that the “significant and considerable construction/reconstruction of facilities” nullifies the grandfather clause. Thus, new regulations are applicable after the grandfathering clause is nullified as to an existing facility. *PHMSA Interpretation Response #PI-93-065*, PHMSA (December 21, 1993) <https://www7.phmsa.dot.gov/regulations/title49/interp/PI-93-065> (*PHMSA Interpretation Response #PI-93-065*).

Further, PHMSA has indicated that the grandfathering clause does not apply to all aspects of regulation. Pipelines in existence before the adoption of Part 195 are exempt from the “design and constructions standards,” but are not exempt from “operating rule[s],” such as Section 195.140 since those rules are not part of the grandfathering clause. Thus, only the items named in the grandfathering clause—design, installation, construction, initial inspection, and initial testing—are restricted when creating new regulations for existing pipelines. *PHMSA Interpretation Response #PI-81-012*, PHMSA (June 17, 1981) <https://www7.phmsa.dot.gov/regulations/title49/interp/PI-81-012> (*PHMSA Interpretation Response #PI-81-012*).

The proposed rulemaking did not intend to propose retroactive design or construction regulations for those pipeline facilities that are existing when the standard is

²⁵ Certified States may adopt “additional or more stringent standards for intrastate pipelines facilities and intrastate pipeline transportation . . . if those standards are compatible with the minimum standards prescribed under this chapter.” 49 U.S.C. § 60104(c).

made effective by operation of law. Consistent with the Section 60104(c) of the FPSA and PHMSA’s interpretation, this rulemaking does not apply new regulations regarding the areas of design, installation, construction, initial inspecting, and initial testing to existing hazardous liquid pipelines in current use in the Commonwealth. 49 U.S.C. § 60104(c); *PHMSA Interpretation Response #PI-81-012*. Some of the proposed regulations have been eliminated as discussed below. The remaining regulations properly state that they apply to new pipelines, or pipelines for which the grandfathering clause has been nullified, by specifying that the regulations apply only if the pipeline has been “converted, relocated, or replaced.” This approach is consistent with PHMSA’s interpretation that the grandfathering clause is nullified when “some condition is changed on the pipeline.” *PHMSA Interpretation Response #PI-93-065*. PHMSA provided “significant and considerable” changes as an example of the changes nullifying the grandfathering clause. The PUC has removed the phrase “otherwise changed” to clarify the meaning of the regulation. *See Id.*

d. Economic Impact

IRRC notes that further information from the PUC is needed regarding the fiscal impact of the rulemaking. IRRC asks the PUC to provide additional information in response to questions in the RAF related to: how the benefits of the regulation outweigh the costs and adverse effects, a specific estimate of costs and/or savings to the regulated community and how the estimates were derived, a summary of costs and savings estimates for the regulated community, local government, and state government, and whether data is the basis for the PUC’s rulemaking. In particular, IRRC asks the PUC to work with the regulated community to ascertain the costs required to comply with the rulemaking and to include documentation, statistics, reports, studies, or research to support the need for the more stringent standards in each section of the rulemaking. IRRC Comments at 5-6.

Various industry-affiliated commenters claimed that this rulemaking would damage Pennsylvania's economy in a general manner.

Range Resources asserts that the proposed regulations would add unnecessary costs across the energy supply chain and ultimately to consumers at a time when citizens are already dealing with significant inflation due to several local and global factors. Range Resources also commented that the NOPR potentially has significant economic impact on the oil and gas industry – with some industry estimates approaching a multi-billion-dollar cost imposition. Range Resources further commented that while the NOPR provides safety standards for operators of pipeline and transmission systems, the economic impact of the NOPR could easily extend to other entities in the oil and gas supply chain, including natural gas production companies such as Range Resources. At a time of rising energy costs, these additional costs would be of consequence to natural gas producers, natural gas processors, natural gas shippers, and ultimately natural gas consumers. Range Resources commented that a full cost economic analysis should be conducted on the proposed regulation before further advancing the rulemaking and that implementation of the regulation as proposed would raise fuel costs for consumers, create community and infrastructure disturbances, disrupt service, and reduce consumer access to fuel and natural gas liquids at a time when supply chain challenges are already being felt by consumers. Range Resources commented that the PUC must balance this impact on reliability and the needs of consumers – key tenets of the mission of the PUC – in advancing the NOPR.

Consumer Energy Alliance (CEA) represents more than 350 member companies nationwide advocating for energy resources. CEA commented that generally, the proposed regulations will result in a multi-billion-dollar imposition for pipeline operators, raising costs for consumers, disrupting service, reducing access to energy and disturbing roads and more landowner properties. The potentially massive costs and delays will lead to new supply chain issues already exacerbated by the pandemic. CEA is opposed to

requiring the lowering of ME1 line to 12 inches of underground clearance as too costly and affecting properties and access along the way.

Earl Baker is a former Chester County Commissioner; State Senator, 19th District; and Former Chair of the State Senate Labor and Industry Committee. Mr. Baker asserts that the rulemaking is redundant, ineffective in improving pipeline safety, disruptive to service, and will burden high energy prices impacting Pennsylvanians. The rulemaking conflicts with PHMSA regulations. Pipelines are a safe and dependable means to transport hazardous liquids and the rulemaking goes beyond necessary requirements, disproportionately impacting hard working Pennsylvanians.

Beaver County Chamber of Commerce opposes the rulemaking, asserting that it would impose new burdens on energy transportation infrastructure, directly impacting businesses, workers and residents of Beaver County, a hub for energy development and related infrastructure including a cracker plant. The proposed regulations amount to a multi-billion-dollar regulatory burden for some pipeline operators in Pennsylvania resulting in higher fuel costs and disruption of service.

Boilmakers Local 13 opposes the rulemaking, asserting that it would add new burdens upon businesses in its community, add to inflation on consumer prices, and hurt reliability of energy supply.

Builders Guild of Western Pennsylvania urges rejection of the rulemaking, asserting that the PUC has failed to show the proposal would not run afoul of PHMSA and that the PUC has not documented the expected cost-of-compliance that this rule would require. Pipelines are safer for transporting hazardous liquids than trucks or railroads. If the implementation of the regulation causes a shift from pipelines to other modes of transport, then it could result in lost jobs and decreased economic vitality while increasing risk to Pennsylvania residents.

International Union of Operating Engineers Local 66 (IUOE Local 66) is a union representing 7,500 members, some working in western Pennsylvania counties. IUOE Local 66 opposes the proposed regulations as comprehensive and asserts that adequate Federal safety regulations already exist as administered by PHMSA. There are environmental advantages and economic advantages to using pipelines as a means of gas transportation. Energy field jobs provide dignified work opportunities and livelihood to the union's members.

Jackson Township, Cambria County, has multiple main pipelines traversing across its community. Jackson Township asserts that unnecessary environmental damage will cause a major disruption to the quality of life and hardships to its residents and local businesses including farmers. There are sufficient Federal and State laws and regulations governing the transportation of hazardous liquids, and the Township opposes further regulations being imposed.

Pennsylvania House Environmental Resources & Energy Committee Members, Representatives Daryl D. Metcalfe, Mike Armanini, Stephanie Borowicz, Bud Cook, Joseph Hamm, R. Lee James, Joshua Kail, Ryan Mackensie, Tim O'Neal, Jason Oritay, Kathy Rapp, Tommy Sankey, Paul Schemel, Perry Stambaugh, Ryan Wagner, and Pam Snyder, (collectively House Committee) jointly commented that the regulation would negatively impact citizens and businesses in their districts and would increase the costs of constructing new pipelines and modifying existing pipelines in an uncertain economic moment when companies are making business decisions regarding which States to invest in. The products shipped have many essential uses in Pennsylvania.

Pennsylvania Energy Infrastructure Alliance (PEIA) comprises more than 30 labor, agriculture, conservation, manufacturing, and other industrial and business interests. PEIA asserts that the proposed regulations conflict with Federal regulations

under PHMSA and would disrupt service reliability, directly impeding the PUC's own mission of providing "safe and reliable utility service at reasonable rates."

Salem Township, Westmoreland County, commented that the Oakford Station & Energy Transfer Terminals has many transfer lines crossing Salem Township. Salem Township does not want its lands dug up and does not support the proposed regulations.

Steamfitters Local 420, Eastern Pennsylvania, and Steamfitters Local 449 jointly opposed the proposed regulations, asserting that the proposed regulations would subject pipelines to unnecessary and costly regulations. The proposed regulations would impose additional regulations that would be costly to consumers and producers and reduce access to butane and ethane energy products much needed throughout the Commonwealth. PUC has not conducted a cost-benefit analysis and that the proposed regulations would be disruptive to roads, properties, pipeline service and access to fuel and natural gas liquids. The proposed regulations would also discourage growth or expansion of the industry.

The Washington County Chamber of Commerce commented that it has 1,200 members that employ over 23,000 people. The community has benefitted from the extraction and transportation of natural gas. The proposed regulations could make it more difficult to transport oil and natural gas by pipeline across the state. The PUC should avoid imposing additional or unnecessary regulations on pipelines that could potentially result in fewer job opportunities, lead to price inflation, or threaten the reliability of energy transportation. The proposed regulations should not be applied to existing in-service pipelines and facilities. That would be a multi-billion-dollar regulatory burden for some pipeline operators in Pennsylvania.

The International Brotherhood of Electrical Workers Local 654 (IBEW Local 654) commented that it is a union of electrical workers that have worked on hazardous liquid pipeline projects. IBEW Local 654 asserts that comprehensive and adequate Federal

safety regulations already exist as administered by PHMSA. Digging sections of existing pipelines and covering those pipelines deeper will increase cost and disruption that could cost up to \$10 million per mile in rural areas and up to \$30 million per mile in urban and suburban areas.

Sunoco commented that the proposed regulations are inconsistent with the federal standards, are vague and overly broad, and could apply retroactively to existing and operational pipelines. Taken together, these proposed regulations, if adopted, will impose unreasonable, arbitrary, and onerous costs upon affected pipeline operators to comply with these requirements. Sunoco estimates that the added cost to implement the requirements to existing pipelines, as currently laid out in the proposed rulemaking, would vary by location – ranging from \$7 to \$10 million per mile in rural areas to \$30 million or more per mile in urban and suburban areas.

Moreover, many pipeline operators, including Sunoco, operate across a variety of jurisdictions. Imposing additional requirements on the intrastate operation of Sunoco's system will also impact Sunoco's interstate operations. This will significantly increase compliance costs and may impact Sunoco's ability to transport product through interstate commerce impacting Sunoco and the public in violation of the U.S. Constitution. The Commission should consider these costs and the impacts to interstate commerce when evaluating whether the proposed regulations increase pipeline safety.

Sunoco asserts that the unwarranted and unreasonable costs incurred by the affected pipeline operators will ultimately be borne by the public as the cost of these important NGL commodities will increase. This is concerning, particularly considering the current economic environment. With inflation at all-time-high levels, now is not the time to impose unnecessary regulatory costs that will trickle down and increase prices of these essential items, including propane, which is a widely used energy source for homes

and businesses, butane, which is blended into gasoline, and ethane, which has seen increased demand in recent years.

Sunoco comments that the Commission's failure to fully consider the costs and impacts these proposed regulations could have on affected pipeline operators and the public is problematic. The Commission should strongly reconsider the proposed regulations based on the financial harm that could occur, the potential chilling effect these regulations could have on the intrastate transportation of petroleum products, the impact that these regulations may have on the interstate transportation of these products and interstate commerce, whether the potential cost of the regulation outweighs the intended benefit, and whether such additional costs are necessary in light of PHMSA's extensive federal requirements. Sunoco Comments at 28-30.

e. Disposition On General Matters

In order to obtain further information regarding the cost of compliance and input from the regulated community, as IRRC requests, the PUC sent data requests to members of the pipeline industry, including Sunoco, Laurel, MIPC LLC, MPLX LP, and Kiantone Pipeline Corp. Although the rulemaking does not apply to pipeline operators under Act 127, as explained above, the PUC sent the data requests to pipeline operators in addition to hazardous liquid public utilities to get a broader view of the cost implications from all members of the pipeline industry. The PUC asked these members of the pipeline industry to share estimated incremental costs that would be incurred by the measures proposed in the regulations.

The PUC's data requests sought information regarding the costs of increasing the depth of cover of a pipeline within an agricultural area of Pennsylvania, relocating a pipeline away from a building, and relocating a pipeline to maintain a 12-inch clearance from other underground structures or pipelines. The data requests also sought cost

information for construction relative to NDTs, the protection of valve stations from vehicular damage using jersey barriers or bollards, pressure testing using hydrostatic testing, in-line inspection tool runs for Magnetic Flux Leakage (MFL) and other tools, leak detection and training for leak detection, and corrosion relative to Close Interval Surveys (CIS). We received responses from Sunoco, Laurel, and MIPC LLC.

The Regulatory Review Act does not require more than a general analysis of potential costs for proposed regulations. *See Marcellus Shale Coalition v. Dep't of Env'tl. Prot. of the Commonwealth of Pa. and Env'tl. Quality Bd. of the Commonwealth of Pa.*, 193 A.3d 447 (Pa. Cmwlth. 2018); *rev'd by Marcellus Shale Coalition v. Dep't of Env'tl. Prot.*, 292 A.3d 921 (Pa. 2023). Based on the PUC's consideration of these comments, the amendments made between the proposed and final-form rulemaking and consideration of the potential costs, this final-form rulemaking strikes a reasonable balance between protecting public health and safety and the costs incurred by hazardous liquid public utilities. The PUC believes that the safety standards in this final-form rulemaking will avoid or minimize adverse impacts which may represent a cost savings to hazardous liquid public utilities.

Additionally, in considering economic impact, these hazardous liquids public utilities enjoy benefits to their public utility status, including abilities to use eminent domain to acquire the necessary right of ways to build their systems as well as repair, inspect and maintain their systems going forward. With this benefit, pipeline projects have been completed, and hazardous liquid public utilities benefit in revenue generated annually. Any incremental cost to comply with additional Pennsylvania-specific regulations must be weighed against that benefit to which the privately-held public utility is enjoying. Sunoco and Laurel have not provided information to show how any incremental economic impact outweighs any benefit to an additional safety requirement.

We acknowledge that restricting hazardous liquid public utility service could come at a significant economic cost to the public interest. *Petition of BI&E of the Pa. Pub. Util. Comm'n for the Issuance of an Ex Parte Emergency Order*, Docket No. P-2018-3000281 (Order entered May 3, 2018), at 10.

However, there are certain unquantifiable monetary benefits to having additional safety regulations as they are intended to protect life, property, health, and welfare of the citizens residing and living in the communities through which the pipelines traverse as well as the workers on the pipelines and emergency responders to incidents. Furthermore, a well-informed public including excavators will call PA One Call before they excavate around pipelines. They can identify signs that there is a leak and will know what numbers to call in the event of an emergency. They further understand what to do in an emergency situation. While we would like to see these hazardous liquids public utilities implementing the best engineering and public awareness practices in the industry, we are merely establishing safety standards specific to localized concerns in Pennsylvania that are in addition to and consistent with federal safety standards established by PHMSA. There are finite resources at stake, and the wants of the public utility versus the needs of the community through which it builds its projects must be considered and harmonized as much as possible.

Accidents and investigations in Pennsylvania show there is a need for more stringent safety standards for hazardous liquid public utilities above the minimum federal standards. We have revised this rulemaking as appropriate based on the stakeholder comments regarding cost and the responses to the PUC's data requests to ensure that the cost of compliance with each section is reasonable. Our revisions are consistent with the goal of this rulemaking to promote safety and improve aging infrastructure.

2. § 59.131. Purpose

Section 59.131 formalizes the notion that, as a certified State participating in PHMSA’s hazardous liquid pipeline safety program, the Commonwealth must adopt and enforce, as a minimum, all Federal pipeline safety standards at 49 CFR Parts 195 and 199 for hazardous liquid public utilities. As a certified State, however, the Commonwealth may also promulgate additional regulations for hazardous liquid public utility pipeline safety that are more stringent than the PHMSA regulations so long as the state regulations are compatible with the HLPESA and the minimum safety standards in PHMSA’s regulations. Thus, Section 59.131 states that the purpose of the proposed regulations encompassed in the PUC’s “Hazardous Liquid Public Utility Safety Standards” is to set forth the safety standards for all hazardous liquid public utilities in the Commonwealth, implicitly recognizing that these standards apply only to intrastate hazardous liquid pipelines operated by public utilities.

a. Comments On § 59.131

The Clean Air Council, Delaware Riverkeeper Network, Del-Chesco United for Pipeline Safety, Environmental Integrity Project, Food and Water Watch, Mountain Watershed Association, PennFuture, and the Pipeline Safety Coalition (collectively, Environmental Advocates) encourage the PUC to also root the purpose in public policy by additionally stating that the regulations are intended to protect the public and the natural environment. The Environmental Advocates also ask that part of the stated purpose be to ensure that the design, construction, operation, and maintenance of hazardous liquid pipelines be grounded in best practices.

The Associations suggest eliminating extraneous language such as eliminating duplicative references like the language appearing in the first paragraph of Section 59.131. The Association also recommends consolidating the language to better reflect the purpose of the requirements in Sections 59.132—59.143.

Sunoco argues that the PUC should reject the Environmental Advocates proposed amendment which would state that the Hazardous Liquid Public Utility Safety Standards are intended to protect the public and the natural environment and that the purpose is to ensure that the design, construction, operation, and maintenance of hazardous liquid pipelines is grounded in best practices. Sunoco opines that the PUC does not have the requisite resources or expertise to establish and maintain a prescriptive set of best practices regarding the operation of hazardous liquid public utility operations. Sunoco contends that any attempt by the PUC to establish best industry practices can create impermissible conflicting requirements with the federal standards and, in some instances, less stringent ones.

Range Resources asserts that, as currently drafted, the proposed regulations would create uncertainty and that the uncertainty would lead to confusion rather than safety improvements for pipeline operations. The oil and gas industry operates under strong Federal regulatory oversight. Continued efforts to further regulate the industry at all levels of government often creates uncertainty, inconsistency, and confusion. Clarity and certainty in regulatory oversight serves to enhance regulatory compliance – thereby enhancing environmental protection and public safety. The proposed regulations would create uncertainty and confusion in the regulatory oversight of the oil and gas industry. PHMSA currently provides regulations to ensure pipeline safety. Pipeline safety is not served if the PUC establishes state regulations in conflict with existing or new Federal regulations. The proposed regulations would add a new layer of regulation in the Commonwealth inconsistent with PHMSA regulations. This inconsistency and the confusion it may cause would strain regulatory compliance. The PUC should re-examine the current requirements of and recent changes to Federal PHMSA regulations before proceeding with the proposed regulation. Not only is the proposed regulation inconsistent with Federal pipeline safety laws, but it is also inconsistent with Commonwealth law. It is only proper for regulations to be consistent with and adhere to the duly enacted laws of the Commonwealth. The proposed regulation does not conform

to the authority granted to the PUC under to the Gas and Hazardous Liquids Pipelines Act which reads, in part:

The [PUC] may adopt regulations, consistent with the Federal pipeline safety laws, as may be necessary or proper in the exercise of its powers and perform its duties under this act. The regulations shall not be inconsistent with or greater or more stringent than the minimum standards and regulations adopted under the Federal pipeline safety law.

Gas and Hazardous Liquids Pipeline Act, §501 (P.L. 586, No.127, 2011)(Act 127). *See* 58 P.S. §§ 801.102, *et seq.*

The existing § 59.33 speaks clearly to the authority of the PUC in a manner specific to “pipeline safety laws.” Despite this clear statutory direction, the NOPR proposes regulations that are both inconsistent with and greater than the standards set by Federal pipeline safety laws. According to Range Resources, the NOPR therefore should not proceed in its current form.

b. Disposition On § 59.131

We agree with the Environmental Advocates that the stated purpose should include language to the effect that the amendments be intended to “ensure that the design, construction, operation, and maintenance of hazardous liquid pipelines.” Additionally, the purpose of this regulation is to protect the environment and the public residing and congregating within the lowest flammability limits of hazardous liquid pipelines. It is unclear, however, what “grounded in best practices” means in this context, and as such, we decline to add such language to the stated purpose. Accordingly, to the extent that the API recommended practices, or other best practices, are to be followed by hazardous liquid pipeline public utilities, the regulations in Annex A so specify.

The Associations suggest that we eliminate extraneous language from Section 59.131 and consolidate the two paragraphs to reflect the stated purpose of the

new regulations more succinctly. We agree. The language in the first paragraph of proposed Section 59.131 is unnecessary in describing the purpose of the proposed regulations. Rather, this paragraph sets forth the authority for the PUC to implement such regulations. Accordingly, the first paragraph as proposed in the NOPR at Section 59.131 has been deleted from the final-form regulation.

We are not establishing “best industry practices;” rather, we are creating regulatory standards. To the extent the federal regulations incorporate by reference a “best practice” then our final regulations have incorporated same. The PUC is not obstructing a hazardous liquid public utility’s ability to comply with federal regulatory or engineering standards. The PUC does not intend to create its own set of best practices for the regulated industry.

3. § 59.132. Definitions

In the NOPR, we explained that Section 59.132 sets forth definitions pertinent to the regulation of hazardous liquid public utilities. Among other things, we proposed a definition for “hazardous liquid public utility” that was consistent with the existing definition in Section 59.33 of the PUC’s regulations, explained the difference between “pipe or line pipe,” “pipeline,” and “pipeline facility,” delineated key stakeholders by defining “affected public,” “emergency responders,” and “public officials,” and incorporated by reference the definitions of several technical terms found in the Federal regulations at 49 CFR Part 195. The PUC welcomed comments from stakeholders regarding the proposed definitions in Section 59.132 as well as the possible need for additional definitions. We address these comments below.²⁶

²⁶ The subheadings in this section refer to the definitions on which the Commission received substantive comments or additional definitions that were proposed in comments.

a. Comments On § 59.132

i. Affected Public

In their comments regarding the definition of “affected public,” the Environmental Advocates state that the definition is effective since it includes individuals within the LFL. The Environmental Advocates also suggest that the PUC take steps to ensure that operators accurately report the LFL. Environmental Advocates Comments at 7.

Sunoco notes that the Federal regulations incorporate portions of API RP 1162 for its public awareness requirements. Sunoco states that that API RP 1162 defines “affected public” as “residents, and places of congregation (businesses, schools, etc.) along the pipeline and associated right-of-way” and recommends a minimum coverage area of “660 feet on each side of the pipeline, or as much as 1,000 feet in some cases.” Sunoco also states that API RP 1162 provides discretion for pipeline operators to determine the “affected public.” Sunoco suggests that the PUC allow pipeline operators to exercise managerial discretion to determine the size and scope of the “affected public.” Sunoco Comments at 35-36.

DEP recommends that the PUC consider clarifying the definition of “affected public” regarding how to identify “residents and places of congregation.” DEP notes that it has similar requirements to identify and notify those potentially impacted by the location of a proposed well site as well as setbacks. DEP recommends that the PUC consider amending “residents and places of congregation” to “surface landowners whose property is within 1,000 feet from the limit of disturbance of the pipeline project; the municipality or municipalities in which the tract of land upon which the pipeline project is located; water supply users with water supplies within 1,000 feet from the limit of disturbance of the pipelines project; and the owners of buildings located within 1,000 feet from the limit of disturbance of the pipeline project.” DEP also recommends including a

definition of “building” as “an occupied structure with walls and roof within which person live or customarily work.” DEP Comments at 1-2.

In addition, DEP suggests clarifying how to measure the distance between the pipeline and the affected public. DEP states that, for similar requirements, it is reasonable and appropriate to measure distance from the limit of disturbance for the project. For example, DEP notes that, in 25 Pa. Code § 78a.15(f) (relating to application requirements), well operators are required to identify public resources with a certain distance from the limit of disturbance. DEP also notes that “limit of disturbance” is defined in 25 Pa. Code § 78a.1 (relating to definitions) as “[t]he boundary within which it is anticipated that earth disturbance activities (including installation of best management practices) will take place.” DEP notes that these requirements were established by the Pennsylvania General Assembly as part of the 2012 Oil and Gas Act, 58 Pa.C.S. §§ 2301—3504. DEP recommends that the 1,000 feet be measured from the limit of disturbance. DEP also suggests that the PUC provide information that establishes that the particular distance selected protects the public. DEP Comments at 1-2.

Pennsylvania House Representative Danielle Friel Otten states in her comments that she agrees with the definition of “affected public.” Otten Comments at 1.

Moreover, four individual commenters, George Alexander, Patrick Robinson, Rosemary Fuller, and Christine DiGiulio note their support for the proposed definition of “affected public.” Mr. Alexander and Mr. Robinson state that the definition could go beyond 1,000 feet, but that it is a good starting point. Alexander Comments at 1; Robinson Comments at 1. Ms. Fuller notes that the definition will allow residents living in a “blast zone” to know what potential dangers may arise. Fuller Comments at 2. Ms. DiGiulio notes that she supports stricter rules than the bare minimum federal standards or guidelines as HVLs have been shipped through the Mariner East under pressure and these

HVLs can have a more immediate and greater impact in cases of pipeline ruptures. DiGiulio Comments at 1.

In addition, in his reply comments, Connor Young advocates that tenants and not just landlords living within 5,000 feet of a pipeline should receive public awareness notifications. Young Reply Comments at 1.

In its Reply Comments, Sunoco reiterates that the PUC should afford discretion to hazardous liquid public utilities in determining what constitutes the “affected public.” Sunoco also notes that the “limit of disturbance” is a technical term that refers to the area where earth disturbance activities will occur during construction and that the disturbance area has no relevance once the pipeline is operational or in determining the potential impact of a pipeline incident. Sunoco states that the PUC, therefore, should not adopt the DEP’s proposal. Sunoco Reply Comments at 15.

In its comments, IRRC recognizes DEP’s recommended revisions to the proposed definition for “affected public.” IRRC points out that DEP’s revisions pertain to identifying residents and places of congregation and measuring the distance in the definition of 1,000 feet. IRRC asks the PUC to consider these revisions. IRRC Comments at 6.

ii. API Recommended Practice 1130 And API Recommended Practice 1162

In their comments, the Associations state that, to the extent that Section 59.132 incorporates documents by reference, it is important to reference the editions that are incorporated in PHMSA’s regulations. The Associations note that referring to the documents in this manner will provide consistency with the Federal pipeline safety regulations and avoid confusion within the regulated community. Associations Comments at 4.

iii. Covered Task

In their comments regarding the definition of “covered task,” the Environmental Advocates ask the PUC to expand the definition to include any task that impacts operation, construction, maintenance, or the integrity of a regulated pipeline, including necessary tasks involving control centers, Supervisory Control and Data Acquisition (SCADA) equipment and infrastructure, and other critical control systems directly impacting pipeline operations. Environmental Advocates Comments at 7, 35.

Sunoco claims that the PUC’s proposal to define “covered task” as including “construction tasks identified by a hazardous liquid public utility” is premature. Sunoco argues that the PUC should await guidance from a future PHMSA rulemaking on operator qualifications. Sunoco Comments at 36.

Additionally, the Associations note that operators and PHMSA have disagreed about whether certain activities are “covered tasks.” The Associations state that the PUC should separate “construction tasks” from the existing four-part test in Part 195, so as not to further complicate the definition of a covered task. The Associations also state that the PUC should define the exact construction tasks that are included in the definition. Associations Comments at 13-14.

In their reply comments, the Environmental Advocates state that the PUC is right to clarify the meaning of “covered task” since PHMSA does not consistently define it. The Environmental Advocates explain that 49 CFR 195.505 and 195.507 leave it exclusively to the operators to set and enforce such qualifications. The Environmental Advocates note that there is a significant regulatory gap here, which the PUC should fill through this rulemaking. Environmental Advocates Reply Comments at 28-29.

Further, in its reply comments, Sunoco states that the PUC should not expand the definition of “covered task” as proposed by the Environmental Advocates. Sunoco states that SCADA, electronic control, and control room maintenance should not be included in the definition because they do not meet the four-part test in Part 195. Sunoco also repeats its arguments regarding a possible PHMSA rulemaking. Sunoco Reply Comments at 59-60.

iv. Emergency Responders

In their comments regarding the definition of “emergency responders,” the Environmental Advocates suggest explicitly adding “school” officials or representatives to the definition of emergency responders as it is unclear whether they are included as local, city, county, or state officials and representatives. Environmental Advocates Comments at 7.

Sunoco contends that the definition of “emergency responders” is broad and unreasonably expands the existing requirements under Part 195 without justification or evidence that the regulations would provide meaningful additional safety benefits. Sunoco notes that the Federal definition of “emergency officials,” as incorporated by way of API RP 1162, includes only “local, state or regional officials, agencies, and organizations with emergency response and/or public safety jurisdiction along the pipeline route.” Sunoco Comments at 37-38.

In its reply comments, Sunoco suggests that the PUC reject the Environmental Advocates’ proposal to add “school” officials or representatives to the definition of emergency responders, stating that the proposal is “troubling.” Sunoco encourages any communications required with school representatives to be handled separately as is currently contemplated by Section 59.140(d). Sunoco Reply Comments at 13.

Moreover, in its comments, IRRC asks the PUC to clarify the definition of “emergency responders” to include specific local, county, and city agencies along the pipeline route as in the definition of “public officials.” IRRC Comments at 6.

The County Commissioners Association of Pennsylvania (CCAP) represents all 67 counties in the Commonwealth. CCAP has concerns about the proliferation of gathering pipelines and the lack of knowledge on their location and ambiguity regarding safety oversight. CCAP appreciates the proposed § 59.132 defining “emergency responders” to include local, fire, police, and emergency medical services along with county hazmat teams, Department of Emergency Services, and 911 centers, and other emergency local, city, county, or state officials and representatives. Notification to counties would keep them apprised of situations to which they need to respond. CCAP also supports the addition of a definition for “public officials, including county officials.”

v. Geotechnical Hazard

In their comments, the Environmental Advocates state that the definition of “geotechnical hazard” should not include both the terms “geological” and “environmental.” The Environmental Advocates assert that the term “geological” alone should be sufficient. Environmental Advocates Comments at 7.

Sunoco contends that the proposed definition of “geotechnical hazard” is unreasonably vague and overly broad, which will make it difficult for pipeline operators to determine what actions are required to achieve compliance with the PUC’s regulations. Sunoco recommends that the PUC limit its current definition to be consistent with industry practice, noting that the Interstate Natural Gas Association of America has developed guidance for landslide hazards. Sunoco Comments at 39-40.

Additionally, in its comments, IRRC notes that commentors question the definition of “geotechnical hazard” as being overboard and subjective. IRRC asks the PUC to clarify this definition to establish a standard that is achievable by the regulated community. IRRC Comments at 6-7.

vi. Hazardous Liquid Pipeline Safety Act Of 1979

The Associations recommend replacing the term “HLPSA—Hazardous Liquid Pipeline Safety Act of 1979” (HLPSA) with “FPSA.” The Associations state that the HLPSA is only referenced for historical purposes to distinguish it from the “Natural Gas Pipeline Safety Act.” The Associations state that referring to FPSA is more current and accurate. The Associations do not recommend changes to the definition itself—just the term defined. Associations Comments at 2-3.

In its comments, IRRC likewise asks the PUC to replace the term “HLPSA” with “FPSA.” IRRC Comments at 7.

vii. Hazardous Liquid

In their comments regarding the definition of “hazardous liquid,” the Environmental Advocates urge the PUC to expand the definition to include liquid carbon dioxide. Environmental Advocates note that carbon capture and storage projects continue to be proposed and the potentially vast network of new CO₂ pipelines could pose a serious risk of potentially extreme harm to public safety and the environment. Environmental Advocates Comments at 7.

The Associations request that the definition of “hazardous liquid” include a reference to 49 CFR 195.2, similar to the PUC’s definition of “HVL – highly volatile liquids.” Associations Comments at 4.

Similarly, Sunoco encourages the PUC to reference the definitions used in Part 195 instead of writing its own definitions. Sunoco notes that the PUC should use Federal definitions for terms like “hazardous liquid,” “pipe or line pipe,” and “pipeline facility.” Sunoco notes that, in certain circumstances, the PUC referenced the federal definitions for other terms in the NOPR, like the terms “HCA–high consequence area” and “HVL–highly volatile liquid.” Sunoco states that it supports the use of this practice. Sunoco Comments at 34-35. In its reply comments, Sunoco states that it opposes the Environmental Advocates’ recommendation to include “carbon dioxide” in the definition of “hazardous liquid.” Sunoco notes that Part 195 separately defines the terms and separately regulates hazardous liquids and carbon dioxide. Sunoco reiterates its opinion that the PUC should use the PHMSA definitions here. Sunoco Reply Comments at 14.

viii. Hazardous Liquid Public Utility

In their comments regarding the definition of “hazardous liquid public utility,” the Associations suggest that the PUC consider whether this definition can be applied by reference to Section 59.33. The Associations note that the PUC should eliminate redundancy in the new regulations. Associations Comments at 4.

ix. Pipe Or Line Pipe And Pipeline Facility

As noted above, Sunoco suggests that the PUC use PHMSA’s definitions for terms like “hazardous liquid,” “pipe or line pipe,” and “pipeline facility.” Sunoco Comments at 34-35. Regarding the definition of “pipe or line pipe,” Sunoco notes that the PUC includes, not only pipe that is currently transporting hazardous liquids, consistent with the Federal standards, but pipe that could potentially transport hazardous liquids. Sunoco argues that this definition is inconsistent with jurisdictional limitations established by PHMSA. Additionally, Sunoco compares the definition of “pipeline facility” to the definition in Part 195, which refers to pipeline facilities used in the transportation of “hazardous liquids or carbon dioxide.” Sunoco Comments at 34-35, 40.

x. Trenchless Technology

Regarding the definition of “TT—trenchless technology,” DEP notes that the definition mirrors the proposed definition of the term used in DEP’s *Trenchless Technology Guidance*, Doc. No. 310-2100-003, a draft guidance document. DEP notes that the public comment period on this document closed on May 18, 2022. DEP recommends consistency between in the rulemaking and the guidance document and notes that the basis for any differences should be identified. DEP Comments at 1-2.

IRRC also points out that DEP questions this definition. IRRC states that it is concerned about the definition being based on a DEP guidance document and asks the PUC to revise the definition and align it with any revisions to Section 59.138 of this rulemaking. IRRC Comments at 7.

xi. Other Proposed Definitions

The PUC did not receive substantive comments from stakeholders or IRRC on the definitions for the following terms proposed in the NOPR: “as-called anomaly,” “as-found anomaly,” “CPM—computation pipeline monitoring,” “EFRD—emergency flow restricting device,” “HCA—high consequence area,” “HDD—horizontal directional drilling,” “HVL—highly volatile liquid,” “LFL—lower flammability limit,” “land agent,” “PHMSA—Pipeline and Hazardous Materials Safety Administration,” “pipeline,” and “Pipeline Safety Section.”

xii. Additional Definitions

In their comments, the Environmental Advocates suggest adding a definition in Section 59.132 for “conversion.” The Environmental Advocates comment that the definition should include inactive pipelines being brought back into service, not just pipelines being converted from one form of service to another. Environmental Advocates Comments at 3.

In its reply comments, Sunoco contends that the PUC should reject the Environmental Advocates' proposal. Sunoco states that the Federal regulations define "conversion" as converting a steel pipeline previously used in service not subject to Part 195 that now qualifies for use under Part 195 and does not include any reference to reactivated or inactive pipelines. Sunoco avers that PHMSA retains continued jurisdiction and oversight over "idled" and "inactive" pipelines. Sunoco also notes PHMSA's responsibility to promulgate regulations prescribing the applicability of the pipeline safety requirements to idled natural or other gas transmission and hazardous liquid pipelines no later than two years after the enactment of the PIPES Act of 2020. Sunoco states that the PUC should defer to PHMSA. Sunoco Reply Comments at 11-12.

Additionally, the Environmental Advocates suggest defining "emergency," stating that, in the context of hazardous liquid pipeline safety, an "emergency" should cover circumstances beyond those covered by the general definition of "emergency" in the Public Utility Code. In particular, the Environmental Advocates ask that the definition be broad enough to cover, *inter alia*, threats to pipeline integrity caused by sustained noncompliance with rules designed to ensure pipeline integrity. Environmental Advocates Comments at 7, 10-11.

b. Disposition On § 59.132

i. Affected Public

In *Marcellus Shale Coalition v. Dep't of Env'tl. Prot. of Pa.*, 292 A.3d 921 (Pa. 2023), the Pennsylvania Supreme Court held that the General Assembly intended to give State agencies the leeway to promulgate challenged regulations of the DEP and Environmental Quality Board (EQB) designed to aid those Agencies in information gathering attendant to the issuance of permits for new unconventional gas wells. The Court reversed the Commonwealth Court and upheld the DEP and EQB's regulations regarding definitions of such terms as "school" as a neighboring feature within 200 feet

from the proposed limit of disturbance of a nearly five acre well site. The Court held that ascertaining whether these features are within the small-scale boundaries of a proposed new unconventional well as practically a *de minimis* burden. Thus, we modify our proposed definition of “affected public” to limit its definition to “within 1,000 feet of the center of the pipeline or pipeline facility, or within the LFL of a pipeline or pipeline facility, whichever is greater.”

Contrary to Sunoco’s claims, the definition of “affected public” is not incompatible with API RP 1162. As Sunoco points out, API RP 1162 is referenced in the Federal pipeline safety regulations and recommends a minimum coverage area of 660 feet on each side of a pipeline, as a baseline requirement. However, API RP 1162 recommends supplemental enhancements of baseline public awareness programs to achieve maximum effectiveness. Enhancements including increased frequency of communications, enhanced message content and delivery/media efforts, and wider coverage areas are warranted in high consequence areas, with land development activity, farming activity, environmental considerations, the pipeline history, local situations, regulatory requirements, and other relevant needs. *See* Section 6.1 (Considerations for Supplemental Enhancements for the Baseline Program) API RP 1162 at 24. The API recognizes there are differences in pipeline conditions, release consequences, affected populations, increased development and excavation activities and other factors associated with pipeline systems. Thus, a one-size fits-all public awareness program across all pipeline systems would not be the most effective approach. Intrastate hazardous liquid pipelines in Pennsylvania are in geographic areas with high population densities, high turnover of residents and near extensive development and excavation activity.

Guidance in API RP 1162 recommends that transmission pipeline operators provide communications within a minimum coverage area distance of 660 feet on each side of the pipeline or as much as 1,000 feet in some cases. API RP 1162 at 33. Tailoring the communications coverage area (buffer) to fit a particular pipeline, location

and potential impact consequences is recommended. Where specific circumstances suggest a wider coverage area for a certain pipeline location, the operator should expand the coverage area accordingly. API RP 1162 at 33. The Federal pipeline safety regulations, however, are a minimum, and the PUC is permitted to go beyond the recommendation in API RP 1162 to require a coverage area of 1,000 feet. *See* 49 U.S.C. § 60104(c); 49 CFR Part 195, Appendix A.

Moreover, as it pertains to DEP’s suggestion to identify what constitutes “residents and places of congregation,” we agree that more detail should be provided regarding these terms. Rather than adopt the language proposed by DEP, however, we have expanded on the terms consistent with API RP 1162, since the Federal regulations incorporate that document. We have included examples of residents—including occupants, tenants, farmers, homeowners’ associations, neighborhood organizations, and the like—as well as additional examples places of congregation—places of worship, hospitals and other medical facilities, prisons, parks and recreational areas, day-care facilities, playground, and the like—in the definition of “affected public.” The API RP 1162 gives examples of how a hazardous liquid public utility may determine specific affected stakeholders’ addresses along a pipeline, such as within a specified distance either side of the pipeline centerline, include the use of nine-digit zip code address data-bases and geo-spatial address databases. These databases generally provide only the addresses and not the names of the people occupying the addresses. Broad communications to this audience are typically addressed to “resident.” It is important to note that individual apartment addresses should be used not just the address of the apartment building or complex. API RP 1162 at 33.

We note that the definition of “affected public” is appropriate because it offers additional protection by going beyond the 660 feet minimum in API RP 1162. Additionally, given that the LFL is defined, in pertinent part, as “the lower end of the concentration range over which flammable mixture of gas or vapor in air can be ignited at

a given temperature and pressure; and the flammability range is delineated by the upper and lower flammability limits,” the LFL is pertinent to determining the potential impact of a pipeline incident and the residents and places of congregation affected.

Finally, regarding DEP’s suggestion to revise the definition of “affected public” to measure the distance from the limit of disturbance for a pipeline project, we agree with Sunoco that the limit of disturbance is not relevant in determining the potential impact of a pipeline incident.

After PHMSA inspected Sunoco’s ME2 pipeline system in Pennsylvania, the agency issued a Notice of Probable Violation (NOPV) and Proposed Compliance Order, alleging that Sunoco violated certain pipeline-safety regulations. One such violation was Sunoco’s failure to tailor its public-awareness communications to the pipeline’s unique attributes, characteristics, location, and potential impact consequences. Sunoco had been mailing its safety pamphlets to those residents within 660 feet of the centerline of the ME2, which was 20 inches in diameter and actively transporting hazardous liquids. *See* PHMSA Final Determination (June 24, 2021). The purpose of 49 CFR § 195.440(c) is to educate the affected public about the possible hazards from unintended releases of a pipeline carrying hazardous liquids, like the ME2’s transportation of propane and butane—two flammable hydrocarbon gases that can cause considerable hazards if released. 49 CFR § 195.440(d)(2). As support for this violation, the 10-page NOPV excerpted a few lines of data from risk-analysis reports that Sunoco had commissioned from Stantec Consulting Ltd. and provided to the agency during the 2018 inspection. The excerpts quoted general information about the possible consequences of a pipeline rupture but did not identify any specific geographical areas of weakness or points of vulnerability in the approximately 350-mile pipeline. For example, one excerpt referenced the “maximum distance to the [LFL] along the entire pipeline route” and the

“maximum predicted distances to thermal radiation consequences along the entire pipeline.” *See also* the pending proceeding *Sunoco v. USDOT*.

Similar to and consistent with PHMSA, we find that the “affected public” is a larger group than just those residing within 660 feet given the unique characteristics of the ME2 and 2X pipelines traversing approximately 350 miles through high consequential areas in the Commonwealth. An enhancement to public awareness benefits those residents and businesses located between 660 and 1,000 feet of the pipelines and pipeline facilities as well as the hazardous liquid public utilities because a well-informed public understands pipeline markers and is less likely to accidentally damage a pipeline or its appurtenances.

The “affected public” definition is expanded because a leak or rupture of pressurized highly volatile liquids or hazardous liquids from pipes that are 16 inches and 20 inches in diameter could affect an area larger than 660 feet from the center line of such pipelines. As the diameter expands and the product content changes from the heavier diesel fuel, heating oil, and jet fuels to the hazardous liquids of pressurized methane, butane and propane, so too should the definition of affected public to include a wider area of the public than the minimum federal standard of 660 feet. Accordingly, we have revised the proposed definition of “affected public” in the final-form regulation as discussed above.

ii. API Recommended Practice 1130 And API Recommended Practice 1162

The Associations assert that the documents incorporated by reference in Section 59.132 of the PUC’s regulations should refer to the editions of the documents incorporated in PHMSA’s regulations. The proposed definitions for “API RP 1130—API Recommended Practice 1130” and “API RP 1162—API Recommended Practice 1162” refer to “[t]he term[s] as defined in 49 CFR 195.3.” PHMSA’s regulations at

49 CFR 195.3 list the editions of the documents, *i.e.*, the third edition for API RP 1130 and the first edition for API RP 1162. As such, our definitions already properly refer to the editions of the documents incorporated in PHMSA’s regulations. Moreover, by referring to 49 CFR 195.3 in our definitions, any future updates by PHMSA to incorporate different editions of API RP 1130 and API RP 1162 will be captured.

Accordingly, we have adopted the proposed definitions of “API RP 1130—API Recommended Practice 1130” and “API RP 1162—API Recommended Practice 1162” in the final-form regulation. We have modified the terms slightly to refer to “API RP 1130 – American Petroleum Institute Recommended Practice 1130” and “API RP 1162 – American Petroleum Institute Recommended Practice 1162” for further clarity.

iii. Covered Task

The definition of “covered task” in Section 59.132 was intended to make the distinction that a “construction task” is not subject to the four-part test in Part 195 of PHMSA’s regulations by incorporating the definition of “covered task” in 49 CFR 195.501, and *separately* referring to “a construction task identified by a hazardous liquid public utility.” After reviewing the comments from stakeholders, we have defined “construction task” in the final-form regulations for clarity. We agree with the Associations that construction tasks should not fall under the four-part test in Part 195 of PHMSA’s regulations. Given that construction is separate and distinct from O&M, our intent was *not* to apply the test in 49 CFR 195.501 for O&M tasks to construction tasks. Consequently, in the final-form regulation we have defined a “construction task” as “an activity identified by a hazardous liquid public utility performed under 49 CFR Subpart D (relating to construction) or § 59.137 (relating to construction).” However, we decline to adopt the Environmental Advocates definition for “covered task.” We have also decided to revise the proposed regulations to reference “covered task” and “construction task” in Section 59.141, since they are now separately defined.

Moreover, regarding Sunoco’s comment that PHMSA has not yet issued regulations to include “construction tasks” in “covered tasks,” we note that there is no conflict with the Federal regulations and, thus, our definition is permissible. Additionally, Section 59.133 of the PUC’s proposed regulations, provides that future amendments to PHMSA’s regulations will supersede if they are more stringent.

Accordingly, we have revised the definition of “covered task” in the final-form regulation and also added a definition for the term “construction task” in the final-form regulation as discussed above.

iv. Emergency Responders

We agree with Sunoco that school officials or representatives should not be added to the definition of “emergency responders” as the Environmental Advocates suggested. Schools are a “place of congregation” under the definition of “affected public,” and liaison provisions for school administrators are provided in Section 59.140 of the regulations. Thus, school officials need not be included in “emergency responders.”

Regarding Sunoco’s concerns that the definition is too broad, we note that the definition was intended to encompass *local* emergency responders. We have clarified this further by adding the phrase “with emergency response or public safety jurisdiction, or both, within 1,000 feet of the center of the pipeline or pipeline facility” so that the defined group is not limitless or too broad. The phrase “along the pipeline route” was too vague. This language is compatible with API RP 1162. Additionally, we have modified language in the definition to clarify that the definition includes “county departments of emergency services and county 911 centers.”

Thus, the definition of emergency responders encompasses local fire, local police, and local emergency medical services; county hazmat teams, county departments of

emergency services, and county 911 centers; and other local, city, county, or state emergency officials or representatives with emergency response or public safety jurisdiction, or both, within 1,000 feet of the center of the pipeline or pipeline facility. This definition is appropriate to ensure that all emergency responders with emergency response or public safety jurisdiction within 1,000 feet of a pipeline or pipeline facility have the benefit of the reporting and liaison requirements in the proposed regulations to inform any necessary emergency response.

Accordingly, we have revised the definition of “emergency responders” in the final-form regulation as discussed above.

v. Geotechnical Hazard

We are removing the design requirements in proposed Section 59.136 and instead making this section refer to annual reports. Therefore, as the term no longer appears in this final regulation, there is no need for this definition. Accordingly, we have deleted the term “geotechnical hazard” from the final-form regulation.

vi. Hazardous Liquid Pipeline Safety Act Of 1979

We agree with The Associations’ recommendation and IRRC’s request to replace the term “HLPSA” with “FPSA.” The PUC acknowledges that the HLPSA was recodified and that referring to the FPSA is more current and accurate. However, the PUC is removing this definition from the regulations given that the law is only referenced in the proposed regulations in Section 59.131, and a determination has been made that the portion of Section 59.131 referencing it should be eliminated. Accordingly, this deletion has been reflected in the final-form regulation.

vii. Hazardous Liquid

We reject the Environmental Advocates suggestion to include carbon dioxide in the definition of “hazardous liquid.” This rulemaking pertains to “Hazardous Liquid Public Utility Safety Standards,” and altering the definition of “hazardous liquid” to include “carbon dioxide” in this Final Rulemaking Order would have the effect of impermissibly enlarging the purpose of the rulemaking. *See* 45 P.S. § 1202. As Sunoco noted, PHMSA separately defines and regulates the transportation of hazardous liquids and carbon dioxide.²⁷ *See* 49 CFR 195.2. Thus, this rulemaking pertaining to hazardous liquids is not the proper vehicle for the creation of regulations regarding carbon dioxide.

In addition, we disagree with the Associations’ and Sunoco’s recommendation that the definition of “hazardous liquid” should be revised to incorporate by reference the definition in PHMSA’s regulations. The definition of “hazardous liquid” in the PUC’s proposed regulations is consistent with the Public Utility Code, which references “crude oil, gasoline, or petroleum products.”²⁸ 66 Pa.C.S. § 102. Given that the PUC’s proposed regulations are specific to the Commonwealth, the regulations will inevitably vary from PHMSA’s regulations. Here, the definition of “hazardous liquid” properly reflects the language in the PUC’s authorizing statute, rather than PHMSA’s definition based on the FPSA. The definition is, nonetheless, compatible with the definition in PHMSA’s regulations as required. Accordingly, we have adopted the proposed definition of “hazardous liquid” in the final-form regulation.

²⁷ “Carbon dioxide” means a fluid consisting of more than 90% carbon dioxide molecules compressed to a supercritical state. 49 CFR 195.2.

²⁸ The term “petroleum products” includes refined petroleum products such as fuel oil and diesel as well as natural gas liquids such as ethane, butane, and propane. *See, e.g., Granger*, (“petroleum products” as used in Section 102 of the Public Utility Code has a broad meaning as a “catch all phrase” to include what would otherwise be an exhaustive list of products); *see also* 49 CFR 195.2 (defining “petroleum products” as “flammable, toxic, or corrosive products obtained from distilling and processing of crude oil, unfinished oils, natural gas liquids, blend stocks and other miscellaneous hydrocarbon compounds.”).

viii. Hazardous Liquid Public Utility

Changes to the proposed definition of “hazardous liquid public utility,” based on the Associations’ comments, are not necessary. Although the Associations ask us to consider whether this definition can be applied by reference to Section 59.33 to avoid redundancy, there is no redundancy. The Associations mistakenly state that we proposed adding references to “hazardous liquid” and “Part 195” and “new definition” for hazardous liquid public utility in the existing Section 59.33. Associations Comments at 2. As explained in the NOPR Order, we proposed *removing* these items from Section 59.33. The definition for “hazardous liquid public utility” appears only in Section 59.132, and there is no repetition among Sections 59.33 and 59.132.

Accordingly, we have adopted the proposed definition of “hazardous liquid public utility” in the final-form regulation.

ix. Pipe Or Line Pipe And Pipeline Facility

We accept Sunoco’s suggestion to revise the definition of “pipe or line pipe.” We decline, however, to incorporate by reference the definition of “pipe or line pipe” and “pipeline facility” found in PHMSA’s regulations. PHMSA’s regulations refer to pipe or line pipe “through which a hazardous liquid or carbon dioxide flows” and pipeline facilities “used in the transportation of hazardous liquids or carbon dioxide.” *See* 49 CFR 195.2. As explained above, we have not expanded the scope of this rulemaking to encompass carbon dioxide at this juncture. *See* 45 P.S. § 1202. We have revised the term “pipe or line pipe” to “pipe” alone given that the terms are interchangeable. The definition of “pipe” will refer to “a tube that is used for the transportation of a hazardous liquid.” We have removed all references to “line pipe” and replaced them with “pipe” for purposes of consistency. Additionally, we have retained the proposed definition of “pipeline facility.” These definitions are compatible with PHMSA’s regulations.

Accordingly, we have revised the proposed definition of “pipe,” and we have adopted the proposed definition of “pipeline facility” in the final-form regulation.

x. Trenchless Technology

We agree with DEP that there should be consistency between the definition of “TT—trenchless technology” in this rulemaking and the definition in DEP’s *Trenchless Technology Guidance*. DEP is currently in the process of finalizing its *Trenchless Technology Guidance*; however, its most recent draft keeps the same definition as we had proposed in the NOPR. Rather than revising the definition in this rulemaking to refer to *Trenchless Technology Guidance* we have kept the definition as originally proposed and will not direct compliance with a guidance document or its updates.

We agree with the definition in the NOPR. This is not an arbitrary exercise of unnecessary or uncontrolled discretionary power. *Protz v. Workers Comp. Appeals Bd. (Derry Area Sch. Dist.)*, 161 A.3d. 827 (Pa. 2017) (*Protz*).

Accordingly, we have adopted the definition of “trenchless technology” in the final-form regulation as discussed above.

xi. Other Proposed Definitions

Although the PUC did not receive stakeholder comments on the definition of “ground patrol,” we note that there could be confusion with our reference to “low-flying drones” as being “non-aerial.” “Aerial patrol” generally refers to patrol conducted with an aircraft, such as an airplane or helicopter, at higher altitudes, and, for this reason, we grouped “low-flying drones” with other “non-aerial” means of patrol. To provide clarity, we have removed the term “non-aerial” from the definition in the final-form regulation.

Further, we note that “public officials” is intended to encompass all local, city, county, or state officials with authority over land, street, or road rights-of-way with land use and street or road jurisdiction within 1,000 feet of the center of the pipeline or pipeline facility. Thus, we will delete the phrase, “along a pipeline route” and insert language quantifying the term “public officials” as those with land use and street or road jurisdiction within 1,000 feet of the center of the pipeline or pipeline facility. Additionally, we have revised the definition of “public officials” to include “appointed” officials in the final-form regulation. Additionally, the phrase “and their staff” is too broad and vague. The staff of public officials may be considered public employees but perhaps not officials. Additionally, such a phrase may impose a requirement that hazardous liquid public utilities send notices set forth in Section 59.137 and public awareness documents set forth in Section 59.140 on all public officials’ staffs, which could not only be difficult for the operator to determine, but also perhaps a redundant requirement.

Finally, we have adopted in the final-form regulation the proposed definitions for the following terms on which we did not receive comments: “as-called anomaly,” “as-found- anomaly,” “CPM—computation pipeline monitoring,” “EFRD—emergency flow restricting device,” “HCA—high consequence area,” “HDD—horizontal directional drilling,” “HVL—highly volatile liquid,” “LFL—lower flammability limit,” “land agent,” “PHMSA—Pipeline and Hazardous Materials Safety Administration,” “pipeline,” and “Pipeline Safety Section.”

xii. Additional Definitions

First, we agree with the Environmental Advocates suggestion to clarify the meaning of “conversion.” Section 59.133(d) of the proposed regulations used the phrase “converting a pipeline not previously covered by this part.” This “part” referred to the Hazardous Liquid Public Utility Safety Standards in Chapter 59 of the PUC’s regulations

and, thus, would only encompass pipelines within the PUC’s jurisdiction. We have, however, defined the term “conversion to service” along with making other changes in Section 59.133(d) to the phrase “converting a pipeline not previously covered by this part” for clarity. The definition has been modified as follows: “[a] pipeline brought back into service from abandonment or suspension of prior service or a pipeline repurposed for transporting hazardous liquids versus non-hazardous liquids.”

We have added other definitional terms relative to Section 59.133(d) for clarity, such as “commodity change” and “flow reversal.” The definition for “commodity change” will be “[a] switching of products in a pipe” and the definition for “flow reversal” will be “[w]hen gas flow is reduced in pipe at a point at which liquid begins to creep below the injection point.”

In addition, we have defined the term “OQ – operator qualification,” which is a new term utilized in Section 59.141. The definition will be as follows: “A process where an individual is determined to be qualified by a hazardous liquid public utility through training and evaluation of that individual’s knowledge, skills and abilities to perform the duties required of an operator.”

Moreover, we have defined the terms “response drill” and “table-top drill.” In this regard, a “response drill” is an “[i]nteractive pipeline coordinated exercise training between pipeline operators, officials and first responders to pre-plan for pipeline emergency response, using a local pipeline incident scenario to exchange resources and capabilities of all included.” A “table-top” drill, on the other hand, is a “[d]iscussion-based simulated exercise whereby utility personnel meet with county, city and municipality-level officials and local emergency responders in a classroom setting or in breakout groups to discuss and practice their respective roles during an emergency involving the hazardous liquid public utility’s facilities and the recommended responses to an emergency situation.” These terms are used in Section 59.140 of this final

rulemaking. The definitions in Section 59.132 will work with Section 59.140 to establish clear expectations for emergency training.

Also, with respect to Section 59.140, IRRC noted that the term “school” lacked clarity. IRRC Comments at 14. To address IRRC’s question on the meaning of “school,” we have added a definition to Section 59.132. We have defined “school” as follows: “An institution with physical buildings and grounds, wherein children between the grades of nursery school through twelfth grade are educated within 1,000 feet of the center of a pipeline or pipeline facility. A school may be private or public. This term includes nursery schools but does not include virtual cyber schools.”

Moreover, we reject the Environmental Advocates suggestion to define “emergency.” The Environmental Advocates argue that we should define “emergency” to cover circumstances beyond the general definition in the Public Utility Code. We decline, however, to define “emergency” here because it is not practical to identify every circumstance that may result in an emergency.

Finally, we note that the proposed regulations did not define the term “active commercial farm,” which was referenced in proposed § 59.137. We have considered incorporating by reference the definition of “farm” as defined in 7 Pa. Code § 1381.1 (relating to definitions). However, as explained below, we are eliminating § 59.137(e)(1), which is the only reference in the rulemaking to “active farms.” Therefore, a definition of “farm” is not necessary in the final-form regulation.

Accordingly, we have incorporated these new definitions and other changes in § 53.132 of the final-form regulation.

4. § 59.133. General

Section 59.133 of the PUC’s proposed regulations establishes general provisions applicable to hazardous liquid public utilities. Subsection (a) stems in part from the existing regulation at Section 59.33(b) under “Gas Service and Facilities” and mirrors Section 59.33(b) to a degree but adopts the Federal pipeline safety standards, at a minimum, as required by the Commonwealth’s participation in PHMSA’s hazardous liquid pipeline safety program. The Federal pipeline standards are the minimum safety standards unless otherwise specified in the proposed regulations at Sections 59.131—59.143. Future Federal amendments will automatically take effect for purposes of the PUC’s regulations after 60 days, unless otherwise directed. In this regard, we created new language to indicate that future amendments to the Federal regulations that are more stringent than the PUC’s requirements under proposed Sections 59.131—59.143 will control.

Section 59.133 also addresses enforcement and records. Subsections (b) and (c) provide for the inspection of hazardous liquid public utilities for compliance purposes, require hazardous liquid public utilities to make their facilities, books, and records accessible to the Pipeline Safety Section, and require the provision of reports, data, and other information to the Pipeline Safety Section upon request. These subsections will aid the PUC in ensuring compliance with the proposed regulations.

Finally, Section 59.133 addresses pipeline conversion. Subsection (d) directs hazardous liquid public utilities to notify the PUC’s Pipeline Safety Section before a pipeline is converted from service not previously covered by the Hazardous Liquid Pipeline Safety Standards. This subsection also requires hazardous liquid public utilities engaged in conversion, flow reversal, or commodity change subject to 49 CFR 195.5 to comply with Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service, PHMSA Advisory Bulletin ADB-201-04, Docket

No. 2014-0040; 79 FR 56121-56122. These requirements will provide additional oversight for pipeline conversions.

a. Comments On § 59.133

i. IRRC

IRRC asks the PUC to explain its rationale for imposing more stringent standards and provide data to support its conclusions for all the subsections of section 59.133.

(a) § 59.133(a) Minimum Safety Standards

IRRC has two concerns. First, the provision does not state how the PUC will ensure the regulated community is in compliance with the most current regulations when the Federal minimum standards are updated and the PUC's regulations are not amended. The lack of explanation will require hazardous liquid public utilities to interpret and determine which set of regulations is more stringent -the federal or state standards. Second, the term "like requirement" lacks clarity. IRRC requests an explanation as to how this provision will be implemented and the timetables for the regulated community to comply with standards that may be updated. IRRC also requests the PUC clarify the term "like requirement."

(b) § 59.133(d) Pipeline Conversion

IRRC commented that subsection (d) requires notification to the PUC's Pipeline Safety Section before a pipeline is converted from service not previously covered by the hazardous liquid pipeline safety standards. It also requires compliance with a PHMSA guidance document. Additionally, subsection (d)(1) applies to pipelines already designed for bi-directional flow. A commentator stated an operating characteristic is not relevant when determining if a pipeline is subject to the PHMSA's conversion-to-service requirements and urges elimination of this requirement. IRRC requests that the PUC

consider this recommendation and clarify this subsection by deleting this provision or explain why it is needed.

Subsection (d)(2) requires a hazardous liquid public utility to adhere to 49 CFR 195.5 and “Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service,” PHMSA Advisory Bulletin ADB-2014-04, and any updates thereto. The PUC stated in the Preamble that these “requirements will provide additional oversight for pipeline conversions.” Commentators expressed concern with requiring compliance with PHMSA guidance “which is not legally required and does not have the force and effect of law” and can be modified without prior notice or stakeholder comment. They urge the PUC to eliminate this requirement. IRRC concurs with these concerns and requests the PUC explain why it is necessary to include this guidance document in addition to the Federal regulation and, further, to consider eliminating this requirement.

ii. Environmental Advocates

(a) § 59.133(a) Minimum Safety Standards

The Environmental Advocates urge the PUC to commit to providing its own notice to stakeholders when relevant updates are made to PHMSA rules that would affect this rulemaking and to include a sentence in this rule notifying the stakeholders where to check for the PUC’s list of any updates.

(b) § 59.133(b) Enforcement

Environmental Advocates aver that for this rulemaking to be effective the PUC must update enforcement mechanisms by spelling out meaningful consequences for noncompliance. Environmental Advocates strongly urge the PUC to set forth additional specific enforcement options in a separate section of the rulemaking rather than nesting it under general provisions. Doing so is necessary to fulfilling its obligation to protect the

public by ensuring that public utilities, particularly dangerous utilities like hazardous liquid pipelines, comply with state and federal regulations.

Environmental Advocates argue that any sanctions or other measures necessary to fulfill the PUC's statutory duty to ensure that public utilities provide "efficient, safe, and reasonable service" should require the PUC to base its choice of enforcement measures on several factors including:

1. Whether a particular enforcement action is necessary for public safety;
2. Severity of the violation;
3. Duration of the violation;
4. Gravity of the violation;
5. Number of times the same party has committed the same or similar offense, tallied across projects;
6. Good faith of the company in attempting to achieve compliance;
7. Degree of control the company has over the circumstances leading to the violation (including whether they were warned that there was a risk of such circumstances arising);
8. Recalcitrance in remedying the violation; and
9. Whether the violation triggers a "threatened emergency" (as defined in §50.132).

(c) § 59.133(c) Records

The Environmental Advocates fully support all efforts to provide the PUC's BI&E with the full authority to inspect, at any time, any public utility records which may implicate public safety. Such records should include siting plans; preconstruction designs; construction documents; worker credentials and qualifications; best practices for each part of pipeline operations; any contents of the Section 195 manual used for each

public utility service; all maintenance records; all incident reports, including those made to local, state, or federal government agencies or to professional associations; and all supporting documents for each of these types of documents.

(d) § 59.133(d) Pipeline Conversion

Again, the Environmental Advocates suggest that “conversion” should be defined in § 59.132 to clarify that it includes inactive pipelines being brought back into service, not just pipelines being converted from one form of service to another. Environmental Advocates Comments at 3. Additionally, the paragraph should not be limited to “pipelines already designed for bi-directional flow.”

The Environmental Advocates argue that by incorporating PHMSA guidance, this section effectively urges operators to “consider performing ILI and hydrostatic pressure with a spike test.” Thus, strictly speaking, an operator who “considers” such a test is “adhering to” the guidance. *Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service*, Docket No. PHMSA–2014–0040. The Environmental Advocates also urge the PUC to modify the language to explicitly state that operators are required to implement the measures recommended in the guidance.

The Environmental Advocates urge the PUC to require that for each type of test recommended in the guidance, operators must follow the more stringent of the protocols from either the most current iteration of the guidance or from other parts of these regulations. For example, if the pressure testing described in § 59.139 of this rulemaking is more rigorous, that is what this rule should require.

In the interest of safety and to help the PUC better understand how pipelines age, the Environmental Advocates urge the PUC to require a study, at least as rigorous as that in PHMSA’s guidance, for *any* change of service proposed by any operator, including a

change of products transported, flow reversal, instituting bi-directional flow, increase in maximum operating pressure, or other issues which the PUC or BI&E find appropriate. BI&E should also have the authority to order such a study before any operator institutes such a change or replacement of a “significant” amount of pipe. For this purpose, Environmental Advocates suggest that replacing approximately five percent of the length of pipeline between two valve sites is “significant.”

The Environmental Advocates suggest that as part of this rulemaking, the PUC require each operator of each hazardous liquid pipeline to conduct a periodic “end-of-life” or “remaining life” review, perhaps every ten years, and to, where possible, incorporate then-current best practices. The Environmental Advocates note that the PUC has already ordered a remaining life study for the ME1 pipeline, and the Advocates commend that decision.

The Environmental Advocates further suggest that the PUC require studies for pipelines over 30 years old (or another evidence-based age), and for pipelines constructed with materials other than epoxy coated steel pipe, which is the current industry best practice. Many older pipelines may be coated with tar, asbestos, or nothing at all.

Finally, the Environmental Advocates suggest that the PUC consider regulating inactive pipelines, as is done in several other states. For example, the PUC may require an inactive pipeline to be surveyed for leaks or be disconnected, or both, after a specified time frame of two to five years. The Environmental Advocates encourage the PUC to review a few examples of how other states address some inactive pipelines. *See, e.g.*, Alabama (AL PSC Order D#17545 Rule 13); Maine (65-407 C.M.R. Ch. 420, § 6(C)(1-2)); Rhode Island (815-RICR-20-00-1.10(A)).

(e) § 59.133(e) Best Practices Framework

The Environmental Advocates propose that the PUC establish a best practices framework. Such a framework would allow the regulations to evolve with the knowledge and experience of a broad base of experts. The Environmental Advocates suggest a framework that provides tools for industry and the public. The PUC should educate operators about best practices, require adherence to select best practices, and establish best practices as the expected norm. The PUC should publish PUC-Recognized Best Practices and create a more select list of mandatory best practices.

In the Environmental Advocates' proposed subsection (e), the PUC would maintain a library of "Commission-Recognized Best Practices" covering a comprehensive list of tasks, procedures, and practices. Since there are numerous sources of potential best practices, such a library would provide clarity for operators, increase consistency, and facilitate increased safety and efficiency. To be effective, such a library would need to be regularly updated as best practices evolve. At minimum, the PUC should commit to reviewing and updating it at least every five years. The library should be publicly available, and the PUC should notify operators whenever it is updated.

Additionally, the Environmental Advocates suggest that the PUC should provide utilities with a curated list of mandatory best practices with which it requires operators to comply. Several other states require pipelines to follow select best practices, and the PUC has the expertise to determine which best practices are most impactful, perhaps with advice from the workgroup, if it chooses to create one.

iii. The Associations

The Associations aver that the language in subsection (a) is unnecessary as this section already makes PHMSA's safety standards applicable to hazardous liquid pipelines facilities. The Associations urge the PUC to revise the conversion to service

requirements in subsection (d), opining that the reference to “this part” is confusing. The Associations recommend referencing 49 CFR Part 195 instead. The Associations also suggested eliminating the reference to “bi-directional flow” in subsection (d)(1). The Associations do not support incorporating a PHMSA Advisory Bulletin titled *Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service* as proposed in subsection (d)(2) as these are guidelines that can be changed at any time.

iv. Sunoco

Sunoco is concerned with the PUC’s reference to bi-directional lines in subsection (d)(1), which appears to require notice every time a pipeline operator reverses flow on a bi-directional line. Sunoco avers that this is not practical and conflicts with Section 195.5 of PHMSA’s regulations. Additionally, Sunoco is troubled with the PUC codifying PHMSA guidance that is not legally required and does not have the force or effect of law; incorporating the PHMSA Advisory Bulletin codifies certain recommendations that were never intended to be mandatory. Sunoco argues that codifying PHMSA guidance and any updates thereto violates the non-delegation doctrine by tying an agency’s authority to another agency’s future decisions.

(v) East Goshen Township

East Goshen Township Notes that the 60-day notice requirement in subsection (d) for conversions may not be sufficient in all cases and contends that advanced notification and approval by the PUC should be required. The Township also states that the PUC should consult with a certified third-party industry expert prior to granting any approval for such conversion and perform a detailed risk assessment.

(vi) Chester County

The County of Chester states that subsection (b) Enforcement and subsection (c) Records should include the term “mapping.”

(vii) Senator Carolyn Comitta

Senator Comitta offers that subsections (b) and (c) should include the term “mapping.”

b. Reply Comments

i. Environmental Advocates

The Environmental Advocates disagree with the Associations that the language regarding PHMSA minimum standards in this section is entirely redundant with similar language in § 59.33. Environmental Advocates reiterate their position that the PUC must create a robust enforcement mechanism beyond largely ineffective fines in order to fulfill its §1501 mandate. Additionally, the Advocates support Chester County’s request that the PUC add the term “mapping” to Sections 133(b) and 133(c).

The Environmental Advocates agree with the Associations that the reference to the conversion of pipelines “from a service not previously covered by this part” in § 59.133(d)(1) should be clarified. The Associations believe “this part” refers to 49 CFR Part 195, whereas the Environmental Advocates read it to mean services not otherwise included in the definition of hazardous liquid pipelines under the proposed rulemaking. The PUC should replace the words “this part” with an explicit reference to avoid potential confusion.

The Environmental Advocates likewise agree that the PUC should remove the reference to bi-directional flow. The Associations assert that “bi-directional flow” is irrelevant to PHMSA’s pipeline conversion regulations and that it does not make sense for it to be inserted here.

The Environmental Advocates point out that although the Associations object to the PUC making conversion-to-service requirements more stringent by requiring

operators to implement recommendations in the PHMSA guidance document, as the Associations had no ability to comment on the PHMSA guidance document, the Associations are, in fact, bemoaning the lack of an opportunity to comment on the guidance before it becomes a rule in the very document that exists for that purpose, namely the NOPR.

Environmental Advocates suggest that if the PUC decides against automatically incorporating updates to PHMSA's guidance, it then incorporates any updates as provided for in Environmental Advocates' broader best practices discussed above. As explained, within that framework, the PHMSA guidance would be included in the PUC's library of best practices which it would update at least every five years.

Lastly, Environmental Advocates echo East Goshen Township's concerns that sixty days may be insufficient notice for converting a previously uncovered pipeline to carry a more volatile product. Environmental Advocates urge the PUC to use its siting authority to approve or disapprove the conversion because it is equivalent to newly siting a more dangerous project.

ii. Sunoco

Regarding subsection 59.133(b), Sunoco states the PUC should reject the Environmental Advocates' recommendations regarding potential enforcement measures. Sunoco submits that these recommendations are redundant considering the PUC's authority under the Public Utility Code and are duplicative of the *Rosi* standards that the PUC commonly applies in enforcement proceedings. *Rosi v. Bell Atlantic-Pennsylvania, Inc. and Sprint Communications Company, L.P.*, Docket No. C-00992409 (Order entered March 16, 2000) (*Rosi*). The PUC initially adopted the standards in *Rosi* to determine the amount of civil penalties to be assessed in slamming cases, as well as to evaluate settlement agreements in slamming cases. *See Pa. Pub. Util. Comm'n v. PEPCO Energy*

Serv., M-00001432 (Order entered November 9, 2000). *See also* 52 Pa. Code § 69.1201 (relating to factors and standards for evaluating litigated and settled proceedings involving violations of the Public Utility Code and [PUC] regulations).

Sunoco contends that the Environmental Advocates' assertions regarding subsection 59.133(d) that the PUC should explicitly state that operators must implement the measures recommended by PHMSA and that the PUC should require operators to follow the more stringent of the protocols from the most current iteration of the guidance are flawed. Sunoco argues that the PUC should not require mandatory adherence to the PHMSA Advisory Bulletin and that the PUC should provide operators flexibility.

As noted above, Sunoco also contends that the PUC should reject the Environmental Advocates' proposal regarding "conversion." Sunoco states that the Federal regulations define "conversion" as converting a steel pipeline previously used in service not subject to Part 195 that now qualifies for use under Part 195 and does not include any reference to reactivated or inactive pipelines. Sunoco avers that PHMSA retains continued jurisdiction and oversight over "idled" and "inactive" pipelines. Sunoco also notes PHMSA's responsibility to promulgate regulations prescribing the applicability of the pipeline safety requirements to idled natural or other gas transmission and hazardous liquid pipelines no later than two years after the enactment of the PIPES Act of 2020. Sunoco states that the PUC should defer to PHMSA.

While East Goshen Township notes its concern that the 60-day pipeline conversion notice may not be sufficient and that certain conversions should require advanced notification and approval from the PUC, Sunoco replies that the 60-day notice is consistent with 49 CFR 195.64 and adopting East Goshen's proposal would create an arbitrary and ill-defined approval process that will result in a waste of infrastructure and disincentivize utilities from using existing infrastructure, leading to abandonment and, potentially, the more disruptive procedure of new pipeline construction.

Sunoco submits that the PUC acting alone is not the right agency to determine or establish a compendium of pipeline operation best practices as the Environmental Advocates propose as a new subsection 59.133(e). Sunoco claims the PUC's flawed proposals contained in its NOPR demonstrate it is not equipped to make such determinations and does not have the resources to do so.

Sunoco disagrees with the Environmental Advocates' position regarding aging pipelines that the PUC should require a study for any change of service proposed by an operator, the conducting of a periodic "end-of-life" or "remaining life" review and incorporating then-current best practices. Sunoco states that it is unclear what study the Environmental Advocates want pipeline operators to perform. Sunoco also condemns the suggestion that the PUC aggregate the data to assist BI&E in evaluating how pipelines age. Sunoco also notes that the PUC dealt with remaining life studies in the *Proposed Reporting Rulemaking* at L-2019-3010270 (NOPR entered June 13, 2019).

iii. Luke Bauerlein

Luke Bauerlein is a resident of Chester County residing in a high consequence zone of the Mariner East pipeline who agrees with previous comments made that support stricter regulations on hazardous liquid pipelines. Over the course of the Mariner East project, the current PHMSA guidelines have been trampled all over by the industry, have caused lasting damages to property and drinkable water, and have left our communities vulnerable to a catastrophic event – in the event of a leak, there are no credible safety plans for our people to evacuate safely. Mr. Bauerlein rejects comments that suggest the current guidelines are sufficient, reasonable or adequate to keep our populace safe from harm.

iv. Lex Pavlo

Mr. Pavlo lives along the path of the Mariner East pipelines in West Chester, Chester County. He participated in local meetings and township meetings. He states that there have been documented incidents at Marsh Creek, the Exton Library and the pump station, which is located at Boot Road and Route 202 in West Goshen Township, Chester County. He requests the PUC review where these pipes are located and states:

Given the Karst topography and the ongoing sinkholes and inadvertent returns perhaps there should be a deeper dive of the location of these pipes and the potential risk as it relates to the reward (none for citizens of this state as I understand) that will be enjoyed by Energy Transfer/Sunoco.

c. Disposition On § 59.133

i. Subsection 59.133(a) Minimum Safety Standards

While the Environmental Advocates urge the PUC to commit to providing its own notice to stakeholders when relevant updates are made to PHMSA rules that would affect this rulemaking and to include a sentence in this rule notifying the stakeholders where to check for the PUC's list of any updates, we decline any such undertaking. Updated rules exist at <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-D/part-195>, and we conclude that hazardous liquid pipeline public utilities possess adequate resources and personnel to remain up to date on evolving PHMSA rules.

We disagree with the Associations that the language in subsection (a) is unnecessary as this provision already makes PHMSA's safety standards applicable to hazardous liquid pipelines facilities. As the Environmental Advocates correctly note, the language regarding PHMSA minimum standards in this section is not redundant with similar language in § 59.33, as 59.33 is being modified to apply only to natural gas public utilities, by removing any references to hazard liquid public utilities. Because proposed

sections 59.131—143 will apply only to hazardous liquid pipeline public utilities, this language is necessary in establishing the applicable federal minimum safety standards.

Future Federal amendments to 49 CFR Parts 195 and 199, shall generally have the effect of amending or modifying the PUC’s regulations regarding the minimum safety standards for hazardous liquid public utilities and shall take effect 60 days after the effective date of the Federal amendment or modification, unless the PUC publishes a notice in the *Pennsylvania Bulletin* stating that the amendment or modification may not take effect.

We have removed the last sentence: “If future Federal amendments to 49 CFR Parts 195 and 199 have the effect of making a Federal PHMSA safety requirement more stringent than a like requirement under §§ 59.131—59.143 (relating to hazardous liquid public utility safety standards), the more stringent Federal safety standard shall control.” 59.133(a); Annex at 5. The delegation of authority doctrine as set forth in *Protz* does not apply to our adoption of Federal pipeline safety regulations as the minimum standards to keep our certification. Hazardous liquid public utilities may interpret amendments to federal regulations are more stringent than prior regulations unless the PUC issues notice in the *Pennsylvania Bulletin* to the contrary stating that the PUC is not adopting a specific amended federal regulation. We have removed the last sentence of 59.133(a) such that the PUC may decide as to what is more stringent than a federal amendment that would be automatically adopted unless express notice is given by the PUC that it is not being adopted.

ii. Subsection 59.133(b) Enforcement

While the Environmental Advocates strongly urge the PUC to set forth additional specific enforcement options in a separate section of the rulemaking rather than nesting it under general provisions, we decline to make such modifications to the Annex. Currently, violators are subject to a civil penalty not to exceed \$200,000 for each

violation for each day that the violation persists, except that the maximum civil penalty shall not exceed \$2,000,000 for any related series of violations, or subject to a penalty provided under Federal pipeline safety laws, whichever is greater. 66 Pa.C.S. 3301(c). Injunctive relief is available through the emergency order processes described in 52 Pa. Code 3.1, *et seq.*, and may be directed after litigated complaint proceedings when violations of regulations are held to have occurred.

Many States do not have separate penalty guidelines for intrastate pipeline safety violations. Although Texas has penalty guidelines, they are only guidelines to be considered by the Texas Commission in determining the amount of administrative penalties for violations of Texas Natural Resources Code, Title 3 relating to pipeline safety, or of rules, orders or permits relating to pipeline safety adopted under those provisions and for violations of Texas Utilities Code, Chapter 121, Subchapter E, or a safety standard or other rule prescribed or adopted under that subchapter. 16 TAC § 8.135. As Sunoco correctly states in its reply comments, the Environmental Advocates' recommendations are redundant considering the PUC's authority under the Public Utility Code to assess civil penalties up to the statutory maximum when warranted by the facts in any case, regardless of omission from this section. We may additionally direct injunctive relief when citing violations of regulations relating to pipeline safety, or orders relating to pipeline safety entered under those provisions. A *Rosi* analysis is typically performed when violations of regulations, statutes or PUC Orders are held to have occurred in litigated complaint proceedings before the PUC. The analysis included consideration of several factors in determining the monetary amount of any civil penalty warranted depending upon the facts of any case.

We do intend, however, to modify the term "assure compliance" in Subsection (b) to read "review for compliance" because ultimately it is the duty of the hazardous liquid public utility to assure their pipelines are safe to operate.

We see no need to define “emergency” in the context of a hazardous liquid pipeline separate from its definition at 52 Pa. Code Section 3.1. A “clear and present danger” standard has been applied to petitions for emergency injunctive relief regarding the Mariner East Project and is the normal standard applied to a variety of cases.

We reject the Environmental Advocate’s proposal that we require BI&E to seek an injunction for temporary shutdowns whenever it becomes aware of a qualifying emergency situation as such a regulatory requirement may violate *Lyness v State Bd. of Medicine*, 605 A.2d 1204 (Pa. 1992), which prohibits the comingling of prosecutory and adjudicatory functions by Commonwealth agency decision makers. *See also Implementation of Act 129 of 2008; Organization of Bureaus and Offices*, Docket No. M-2008-2071852 (Order entered August 11, 2011).

We agree with the Environmental Advocates that the suspension or revocation of a CPC is a potential outcome for egregious violations, particularly if they significantly threaten or have already harmed the public. However, we see no need at this time for that to be expressly stated in an enforcement penalties guidelines section.

Finally, Senator Comitta and the County of Chester commented that subsections (b) and (c) should include the term “maps.” We note that the Environmental Advocates support Chester County’s request that the PUC add the term “maps” to Section 59.133(b) and (c). We agree to reference maps in Section 59.133.

Accordingly, we have revised § 59.133 (b) and (c) in the final-form regulation as discussed above.

iii. Subsection 59.133(c) Records

We decline to modify the language in subsection (c) to list specifically each type of record open to inspection by the Pipeline Safety Section. The Public Utility Code at

66 Pa.C.S. § 506 already provides adequate breadth in the records and facilities open to inspection.

iv. Subsection 59.133(d) Pipeline Conversion

Per IRRC’s request, we are explaining our rationale for imposing more stringent standards and providing data to support our conclusions for this subsection. We are removing the requirement in the first paragraph that applied it to pipelines already designed for bi-directional flow. Additionally, we have removed the “and any updates thereto” language from the last sentence in the second paragraph.

We considered amending Chapter 73 (relating to Annual Depreciation Reports, Service Life Studies and Capital Investment Plans) in *Proposed Reporting Rulemaking at L-2019-3010270*. That proposed rulemaking was published in the *Pennsylvania Bulletin* on June 13, 2019, seeking public comments on PUC’s proposal to require crude oil, gasoline, and petroleum products transportation pipeline public utilities to file annual depreciation reports, service life study reports, and capital investment plan reports in accordance with existing provisions which are presently limited to electric, water, and natural gas utilities. That rulemaking proceeding was closed on October 22, 2021. In closing that rulemaking, we considered incorporating a service life study requirement into this final form rulemaking. However, considering the guidance provided by PHMSA, the PUC continues to consider efforts to address the safety of pipeline integrity and public utility infrastructure but declines to include a service life study in this rulemaking.

As noted above, we agree with the Environmental Advocates’ suggestion that the term “conversion” should be defined in Section 59.132 to clarify that it includes inactive pipelines being brought back into service, not just pipelines being converted from one form of service to another. We have defined “conversion to service” in Section 59.132. We have also defined the terms “flow reversal” and “commodity change” in Section

59.132 for clarity with respect to Section 59.140. Additionally, Environmental Advocates suggest that the paragraph should not be limited to “pipelines already designed for bi-directional flow.” This language is removed from subsection (d).

While the Environmental Advocates urge the PUC to modify the language to explicitly state that operators are required to implement the measures recommended in the PHMSA guidance, we conclude that requiring adherence to *Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service*, PHMSA Advisory Bulletin ADB-2014-0040; FR 56121-56122 is an additional safety requirement that is consistent with PHMSA’s regulation. However, to require adherence to “updates” may violate the non-delegation doctrine by tying the PUC’s authority to another agency’s future decisions. *Protz*. Therefore, we revised Subsection (2) and deleted the “and any updates thereto” requirement. This section effectively urges operators to “consider performing ILI and hydrostatic pressure with a spike test.” Strictly speaking, an operator who “considers” such a test is “adhering to” the PHMSA guidance.

Likewise, the Associations do not support incorporating a PHMSA Advisory Bulletin as proposed in subsection (d)(2) as these are guidelines that can be changed at any time. To assist regulated parties, PHMSA provides written explanations of the Federal pipeline safety regulations at 49 CFR Parts 190—199 in the form of guidance, interpretations, FAQs, and other materials. These guidelines for flow reversals, product changes, and conversion-to-service reflect PHMSA’s current application of the regulations to certain implementation scenarios that may impact a pipeline’s integrity. Because this guidance material does not create legally enforceable rights or obligations, we are not inclined to make adherence to PHMSA Advisory Bulletins a regulatory requirement.

The Environmental Advocates urge the PUC to require that for each type of test recommended in the guidance, operators must follow the most stringent of the protocols

from either the most current iteration of the guidance or from other parts of these regulations. For example, if the pressure testing described in § 59.139 of this rulemaking is more rigorous, that is what this rule should require. We are not, however, inclined to hamstring operators by requiring the most stringent protocols to be used, given the myriad scenarios in which pipeline operators reverse flow, change products or convert service. Accordingly, we have not amended the language to require mandatory adherence to the most stringent protocols but are requiring hazardous liquid pipeline public utilities to adhere to *Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service*, PHMSA Advisory Bulletin ADB-2014-04, Docket No. 2014-0040; 79 FR 56121-56122.

The Environmental Advocates further urge the PUC to require a study, at least as rigorous as that in PHMSA’s guidance, for *any* change of service proposed by any operator, including a change of products transported, flow reversal, instituting bi-directional flow, increase in maximum operating pressure, or other issues which the PUC or BI&E find appropriate. BI&E should also have the authority to order such a study before any operator institutes such a change or replacement of a “significant” amount of pipe.

We agree with Sunoco, however, that it is unclear what study the Environmental Advocates want hazardous liquid public utilities to perform and deem it unnecessary that the PUC aggregate the data to assist BI&E in evaluating how pipelines age. The Environmental Advocates suggest that the PUC require each operator of each hazardous liquid pipeline to conduct a periodic “end-of-life” or “remaining life” review, perhaps every ten years and to, where possible, incorporate then-current best practices.

In 2019, the PUC proposed a regulation regarding a requirement to provide a service life study in the *Proposed Reporting Rulemaking* at L-2019-3010270, (NOPR entered June 13, 2019). The “service life study” requirement of Chapter 73 of our

regulations, 52 Pa. Code § 73.5, is a reporting requirement that has never been enforced against interstate transmission pipeline operators, whose interstate rates for shipping hazardous liquids the PUC does not regulate. Service life studies are based on historic data used in annual depreciation reports filed by rate-regulated public utilities with gross intrastate revenues in excess of \$20 million per year. 52 Pa. Code § 73.5(b)(4). The *Proposed Reporting Rulemaking* at No. L-2019-3010270 has closed.

In this rulemaking, we decline to adopt an “end-of-life,” “remaining life,” or service life study. However, the PUC continues to examine pipeline integrity issues, and will continue to consider efforts to further address the safety of public utility infrastructure.

The Environmental Advocates further suggest that the PUC require studies for pipelines over 30 years old and for pipelines constructed with materials other than epoxy coated steel pipe, which is the current industry best practice. As stated above, the PUC is not inclined to require operators to conduct such studies.

Finally, the Environmental Advocates suggest that the PUC consider regulating inactive pipelines as is done in several other states. For example, the PUC may require an inactive pipeline to be surveyed for leaks and/or disconnected after a specified time frame of two to five years. Because there is no authority requiring operators to retire segments of pipelines as a result of leak, we are not inclined to implement such a requirement. Currently, pipelines are either required to meet the federal minimum safety requirements or be retired. Once retired, the pipeline then would be required to fully meet federal minimum safety requirements prior to being put back into service. Moreover, pipelines currently not in use, but not retired, must also meet the minimum safety requirements.

Next, the Associations urge the PUC to revise the conversion to service requirements in subsection (d), opining that the reference to “this part” is confusing. The Associations recommend referencing 49 CFR Part 195 instead. Environmental Advocates agree with the Associations that the reference to the conversion of pipelines “from a service not previously covered by this part” in § 59.133(d)(1) should be clarified. The Associations believe “this part” refers to 49 CFR Part 195, whereas Environmental Advocates read it to mean services not otherwise included in the definition of hazardous liquid pipelines under the proposed rulemaking. We agree with the Environmental Advocates and the Associations that the language in subsection (d)(1) should be made clearer. We have amended the first sentence in subsection (d)(1) to read as follows: “A hazardous liquid public utility engaged in conversion to service or product change must notify the Pipeline Safety Section no later than 60 days before the conversion to service or product change occurs.” We note that the term “conversion to service” is now defined terms in Section 59.132 in the final-from regulation. The reference to “this part” in (d)(2) is part of the name of 49 CFR 195.5 and has been retained.

Sunoco, the Environmental Advocates, and the Associations all agree that PUC’s reference to bi-directional lines in subsection (d)(1), which appears to require notice every time a pipeline operator reverses flow on a bi-directional line, should be removed because this is not practical and conflicts with Section 195.5 of PHMSA’s regulations. All three commenters suggested eliminating the reference to “bi-directional flow” in subsection (d)(1), and we agree. Such reference will be deleted.

Next, East Goshen Township opines that the 60-day notice requirement in subsection (d) for conversions may not be sufficient in all cases and contends that advanced notification and approval by the PUC should be required. The Township also states that the PUC should consult with a certified third-party industry expert prior to granting any approval for such conversion and perform a detailed risk assessment. Environmental Advocates echo East Goshen Township’s concerns that sixty days may be

insufficient notice for converting a previously uncovered pipeline to carry a more volatile product. Environmental Advocates urge the PUC to use its siting authority to approve or disapprove the conversion because it is equivalent to newly siting a more dangerous project.

While East Goshen Township submits that the 60-day pipeline conversion notice may not be sufficient and that certain conversions should require advanced notification and approval from the PUC, Sunoco replies that the 60-day notice is consistent with Part 195.64 and that adopting East Goshen's proposal would create an arbitrary and ill-defined approval process that would result in a waste of infrastructure and disincentivize utilities from using existing infrastructure, leading to abandonment and, potentially, the more disruptive procedure of new pipeline construction. We agree and therefore decline to increase the 60-day notice requirement.

Accordingly, we have revised 59.133 (d) in the final-form regulation as discussed above.

v. New § 59.133(e) Best Practices Framework

As discussed in detail above, the Environmental Advocates propose that the PUC establish an additional section setting forth a best practices framework. In their opinion, such a framework would allow the regulations to evolve with the knowledge and experience of a broad base of experts as it would provide tools for industry and the public. Specifically, they recommend that the PUC educate operators about best practices, require adherence to select best practices, and establish best practices as the expected norm and that the PUC should publish Commission-Recognized Best Practices and create a more select list of mandatory best practices.

In response, Sunoco submits that the PUC acting alone is not the right agency to determine or establish a compendium of pipeline operation best practices as the Environmental Advocates propose. Sunoco claims the PUC's flawed proposals contained in its NOPR demonstrate it is not equipped to make such determinations and does not have the resources to do so.

The PUC disagrees with this assertion by Sunoco, noting that BI&E is certified by PHMSA to conduct inspections and manage the hazardous liquid pipeline safety program. Notwithstanding, with respect to the Environmental Advocates' proposed new subsection (e), we decline to add such a new 59.133(e) regarding best practices. Instead, hazardous liquid pipeline public utilities may develop and follow procedures applicable to maintain the integrity of their pipelines. NACE International²⁹ is an authority in corrosion prevention and control that sets forth many standard practices (representing a consensus of those members who have reviewed them), some of which are incorporated by reference in the 49 CFR Part 195 that can be found at <http://www.nace.org>. Federal engineering standards may be stricter than Federal and State minimum safety standards and often are viewed as the recommended best practices of the industry.

Accordingly, we decline to incorporate an additional section setting forth a best practices framework in the final-form regulation.

5. § 59.134. Accident Reporting

Section 59.134 of the PUC's proposed regulations set forth requirements for hazardous liquid public utilities reporting accidents. Section 59.134 would work in conjunction with 49 CFR 195.50 (relating to reporting accidents), 49 CFR 195.52 (relating to immediate notice of certain accidents), and 49 CFR 195.402(c)(5) (relating to

²⁹ NACE International was initially the National Association of Corrosion Engineers. NACE International and the Society for Protective Coatings are now the Association for Materials Protection and Performance.

procedural manual for operations, maintenance, and emergencies). Section 59.134(b)-(c) requires that, after any accident causing the conditions described in 49 CFR 195.50, a hazardous liquid public utility must provide a failure analysis report and a root cause analysis report to the PUC's Pipeline Safety Section. The failure analysis report and root cause analysis report will be due within 120 days of the accident or within ten days of report completion, whichever comes first. The failure analysis and root cause analysis are to be performed by an independent third-party laboratory and an independent third-party consultant, respectively. A hazardous liquid public utility would be required to provide status reports to the PUC's Pipeline Safety Section every 14 days if the respective deadlines are not met. The Pipeline Safety Section would have authority to review and grant written requests for one thirty (day) extension of time on a case-by-case basis. Subsection (d) set forth the process for obtaining approval of a third-party laboratory and consultant.

Section 59.134(e), as proposed, requires that, after the release of a hazardous liquid causing the conditions described in 49 CFR 195.52, a hazardous liquid public utility must provide immediate notice to the Pipeline Safety Section and to emergency responders. Notice would be provided at the earliest practicable moment and no later than one hour after confirmed discovery. The accident reports required by § 59.134 would provide the PUC's Pipeline Safety Section, and emergency responders in the case of subsection (e), with additional information regarding pipeline accidents.

a. Comments On § 59.134

i. Environmental Advocates

The Environmental Advocates fully support the PUC's proposed requirements to submit failure analysis reports and root cause analysis reports. In their reply comments, the Environmental Advocates explain further that root cause analysis investigations are necessary for operators complying with the PUC's Section 1501 general duty

requirements, the Environmental Protection Agency's (EPA) Section 112(r) General Duty Clause, 42 U.S.C. § 7412(r)(1), and the Occupational Safety and Health Administration's (OSHA) general duty clause at 29 U.S.C. § 654.5(a)(1). Having a thorough understanding of the cause of accidents and failures is crucial to preventing repeated problems. The Environmental Advocates also agree that for such analysis to be meaningful, it must be done by an independent third party.

Edgmont Township further supports Section 59.134, noting that hazardous liquid public utilities should also be required to report accidents to local municipalities, conservation districts, and abutting property owners.

Regarding more specific recommendations, the Environmental Advocates note that the proposed regulation calls for a status update every 14 days if the reporting deadlines cannot be met and states that it is important that status updates be detailed, provide an explanation for the delay, and a timeline for completion so that the PUC can ensure the analysis is proceeding appropriately. The Environmental Advocates also propose that the PUC should identify circumstances in which a status update must include draft findings and analyses and that the PUC should establish a timeline under which failure to timely produce the final reports would trigger enforcement actions from Section 59.133(b).

Next, the Environmental Advocates contend the PUC should expand the proposed rule (and 49 CFR 195.52) to include accidents that may threaten public safety even absent a release of a hazardous liquid. The Environmental Advocates argue that the PUC should require the hazardous liquid public utilities to provide immediate notice of sinkholes, landslides, and other hazardous geological conditions that may be caused or encountered during construction, operation, or maintenance. The Environmental Advocates further argue that the PUC should require immediate reporting of releases that occur in high-consequence or ecologically sensitive areas, regardless of whether any of

the other listed triggers apply. The Environmental Advocates recommend lowering the property damage threshold for reporting to better reflect the significance of the damage to residents.

It is also important, in the opinion of the Environmental Advocates, that the PUC close a problematic loophole in the PHMSA rules. Part 195.50 works in conjunction with 49 CFR 195.52 and has many overlapping incident categories but also creates an exception. An exception based on hazardous liquids spills being confined to a company's property or right of way does not reflect the reality of the threat posed by such spills. In particular, air emissions due to evaporative losses from spills of hazardous liquids are necessarily not confined to property lines or rights of way and could trigger health and environmental impacts beyond the property boundary even in relatively small quantities. Likewise, spills that initially appear to be confined to a company's property can also migrate through water and soil. The Environmental Advocates strongly recommend that Section 59.134 provide for direct and immediate notice to owners of drinking water supplies when there is an accident or release that has the potential to impact drinking water supplies. According to the Environmental Advocates, the PUC should rely on DEP technical guidance as a starting point to determine the appropriate radius within which to notify drinking water supply owners of an accident.

ii. The Associations

Meanwhile, the Associations contend that the reporting requirements outlined in § 59.134(b) and (c) are duplicative of the notification and reporting requirements prescribed in 49 CFR Part 195. The Industrial Associations further notes that 49 CFR 195.50 requires accident reporting for events that do not warrant an independent third-party analysis and recommends that the additional accident reporting requirements in § 59.134(b)—(d) be limited to those events meeting the criteria in 49 CFR 195.50(a), (c), and (d). Similarly, according to Sunoco, the proposed regulation represents an undue

burden for pipeline operators, would add unnecessary reporting requirements, and is inconsistent with 49 CFR 195.402(c)(5), which gives operators discretion to prepare their own set of written procedures for investigating an accident.

iii. Sunoco

Sunoco states its opposition to recommendations of the Environmental Advocates regarding status updates in subsections 59.134(b) and (c). Moreover, Sunoco objects to the Environmental Advocates' proposed changes to Section 59.134(e) regarding immediate notice and argues that notice to the National Response Center (NRC) triggers notifications to relevant emergency response agencies and other relevant government and municipal agencies.

Sunoco asks the PUC to revise Section 59.134(e) to remove the requirement to report accident information to the Pipeline Safety Section and to emergency responders because an accident that meets certain requirements is communicated to the National Response Center, which is a centralized notification center that will make relevant notifications to relevant emergency response centers. Sunoco argues that immediate notification to the PUC and emergency responders should be reserved for true emergencies, not every accident that could potentially occur. Sunoco continues that the pipeline operator should only be responsible for calling one agency during emergency situations rather than communicating with multiple agencies; this will ensure that critical resources are devoted to responding to an accident. Sunoco submits that the National Response Center is the appropriate contact.

iv IRRC

IRRC and the Industrial Associations asked the PUC to explain its rationale for imposing more stringent standards and to provide data to support its conclusions for all the subsections of Section 59.134. For subsections (b) and (c), IRRC noted that a

commenter is concerned that the PUC has not identified inadequacies in the reporting requirements of 49 CFR Part 195 or justified the needs for additional requirements.

v. Senator Comitta, Representative Howard, And Chester County

Senator Comitta, Representative Howard, and Chester County propose that the PUC's Secretary's Bureau provide detailed summaries, conclusions, and recommendations of the Failure Analysis Report and the Root Cause Analysis Report to the public, after redacting CSI, within thirty days of receipt by BI&E. Sunoco contends that the recommendations of Representative Howard, Senator Comitta, and Chester County to make the failure analysis and root cause reports public in subsections 59.134(b) and (c) would violate the CSI Act and should not be adopted.

vi. Other Comments

Regarding subsection (d), Sunoco stated that the process for approval by the PUC's Pipeline Safety Section of a third-party laboratory is untenable and that the timeframe for compliance is burdensome. IRRC requests the PUC to explain why the process is necessary, the reasonableness of implementation, and the timetables for compliance. If the PUC adopts this proposed regulation, Sunoco requests that the PUC allow an operator to use an approved vendor for future accidents without requiring the operator to seek re-approval of the vendor. IRRC also suggests the use of pre-approved vendors.

vii. Ms. Fuller

Ms. Fuller asserts that the proposed requirement for notice of a leak to "be provided no later than one hour after confirmed discovery" is too long time for protecting human life. She asserts that automatic leak detection and immediate notification, or the addition of an odorant, are needed. She explains that if a leak were to occur in any of the

three Mariner East pipelines near her home, an hour is too late to prevent an explosion from a HVL leak. As HVLs have been introduced into HCA residential areas where no realistic evacuation plans are available, Ms. Fuller contends that a vehicle driving into a leak or vapor cloud would only take seconds to cause an explosion. She refers the PUC to consider her testimony and Exhibit 12 of her testimony filed on June 18, 2018, in *Flynn*. See also *Sunoco 2023*, affirming, in part, and reversing, in part, *Flynn*.

viii. Maureen Pontecorvo

Ms. Pontecorvo recommends that the company or its contractor building the pipeline resource advise Emergency Medical Service (EMS) serving the blast zone with a feasible plan to notify residents of a leak and that residents living within the blast zone must be educated on risks and how they will be notified. Any emergency plan must take people with disabilities into account.

ix. Libby Madarasz

Ms. Madarasz, Chester County, comments that during the construction of Mariner East at least 18 sinkholes opened next to active hazardous liquid pipelines. She advocates for an odorant in the product shipped as well as practical notification policies regarding leaks, taking into consideration disabled persons. She supports additional safety standards.

b. Disposition On § 59.134

On May 5, 2023, the Pennsylvania Commonwealth Court issued a precedential Opinion in Consolidated Cases *Sunoco Pipeline L.P. v. Pa. Pub. Util. Comm'n*, 296 A.3d 37(Pa.Cmwlth. 2023), affirming, in part, and reversing, in part, the PUC's prior Order. In part, the Court found no error in the PUC's directives for remedial action under Section 1505 of the Public Utility Code related to the public awareness program violations and in the imposition of the \$1,000 civil penalty for these violations. Thus, there is precedent

for requiring more than what the operator believed to be its minimal obligation under public awareness obligations pursuant to Federal regulations. We may extrapolate that the same is true for accident reporting.

Regarding the concerns raised by IRRC and the Industrial Associations that the PUC's proposed Section 59.134 requires more stringent standards than PHMSA's regulations, current PHMSA regulations do not specify that pipeline operators must conduct root cause analysis for accidents (49 CFR 195.402(c)(5)). This allows a pipeline operator to limit the scope of its investigation. The PUC's proffered regulation requires pipeline operators to conduct root cause analysis. The root cause analysis is defined as a factor that caused a nonconformance and should be permanently eliminated through process improvement. The root cause is the core issue—the highest-level cause—that sets in motion the entire cause-and-effect reaction that ultimately leads to the problem(s). The PUC recognizes that there may be multiple causes, but those can only be discovered if operators conduct thorough root cause analyses. Root cause analyses prove their worth by uncovering both the “what” and the “why” that are responsible for problems to discover appropriate solutions.

The existing Federal code does not directly require the operator to create and provide a copy of the failure analysis report (to be authored by the third-party testing laboratory) to the Pipeline Safety Section. Additionally, the Federal code does not require an operator to explore all potential root cause factors, as there are often multiple contributing factors that trigger an accident. The PUC reiterates that a failure analysis must be performed and a failure analysis report created and provided to the pipeline operator. Also, a root cause analysis must be performed and a root cause analysis report must be provided to the pipeline operator. An unredacted copy of both reports must be submitted to the Pipeline Safety Section within the timeframe specified in Section 59.134(b) and (c), respectively. The rulemaking language does not preclude the operator from following any additional requirements in 49 CFR 195.402(c)(5).

The PUC agrees with the Environmental Advocates that, with each status update required under Section 59.134(b) and (c), a hazardous liquid public utility must provide an explanation for the delay and a timeline for completion to allow the PUC to determine that the analyses are proceeding appropriately. The PUC does not find it necessary to identify circumstances in which such status update must include draft findings and up-to-date analyses. Additionally, rather than establishing a timeline under which the inability to timely produce a failure analysis report or a root cause analysis report would trigger enforcement action by the PUC, as proposed by the Environmental Advocates, the PUC has instead added language to allow hazardous liquid public utilities to request, in writing to the Pipeline Safety Section, a 30-day extension to submit either report. This authorizes the Pipeline Safety Section to use its discretion on a case-by-case basis to determine whether an extension is warranted or to institute enforcement action.

While the Environmental Advocates contend that the PUC should expand the proposed rule (and 49 CFR 195.52) to include accidents that may threaten public safety even absent a release of a hazardous liquid, the PUC does not agree that accidents without a release should be included in its regulations; the PHMSA rule relating to accidents includes a release of a hazardous liquid. Nor does the PUC agree with the Environmental Advocates that the property damage threshold should be lowered to better reflect the significance of the damage to residents. The PUC, however, avers that pipeline exposures due to natural forces would trigger other requirements from operators for notifications such as safety related conditions as defined in 49 CFR 195.55(a)(2). To be clear, the current PHMSA regulations only apply to pipelines that are in operation. The PUC cannot expand a federal regulation, only build upon one.

The Environmental Advocates opine that the PUC must close the loophole in the PHMSA rule, 49 CFR 195.50, that provides an exception based on hazardous liquids spills being confined to a company's property or right of way. They claim that the PHMSA rule does not adequately address the threat posed by such spills. The PUC

concludes, however, that the rule here is clear. An intentional controlled release by the pipeline operator during O&M activities as defined under 49 CFR 195.50(b) is different than unintentional releases. Unintentional releases most often result in reportable accidents. The PUC finds that the proposed recommendation is unnecessary at this juncture.

While the Environmental Advocates strongly recommend that the PUC provide for direct and immediate notice to owners of drinking water supplies when there is an accident or release in its proposed Section 59.134, the PHMSA regulations address impacts to bodies of water in 49 CFR 195.52(a)(4). According to the Environmental Advocates, the PUC should rely on DEP technical guidance as a starting point to determine the appropriate radius within which to notify drinking water supply owners of an accident. The PUC concludes the Environmental Advocates recommendations are beyond the scope of this rulemaking and are adequately addressed by DEP.

In response to the contentions by Senator Comitta, Representative Howard, and Chester County, on one hand, and Sunoco, on the other, about the release of summaries, conclusions, and recommendations from failure analysis reports and root cause analysis reports to the public, the PUC finds that the CSI implications complicate matters. While seeking public input may have merit, the PUC must also weigh countervailing considerations, including the fact that investigations conducted by the PUC's BI&E are confidential.

Related to subsection (d), and Sunoco's request that the PUC allow a pipeline operator to use an approved vendor for future accidents without requiring the operator to seek re-approval of the vendor, which IRRC also suggests, the PUC agrees. First, the PUC recognized the need to minimize the potential for a conflict of interest and to ensure an independent association between the prospective laboratory and the operator requesting services. Pipeline operators may have existing long-standing contracts with

certain laboratories where the use of such a laboratory may create a conflict of interest during an incident investigation. Thus, the pipeline operator must disclose existing contracts with third-party laboratories for PUC staff consideration. Such pre-existing contracts may lead the Pipeline Safety Section to require a pipeline operator to use a different third-party laboratory or third-party analyst. This measure would help minimize the ability of a pipeline operator to deflect and/or influence the laboratory's information gathering and reporting, which might otherwise be unduly impacted by the pipeline operator that ultimately purchases the lab's services.

It is unknown what the cost for providing the report to the PUC will be; however, because the hazardous liquid public utility is already required under federal law to investigate and analyze pipeline accidents and failures, including sending the failed pipe, component, or equipment for laboratory testing or examination where appropriate, to determine the cause(s) and contributing factors of the failure and to minimize the possibility of a recurrence as well as develop, implement and incorporate lessons learned from a post-failure and accident review into its written procedures pursuant to 49 CFR 195.402(c)(5)(i), there should be very little incremental cost to provide a root cause analysis report also to the Pipeline Safety Division. Additionally, once the Pipeline Safety Section approves a third-party laboratory and consultant, a hazardous liquid public utility should not have to seek re-approval provided the laboratory has the expertise to conduct such testing and root cause analyses and the operator's affiliation with the laboratory has not been modified since the original approval. This will save the hazardous liquid public utility costs associated with seeking re-approval. However, at any time the PUC may review the qualifications of a third-party laboratory, the contracts such laboratory has with a pipeline operator, and may require such operator to use a separate independent third-party lab for specified work for good cause shown. It is the responsibility of the operator to ensure the laboratory has the expertise to conduct the failure and root cause analysis and can also demonstrate that its affiliation with the lab has not been modified since the original approval by the PUC. These requirements will

better inform the Pipeline Safety Section, whose duty it is to investigate accidents and the safety benefits of requiring a root cause analysis report be delivered to the Pipeline Safety Section outweighs any monetary cost to providing such a report. Such a report could be used as evidence of violations of regulatory requirements in a complaint or petition proceeding.

Therefore, we have amended subsection (d) to reflect that approved vendors do not require re-approval each time a utility uses their services for testing and analysis. However, Pipeline Safety Section will have the ability to revoke approval for good cause shown such as inaccurate or untimely reporting. This has been placed into the regulation at subsection (d)(7).

While Ms. Fuller asserts that “notice of a leak [is] to be provided no later than one after confirmed discovery is insufficient time for protecting life” and claims that the proposed requirement in Section 59.134(e) should be for automatic detection and immediate notification (or that there should be the addition of an odorant), the PUC concludes that notice within one hour is reasonable. The PUC notes that the only way an immediate notification can be made is if there were robust leak detection system with sensors along the pipelines prompting an alarm system. Most small leaks take time to detect, and such an expansive requirement as automatic detection is beyond this rule making. It would be extremely difficult to improve notification times given the current 911 and emergency response systems. The PUC is not inclined to require that an odorant be added to highly volatile liquids for reasons further discussed under Section 59.140.

We have considered Ms. Pontecorvo’s comment that the company building any pipeline should advise EMS serving the blast zone with a feasible plan to notify residents of a leak and that any emergency plan must take people with disabilities into account. The PUC, however, concludes that the proposed regulation, Section 59.134, does not need to be amended to accommodate this comment. The proposed regulations call for

public awareness communication requirements that go beyond API RP 1162. The requirements of this subsection require notice to the affected public, emergency responders, and public officials within the LFL of a pipeline. People with disabilities are included in the proposed regulation. Moreover, HCAs (49 CFR 195.450) are subject to additional safety measures as specified in 49 CFR 195.452. Risk to people with disabilities should be addressed in the operator's public awareness plan.

While Sunoco asks the PUC to revise Section 59.134(e) to remove the requirement to report accident information to the Pipeline Safety Section and to emergency responders because an accident that meets certain requirements is communicated to the NRC, the PUC rejects this request. NRC reports are, at times, unreliable or lack specificity. The PUC is aware of previous incidents for which key personnel were not notified in a timely manner. BI&E and emergency responders can allocate proper resources if the information is received as soon as the operator has confirmed discovery. The notification must be made via phone call and email, and the PUC needs situational facts from pipeline operators as soon as possible. Therefore, the PUC has not removed this reporting requirement from the final-form regulation.

Accordingly, we have revised Section 59.134 in the final-form annex as discussed above.

6. § 59.135. Construction, Operation And Maintenance, And Other Reports

Section 59.135 of the PUC's proposed regulations set forth requirements for hazardous liquid public utilities reporting construction, operation and maintenance, and other activities. Subsection (b) would require hazardous liquid public utilities to notify the Pipeline Safety Section of (1) proposed major construction, major reconstruction, or major maintenance involving an expenditure in excess of \$300,000 or 10% of the cost of the pipe in service, whichever is less, and (2) maintenance, verification digs, and

assessments involving an expenditure in excess of \$50,000, and the unearthing of suspected leaks, dents, pipe ovality features, cracks, gouges or corrosion anomalies, or other suspected metal losses, 45 days prior to commencement and 10 days prior to commencement, respectively. Subsection (b) also would require hazardous liquid public utilities to immediately notify the PUC's Pipeline Safety Section of excavation damages, washout, or unplanned replacement of any pipeline section or cut out.

Subsections (c), (d), and (e) specify the requirements for the content of these notices. For example, a hazardous liquid public utility will have to provide the following information in its notice to the Pipeline Safety Section: name, pipeline route, length of the pipeline, the counties and municipalities traversed, estimated start and completion dates; pipeline identification information; any change in flow direction, and commodity or product. A hazardous liquid public utility could be required to provide additional information regarding, among other things, the following areas upon request from the PUC's Pipeline Safety Section: project information; pipe specifications; operating pressure and stress; welding; railroad, road, and water crossings; valves; minimum cover and clearance; piping; pressure and leakage tests; and pipeline rights-of-way.

Moreover, Section 59.135 addresses notice for variations from a hazardous liquid public utility's established construction methodologies, required notice to the Pipeline Safety Section 30 days prior to commencement of construction, notice prior to the introduction of a hazardous liquid, and notice to the Pipeline Safety Section and public officials 30 days prior to introduction. These notification requirements and the other notification requirements in Section 59.135 detailed above will provide the PUC's Pipeline Safety Section, and public officials in the case of hazardous liquid introduction, with further information on construction.

a. Comments On § 59.135

Patrick Robinson commented that in the proposed “design requirements” at Subsection 59.135, anticipation of sinkholes and subsidence is a much-needed addition.

The Environmental Advocates reiterate, as also described in their comments to Section 59.131, the suggestion that the PUC develop a list of mandated best practices and that for construction and O&M activities, an operator should be required to confirm to the PUC their use of the best practices or explain any failures to follow mandated best practices.

Edgmont Township supports Section 59.135, noting that hazardous liquid public utilities should also be required to send notification of construction, and O&M activities to local emergency responders, municipalities, conservation districts, and abutting property owners in which these activities are to occur. Senator Comitta and Chester County propose that the “Notices” listed in Section 59.135(b) should be available to the public and published on the PUC’s website because nothing listed under that subsection contains CSI, transparency will provide for public edification, reasonable discussions, and explanations around safety for actions taken.

Shepstone Management Company, Inc., (SMCI) states that Section 59.135 is counterproductive and argues that this requirement will unnecessarily delay immediate responses to suspected problems.

IRRC asks the PUC to explain its rationale for imposing more stringent standards and to provide data to support its conclusions for the subsections of Section 59.135. As it pertains to subsection (b), IRRC notes that several commentors have concerns regarding implementation and a perceived requirement to obtain approval of numerous actions taken by a hazardous liquid public utility. The commentors question the timeframes

ranging from 10 days to 45 days and the reasonableness of the monetary thresholds. IRRC asks the PUC to explain how this subsection will be implemented and why the timeframes and thresholds are reasonable.

The Environmental Advocates suggest that reporting requirements be triggered by potential impacts in addition to projected expenditures. The Environmental Advocates assert that subsection (b) should require operators to notify the PUC at least ten days before pigging³⁰ or any maintenance activity which exposes the pipeline and at least 30 days before any activity involving the removal of a pipeline segment. Additionally, the Environmental Advocates contend that operators should notify the PUC within 14 days from the day the operator receives a Notice of Violation (NOV) from DEP associated with activities covered by DEP’s regulations at 25 Pa. Code Chapter 102 (relating to erosion and sediment control) and 25 Pa. Code Chapter 105 (relating to dam and waterway management).

PST recommends that the proposed Section 59.135(b)(3) be revised to change the word “immediately” to “requires immediate notice.” The Associations suggest replacing “immediately” with “upon confirmed discovery” in the provision concerning washouts and excavation damage.

The Associations contend that the advanced notification requirement for a variation in construction activities in Section 59.135(b)(4) is unreasonable because it is overly burdensome, costly, and does not contribute to pipeline safety. Sunoco submits that requiring notice when there is “any variation to the hazardous liquid public utility’s established construction methodologies” is unreasonably vague and overly broad, particularly considering that such notice must be provided 30 days prior to the variance.

³⁰ In pipeline transportation, pigging is the practice of using pipeline inspection gauges or gadgets, devices generally referred to as pigs or scrapers, to perform various maintenance operations. This is done without stopping the flow of the product in the pipeline. *How It Works: Pipeline Pigging*, www.products.slb.com. Schlumberger. Retrieved January 29, 2024.

Sunoco notes that “variation” is not defined in the proposed regulations, that it is not uncommon for a pipeline operator to face circumstances during construction that would require construction variation, that there is no exception for emergency situations, and that the PUC has not considered the potential cost associated with this requirement which may be caused by the delays in construction associated with providing notice to the PUC.

The Associations proffer that the monetary thresholds for advance notification requirements subsections (b) and (e) are unreasonable because advance notice for various types of routine maintenance work, which would not be characterized as a “major project,” would fall under the advance notification requirement as proposed. The Associations recommend increasing the threshold and including a provision allowing the operator to provide notice after the deadline if advance notice is impracticable. Accufacts advises that the PUC should remove the \$50,000 reporting threshold from Section 59.135(b)(2) and (e) as this arbitrary dollar value can be misused to defeat an important purpose of field verification digs, i.e. to validate ILI integrity assessment capabilities on a specific pipeline.

Senator Comitta and Chester County contend the \$50,000 threshold for notice in Section 59.135(b)(2) is too high and that there should be no dollar threshold for anomaly notification and verification digs. Senator Comitta and Chester County also state that a hazardous liquid public utility should be required to report a summary of pigging findings to the Pipeline Safety Section without being asked for the findings when in-line pigging equipment is used to detect dents, coating issues, shallow wall density, corrosion, and leaks. Finally, if in-line pigging detects an anomaly or anomalies, Senator Comitta argues that the Pipeline Safety Section should be made aware of this safety issue and be provided, as a regulatory requirement, the plans and procedures to verify the pigging findings.

Sunoco claims the reporting thresholds and dollar amounts for the notice requirements are too low and claims that neither pipeline operators nor the PUC have the resources to review and consider the number of notifications that would result from such extensive notice requirements. Sunoco states that the proposed timelines may not be achievable as pipeline activity could potentially have to be taken within a quick period to ensure safety and integrity. Sunoco contends that these notice requirements are unnecessary because they would duplicate notifications already required by the One-Call Law. *See* Act 287 of 1974 amended by Act 50 of 2017 “Underground Utility Line Protection Law” 73 P.S. §§ 176 *et. seq.* Sunoco states that the existing federal notification requirements are sufficient to meet the PUC’s intent and include sufficient pre-construction notice, safety-related condition reporting, accident reporting, and other reporting requirements.

Furthermore, the Environmental Advocates state that operators must, under Subsection (d), provide copies of requested documents associated with the NOV, including operator responses and subsequent related correspondence with DEP.

Regarding Section 59.135(d)(2)(viii), Accufacts suggests wording changes to permit toughness values other than Charpy V-notch (CVN)³¹ when scientifically warranted and demonstrated to support advances in this area. Such changes if they occur, Accufacts contends, should be made public well before becoming regulation. Accufacts also recommends adding clarification to ensure values are at Maximum Operating Pressure (MOP)³² as follows: (i) add at MOP after pressure; (ii) add at MOP after stress; (iii) add clarification at MOP after (percent). PST supports that Section 59.135(d)(6) should include the number, location, and manufacturer of any remote control valves. PST also suggests that Section 59.135(d)(10) should be revised to change the word

³¹ A Charpy V-notch test is a standardized high strain rate test that determines the amount of energy absorbed by a material during fracture. Absorbed energy is a measure of the material’s notch toughness.

³² Maximum Operating Pressure (MOP) is the maximum pressure that a hazardous liquid pipeline can be normally operated. It is related to pipe strength and ability to withstand internal pressure.

“maintained” to “obtained” and to include a list of permits, the granting agencies, and effective dates.

Senator Comitta states that information listed under Sections 59.135(d) and (e) should be provided to the Pipeline Safety Section automatically rather than “upon request” because the Pipeline Safety Section will request this information 100% of the time as part of PHMSA’s requirements. Additionally, the pipeline operator should provide O&M procedures associated with all that it has filed notice under proposed subsections (b)(1)-(3). Senator Comitta also requests that Section 59.135(d) include a requirement to follow the Pennsylvania One Call Law³³ and, specifically, Section 4(2) Design Ticket and Section (2) Excavation Ticket.

Accufacts recommends, with respect to Section 59.135 (d)(6)(ii), adding whether each valve has an actuator, specifying the power source for the actuator if present (*i.e.*, gas, hydraulic, electric), and identifying if valve is SCADA (*i.e.*, control room) monitored/controlled if remotely monitored. Accufacts also recommends adding subparagraph (v) to Section 59.135 (d)(9) to indicate minimum segment test pressure as a percent of specific minimum yield strength, or SMYS, as defined in Federal regulation.

The Environmental Advocates recommend that the PUC expand Section 59.135 to promote interagency cooperation and information sharing. In some instances, the PUC has parallel or overlapping authority with other agencies. As a result, the agencies may generate or require an operator to produce mutually beneficial reports. The Environmental Advocates, in the spirit of interagency cooperation and efficiency, encourage the PUC to include a provision requiring the PUC to automatically share with EPA, OSHA, and DEP any reports touching upon mutually regulated activities. Additionally, the PUC should require any pipeline operator providing any audit response

³³ Act 50 of 2017 is an amendment to the Pennsylvania Underground Utility Line Protection Law, Act 287 also known as “Pennsylvania One Call Law.” The amendment authorizes the PUC to enforce provisions of the law.

to EPA or OSHA to notify the PUC of the audit and to provide BI&E, upon request, with copies of any related documents the operator files with or receives from those agencies.

b. Reply Comments

The Environmental Advocates agreed with Sunoco that additional clarification is needed regarding the definition of variations. Specific issues which should be included in the definition include, but may not be limited to, replacement of pipe, replacement of valves or pumps, loss or compromise of cathodic protection, loss of cover depth, emergence of a geological hazard exposing a pipe segment, increase in MOP, change in commodity carried, delamination of coating on a pipe segment, and other observed deviations from normal operating conditions or procedures.

Sunoco stated the PUC should not remove the \$50,000 threshold for notice under subsections 59.135(b) and (c), as proposed by Chester County, but rather should increase the monetary threshold for notice. Sunoco continued that the 10-day notice proposed in addition to those proposed for “major construction” would be extremely burdensome, would potentially delay necessary assessment and construction, and would inundate the PUC with unnecessary information. Sunoco agreed with the Associations that the PUC should allow an exception to the notice requirements where compliance is not practicable due to unforeseen circumstances, an emergency, or where an immediate repair is required under PHMSA regulations. Sunoco opposes Chester County’s recommendation that the pipeline operator provide the in-line inspection results to the PUC’s Pipeline Safety Section.

Sunoco also objected to the following recommendations of the Environmental Advocates: (1) the reporting requirements be triggered by potential impacts in addition to (not instead of) projected expenditures, (2) pipeline operators should be required to notify the PUC within 14 days from the day the operator receives a NOV from PA DEP

associated with activities covered by Chapter 102 or 105 of DEP's regulations; (3) pipeline operators should, under subsection (d), be required to provide copies of requested documents associated with the NOVs, including operator responses and subsequent related correspondence with PA DEP; and (4) the PUC expand this section to promote intra-agency cooperation and information sharing among the PUC, PA DEP, the U.S. Environmental Protection Agency, and the Occupational Safety and Health Administration. Sunoco contends that the reporting requirements being triggered by potential impacts are vague, unreasonable, and subjective. Moreover, Sunoco stated the PUC does not have authority to mandate inter-agency cooperation, especially with federal agencies.

c. Disposition On § 59.135

The Pipeline Safety Section will have some discretion to exercise authority in asking for in-line-inspection reports when it deems them to be necessary. Having no monetary threshold would create an unnecessary amount of notices to the Pipeline Safety Section which could unduly burden its staff or potentially dilute the meaningfulness of notifications, or both. An appropriate minimum threshold is \$50,000. We disagree with Sunoco, which does not want to provide ILI inspection results to the PUC upon request. Sunoco offers no incremental costs as a reason not to establish this requirement. The Pipeline Safety Section can more efficiently operate by having the discretion to request and compel operators to provide it with in-line-inspection reports when deemed necessary. Too much information could be overly burdensome, and too little could be insufficient for the Pipeline Safety Section to perform its duties.

The PUC considered the Advocates' request that there be regulations requiring agencies to share reports and information with each other; however, we see no need for a regulation regarding this topic. The PUC recognizes sometimes it has overlapping authority with other State and federal agencies and may coordinate requests for mutually

beneficial reports. Occasionally, information obtained from the operators may contain CSI, which may require additional steps to safeguard such information. *See* 66 Pa.C.S. § 313 (relating to joint hearing and investigations; reciprocity). Under Section 313, the PUC has authority to partner with other agencies, *e.g.*, the National Transportation Safety Board (NTSB), in an investigation. Posting notifications to the PUC website is something the PUC will consider independent of this rulemaking.

We agree with Sunoco and PST, which recommend that section 59.135(b)(3) be revised to change the word “immediately” to “requires immediate notice,” that section 59.135(d)(6) should include the number, location, and manufacturer of any remote control valves, and that section 59.135(d)(10) should be revised to change the word “maintained” to “obtained” as well as to include a list of permits, the granting agencies, and effective dates. We agree with the Associations to increase the monetary threshold and to include a provision allowing the hazardous liquid public utility to provide notice after the deadline if advance notice is impracticable. Additionally, we have replaced “immediately” with “upon confirmed discovery” in the provision concerning washouts and excavation damage.

The advanced notification requirement for a variation in construction activities appears to be costly, however, it would provide BI&E with more time to allocate its resources. By “variation in established construction methodologies” we mean a change in construction practices as in rerouting pipeline, a change from HDD boring to open cut construction or vice versa, or a change between trenchless technologies. The PUC does not grant or deny permits for construction. The DEP permits activities through waterways and wetlands (Chapter 105 General Permits) and regarding erosion and sedimentation (Chapter 102 Permits).

This advance notice requirement is no more burdensome than notice to the DEP, and less burdensome than a request for a modification to a construction/drilling permit.

We also find that notice of construction and operation and maintenance activities likely to impact traffic, landowners and residents near the construction, should be required except that any confidential security information may be redacted from such a notice to local emergency responders and the municipalities within which the construction is expected to take place.

Regarding subsection (b)(3) in particular, we agree to change the timeframe from immediately to “upon confirmed discovery” as it is more practical. Different types of discoveries have different notification thresholds. Section 135 (d) list is including but not limited.

Regarding Senator Comitta’s proposal that the “Notices” listed in section 59.135(b) should be available to the public and published on the PUC’s website, we will consider publication of notices on the website outside the parameters of this rulemaking. However, we disagree that the \$50,000 threshold for notice in § 59.135(b)(2) is too high or that there should be no dollar threshold for anomaly notification and verification digs. We further conclude that requiring information listed under §§ 59.135(d) and (e) be provided to the Pipeline Safety Section automatically rather than “upon request” may become an unintentional burden upon BI&E to manage data not requested. As it is BI&E’s preference to have operators share their procedures on shared documentation systems maintained by the operators, we see no need for this suggested automatic immediate reporting requirement. However, we do agree with the Senator’s comments regarding Act 50.

We agree with Environmental Advocates and East Goshen Township that a pipeline operator should provide 90 days advance notice for major construction activities, involving 1 mile of pipe or more. The thirty day or forty-five day notice proposed might be inadequate for large projects that can be expected to cause increased disruption for the public and require greater coordination. Operators are not permitted to operate their

pipelines above the established MOP. The PUC agrees that some exceptions to the general reporting requirement may exist in cases where compliance is not practicable due to unforeseen circumstances, in emergency situations or where an immediate repair is required under PHMSA regulations. In such cases, notice need not be given in the timeframe to the municipalities and local emergency responders, but it should still be given to Pipeline Safety Section of BI&E.

The PUC intends the scope of § 59.135 to allow the PUC to receive reports regarding construction, operation and maintenance, etc., from hazardous liquid public utilities in more proactive ways. Thus, we have amended the section title to reflect and clarify this scope. The PUC continues to balance the needs of its stakeholders and to serve the public interest fairly as it pertains to hazardous liquid pipeline safety. The Pipeline Safety Section has investigated and responded to a significant number of inquiries, complaints, and concerns from the public, including private individuals, local and state officials, the General Assembly, etc. During these investigations, additional information is often required from pipeline operators. Appropriately, pipeline operators have exercised their discretion in having requested information and data requests addressed by and served in writing through counsel. This process takes time and often means that when the Pipeline Safety Section receives such information, additional data and materials must be requested; investigations are largely layered. However, at times this has resulted in lengthy back-and-forth efforts as pipeline operators have 20 to 30 days to adjust, course correct, or pivot its processes based on investigations.

Thus, stakeholders have inevitably not always been satisfied with the pace or perceived inefficiency of the investigative process. As the PUC has taken action regarding formal complaints and petitions filed against hazardous liquid public utilities, it has become evident that the proposed regulations are necessary to support the investigative work of the Pipeline Safety Section. The proposal in section 59.135 provides the specific information and timeframe for the Pipeline Safety Section to receive

this required information to better inform and expedite its work. Comments from stakeholders like Edgmont agree that the PUC needs more oversight and offer that the PUC has not gone far enough.

While the PUC acknowledges the desire of Edgmont Township to have hazardous liquid public utilities send notification of construction, and operation and maintenance activities to local emergency responders, municipalities, conservation districts, and abutting property owners in which these activities are to occur, as well as the requests of Senator Comitta and Chester County to have section 59.135(b) “Notices” made available to the public and published to the PUC’s website because such notices will purportedly not contain CSI, we have rejected these recommendations. Investigations conducted by the Pipeline Safety Section are intentionally confidential to enable greater sharing of information between the public utilities and PUC staff. We find value in preserving the investigative processes and limiting the scope of reporting and notices required by § 59.135 to the PUC and its staff.

We conclude that it is not necessary to adopt the Environmental Advocates proposal to add a requirement to subsection (b) that pipeline operators must notify the PUC at least ten days before pigging or any maintenance activity that exposes the pipeline and 30 days before any activity involving the removal of a pipeline segment. In reaching this conclusion, we considered the reporting that is already being required by section 59.135 and whether, among other things, such additional reporting requirements are appropriately addressed by federal notification requirements, duplicate notifications, and whether resources are available at the PUC or with pipeline operators review the additional requirements.

Additionally, to address confusion that might arise from the differing timeframes for reporting within subsection (b), the PUC’s final form regulations settle on 30-days for reporting outside excavation damages, washouts, or unplanned replacements of any

pipeline section or cut out. PST and the Associations both suggest revisions to the use of the term “immediately” as it pertains excavation damages, washouts or unplanned replacements in what was previously subsection (b)(3) and will now be subsection (b)(1). After reviewing the proposals, the PUC has decided to use the phrasing proposed by the Associations, which will require notification to the Pipeline Safety Section “upon confirmed discovery.”

To address the concerns raised by the Associations and Sunoco, as well as the Environmental Advocates in reply comments, regarding advance notification requirements for variations in construction activity in section 59.135(b)(4), the PUC will amend subsection (b)(4) to address a change in excavation technique. We have also required notification to the Pipeline Safety Section of a change to the utility’s established construction methodology 48 hours prior to commencement. We have added a requirement under subsection (b)(5) that the notice of introduction of a hazardous liquid to a pipeline must be given to public officials in writing at least via electronic mail 30 days prior to the introduction.

We have amended section 59.135(d)(10) as requested by PST to change “maintained” in subsection (d)(10)(i) to “obtained,” and will also require statements in subsection (d)(10)(b) to include the effective dates for permits acquired. While we appreciate Senator Comitta’s recommendation to remove “upon request” from the information listed under sections 59.135(d) and (e), the PUC does not seek to regularly possess the information in these sections; therefore, the Pipeline Safety Section, as a matter of course, may seek to review such information at the operator’s premises. This does not preclude the Pipeline Safety Section from being able to request that information be provided to the PUC as it deems appropriate. However, it does recognize that the PUC may not desire to maintain or retain custody of the information. The PUC also does not find it necessary to include in Section 59.135(d) specific reference to the

requirements of the Pa One Call Law as following the law is a prerequisite for pipeline operators.

The PUC concludes that the language proposed in section 59.135(d) lists appropriate information, generally, for the Pipeline Safety Section to gain access to construction, operation and maintenance reports from hazardous liquid public utilities. Therefore, we have not revised subsection (d) to accommodate the requests of Accufacts regarding, among other things, whether each valve has an actuator (subsection (d)(6)(2)) and indicating minimum segment test pressure as a percentage of specific minimum yield strength as defined in federal regulation. The PUC, under 66 Pa.C.S. § 504 (relating to reports by public utilities), already has authority to require public utilities to file reports to enable enforcement of its regulations; this includes prescribing the content of such reports.

Noting the limited scope intended for section 59.135, generally, the PUC will not add a requirement, as suggested by the Environmental Advocates, that would require automatically sharing generated reports with the EPA, OSHA, DEP, etc. This proposal was opposed by Sunoco. Rather, the PUC retains authority and discretion to share information across agencies as it deems necessary and pursuant to CSI and other confidentiality limitations. Also, under 66 Pa.C.S. § 504, the PUC may already require a public utility to file with it a copy of any report filed by the utility with any Federal department or regulatory body. Thus, the PUC is content with the language in its original proposed regulation.

Accordingly, we have revised section 59.135 in the final-form regulation as discussed above.

7. Proposed § 59.136 Design Requirements; Final-Form § 59.136 Annual Reports

Section 59.136 of the PUC’s proposed regulations was not a retroactive regulation. It would have set forth design requirements for hazardous liquid public utilities constructing new pipelines, and converting, relocating, replacing, or otherwise changing existing pipelines. In particular, subsection (b) was designed to work in conjunction with 49 CFR 195.410(a) and would have required that, in addition to providing external loads for earthquakes, vibration, and thermal expansion and contraction, a hazardous liquid public utility would have been required to account for anticipated external loads for landslides, sinkholes, subsidence, and other geotechnical hazards. This requirement was intended to require hazardous liquid public utilities to account for external loads for all common geotechnical hazards that could impact pipelines in the Commonwealth. However, we have determined not to proceed with proposed section 59.136 relating to design requirements. We shall review the public comments relative to the proposed section 59.136 and then explain our decision not to proceed with the proposed section 59.136. We shall further address our decision to promulgate an annual reports requirement in the final-form regulation at section 59.136.

a. Comments On Proposed § 59.136 Design Requirements

i. IRRC

Regarding subsection (a) that establishes design requirements for a hazardous liquid public utility and subsection (b) that requires a hazardous liquid public utility to account for external loads listed in 49 CFR 195.110(a) and anticipated external loads from landslides, sinkholes, subsidence and other geotechnical hazards, IRRC asks the PUC to explain if existing pipelines are subject to this regulation. IRRC also asks the PUC to explain its rationale for imposing more stringent standards and provide data to support its conclusions.

ii. Environmental Advocates

Environmental Advocates suggest that in determining the anticipated external loads, operators should be required to account for the impacts of climate change, changes in development of the area around the construction site, and changes in cover. The DEP's trenchless technology workgroup's proposed guidance provides a robust framework of best practices to minimize risks from various geotechnical and geological hazards. Environmental Advocates encourage the PUC to require operators to implement the procedures recommended in that guidance.

Environmental Advocates urge the PUC also to mandate that operators evaluate and report any risks to property that may be caused by the geological, geotechnical, and geophysical aspects of their work, and classify such damages as reportable property damages. These evaluations should be conducted by an OQ-certified³⁴ professional geologist who is licensed in Pennsylvania, registered with the PUC, and hired by the operator.

Environmental Advocates encourage the PUC to review design regulations implemented in other states to see whether similar ones would enhance the proposed regulations here.

iii. The Associations

The Associations submit that retroactively requiring the proposed design requirements conflicts with PHMSA's regulations (49 CFR 192.933(d)(1)). Operators are not "designing a pipeline" as part of the conversion to service process and cannot be required to retroactively comply with additional design requirements. The Associations recommend eliminating this language.

³⁴ Operator Qualification (OQ) is defined as a process where an individual is determined to be qualified by a hazardous liquid pipeline operator through training and evaluation of that individual's knowledge, skills, and abilities to perform the duties required of him/her.

Reference to section 419 of ASME/ANSI B31.4 is misplaced because this section (as required by 195.110(a)) focuses on the sufficiency of a pipeline's ability to absorb episodes of thermal expansion and contraction when anticipating such loads but is not appropriate for design purposes.

The Associations recommend postponing the proposed requirements of this Section and waiting until an industry-wide standard (an API standard is currently in process) is developed and finalized.

iv. Sunoco

Sunoco opposes the regulation to the extent the PUC seeks to impose upon existing pipelines beyond new pipeline construction or significant physical alteration of a pipeline. Sunoco claims the terms "otherwise changed" and "replaced" are undefined and not limited, which amounts to impermissible retroactive rulemaking and would be impracticable for operators, and then states that there is no justification for requiring all newly constructed pipelines to anticipate loads from landslides, sinkholes, subsidence, or other geotechnical hazards unless there is evidence that the pipeline will be in areas susceptible to such hazards.

v. George Alexander

In the proposed "design requirements" at § 59.136, Mr. Alexander supports the anticipation of sinkholes and subsidence as a much-needed addition to pipeline safety standards.

vi. Rosemary Fuller

In proposed § 59.136 (Design Requirements), Ms. Fuller supports the requirement for hazardous liquid public utility operators to account for anticipated external loads for landslides, sinkholes, subsidence and other geotechnical hazards. She explains that the surrounding community suffered three sinkholes at Sleighton Park, just a half a mile

away from her home, where she and her family walk their dogs every day. This included a sinkhole in the middle of the road she and her family drive along every day. She asserts that something needs to be done to prevent future sinkholes during pipeline construction. Thus, to improve public safety, she urges the PUC to require anything that prevents recurrent sinkholes from happening to make the pipeline operator more responsible.

vii. Catherine Moran

Ms. Moran supports the PUC's proposed section 59.136 on design as necessary in taking into consideration the geology of the area. She explains that Chester County has had many serious incidents and ongoing concerns with sinkholes and subsidence.

viii. Bill Wegemann

Mr. Wegemann is a resident in East Goshen Township, Chester County, who resides 450 feet from Sunoco's pipeline facilities near the corner of Boot Road and Route 352. He resubmitted his earlier comments to the Advanced Notice of Proposed Rulemaking Order. He is concerned about the lack of siting authority the PUC has and supports the PUC promulgating the rulemaking as Mariner East construction problems and fines have been detailed and documented at length for the past four years and the serious environmental and safety issues near the Exton Library drilling site as well as the disastrous spill at Marsh Creek State Park have heightened the immediate need for citizen safety and proper environmental preservation in Pennsylvania. Since the drilling began last year, Mr. Wegemann has had to deal with Sunoco's drilling site lights shining directly into his windows, 12 hours of drilling noise per day, vibrations in his home, and dust on his siding.

ix. Johnston Area Regional Industries

Johnston Area Regional Industries (JARI) is a nonprofit economic development organization that has been a devoted partner of the business community in Cambria and

Somerset counties since 1974. JARI comments that the costs of imposing the proposed regulation far outweigh any benefit. Ethane is delivered by Mariner East 2 to Competitive Power Ventures, Inc.'s Fairview Energy Center in Jackson Township, Cambria County. The way the proposed regulation is designed makes it potentially retroactive in nature. Having to loop the line, lay a new line next to it, or excavate it and find a way to safely lower a line would directly conflict with safe and reliable service at reasonable rates. Pipeline utilities would be forced to raise shipping rates to cover costs that would ultimately be passed on to consumers. Pipelines are the safest way to transport energy resources to supply consumers, manufacturers, and businesses.

b. Reply Comments On Proposed § 59.136 Design Requirements

i. Environmental Advocates

Environmental Advocates generally agree with other commenters that urge the PUC to rely heavily on best practices regarding design requirements. Sunoco and other industry commenters are concerned that by applying the proposed regulations whenever “hazardous liquid pipeline utilities [are] constructing new pipelines, and converting, relocating, replacing, or otherwise changing existing pipelines,” the PUC may broadly require operators to excavate existing pipelines to bring them into compliance with proposed design requirements. Environmental Advocates understand industry’s desire for more clarity and urge the PUC to define “changing” in the context of existing pipelines.

Environmental Advocates consider it acceptable for the PUC’s definition of “changing” to be partially informed by the old PHMSA guidance referenced by Sunoco. Environmental Advocates point out, however, that in some contexts it is appropriate for the PUC to go beyond federal guidance, particularly when promulgating regulations that are more stringent than federal regulations, when issues unique to Pennsylvania are implicated, or when the guidance is outdated.

Environmental Advocates further suggest that the PUC require operators to bring any pipeline segment that has been abandoned or inactive for more than five years into compliance with current regulations before reactivating it. Additionally, any segment that fails to meet the standards of performance during pressure or other testing, as determined by current best practices, should be decommissioned or replaced in accordance with the new regulations. Lastly, any operator upgrading any pump station, valve site, manifold system or other ancillary equipment should be required to upgrade to current standards.

Regarding pipeline replacements, if the PUC decides to set a minimum length of pipeline that must be replaced before triggering compliance with the new regulations, Environmental Advocates urge the PUC to keep the threshold reasonably low. The regulations should state that reasonably small gaps—areas that are not replaced between areas that are replaced—will be counted as part of a continuous segment that is being replaced.

Regarding the extensive comments submitted concerning geohazards and specifically landslides, Environmental Advocates urge the PUC to apply the recommendations in DEP’s recent Trenchless Technology Guidance to geohazards wherever possible, including adapting it to cover landslides.

ii. Sunoco

Sunoco claims the Environmental Advocates’ recommendations regarding section 59.136 are misplaced. First, requiring operators to consider the impacts of climate changes when designing a pipeline is a vague and subjective standard that is also beyond the authority of the PUC. Sunoco continues that suggestions to periodically assess pipeline design at appropriate levels are unnecessary because this is already a federal

requirement. Sunoco contends the PUC should defer to federal requirements and those entities with proven and accepted expertise in this highly technical area.

In response to the Environmental Advocates' recommendation that the PUC require operators to implement the procedures in DEP's proposed Trenchless Technology Guidance, Sunoco reiterates that the PUC should not incorporate this guidance, which has not been finalized and is not a binding rule or regulation promulgated by DEP.

c. Disposition On Proposed § 59.136 Design Requirement

We agree with Sunoco that requiring operators to consider the impacts of climate changes when designing a pipeline is a vague and subjective standard more akin to an environmental standard under the purview of the DEP than the PUC. The PUC's authority extends only to those matters that the state legislature has specifically delegated to it in the Code. 66 Pa.C.S. §§ 101—3316. Therefore, the PUC generally lacks jurisdiction to adjudicate claims regarding violations of municipal ordinances or environmental regulations that are beyond the scope of the Public Utility Code or a PUC order or regulation. *Flynn* at 16, *citing Rovin, D.D.S. v. Pa. Pub. Util. Comm'n*, 502 A.2d 785 (Pa. Cmwlth. 1986) (*Rovin*) and *Country Place Waste Treatment Co., Inc. v. Pa. Pub. Util. Comm'n*, 654 A.2d 72 (Pa. Cmwlth. 1995). In these cases, the Commonwealth Court held the PUC lacked jurisdiction over issues involving air and water quality, which are environmental matters specifically regulated by statutes administered by state and federal agencies, not the PUC. In *Rovin*, the Commonwealth Court held that matters such as the quality or purity of water did not fall under the PUC's jurisdiction to regulate the quality or character of water service provided by a public utility consistent with the meaning of 66 Pa.C.S. § 1501. We further agree that suggestions to periodically assess pipeline design at appropriate levels are unnecessary because this is already a federal requirement. We are deferring to Federal requirements and those entities with proven and accepted expertise in this highly technical area. There is insufficient evidence to

show a need for this additional external load requirement. Further, DEP's proposed Trenchless Technology Guidance has not been finalized and is not a binding rule or regulation promulgated by DEP.

The DEP reviews a pipeline operator's construction permits to protect waterways, aquifers, and private wells, and DEP determinations of unsafe drinking water and accommodations, for example, may be considered by the PUC in evaluating reasonableness and safety of service of a public utility. Clean Stream Laws P.L. 1987, Act 394 of 1937, as amended (35 P.S. §§ 691.1, et seq.). Other than the authority to review plans to build shelters/buildings covering a pipeline operator's facilities for determinations whether the MPC, 53 P.S. §10619,³⁵ and zoning ordinances regarding the building of shelters protecting a public utility's facilities apply, current law neither charges the PUC with the duty nor does it expressly authorize the PUC to review and approve siting applications regarding the proposed siting of hazardous liquid pipelines before they are constructed and/or being repurposed from transporting petroleum/refined product to natural gas liquids a/k/a highly volatile liquids such as butane, propane and ethane. *Flynn*, affirmed, in part, and reversed, in part, by *Sunoco 2023*. See also *West Goshen Township v. Sunoco Pipeline L.P.*, Docket No. C-2017-2589346, (Order entered

³⁵ Section 10619 provides that:

This article shall not apply to any existing or proposed building, or extension thereof, used or to be used by a public utility. . . , if, upon petition of the corporation, the [PUC] shall, after a public hearing, decide that the present or proposed situation of the building in question is reasonably necessary for the convenience or welfare of the public. It shall be the responsibility of the [PUC] to ensure that both the [public utility] and the municipality in which the building or proposed building is located have notice of the hearing and are granted an opportunity to appear, present witnesses, cross-examine witnesses presented by other parties and otherwise exercise the rights of a party to the proceedings.

October 1, 2018), at 10-11.³⁶ (*West Goshen*). *See also* 49 U.S.C. § 60104(e). The Federal Pipeline Safety Act does not authorize the U.S. Department of Transportation (or PHMSA) to prescribe the location or routing of a pipeline facility.

The General Assembly has expressly prohibited certain types of construction related to public utilities without prior approval of the PUC. *See* 66 Pa.C.S. §§ 515, 518, 519, 520 (electric generating units), 2702 (railroad crossings); *see also* 66 Pa.C.S. § 2804 (transmission facilities), 52 Pa. Code § 57.71—57.77 (electric high voltage transmission lines/facilities). However, the request to use our siting authority is outside the scope of this rulemaking proceeding.

We have the authority to determine the financial and technical fitness and need for proposed transportation of petroleum products service on a county-by-county basis prior to issuance of a certificate of public convenience granting an applicant the authority to transport petroleum products and refined petroleum products intrastate under Sections 1101 (relating to organization of public utilities and beginning of service) and 2102 (relating to approval of contracts with affiliated interests) the Public Utility Code. 66 Pa.C.S. §§ 1101, 2102. However, once that authority is granted and a certificate issued, absent a showing of abuse, the public utility usually has managerial discretion to decide where the need is for its product/service within the prescribed authority boundaries and to locate its facilities to meet that public need. *Id.* Pipeline public utilities generally attempt to negotiate with landowners for easements/ROWs on their properties; however, the

³⁶ The PUC was asked to review a settlement agreement between West Goshen Township and Sunoco Pipeline, L.P. in a proceeding whereby the township had alleged Sunoco breached an agreement to place a valve on one piece of land (Janiec 1) and instead, wanted to place it across Boot Road, onto a second piece of land (Janiec 2) adjacent to West Goshen Township's emergency facility. The PUC ultimately declined to direct Sunoco to build the valve on the originally agreed upon land (Janiec 1) due to engineering constraints there, and because Sunoco indicated it no longer needed or planned to build any valve in West Goshen Township. The PUC directed Sunoco to not build a valve on a portion of land adjacent to West Goshen Township's emergency facility (Janiec 2) without written prior consent of West Goshen Township. That is exercising an authority to interpret and rule upon the terms of an agreement between a municipality and a pipeline operator as it pertains to the siting of the facilities and imprint in West Goshen Township within which it operates.

public utility is ultimately empowered under Chapter 15 of the Eminent Domain Code with the ability to make declarations of taking, subject to a review process in the Courts of Common Pleas.

We have the authority to approve the tariffed rates for the intrastate transport of petroleum products (i.e. propane and ethane) but interstate rates and private contracts for shipping rates are not generally subject to the PUC's overview or approval prior to implementation or effectiveness. The PUC can suspend, revoke and amend a certificate of public convenience and assess civil penalties for violations of PUC regulations, the Public Utility Code or PUC orders. The PUC has the authority to review, vary, reform and revise agreements between public utilities and persons, municipal corporations and corporations. 66 Pa.C.S. § 508 (power of commission to vary, reform and revise contracts).

The Public Utility Code creates a uniform, statewide regulatory scheme for utilities. To avoid overlaying a statewide scheme with a “crazy quilt of local regulations” municipalities are generally preempted from regulating public utilities. *See PPL Elect. Utils. Corp. v. City of Lancaster*, 214 A.3d 639 (Pa. 2019). Disputes arise between utilities and municipalities over the authority of the municipality to regulate facilities in a public right-of-way (ROW). This is because the Pennsylvania Business Corporations Law of 1988 states that public utilities have the right to enter into and occupy ROWs, but before “entering upon any street, highway or other public way, the public utility corporation shall obtain such permits as may be required by law and shall comply with the lawful and reasonable regulations of the governmental authority having responsibility for the maintenance thereof.” 15 Pa.C.S. § 1511(c). Recently, the PUC held that it does not have the jurisdiction to determine the reasonableness of a municipal permitting fee, which lies with a court of competent jurisdiction. *See Armstrong Telecommunications Inc. Petition for Declaratory Order*, Docket No. P-2019-3014239 (Order entered February 21, 2021). (The PUC refused to address Waterford's application fee). Thus,

the facts of the case determine whether the PUC has jurisdictional authority to grant the relief requested.

The PUC has the power to investigate, hold hearings and grant declaratory relief to terminate a controversy or remove uncertainty. 66 Pa.C.S. §331. The PUC is the appropriate forum for complaints related to hazardous liquid public utilities' alleged violations of PUC Orders, regulations, or the Public Utility Code. *West Penn Power v. Pa. Pub. Util. Comm'n*, 578 A.2d 75 (Pa. Cmwlth. 1990) (electric utility "service" is not confined to the distribution of electrical energy; it includes all acts related to that function, including vegetation management/tree trimming or removal). *See also Popowsky 1995* (vegetation maintenance constitutes a utility service and must be performed in a safe, adequate, reasonable and efficient manner).

Accordingly, we shall not proceed with proposed section 59.136 relating to design requirements but instead use the section number in the final-form regulation for annual reports as explained below.

d. Disposition On Final-Form § 59.136 Annual Reports

Having eliminated the proposal to address design requirements in Section 59.136, we have used the section number instead to now address an annual reporting requirement. The annual reporting requirement will assist the Pipeline Safety Section in determining from year-to-year, what assets are tariffed for intrastate use in the Commonwealth. Section 504 of the Public Utility Code authorizes the PUC to ask for and receive these reports. 66 Pa.C.S. §504 (relating to reports by public utilities). PHMSA has an annual reporting requirement at 49 CFR 195.49 as follows:

Each operator must annually complete and submit DOT Form PHMSA F 7000-1.1 for each type of hazardous liquid pipeline facility operated at the end of the previous year. An operator must submit the annual report by June 15 each year A separate report is required for crude oil, HVL (including anhydrous ammonia), petroleum products, carbon dioxide pipelines, and fuel grade ethanol pipelines. For each state a pipeline traverses, an operator must separately complete those sections on the form requiring information to be reported for each state.

49 CFR 195.49 (relating to annual report).

Pennsylvania-tariffed assets are currently included in the PHMSA annual reports; however, Pennsylvania-tariffed assets are co-mingled with the interstate facilities in these annual reports. For the Pipeline Safety Section to determine the assets to which our regulations apply, PUC will require hazardous liquid pipeline utilities to send their PHMSA annual reports for Pennsylvania and a separate report disaggregating the Pennsylvania-tariffed assets to the Pipeline Safety Section annually by June 15th. The estimated cost to do this on an annual basis should be *de minimus* as a hazardous liquid public utility must track this information for tariff and assessment reasons. This anticipated cost is outweighed by the safety benefits of Pipeline Safety Section being able to identify the pipelines over which the PUC has jurisdiction to enforce these regulations.

Further, this requirement of annual reports is not an impermissible expansion of the scope of this rulemaking.³⁷ The requirement of annual reports is within the existing authority of the PUC. 66 Pa.C.S. § 504. These annual reports deal with the subject matter of this rulemaking.

³⁷ Section 1202, 45 P.S., § 1202, provides in pertinent part that:

The agency text of any administrative regulation or change therein as finally adopted may contain such modifications to the proposed text as published pursuant to section 201 as do not enlarge its original purpose, but modifications which enlarge the original purpose of a proposal as published under section 201 shall be republished thereunder prior to final adoption by the agency.

Accordingly, section 59.136 in the final-form regulation now addresses annual reporting as discussed above.

8. § 59.137. Construction

Section 59.137 of the PUC's proposed regulations prescribed construction standards for hazardous liquid public utilities constructing new pipelines, and converting, relocating, replacing, or otherwise changing existing pipelines. Proposed § 59.137(b) addressed pipeline location and provided that, in addition to the requirements of 49 CFR 195.210, no pipeline may be located under private dwellings, industrial buildings, and places of public assembly. Proposed §§ 59.137(c) and (d) addressed welding, provided that miter joints are not permitted and that all welds must be nondestructively tested using the methods set forth in 49 CFR 195.234. Additionally, proposed §§ 59.137 (e) and (f) established requirements for cover over buried pipelines and clearances between pipe and underground structures. In particular, proposed subsection (e) worked in conjunction with 49 CFR 195.248 and provided for set-interval testing for depth of cover, which will aid in ensuring the proper depth of cover is maintained. Proposed subsection (f) required a minimum of 12 inches between the outside of a pipe and any underground structure, including structures owned by the hazardous liquid public utility and foreign structures, without exception.

Further, proposed section 59.137 addressed valves placement and vehicle barriers. For pipelines transporting HVLs, proposed § 59.137(g) would have required the installation of EFRDs on a main line every five miles and the installation of additional valves based on a pipeline's proximity to schools, churches, hospitals, daycares, nursing facilities, commercial facilities, sport complexes, and public parks with the outer most areas of the LFL. This proposed subsection would also have required a hazardous liquid public utility to develop and maintain a risk-based plan addressing valve spacing. Finally, proposed § 59.137(h) would have required a hazardous liquid public utility to

install barriers designed to protect against large vehicles at above-ground valve stations adjacent to roadways. These requirements were intended to provide for enhanced shut off capabilities, including remote shut off, and additional protection for valve stations, including protection from large vehicles.

a. Comments On § 59.137

i. Environmental Advocates

Environmental Advocates support the siting restrictions the PUC includes in its proposed §59.137(b). They ask the PUC to base additional siting regulations on, *inter alia*, the mandates of 15 Pa.C.S. § 1511(b), which restricts the use of eminent domain for transportation of petroleum products within any part of the reasonable curtilage of a dwelling house or within 100 meters therefrom.

Additionally, the PUC should follow California's lead and require best practices in environmentally and ecologically sensitive areas. Cal. Gov't. Code 51013.3(a) (requiring a more stringent standard of best available technology in ecologically sensitive areas).

(a) Construction Materials And Methods

Environmental Advocates urge the PUC to mandate that operators use best practices for pipeline infrastructure construction. When providing notice of such activities to the PUC, the operators should be required to demonstrate which best practices it will utilize and report any relevant emerging best practices. Operators must design pipelines as outlined in 59.136 and construct in accordance with 59.137. Additional requirements are in 49 CFR 195 Subparts C and D.

Environmental Advocates are concerned that operators are currently using inferior practices during construction, including when choosing gasketing materials, valve construction methods, and other facets of new projects. The PUC should require double

mechanical seal pumps as a best practice to avoid problems with product lubricated pumps and the required maintenance and emissions from this obsolete technology. Environmental Advocates also request that the PUC investigate requiring double wall pipelines for high consequence and ecologically sensitive areas as an additional protective measure.

Environmental Advocates also want to stress the importance of the PUC thoroughly considering what requirements are needed specific to CO₂ pipelines considering the multiple proposed carbon capture and sequestration projects. At minimum, because of the caustic nature of CO₂, the pipelines must be lined with chrome.

(b) Impacts To The Quiet Enjoyment Of Neighboring Properties

Environmental Advocates aver that the PUC should also add regulations to force operators to account for the full impact of their construction operations upon landowners. For example, the PUC should enforce “quiet time” when construction noise is likely to exceed 65 decibels during any time when a resident is expected to sleep. The PUC should also require noise abatement plans whenever anticipated noise levels PUC-defined limits for a sustained period. Environmental Advocates suggest that the requirement be triggered when levels would exceed 60 decibels during “normal sleep times” or 70 decibels; sustained noise above 70 decibels is associated with hearing loss.

(c) Additional Considerations

Construction activities should accommodate vulnerable citizens, allowing for continued access of emergency vehicles across established secondary emergency response access ways. Separately, the PUC proposes requiring the operator to “specify the intervals at which to verify and maintain the depth of cover for all pipe.” Proposed § 59.137(e)(2). Environmental Advocates urge that, instead, the PUC is the appropriate

entity to dictate such intervals. Alternatively, the operator could propose intervals for the PUC's approval.

ii. Pennsylvania Chamber Of Business And Industry

The Pennsylvania Chamber of Business and Industry (PCBI) states that the PUC's proposed rulemaking would be extremely challenging and costly for existing facilities and would exceed federal requirements. Specifically, PCBI claims that the depth of cover and underground clearance requirements would require substantial digging, earth disturbance and construction activity, significant cost to operators, and suspend delivery of product on utility infrastructure. PCBI estimates that the cost of compliance with these requirements would exceed tens of millions of dollars per mile and may not be feasible in populated areas with substantial utility crossings to ensure 12-inches of underground clearance. PCBI notes that PHMSA has recognized this issue in its regulations by allowing closer installation of underground pipelines provided there is a demonstration of adequate cathodic protection.

iii. The Associations

The Associations argue that retroactively requiring the proposed design requirements to converted pipelines conflicts with PHMSA's regulations (49 CFR 195.5). Operators are not "constructing new pipelines" as part of the conversion to service process and cannot comply with additional construction requirements.

If the proposal in subsection (b) is adopted, a ban would be created prohibiting operators from repairing or replacing existing pipelines in prohibited locations. The Associations recommend inserting language excepting repair or replacement of existing pipelines.

The Associations recommend eliminating the proposal regarding valve requirements in subsection (g) and defer to the provisions in the final PHMSA rule (Transportation of Liquids by Pipeline, Conversion or Existing Pipelines to Liquid Service; 43 Fed. Reg. 6786). The Associations also recommend deferring to the federal regulations with respect to defining the term “EFRDs.”

Arbitrary valve spacing requirements may inadvertently lead to serious safety concerns if valves are incorrectly placed or improperly closed. The Associations recommend deferring to the federal rule addressing valve spacing requirements (PHMSA, Pipeline Safety: Valve Installation and Minimum Rupture Detection Standards, 87 Fed. Reg. 20940).

The Associations believe the term “largest types of vehicles” in subsection (h) is ambiguous and should be clarified.

iv. Sunoco

Sunoco has concerns with the PUC attempting to apply these regulations to existing pipelines as well as with the undefined terms “otherwise changed” and “replaced.” Sunoco submits that there should be a grandfather clause for existing pipelines to be located under private dwellings, industrial buildings, or places of public assembly because retroactive application would be unduly burdensome and cost prohibitive. Sunoco states that subsection (c), which prohibits miter joints of any deflection without exception, expressly conflicts with the federal requirements that allow for deflections up to three degrees that are caused by misalignment. The PUC provides no technical justification to support the proposed requirement. Sunoco also identifies a discrepancy between the PUC’s proposed regulation in subsection (d), which seeks to require all girth welds, without exception, to be non-destructively tested, versus the exceptions allowed to this general rule set forth in Part 195.248(d)-(e).

Again, with respect to subsections (e)(1)-(2), Sunoco argues that the PUC's proposal is inconsistent with PHMSA regulations, which do not require ongoing depth of cover maintenance requirements unless the pipeline is unsafe. Sunoco states that a requirement for operators to remain responsible to check for any reduction in depth of cover after the time of pipeline construction would impose a significant burden and require extensive resources. Sunoco contends that the current depth of cover requirements under 49 CFR Part 195 and the duty of a pipeline operator to remediate any unsafe conditions within a reasonable period are an appropriate standard and method for ensuring safety. Sunoco states the PUC should not impose additional burdensome requirements.

Sunoco claims that subsection (f), as proposed, is inconsistent with PHMSA regulations that also require at least 12 inches of clearance between the outside of any pipe and the extremity of any other underground structure, but that allows exceptions where such clearance would be impracticable to comply with as long as the pipeline operator ensures that there is cathodic protection on the pipeline, Part 195.250. Sunoco states there is no factual or technical basis to demonstrate that the absence of this exception will result in increased safety. Sunoco urges the PUC to clarify that, if this requirement proceeds forward, it should not apply to existing pipelines.

Sunoco notes that 49 CFR 195.258 and 195.260 require the installation of valves during construction based on location and that PHMSA recently finalized a new rule related to valves and rupture detection that is pending publication. Thus, Sunoco submits that the PUC's proposed subsection (g) should defer to PHMSA's expertise and rulemaking efforts to ensure that State regulations are consistent with Federal ones. Sunoco continues that the 5-mile requirement for the installation of EFRDs is arbitrary and that requiring a pipeline operator to install numerous valve stations based on proximity to certain places of public assembly is ambiguous and, if strictly applied, overly burdensome. Sunoco claims the PUC has not sufficiently considered the

enormous costs that may be imposed to achieve compliance and failed to indicate how the location of the valves provides a public benefit. Next, Sunoco identifies logistical issues related to the valve site itself including eminent domain, electric hookups, stormwater management, and the possible installation of long driveways to allow authorized employees access to valve stations. Sunoco argues that valve spacing and the installation of EFRDs should be left to the managerial discretion of pipeline operators. Sunoco also objects to the extent this requirement could be applied to existing pipelines, as it contends that any retroactive application is inconsistent with federal law.

With respect to proposed subsection (h), Sunoco notes that certain valves have natural berms or barriers that would render an additional vehicle barrier unnecessary and suggests that the PUC modify its proposed requirement to provide exceptions based on the physical characteristics of the valve station. Additionally, Sunoco recommends that any requirement to install vehicles at valve stations adjacent to the roadway should specify that it should only install a barrier based on the largest-anticipated vehicle.

Sunoco also stated its costs related to increasing depth of cover over its existing Mariner East pipelines in agricultural areas and costs related to depth of cover surveys in its response to the following data request. Sunoco operates hundreds of miles of pipelines in agricultural areas throughout the Commonwealth of Pennsylvania and has done so without incident related to any farming cultivation for over 20 years. Sunoco notes the significant costs that will result from these proposed regulations directly to Sunoco for pipeline relocation and potential pipeline shut down are only a portion of the cost impacts the proposed regulations would impose. Other costs that should be considered include disruptions to communities and landowners where pipeline relocation will occur and impacts to the Commonwealth, national, and international economies and supply chains because of potential pipeline shutdowns as a result of temporary shutdowns to perform work required by the potential regulations or due to permanent shutdowns because of the onerous costs of compliance with the proposed regulations. Further,

Sunoco would lose revenue by suspending service upon its active lines as would the shippers of the products Sunoco is transporting.

Sunoco avers that the direct costs associated with line lowering are approximately \$485,000 per 1,000 feet. Sunoco would also have to perform depth of cover surveys which cost approximately \$350/mile to conduct a depth of cover survey every 25 feet. Depth of cover surveys to comply with this and other proposed regulations for the ME2 and ME2X pipelines alone would cost \$113,400 and \$106,750 per survey. Given the hundreds of miles of pipeline Sunoco installed, operates, and maintains in compliance with current regulation in agricultural areas, Sunoco would be likely be faced with *hundreds of millions of dollars* in relocation costs and years of disruption to local communities during the relocation process to comply with the proposed regulation.

Sunoco further avers that the cost of pipeline relocation is dependent on numerous factors including but not limited to location and associated characteristics of the relocation area like geology, building location and density, utility location and density; diameter and length of the pipeline; method of relocation used; right-of-way acquisition costs; permitting costs; and legal costs. Sunoco provides an estimate for each relocation method which includes all aspects of a project from engineering, permitting, material purchase, construction, pipeline purges and tie-ins, but not complete removal, which is listed as a separate category. For projects of a more significant magnitude, a percent multiplier would need to be added to cover management, overhead, excessive right-of-way acquisition costs, and legal costs.

Open Cut Construction – \$600—\$3,400 per linear foot (LF). The minimum cost for a 100-foot relocation starts at \$250,000 to account for mobilization and base cost. Prices increase from here are based on complexity. An open cut project length can range widely from 20 feet to miles.

Traditional Bore (Roadway and Railroad Crossings) – \$3,600—\$5,000/LF. The minimum cost is \$360,000 per project. This option covers auger bore

or alternative similar construction methods under roadways or other obstructions and associated pipe tie ins. It also covers bores where a railroad is involved, and more intensive permitting/inspection coverage is required by the railroad. Typical bore type projects range from 100 feet to 300 feet long.

HDD (Horizontal Directional Drill) – \$1,650—\$6,900/LF. The minimum cost is \$1,650,000 per project. This option covers directionally drilled pipelines of various diameters and difficulties with associated tie in piping on either end. Typical HDD projects range from 1,000 feet to 7,000 feet long.

Pipeline Abandonment/Removal – \$120-\$850/LF. Minimum cost for 100 foot abandonment/grout filled line is \$75,000; minimum cost for 100 foot removal of line is \$60,000. Increased disposal cost will be incurred depending on coating type. These are the incremental costs associated with completely removing a pipeline, which would be an adder to the above-listed costs.

The above costs all include the cost of a pipeline purge (*i.e.*, the above costs all include the direct costs of taking a pipeline out of service). A pipeline purge generally costs approximately \$35,000/mile (minimum of \$350,000 for a 1—10 mile segment).

As an example of one project, Sunoco offered a cost-estimate to move ME2 and 2X that are located in proximity to the Exton Baseball Fields, which was in the millions of dollars.

Sunoco further stated that it already constructed the ME2 and ME2X pipelines in East and West Goshen Township, Chester County at Greenhill Road in a “bundled” fashion (*i.e.*, one HDD was conducted, and both pipes were pulled through the same hole, using an interconnected cathodic protection system. The PUC’s proposed regulations unnecessarily remove the “cathodic protection” exception and thus compliance with the PUC’s regulations would mean a complete reconstruction of these two pipelines in this area. Sunoco further estimates it would take about 120 days to complete each pipeline reconstruction, meaning significant disruption to the surrounding communities. Costs to reinstall 16-inch and 20-inch HDDs over 3,400 feet would exceed \$47,720,000 not including lost revenue to Sunoco.

Sunoco responded that x-ray technicians are billed on a day rate. Therefore, one weld would cost the price of a crew day if done individually. The example below is for a two-to-three-person crew that has free and clear access to as many welds as they can shoot in a day (*i.e.*, this is a conservative estimate). A weld and x-ray are required approximately every 40 feet of pipe and where fittings are located. This does not reflect following a welding crew and having to wait behind them to maintain safe radiation distances, etc., which would cause additional incremental costs. Usually, the general contractor performing the relocation work will layout and weld as much of the pipe as possible and then call out the x-ray crew when there are multiple welds to shoot. The average relocation project will have an x-ray crew on site for two to seven days total depending on the magnitude of the project. This production rate and assumption does not apply to a large capital project in the hundreds of miles range. In this case, the x-ray crew will be staggered behind the welders and just follow the welders as they progress. *See* additional details below:

- Cost = \$2,200-\$3,200/day
- Typical Products Rates:
 - 6-10 inches - approximately 40-50/day
 - 12-16 inches - approximately 30-40/day
 - 20 inches - approximately 15-20/day
 - 24-26 inches - approximately 10-15/day

Sunoco stated that cost for protection of valve stations from vehicular damage using jersey barriers or other adequate vehicular protection such as bollards would be approximately \$1,850 per valve. Total costs to comply with the proposed regulation depend on factors such as size and location of the pipeline and valve.

v. Laurel

Based upon its knowledge and experience, Laurel estimates that the cost to install jersey barriers or other vehicular protection (*e.g.*, bollards) at a valve station would be approximately \$2,500 per jersey barrier or bollard installed around a valve station. The

total costs to implement these protections at a valve station will be dependent on the size, location and other characteristics of the valve station.

Regarding construction costs: Laurel estimates that it costs approximately \$2,500 for an NDT on a weld during pipeline construction project and the cost will vary depending upon the number of welds the crew could perform over the course of the day.

Laurel generally increases the depth of cover of an existing HL pipeline when it seeks to relocate a pipeline. Laurel estimates that under a best-case scenario, the cost to relocate an existing pipeline to maintain a 12-inch clearance from other underground structures or pipelines would be \$500,000 if the length of the line was short and the purge of the line was uncomplicated and cost-efficient. Under a worst-case scenario, the cost to relocate an existing pipeline to maintain a 12-inch clearance from other underground structures or pipelines would be \$1.5 million or more if the line required a long purge and the clearance was complicated and not cost-efficient.

The quantification of the incremental costs to relocate an existing hazardous liquid pipeline away from a building would be dependent on several factors, including the diameter, length and location of the line, the method of relocation used, ROW acquisition costs, and permitting costs, among other things.

With respect to the estimated incremental cost per mile to relocate a pipeline that is currently out of service for other reasons, Laurel would preliminarily estimate this incremental cost per mile to be approximately \$1.25—\$2.25 million dollars. This estimate does not include the cost to idle and/or remove the existing pipeline from service to perform the relocation.

With respect to the estimated incremental cost per mile to relocate a pipeline that is not currently out of service for other reasons, Laurel would preliminarily estimate this

incremental cost per mile to be approximately \$1.5—\$2.5 million dollars. This estimate does include the cost to idle and/or remove the existing pipeline from service to perform the relocation. Laurel estimates that the cost to idle the pipeline would be approximately \$250,000—\$500,000 per mile. However, the cost estimate to idle and/or remove the existing pipeline from service is dependent on the length of the line; the cost estimate may be less for much shorter lines and may be much greater for much longer lines with laterals and/or aboveground valve stations that are connected to the line.

vi. East Goshen Township

East Goshen Township recommends that coated steel pipe be used in all new construction projects and pipe replacements involved the transportation of hazardous liquids, and that such coated steel be stored in accordance with the manufacturer's recommendations prior to installation. The operator of a pipeline system should have procedures and specifications that they must adhere to.

East Goshen Township contends that the PUC should approve the construction plans of pipeline projects for quality and safety control. The Township believes the PUC should exercise its authority on the permitting and safety loopholes left by DEP's limited jurisdiction. The Township also names adequate oversight prior to construction permitting and independent third-party inspection by companies with no conflicts of interest.

East Goshen Township also suggests Pennsylvania-specific enhancements for operator qualification be included in the regulations (*e.g.*, evidence of liability insurance, their PHMSA safety record, and DEP violations dating back the previous five years regardless of state) as well as performance surety bonds for all construction activities.

East Goshen Township suggests advanced notification for major constructions activities and at least 90 days prior to commencement of an installation totaling one mile or more of pipe, including a report to the PUC stating the originating and terminating points, municipalities to be traversed, size and type of pipe to be use, type of service, design pressure, and length of the proposed line. The Township advocates for confirmation that operators have provided written notification to each of the municipalities to be traversed.

East Goshen Township advocates that new and repurposed pipelines should be buried at a depth of at least four feet, especially in high consequence areas. The Township continues that PA-licensed professional engineers and geologists should assess projects prior to approval and make recommendations regarding appropriate depths for pipelines to be buried. Next, the Township states that all valves, piping, and equipment used in above-ground valve stations must be protected from weather and UV degradation.

vii. IRRC

IRRC asks the PUC to explain its rationale for imposing more stringent standards and to provide data to support its conclusions for all the subsections of Section 59.137. In addition, IRRC asks the PUC to explain the need for subsection (g)(1) and to address commentors' concerns regarding the fiscal impact of this requirement. IRRC also asks the PUC to clarify the term "proximity" in paragraph (g)(2) to establish a clear standard for implementation. Further, IRRC asks the PUC to clarify the terms "largest types of vehicles" and "adjacent" in subsection (h). IRRC also asks the PUC to consider providing an exception to this requirement based on the characteristics of a valve station. The PUC should revise the section or explain why no exception is necessary. In paragraph (g)(2), "proximity" means closeness to facilities described in the paragraph. The largest type of vehicle in this context is a tractor trailer defined by DOT.

viii. Senator Carolyn Comitta

Senator Comitta expresses that the PUC should clarify the scope of section 59.137(a) because it appears to include requirements for new pipeline construction while the scope refers to “changing existing pipelines.” The Senator inquires whether currently operating pipelines are grandfathered and whether performing routine maintenance will trigger other actions.

Senator Comitta contends that section 59.137 should apply retroactively and be mandatory in High Consequence areas as defined by PHMSA at section 195.450 (re: Definitions) and notes that it is recommended that currently operating HL pipelines should have a two-year period to install EFRDs. Additionally, Senator Comitta states the lateral spacing of EFRD valves in High Consequence areas should be based on engineering calculations and consultation with public officials, while the location of EFRDs should minimize public exposure to injury and probability of accidental ignition. Senator Comitta argues that the five-mile maximum lateral valve spacing is too broad and fails to adequately address safety issues in High Consequence areas; she states that if EFRDs are necessary for new pipelines, they should be required for currently operating ones in High Consequence areas. Senator Comitta also questions why the PUC would require only new pipelines to develop and maintain a risk-based plan for valve spacing and states that section 59.137(g)(3) should apply retroactively. Next, Senator Comitta contends that section 59.137(h) should be retroactive.

ix. Shirley Township

Subsections (e) and (f) regarding depth of cover and separation of pipe requirements conflict with federal regulations. Exceeding the federal requirements will create additional community impacts if operators are required to add additional depth of cover to existing pipelines.

Requiring 12 inches of separation between underground structures will harm the community because roads will have to be dug up to comply with the existing regulation. Road maintenance and repair is the single largest expense in this community. Shirley Township recommends considering how compliance with the proposed regulations would impact the surrounding community.

x. Washington Township Supervisors

Washington Township is a rural community in Cambria County in the Allegheny Mountains. The Washington Township Supervisors state that the proposed requirements in § 59.137(e) and § 59.137(f) “overhaul the existing federal depth of cover and separation of pipe requirements.” According to Washington Township Supervisors, these proposed regulations *are in conflict with (or incompatible with)* the Federal regulations *to the extent an operator is required retroactively* to add additional depth of cover to existing pipelines or comply with 12 inches of separation between underground structures. They assert that retroactive compliance for existing pipelines would create a significant disruption to the surrounding community as roads are dug up to move and/or lower existing facilities and would increase energy costs.

xi. Ms. Fuller

In proposed § 59.137 (Construction), Ms. Fuller expresses support for the requirement in § 59.137(b) which prohibits hazardous liquid pipelines from being located under private dwellings, industrial buildings, and places of public assembly, but states that the proposed regulations need to be much stricter on pipeline siting. Ms. Fuller explains that all the residents living in close proximity to the Mariner East pipelines have suffered from the noise, dirt, and dust in connection with pipeline construction as well as the potential danger in connection with pipeline operation. She explains that prohibiting public utility pipeline operators from placing the pipelines under structures will still not

prevent the kind of disruption, disturbance, and risk people are expected to tolerate living near the HVL pipelines in densely populated residential and commercial areas.

Ms. Fuller supports the requirement in § 59.137(g)(2) for a hazardous liquid public utility operator to install valves based on a pipeline's proximity to schools, churches, hospitals, daycares, nursing facilities, commercial facilities, industrial facilities, sport complexes and public parks within the out most area of the LFL, but she submits that the PUC must provide additional detailed guidance to give meaning to this provision. She submits that the installation of valves at these critical locations has not been done in the Mariner East project and any rulemaking that would help to prevent a catastrophe in any of these vulnerable locations is welcome and necessary. However, she submits that unless guidance regarding the placement of these valves is provided by the PUC, this provision is meaningless.

Ms. Fuller supports the requirement in § 59.137(h) for a hazardous public utility operator to install vehicle barriers at an above-ground valve station adjacent to a roadway. Ms. Fuller states that such a requirement seems like common sense and yet Energy Transfer ignored requests to install vehicle barriers at the valve station along Dorlan Mill Road in Chester County, directly across from a local school for children. A pipeline company should be expected to provide anything that adds to the safety of the public forced to live in close proximity to these pipelines. Making such provisions is absolutely necessary for public safety.

xii. Christine Pontecorvo

Ms. Pontecorvo avers that HVL pipelines should only be placed in extremely low population density areas and should only be allowed where a public good can be demonstrated. Any construction must be reviewed and engineered for extra safety measures unique to HVLs. Construction of pipelines should never occur until an

environmental impact study and a groundwater impact study has been conducted. Leak detection and alert systems must be required.

xiii. Catherine Moran

Ms. Moran supports the PUC's proposed section 59.137 on construction as necessary as keeping pipelines away from structures and keeping them away from each other when there are multiple pipelines is important.

xiv. Burrell Township

Burrell Township is a rural township in Indiana County, Pennsylvania, through which the Mariner East Pipeline construction project took place since 2016. Burrell Township asserts that Sunoco's affiliate Energy Transfer worked well with its community; however, energy Transfer's activities impacted roads and created inconveniences in the community. Proposed §§ 59.137(e) and (f) conflict with Federal regulations and would create additional impact in Burrell Township to the extent that an operator would be required to add additional depth of cover to existing pipelines. A 12-inch separation between underground structures applying to existing pipelines would create a significant disruption as roads are excavated to move and/or lower existing facilities. Burrell Township objects to this 12-inch separation of existing pipeline requirement.

xv. Kristine Burton

Ms. Burton resides outside Philadelphia in Montgomery County and volunteers with Food and Water Watch. Ms. Burton asserts that HVL pipelines should only be

placed in extremely low population density areas after a review of safety risks and mitigation measures. She comments that a hazardous liquid public utility that builds a pipeline should be required to resource EMS that serve the “blast zone” with emergency plans to notify residents and respond to incidents. The plan should consider disabled residents. Ms. Burton supports a leak detection and alert system requirement as well as free water testing and remediation to all well owners in proximity to the pipeline. Her comments align with the Environmental Advocates’ comments.

xvi. Consumer Energy Alliance

The Consumer Energy Alliance (CEA) represents more than 350 member companies nationwide advocating for energy resources. CAC generally asserts that the proposed regulations will result in a multi-billion-dollar imposition for pipeline operators, raising costs for consumers, disrupting service, reducing access to energy and disturbing roads and more landowner properties. The potentially massive costs and delays will lead to new supply chain issues already exacerbated by the pandemic. CEA is opposed to requiring the requiring the lowering of Mariner East 1 line to 12 inches of additional underground clearance as too costly and affecting properties and access along the way.

xvii. Connor Young

Mr. Young advocates that HVL pipelines should only be placed in extremely low population density areas and only after a thorough review of safety risks posed and mitigation measures possible. Residents in the blast zone should be thoroughly educated on the risks and on how to be notified of an incident, *i.e.*, through PA alert or some other way. A phone notification system should exist. The pipeline emergency plan should take nearby people with disabilities into account. The hazardous liquid public utility building a pipeline should be required to resource EMS that serves the blast zone with a feasible plan to both notify residents of a leak and to respond effectively to a leak. Technology, equipment, and funding to carry out this plan should also be provided in large part by the hazardous liquid public utility.

The pipeline construction should be reviewed and engineered for extra safety measures specific to HVLs. Construction should not occur until environmental impact studies and groundwater impact studies are completed, and then only where results indicate little to no negative impact. These studies should establish the impacts not only of the active pipeline but also the effects of the construction itself. Additionally, he supports free water testing and remediation to all well owners in proximity to the pipeline.

xviii. Marcellus Shale Coalition

MSC advocates that any construction standards promulgated be prospective in nature, and not require existing pipelines to be excavated to be brought into compliance. Burying pipe to a level of at least 40 inches below the level of cultivation is problematic. Existing lines have been built in accordance with federal standards, which require depths of between 30-36 inches. Excavating existing lines to achieve this new depth is unpractical, extremely costly, unnecessary, and in conflict with the PUC's own mission of ensuring safe and reliable utility service to consumers. Moreover, the PUC's proposed requirement that an operator evaluate and maintain such cover into the future is in conflict with federal standards, costly, unnecessary and impractical. To adhere to both of these standards would cost multiple millions of dollars per mile, notwithstanding the significant time and cost necessary to obtain the relevant environmental permits to conduct the work. It would also lead to significant disruptions in the utility service, further harming consumers and exacerbating an already stressed and unreliable supply chain that has caused massive disruptions to our economy.

The MSC also advocates removing the requirement within subsection (g) that requires the placement of Emergency Flow Restriction Devices (EFRDs) at least every five miles. Each EFRD is extremely expensive. More to the point, however, PHMSA is currently working on a regulation to address EFRD spacing, and the Commission should

await final promulgation of a federal rulemaking before proceeding. Failure to do so will impose significant and unnecessary costs onto the regulated community, while establishing a standard that may be negated in the relatively near future by federal rulemaking.

xix. Chester County

(a) § 59.137(a)

Chester County comments that the scope of the construction section is unclear and ambiguous. The PUC should clarify scope and explain whether pipelines currently operating are grandfathered under this scope and if not, whether routine maintenance such as applying new coating will trigger a requirement that valves be installed, which had not been required under prior regulation. The section should reference “all pipeline construction” Chester County Comments at 6.

(b) § 59.137(g)

Regarding Part (g)(1)(2)(3), (valves for pipelines transporting HVLs), Chester County requests that this part be retroactive and mandatory in high consequence areas as defined by PHMSA at Section 195.450 Definitions. Chester County recommends that current operating hazardous liquid pipeline facilities should have a two-year period to install Emergency Flow Restriction Devices (EFRDs) in high consequence areas. Additionally, the lateral spacing of EFRD valves in a high consequence area should be based on engineering standards and consultation with public officials. The location of EFRDs should minimize public exposure to injury and probability of accidental ignition.

The five-mile maximum lateral valve spacing is too broad and does not adequately address safety issues in high consequence areas. Valves are a critical safety device that should be required to protect the public and property. The NOPR requires new pipelines to install EFRDs in proximity to schools, churches, hospitals, daycares, nursing facilities,

commercial facilities, industrial facilities, sport complexes, and public parks. As such, the NOPR recognizes the necessity of EFRDs. If the EFRDs are necessary for new pipelines, then they should be required for currently operating hazardous liquid pipelines in high consequence areas. Finally, Subpart (3) should be retroactive and include currently operating pipelines.

(c) §§ 59.137(h) and 59.137(f)

Chester County comments that vehicle barriers should be retroactive. The Part is ambiguous as to whether it applies to new or currently operating pipelines. Vehicle barriers offer commonsense protection of critical infrastructure and should be utilized for new and currently operating pipeline facilities.

b. Reply Comments

i. Environmental Advocates

Environmental Advocates first urge the PUC to provide clarity for industry concerning when compliance with the proposed construction requirements would be triggered. Specifically, API reasonably reads the scope of proposed § 59.137 to require conversion-to-service to trigger compliance with new construction requirements. But federal regulations state that conversion should not immediately require compliance with construction standards applicable to new pipelines. It is important to note, however, that PHMSA guidance expressly stresses the importance of other requirements, such as testing, apply to pipelines that are being converted because pipelines such pipelines are at risk for failure. This rulemaking should clarify that all such requirements still apply to conversion.

The PUC's proposal to ban pipelines under private dwellings, industrial buildings, and in places of public assembly is an urgent step. The PUC should firmly reject Sunoco's request to limit the ban on pipelines to under "enclosed buildings." It is crucial

for the PUC to use its full siting authority, the sources of which the Environmental Advocates detailed in their April 12, 2022 comments.

The Environmental Advocates also encourage the PUC to strongly consider further enhancing depth of cover requirements in accordance with the informed requests of local governmental entities. Objectors almost uniformly write as if the only way to increase the depth of cover over existing pipelines is to excavate them, dig deeper, and move them further underground. It often merely requires adding additional topsoil – especially easy and helpful on farms. Doing so would likely be cheaper, create less disturbance, and benefit many farms where topsoil erosion is often a challenge. Requiring maintenance of depth of cover in no way conflicts with the federal requirements, but rather enhances them by ensuring that the intended benefits and protections are ongoing.

The Environmental Advocates encourage the PUC to implement the rule against deflection, as grounded in current best practices. Environmental Advocates also support Chester County’s request that the PUC require full x-ray inspection of each field weld and generally base inspections on emerging best practices, as suggested by AMPP.

ERFDs are important for minimizing both the volume of and damage from potential leaks, and they must be used properly to avoid potentially damaging pressure surges in HVL lines. First, Environmental Advocates strongly urge the PUC to take API’s caution regarding the “water hammer” effect risk seriously while still moving forward with requiring increased use of EFRDs. PHMSA has recently promulgated a rule governing the placement and use of automatic or remote shut-off valves that API asserts was well vetted by experts and through a notice and comment period. Environmental Advocates suggest that the PUC use the new PHMSA rule as potentially indicative of current best practices and draw from it to determine (1) criteria for EFRD spacing, and (2) additional associated regulations to promote safety. Because PHMSA

rules do not continually evolve with best practices, the PUC's regulation needs to ensure that current best practices are used as they evolve. Any EFRD plan should also include guidelines for inventorying the product. Such inventories need to be incorporated into DEP air permits, as well.

In relation to "vehicle barriers," Sunoco and API find the proposed § 59.137(h) ambiguous, asking for clarification of what the PUC means by the "largest types of vehicles," Environmental Advocates suggest the PUC expand the subsection to help industry actors understand the requirements. In doing so, the PUC may find it helpful to refer to PennDOT's vehicle guidelines at 75 Pa.C.S. 4941(c).

The Environmental Advocates share Chester County's appreciation for the importance of the PUC requiring new pipelines to be separated by at least 12 inches from any other pipeline without exception. In no circumstance should an operator be permitted to emulate Sunoco's problematic decision to encase the 20-inch ME2 and the 16-inch ME2X pipelines together in a 42-inch casing, allowing at most 6 inches of space between them. *See* section 59.137 (a) Scope.

The Environmental Advocates agree with East Goshen Township that operators be required to implement weatherization best practices for exposed infrastructure, and both East Goshen and Chester County ask the PUC to require coating on exposed components that provide protection from ultraviolet light. The PUC should require weatherization best practices in the final regulation.

The Environmental Advocates support East Goshen Township's suggestion that the PUC require operators to post a performance bond when engaging in a construction project that falls within the scope of § 59.137. The bond could swiftly compensate governmental or private entities harmed by an operator's lack of compliance during construction, or pay associated penalties.

Finally, Environmental Advocates agree that the plans for any project within the scope of this section must be approved and sealed by a professional engineer or a professional geologist licensed within the Commonwealth of Pennsylvania.

ii. Sunoco

Sunoco states that the PUC should reject any proposal to apply the proposed regulations retroactively as Pennsylvania's Pipeline Safety Act expressly prohibits retroactive application to pipeline facilities existing at the time a standard is adopted. Moreover, Sunoco contends that the PUC should reject the Environmental Advocates' proposals to have the PUC (1) further restrict the use of eminent domain for transportation of petroleum products within any part of the reasonable curtilage of a dwelling within 100 meters, (2) not allow new pipeline installations under residential buildings, parking areas, or immediate yards which would endanger the public during an incident next to someone's home, and (3) follow California's practices concerning construction in environmentally and ecologically sensitive areas. Sunoco argues that 15 Pa.C.S. § 1511(b) exempts petroleum or petroleum product transportation lines from the 100-meter setback restriction and that the PUC cannot by regulation amend or nullify another statute and usurp powers held by the General Assembly.

Sunoco opposes the suggestions of the Environmental Advocates and of East Goshen regarding construction materials and methods in section 59.137. Sunoco notes that it is the statutory role of DEP and its permitting process to regulate construction in such areas under existing environmental statutes. Sunoco also states that the law is well-defined that utility management is in the hands of the utility. Sunoco continues that the PUC should reject the Environmental Advocates proposed use of double mechanical seal pumps and should not require prescriptive solutions or enforce one-size-fits-all solutions. Next, Sunoco objects to the Environmental Advocates suggestion to require operators to account for noise, vibration, dust, and emissions on a landowner's property, and to

require filing noise abatement plans. Sunoco submits that the PUC does not have the expertise to interpret standards related to these and states that a regulation to that effect would be subjective, vague, unreasonable, and inappropriate.

In response to the recommendations of East Goshen regarding depth of cover in subsection 59.137(e), Sunoco submits that the PUC should not require operators to assess and maintain the depth of cover over a pipeline absent any circumstances that would indicate a safety issue. Regarding subsections 59.137(g)(1)-(2), which address valves for transporting HVLs, Sunoco restates that the PUC's statutory authority is limited with respect to siting valves and that prescriptive requirements do not provide additional safety benefits.

Sunoco agrees with the Marcellus Shale Coalition that the PUC should remove the requirement in subsection 59.137(g) that requires the placement of EFRDs at least every five miles because each EFRD is extremely expensive and PHMSA is working on a regulation to address EFRD spacing.

c. Connor Young

Mr. Young advocates for a retroactive requirement of ground cover and pipeline spacing, asserting that it is essential to protect the Commonwealth from pipelines in the future and from pipelines being built now.

3. Disposition On § 59.137

The Federal regulation at 49 CFR 195.210(b) expressly prohibits a pipeline carrying HVLs to be less than 50 feet of a dwelling without an additional 12 inches of cover over it than that required by 49 CFR 195.248. If the pipeline operator is operating a hazardous liquid pipeline within 50 feet of dwellings or places of congregation without the additional cover, then that is a violation of a specific Federal regulation, and the

operator could be directed to remedy the situation. The Federal regulation at 49 CFR 195.250 requires that any pipe installed underground must have at least 12 inches clearance between the outside of the pipe and the extremity of another underground structure. However, where 12 inches is impracticable, the clearance may be reduced if adequate provisions are made for corrosion control. 49 CFR 195.250 (relating to clearance between pipe and underground structures).

In the *Flynn* case, we found a violation of 49 CFR 195.248 regarding lack of appropriate depth of cover of ME1 in Chester County and that there was *prima facie* evidence that there are multiple locations along ME1 and the 12-inch pipelines in Chester and Delaware Counties while they were actively being used to transport HVLs through these counties to suggest that there is lack of appropriate depth of cover as well as improper distance between these pipelines and other pipelines, underground utilities/structures in violation of 66 Pa.C.S. § 1501 and 52 Pa.C.S. § 59.33. We also found a violation of 66 Pa.C.S. § 1501 due to unreasonable service on the part of Sunoco in not meeting with representatives of school districts and first responders on a more frequent basis to address their needs in preparing their PEMA plans as well as not warning the public of certain dangers of encountering the product being shipped in its biannual safety pamphlet distributions.

On May 5, 2023, the Commonwealth Court affirmed in part and reversed in part *Flynn*. Specifically, the Court affirmed part of the PUC's decision concluding that Sunoco's public awareness program as implemented failed to meet the reasonable service standard pursuant to 66 Pa.C.S. § 1501 and that there was no error in directing remedial actions to ensure the delivery of safe and reasonable service. The Court held that the injunctive relief granted was narrowly tailored to address the ways in which the pipeline operator's public awareness program, as implemented, had not satisfied Section 1501 of the Public Utility Code and Section 59.33 of the PUC's regulations.

However, the Commonwealth Court reversed the PUC's holding regarding violations of federal regulations pertaining to depth of cover and distance requirements for hazardous liquids pipelines. The Court held that Sunoco was denied due process because the pipeline depth of cover and distance from other underground utilities and structures regulations found at 49 C.F.R. §§ 195.210, 195.248 and 195.250 were not cited to specifically in the formal complaints. Although one of the consolidated complaints originally did cite to a depth of cover regulation, that complaint was later amended and failed to include that allegation again. As none of the other complainants in the consolidated proceeding raised these federal regulations in their briefs according to the Court, it found an error in finding violations of these federal regulations regarding the depth of cover and distance of the ME1 and the workaround pipelines. *Sunoco 2023*. The Court never addressed the merits of the argument as to whether ME1 and the 12-inch pipelines were grandfathered in, being used for intrastate public utility service, had been converted and/or repurposed, or whether the federal regulations applied to these hazardous liquid pipelines. With the completion of the ME2 and ME2X, Sunoco is no longer using the ME1 or 12-inch pipelines to transport HVLs.

Pennsylvania's two hazardous liquid utilities are using a large portion of existing rights of way obtained in the 1930s. The initial rights of way in Delaware County and Chester County were probably selected at a time when the area was more rural, consisting of mostly farmland; thus, the initial rights of way likely avoided close proximity to dwellings, businesses, and places of congregation. Residential dwellings, malls, retirement centers, libraries, schools and other buildings of congregation were later built closer to the right of way. The hazardous liquid utilities could have selected the existing rights of way based on: 1) saving the expense for additional land if it was available; 2) avoiding natural habitats (*e.g.*, wetlands with endangered species such as the bog turtle); 3) streamlining inspection and maintenance of the lines in close proximity to each other; 4) transporting from the Marcellus shale regions of Pennsylvania to the

Marcus Hook Facility located in Chester County along the Delaware River through an expedient route; 5) other reasons; or 6) a combination of reasons.

Section 1511(b) of the Business Corporation Law can be raised in the condemnation proceeding before a trial court. Section 1511(b) restricts the powers conferred upon a public utility corporation the power of eminent domain to transport petroleum or petroleum products for the public to not condemn any dwelling house or within the limits of any street, highway, water or other public way or place and they cannot condemn for building a petroleum or petroleum products transportation through any place of public worship. However, §1511(b)(1)(i) carves out an exception for petroleum or petroleum products such that the transportation lines of these products may be on condemned land within 100 meters of “the reasonable curtilage of a dwelling house.” 15 Pa.C.S. § 1511(b)(1)(i); *In re: Appeal of Andover Homeowners’ Ass’n, Inc. of the Sunoco Pipeline L.P. Zoning, Bldg. and Elec. Permit Approval by the Zoning Hearing Bd. Of Thornbury Township, Delaware County Appeal of Andover Homeowners’ Ass’n, Inc.*, 217 A.3d 906 (Pa. Cmwlth. 2019). There is no Federal or State set-back requirement that a petroleum pipeline or valve be located 100 meters from a dwelling.

Even if we did have authority to preapprove or reject a utility’s plans for the siting and location of pipelines, which we do not, both State and Federal law expressly allow pipelines, including pipelines carrying HVLs, to be conditionally located in HCAs. *See* the current 52 Pa. Code § 59.33(b) which incorporates 49 U.S.C. §§ 60101-60503 and the 49 CFR Part 195 regulations as safety standards for hazardous liquid public utilities; 49 U.S.C. § 60109; 49 CFR 195.450 (definitions) which defines “HCA” to include high population areas, *i.e.*, urbanized areas, or other areas with concentrated populations); 49 CFR 195.452 (pipeline integrity management in high consequence areas); and 49 CFR 195.452(i)(1) which sets forth the preventive and mitigation measures that an operator must undertake to protect a HCA.

Additionally, we note that section 59.137 was not intended to be retroactive. The regulations properly state that they apply to new pipelines, or pipelines for which the grandfathering clause has been nullified, by specifying that the regulations apply only if the pipeline has been repurposed for HL use, “converted, relocated, or replaced.” Making this section retroactive would cause interruption of service and significant loss of revenue and additional costs to Sunoco relative to the already constructed ME2 and ME2X lines. We additionally recognize costs asserted by Laurel. The revenue loss per day for each line would be significant, and costs associated with lowering a line, or in cases where that is not possible, relocating a line are in the range of hundreds of thousands to multi-millions of dollars. Shutting down a line may cause shipping delays and potentially supply shortages. Additionally, there may be instances where the urban and suburban areas whereby neither lowering of the line or relocation is not feasible due to the proximity of buildings and underground infrastructure already existing in that area. Pipeline relocation is a significant, time consuming and expensive undertaking for both the pipeline operator that incurs direct costs and communities that will face disruption from pipeline construction. The lines were built or repurposed under existing PHMSA regulations and to create additional more stringent design standards in a retroactive fashion would be unfair to the utilities.

We have removed the phrase “or otherwise changing” from Subsection (a) regarding scope in the final form regulation. This subsection is not identical to the definition of scope at 49 CFR 195.200 (relating to scope) and is not preempted by federal law. This scope is meant to expand upon these federal regulations and not in any way restrict their applications. This subsection should be viewed to enhance and not obstruct compliance with federal law. Also, we have amended 59.137(b) in the final-form regulation so that the language now states: “*Pipeline location.*” In addition to the requirements of 49 CFR 195.210 (relating to pipeline location), no pipeline may be constructed under private dwellings or industrial buildings except in the repair or

replacement of existing pipelines. This way the regulation would apply to construction projects going forward and not retroactively to those pipelines already constructed.

Regarding proposed § 59.137(d) Welds: Nondestructive testing, we agree with Sunoco to eliminate this requirement in the final-form regulation as we have no technical evidence to warrant deviation from the federal standard that allows for three degrees deviation. The elimination of this requirement should alleviate the cost concerns raised by Laurel. Accordingly, we have deleted the provision in the final-form regulation. Having deleted the proposed § 59.137(d) provision regarding welds, we have determined renumbered the remaining subsections of § 59.137 in the final-form regulation.

As such, proposed § 59.137(e), which addressed cover over buried pipeline, is now § 59.137(d) in the final-form regulation. We agree with the Associations, Sunoco, and Laurel that there is insufficient information to show there have been accidents on commercial farms due to insufficient cover over the pipelines or that the federal safety regulations regarding depth of cover over agricultural lands is insufficient. The costs to bury the pipelines such that there is at least 40 inches of cover are very high. Accordingly, we have deleted the requirement of 40 inches of cover that was proposed in § 59.137(e)(1). The hazardous liquid public utility shall still be required to specify in its O&M procedures the intervals at which it verifies depth of cover and shall maintain the federally required depth of cover for all of its pipelines transporting hazardous liquids in the Commonwealth. We also incorporated the provisions of proposed § 59.137(e)(2) into § 59.137(d) in the final-form regulation.

Consistent with our decision to renumber certain subsections of § 59.137, proposed § 59.137(f) is now § 59.137(e) in the final-form regulation, and it addresses clearance between pipe and underground structures. We also agree that this proposed requirement of constructing and maintaining 12 inches of clearance between pipe and underground structures should not be retroactive and should not apply to those pipes

already transporting hazardous liquids on or before the effective date of the regulation. Therefore, we conclude that requiring this distance will lead to better accuracy in mapping, deter corrosion, and will assist construction and excavation contractors in avoiding contact with these pipes in the future.

We agree with MSC and have also deleted the proposed § 59.137(g) addressing valves for pipelines transporting HVLs from the final-form regulation because PHMSA has promulgated its final rule at ***Pipeline Safety: Requirement of Valve Installation and Minimum Rupture Detection Standards***, PHMSA-2013-0255; *See Federal Register*, Vol. 87, No. 68, published April 8, 2022, effective October 5, 2022. PHMSA now requires operators of these lines to install rupture-mitigation valves (*i.e.*, remote-control or automatic shut-off valves) or alternative equivalent technologies and establishes minimum performance standards for those valves' operation to prevent or mitigate the public safety and environmental consequences of pipeline ruptures. The final rule establishes requirements for rupture-mitigation valve spacing, maintenance and inspection, and risk analysis. The final rule also requires operators of gas and hazardous liquid pipelines to contact 911 emergency call centers immediately upon notification of a potential rupture and conduct post-rupture investigations and reviews. Operators must also incorporate lessons learned from such investigations and reviews into operators' personnel training and qualifications programs, and in design, construction, testing, maintenance, operations, and emergency procedure manuals and specifications. Accordingly, as we adopt by reference these revised regulations at 49 CFR Part 195, the relief requested by Environmental Advocates and others supporting valve rules are already addressed in federal regulations. The elimination of proposed § 59.137(g) will eliminate incremental cost increases to Laurel and Sunoco as stated in their comments or responses to data requests. Additionally, the elimination of this subsection should address the comments by the industry, chambers of commerce and labor unions concerned about costs, interruption of service, lack of access, supply issues, and inflation.

Consistent with our decision to renumber certain subsections within § 59.137, proposed § 59.137(h) is now § 59.137(f) in the final-form regulation and addresses vehicle barriers. We agree with Sunoco that “largest type of vehicles” is not well defined. Accordingly, we removed the phrase “the largest types of” from this subsection in the final-form regulation. Additionally, we agree that the physical characteristics of a valve station may render vehicle barriers unnecessary, *i.e.*, the valve has a natural berm or barriers that would render an additional vehicle barrier unnecessary. Accordingly, we have provided for an exception in this subsection in the final-form regulation. We consider the cost of approximately \$1850 - \$2500 per vehicle barrier to be outweighed by the safety benefits of preventing vehicles from impacting valves that are above-surface and often not surrounded by buildings or shelters. Barriers serve as a benefit as they protect facilities from property damage and ruptures, which could result in more serious injuries and damage to not only the facilities but the surrounding area. This rule is not retroactive to existing valve stations but would apply to all construction projects of valve stations after the effective date of the rule. Thus, there is no immediate cost to the hazardous liquid public utilities.

Although East Goshen Township’s comment requiring the posting of a performance bond when engaging in construction projects that could swiftly compensate governmental or private entities harmed by lack of compliance during construction falls within the scope of Section 59.137 is interesting, we are unaware of legal authority or support from legislation to require such a posting of a bond. There should be a statutory requirement in the Public Utility Code to support the promulgation of such a regulation.

Accordingly, we have revised section 59.137 in the final-form regulation as discussed above.

9. § 59.138. Horizontal Directional Drilling And Trenchless Technology, Or Direct Buried Methodologies

Section 59.138 of the PUC's proposed regulations sets forth requirements for hazardous liquid public utilities using HDD, TT, or direct buried methodologies in construction or operation and maintenance. Subsection (b) requires a hazardous liquid public utility to provide both a 30-day and a 24-hour notice to the PUC's Pipeline Safety Section and the affected public before beginning HDD, TT, or direct buried construction or operation and maintenance activities. This requirement will ensure that the Pipeline Safety Section and the affected public receive adequate notice of HDD, TT, or direct buried construction.

Further, subsection (c) requires hazardous liquid public utilities using HDD or TT for construction or operation and maintenance activities to consider geological and environmental impacts and to comply with DEP Trenchless Technology Technical Guidance. For example, this subsection requires a hazardous liquid public utility to, *inter alia*, conduct a geotechnical evaluation of subsurface conditions along a pipeline facility and conduct geological sampling at locations where suspected anomalous conditions are identified through geophysics, including post-construction geophysics. Subsection (c) also requires the hazardous liquid public utility to provide information, including geotechnical reports, regarding HDD, TT, or direct buried construction to the PUC's Pipeline Safety Section upon request. These provisions are intended to enhance the safety of hazardous liquid public utilities' service and facilities.

Additionally, section 59.138 addresses the protection of water wells and supplies. Subsections (d) requires, *inter alia*, that a hazardous liquid public utility comply with all relevant DEP regulations, including but not limited to 25 Pa. Code § 78a.68a and 25 Pa. Code Chapters 102, 105, and 109, and all DEP Trenchless Technology Technical Guidance when using HDD or TT for construction or operation and maintenance

activities near private or public water supply sources, such as wells or reservoirs. In the event that HDD, TT, or direct buried methodologies cause adverse impacts for a private or public water supply source, subsection (e) sets forth certain compliance, notification, and corrective action requirements for hazardous liquid public utilities. Like subsection (c), subsections (d) and (e) are intended to enhance safety.

a. Comments On § 59.138

i. IRRC

IRRC questions what authority the PUC has to require compliance with DEP regulations and guidance. IRRC questions the need to include references to those documents in this regulation. The phrase “including but not limited to” is problematic because it is vague and does not inform the regulated public of the full extent of what the requirements are. IRRC comments that requiring compliance with a guidance document in another agency and subsequent updates to it is not appropriate language to include in a regulation as it would make that guidance document a *de facto* regulation. That would be an inappropriate delegation of the PUC’s rulemaking authority. IRRC urges the PUC to consult with and consider the recommendations of the DEP regarding this section. Both agencies should work together to create a regulatory framework that is within its own specific delegated statutory authority, clear and non-duplicative for all aspects of the regulated community, and protective of the environment and the citizens of the Commonwealth.

Regarding subsection (a), IRRC questions the need for and clarity of the parenthetical definition “construction.” Since the term “construction” is used in multiple sections of this rulemaking, IRRC recommends that it be defined in Section 59.132.

Regarding subsection (d), IRRC asked the PUC to explain how a hazardous liquid public utility can comply with this provision of the public and private owners are

unwilling to provide the required information. IRRC also questions what is meant by the phrase “water supplies deemed at potential risk due to geological structures.”

ii. Environmental Advocates

Environmental Advocates urge the PUC to require the applicable best practices from the guidance generated by DEP’s trenchless technology and alternatives analysis workgroups to the HDD regulations in this section. Environmental Advocates urge the PUC to assert its full siting and regulatory authority to require that operators adhere to the guidance for all HDD operations. Additionally, Environmental Advocates urge the PUC to expand the obligations under its “Protection of water wells and supplies” in proposed subsection 52 Pa. Code § 59.138(d) to include more categories of underground facilities, such as Maine statute: 65-407 C.M.R. Ch. 420, § D(1)-(3). The Maine Code also ensures that third-party excavators are trained properly and held accountable for their work with HDD and trenchless technology. *See* 65-407 C.M.R. Ch. 420, § D(4).

Environmental Advocates argue that the PUC should further require operators to notify all landowners within a reasonable radius (the trenchless technology guidance suggests 1,000 feet) of a subsurface project when there will be an earth disturbance. Moreover, the PUC should also require operators to provide a clear mechanism for landowners to report impacts, and then to inform the PUC of responses. Further, while the trenchless technology guidance concentrated on water supply issues, the PUC should be cognizant of potential impacts of utility construction projects on on-lot sanitary disposal facilities.

iii. Pipeline Safety Trust

PST suggests that section 59.138(f) include an obligation to transfer all records to any subsequent owner or operator of the facility.

iv. The Associations

The Associations comment that retroactively requiring the proposed requirements for HDD, TT and direct buried methodologies to convert pipelines conflicts with PHMSA’s regulations (49 CFR 195.5) by banning operators of existing pipelines from using the conversion to service process. The Associations recommend eliminating reference to “converting” pipelines. Operators using the “conversion” process would only be impacted if their system needs upgrading (*i.e.*, cut outs, replacement, etc.).

The Associations assert that section 59.138(b) fails to consider emergency situations where advance notice is impossible. The Associations recommend including an exception. The Associations also recommend exempting O&M activity from subsection (d).

v. Shepstone Management Company, Inc.

SMCI states that section 59.138 is duplicative of DEP requirements. SMCI alleges that these requirements created trouble with Mariner East and that involving a second agency will complicate matters even further.

vi. Sunoco

As an overarching matter, Sunoco comments that, to the extent the PUC seeks to rely on DEP’s Trenchless Technology Guidance and any updates thereto in subsection 59.138(c)(1), the PUC exceeds its authority, violates the non-delegation doctrine, and its action is, thus, unconstitutional. Regarding subsection 59.138(c)(2), Sunoco recommends that the PUC delete “at a minimum of every 250 feet using seismic, gravitational and electric resistivity” and insert “using appropriate *geophysical*....” Sunoco also proposes deleting “with results of high resolution” and inserting “as recommended by a Professional Geophysicist, Professional Geologist or Professional Geotechnical Engineer licensed in that field.” In subsection 59.138(c)(3), Sunoco recommends that the PUC

replace “geological” with “geotechnical” and delete the phrase “in paragraph (2)” and insert instead “as recommended by the Professional Geophysicist, Professional Geologist or Professional Geotechnical Engineer in paragraph (2).” Sunoco claims these changes remove any arbitrary requirements from the PUC’s proposal and allows operators to coordinate with professional engineers in the field who are best equipped to make such decisions based on the facts of each unique situation as well as professional training and experience.

Sunoco states that it is concerned with the PUC’s proposed subsection 59.138(c)(4) and the 30-day period for requiring operators to maintain the integrity of the affected pipeline by mitigating all adverse impacts. Sunoco contends that such a period may not be sufficient to begin mitigation procedures due to right-of-way limitations and other practical considerations. Sunoco also claims that the requirement to perform a shut in or implement a pressure reduction is arbitrary and inconsistent with federal regulations; any action taken in response to geological issues found should be based on data and technical assessments, not mandated, inflexible regulations. Sunoco argues that the PUC has failed to provide support for its requirement to perform geotechnical sampling every 500 feet and to maintain such information.

Sunoco is concerned with the proposed requirements that would mandate operators to take certain action when water supplies are within the vicinity of construction or maintenance that requires HDD, TT, or other direct buried methodologies; these requirements impose certain identification, notification, and sampling requirements. Sunoco recommends that the PUC forgo these requirements and defer to the DEP for the regulation of water wells and supplies. Sunoco states that the PUC does not have authority to issue regulations regarding the monitoring and inventory of public or private water systems. Sunoco continues that the proposed regulations are unnecessarily duplicative because they refer to regulations that already apply to

hazardous liquid public utilities.³⁸ Next, Sunoco names practical concerns like the location of public and private water supplies not being public information and only being available to the well owner and to DEP.

Sunoco notes an apparent conflicting requirement, as subsection (d)(2) requires a pipeline operator to identify public water supply wells within one-half mile of the HDD or TT construction or O&M activities while subsection (d)(3) requires the operator to identify public and private water supply owners within 1,000 feet of HDD or TT construction or O&M activities. Sunoco recommends that subsection (d)(2) be modified to use “1,000 feet” because it is unlikely that HDD or TT operations would impact water supplies beyond that distance. Sunoco is also concerned with the requirement on pipeline operators to identify “water supplies deemed at potential risk due to geological structures” as that language is not based on any industry standard and is not defined in the proposed regulations. Additionally, Sunoco notes, the proposed language does not impose any distance requirement at which an operator must identify water supplies at potential risk due to geological structures, making the requirement vague, overly broad, and lacking clear expectations for compliance. Sunoco states the PUC exceeds its authority, violates the non-delegation doctrine, and acts unconstitutionally to the extent that it relies on DEP’s regulations and its Trenchless Technology Technical Guidance and any updates thereto in subsection 59.138(d)(1).

vii. Department of Environmental Protection

First, with regard to the proposed Section 59.138(b), DEP suggests that the PUC consider including how to accomplish notice. DEP notes that, in 25 Pa. Code Chapter 78a (relating to unconventional wells), notice is required by certified mail and defines “certified mail” as “any variable means of paper document delivery that confirms the

³⁸ See 25 Pa. Code Chapters 102 (relating to erosion and sediment control), 105 (relating to dam safety and waterway management), and 109 (relating to safe drinking water) as well as 25 Pa. Code § 78a.68a (relating to horizontal directional drilling for oil and gas pipelines).

receipt of the document by the intended recipient or the attempt to deliver the document to the proper address for the intended recipient.” DEP also recommends that the PUC consider how hazardous liquid public utilities will demonstrate compliance with the notification requirements. DEP suggests notice in the *Pennsylvania Bulletin* as well.

DEP also asks the PUC to state that the notice requirements here are in addition to the requirement in 25 Pa. Code § 78a.68a(c), which that requires notice to DEP “at least 24 hours prior to beginning of any horizontal directional drilling activities, including conventional boring, beneath any body of water or watercourse.” DEP explains that it requires this notice to “be made electronically to the Department through its web site and include the name of the municipality where the activities will occur, GPS coordinates of the entry point of the drilling operation and the date when drilling will begin.” DEP also states it is helpful to obtain notice of the date when drilling will begin as operators may provide this notice months in advance. Further, in section 59.138(b), DEP recommends defining the term “O&M activities.”

Regarding section 59.138(c), DEP states that the PUC should justify why the requirements are limited to pipelines with a “bore diameter 8 inches or greater, a bore depth greater than 10 feet, or a pipeline length greater than 250 feet.” DEP notes that it does not limit its regulation or guidance based on pipeline size. DEP also notes that, while all projects do not pose the same level of risk, pipelines operators are responsible for diligently evaluating all risks associated with a project based on a variety of factors. DEP notes issues with pipelines that do not meet the size thresholds provided here.

Additionally, DEP recommends that the PUC amend section 59.138(c)(1) to add “(1) Comply with the applicable laws implemented by the Department of Environmental Protection, including but not limited to 25 Pa. Code Chapter 78a, 25 Pa. Code Chapter 102 (relating to erosion and sediment control), and 25 Pa. Code Chapter 105 (relating to dam safety and waterway management).” DEP also suggests amending Section

59.138(c)(1) to read: “Conduct an analysis of geological and environmental impacts. An analysis in conformance with the Department of Environmental Protection’s Trenchless Technology Guidance, Document No. 310-2100-003, as amended and updated, or in a manner at least as protective of public health, public safety and the environment which meets all applicable statutory and regulatory requirements, satisfies this requirement. The analysis shall be made available to the Department and the PUC upon request.” DEP notes that its technical guidance document is not yet finalized.

Further, with respect to section 59.138(c), DEP recommends adding a paragraph that states: “Develop a written preparedness, prevention and contingency plan that addresses: (1) potential impacts from drilling fluid discharges, (2) potential impacts to public and private water supplies and (3) underground mining and karst terrain. A plan developed in conformance with the Department of Environmental Protection’s Trenchless Technology Guidance, Document No. 310-2100-003, as amended and updated, or in a manner at least as protective of public health, public safety and the environment which meets all applicable statutory and regulatory requirements, satisfies this requirement. The plan shall be made available to the Department and the PUC upon request.” DEP also recommends adding a reference to DEP in section 59.138(c)(5) and noting that the DEP has the ability to request the information in section 59.138(c)(5)(i)—(iv).

With regard to section 59.138(d), DEP recommends replacing the existing language with the following:

Conduct an analysis of the impacts to public and private water supplies. An analysis conducted in conformance with the Department of Environmental Protection’s Trenchless Technology Guidance, Document No. 310-2100-003, as amended and updated, or in a manner at least as protective of the environment which meets all applicable statutory and regulatory requirements, satisfies this requirement. This

analysis shall be made available to the PUC and the Department upon request.

If the PUC retains section 59.138(d)(1), DEP recommends amending it as follows:

Comply with the applicable laws implemented by the Department of Environmental Protection, including but not limited to The Clean Streams Law, the act of June 22, 1937, P.L. 1987, as amended, 35 P.S. 691.1-691.1001; 25 Pa. Code Chapter 78a (relating to Unconventional Wells); 25 Pa. Code Chapter 91 (General Provisions); 25 Pa. Code Chapter 102 (relating to Erosion and Sediment Control); and 25 Pa. Code Chapter 105 (relating to Dam Safety and Waterway Management).

DEP also recommends that, in section 59.138(d)(2), the PUC clarifies how a water supply is deemed a potential risk and how a hazardous liquid public utility demonstrates that a water supply is at risk, or not, based on geological structures. DEP further recommends that the PUC consider amending “private water supply wells” to “private water supplies,” and “public water supply wells” to “water wells, surface intakes, reservoirs or other water supply extraction points used by a water purveyor.” DEP also suggests including zones 1 or 2 of a wellhead protection area as part of a wellhead protection program approved under 25 Pa. Code § 109.713 (relating to wellhead protection program).

DEP recommends that the PUC make the following wording change to section 59.138(d)(3): “Identify the owners of water supplies identified in paragraph (2) . . .” Additionally, DEP recommends the PUC explain in the basis for requiring notice and the opportunity for testing 1,000 feet from the applicable activities.

Regarding section 59.138(d)(4), DEP suggests that the PUC clarify when notice is required, how notice is to be provided, how to demonstrate compliance, whether hazardous liquid public utilities must conduct water supply testing and, if so, whether there are specific parameters that must be included in that testing.

Regarding section 59.138(e), DEP notes that adverse impacts to water wells and supplies are already adequately addressed by its existing rules. DEP states additional regulations are unnecessary and that section 59.138(e) should be removed. DEP further comments that if section 59.138(e) is retained, the PUC should amend this Subsection pursuant to its suggested changes. Because we agree with DEP that this Subsection should be removed, we will not summarize DEP's proposed amendments here.

viii. Edgmont Township

Edgmont recommends that the PUC take a more active role and interest in groundwater testing and reporting. Edgmont suggests working with local municipalities in their findings and reporting of groundwater issues. Edgmont also suggests that the PUC advocate for the "affected public" and require a more rigorous well water testing program for those in close proximity to pipeline construction.

ix. Senator Carolyn Comitta

Senator Comitta comments that the notification requirements in section 59.138(b) should include all DEP permit applications filed by the pipeline operator associated with HDD, TT, and direct buried methodologies. Senator Comitta also states that the notice to the "affected public" should be defined and recommends that the affected public be notified via residential door cards, newspaper notices, local government officials, county Emergency Management, and public meetings held within municipalities where the construction will be performed. Senator Comitta comments that a hazardous liquid public utility should be required to host at least one meeting annually in each county in which the pipeline is located. Many of the hazardous liquid pipelines are located from one end of the Commonwealth to the other end and operate in multiple counties. The current part (e)(2)(i) requires only one meeting annually. The chosen area may not be convenient for all. Additionally, knowledgeable pipeline operations personnel should be available at the meetings to answer questions from the public.

Senator Comitta describes the word “consider” as nebulous in section 59.138(c)(1) and recommends that the PUC modify the language to make an operator’s consideration of geological and environmental impacts a requirement by using “perform.” Regarding section 59.138(c)(2), Senator Comitta believes that an operator should be required to establish a base line with a geotechnical evaluation and then perform another geotechnical evaluation when construction has been completed based on the same 250 feet criteria for comparative purposes. Senator Comitta advocates for submission of the geotechnical evaluation baseline and completed construction evaluation to DEP for its technical review and subsequent necessary enforcement actions.

Senator Comitta recommends that the mitigation of adverse impacts in section 59.138(c)(4)(i) begin within two hours of identification and that an action plan be provided to the Pipeline Safety Section within 24 hours. If additional mitigation time is required, a waiver request, with an action plan and timetable for completion, should be filed with the Pipeline Safety Section immediately after the anomaly is identified.

Next, Senator Comitta recommends language be added that requires all hazardous liquid pipeline operators to notify the PUC’s Pipeline Safety Section within one hour of any discovered sink holes, subsidence, or other geotechnical anomaly within the pipeline right-of-way; the language, she contends, should require that a geotechnical evaluation be performed immediately to determine the root cause and the sink hole or subsidence should not be filled until the Pipeline Safety Section has been provided notice and approval to fill the void. Senator Comitta states that local government bodies should be notified immediately by the operator of rights-of-way sink holes, subsidence, or other geotechnical anomalies, as should structures within 660 feet of the right-of-way. Also, if a pipeline is exposed to a sinkhole, subsidence or other geotechnical anomaly, the operator should provide engineering calculations to the Pipeline Safety Section and county Emergency Management immediately regarding the unsupported pipeline span;

these calculations should provide details as to the safe length of the unsupported pipeline span.

Senator Comitta believes that information to be provided to the Pipeline Safety Section upon request in § 59.138(c)(5) should be filed automatically. Senator Comitta also comments that a pipeline operator should be required to submit all geotechnical data to the Pipeline Safety Section via electronic format determined by the Pipeline Safety Section or its consultant. Senator Comitta notes that subparagraph (c)(5)(iii) appears to conflict with paragraph (c)(2) and recommends that the minimum evaluation footage should be 250 feet.

For subsection 59.138(d), Senator Comitta states that a base line geotechnical evaluation should be performed and then compared to a geotechnical reevaluation when the construction is completed in the 250-foot section; this will identify whether the construction activity negatively impacted a water source.

Generally, with respect to siting authority, Senator Comitta notes that no governmental entities in the Commonwealth regulate pipeline siting. Senator Comitta recommends that the PUC take immediate steps to request legislative authority to implement pipeline siting of natural gas, hazardous liquid, water, and sewer pipelines built or operated in Pennsylvania.

Finally, Senator Comitta encourages the PUC to ensure that the Pipeline Safety Section is staffed properly to ensure all safety inspections are performed per the PHMSA required time schedule and recommends that the PUC update the legislature during budget hearings as to the Pipeline Safety Section's staffing levels and efforts to hire additional engineering staff.

x. West Whiteland Township (Accufacts)

West Whiteland Township suggests removing “exact” location wording from section 59.138(c)(5)(i)(A) as such specificity can create dangerous misimpression about the location of the pipeline. Such misimpressions can undermine important safeguards intended in prudent “one call” programs.

xi. Chester County

Chester County states that the notification requirements regarding HDD, TT, and direct buried pipelines should include all DEP permit applications filed by the pipeline operator. The notification of permit applications filed with DEP would allow the Pipeline Safety section to comment to DEP as to whether the Pipeline Safety section agrees with the construction methodology chosen and whether the operating utility has met the criteria required under this section. Additionally, the notice to the "affected public" should be defined. The affected public should be notified via (1) residential and business door cards, to include all structures and places of gathering; (2) newspaper notices; (3) local government officials; (4) local fire, EMS, and police departments; (5) local hazardous materials response team; (6) local and county Emergency Management; (7) the Local Emergency Planning Committee; and (8) public meetings held within the municipality where the construction is to be performed.

Chester County proffers that the term “consider” in paragraph (c)(1) is unclear. An operator will follow the rule/regulation as written, where a consideration is far from a regulation requirement. The County states the term “consider” is unenforceable and recommends that it be replaced with “perform.”

Chester County contends that paragraph (c)(2) should require the operator to establish a base line with the geotechnical evaluation and then perform another geotechnical evaluation when the construction has been completed based upon the same

250 feet criteria. It continues that the subpart should require the operator to perform a geotechnical evaluation of the base line compared to the completed construction evaluation. Additionally, the subpart should require the pipeline operator to submit the geotechnical evaluation base line and completed construction evaluation to DEP for its technical review and subsequent necessary enforcement actions. The County states that unless the PUC is authorized to share the construction permitting process approval with DEP, then the PUC should not be required to perform the geotechnical evaluations review. The County states that the Pipeline Safety section must contract with an outside contractor to perform the geotechnical evaluations; thus, DEP should be required to follow up on the construction process with respect to the HDD, TT, or direct buried permitting, not the PUC's Pipeline Safety section.

Chester County recommends that the mitigation required in what is now subparagraph (c)(5)(i) begin within two hours of the identification and provide the Pipeline Safety section with an action plan within 24 hours. If the pipeline operator requires additional mitigation time, it should file a waiver request with the Pipeline Safety section immediately after the anomaly identification. The waiver request would include an action plan and timetable for completion. Additionally, the County recommends that language be added to the NOPR that requires all hazardous liquid pipeline operators to notify the Pipeline Safety section within one hour of any discovered sink holes, subsidence, or other geotechnical anomaly within the pipeline right of way. The language should require that a geotechnical evaluation be immediately performed to determine the root cause and the sink hole or subsidence should not be filled until the Pipeline Safety section has been provided notice and approval to fill the void. The County states that local governing bodies or municipalities should be notified of all rights-of-way sink holes, subsidence, or other geotechnical anomalies immediately. In addition, any structures that are located within 660 feet of the right of way, where the geotechnical anomalies are located, should be notified immediately of the anomalies by the pipeline operator. If a pipeline is exposed by a sink hole, subsidence, or other

geotechnical anomaly, the pipeline operator should provide engineering calculations to the Pipeline Safety section and to local and county Emergency Management, immediately, regarding the unsupported pipeline span. The calculations should provide details as to the safe length of the unsupported pipeline span.

Subsection (5) requires HDD information. Chester County states that this information should be filed with the PUC automatically and not only upon request. Subsection (5) should also have a requirement that the pipeline operator must submit all the geotechnical data to the Pipeline Safety section via an electronic format determined by the Pipeline Safety Section or its consultant. Chester County notes that paragraph proposed (5)(iii) appears to conflict (500 feet) with Subsection (2) (250 feet) with respect to the minimum evaluation footage. Chester County recommends that the minimum evaluation footage should be 250 feet for both subparts.

Chester County reiterates that a base line geotechnical evaluation should be performed and then compared to a geotechnical re-evaluation when the construction is completed in the 250-foot section. In this way, the PUC, DEP, pipeline operator, and the private water supply owner will know whether the construction activity negatively impacted the water source.

xii. Marcellus Shale Coalition

MSC commented that DEP already has promulgated stringent regulatory standards and requirements related to HDD. Additionally, DEP is currently in the midst of a public comment period for its draft Document No. 310-2100-003: *Trenchless Technology Guidance*. MSC advocates not duplicating or deviating from the standards set by a fellow Commonwealth agency. Having two state agencies each assert jurisdiction on a matter, and then devising separate regulatory requirements for operators, only exacerbates the uncompetitive, inconsistent and punitive business and regulatory climate that continues to plague the Commonwealth. Additionally, with respect to protection of water wells and

supplies, the MSC notes that the DEP also has comprehensive statutory and regulatory requirements already in place to govern this subject. Respectfully, this topic is not a component of pipeline safety, and the Commission is not the environmental regulator of the Commonwealth. These standards are not appropriate to be included within this rulemaking and ought to be removed in their entirety.

b. Reply Comments

i. Environmental Advocates

Environmental Advocates comment that DEP's Trenchless Technology Guidance, Document No. 310-2100-003 reflects an extensive cooperative effort between both agencies, industry, and public interest representatives. DEP, the PUC, and Environmental Advocates all appear to agree that this guidance is a significant resource that will strengthen this rulemaking.

With respect to subsection (b), Environmental Advocates agree that the rule should clearly specify the required form of notice. Notice via certified mail in addition to posting in the *Pennsylvania Bulletin* would be beneficial to the public. It is also reasonable for the PUC to receive electronic notice prior to the start of HDD or trenchless construction and for that notice to include the details identified by DEP.

Additionally, with respect to subsection (c), Environmental Advocates opine that the subsection's thresholds – pipeline diameter, etc. – might be underinclusive. Pipeline operators are responsible for diligently evaluating all risks associated with a project and pipelines that do not meet the size thresholds in the proposed rule have nonetheless presented issues. Environmental Advocates urge the PUC to ensure that risks are not overlooked because of these thresholds and consider eliminating these thresholds entirely. Environmental Advocates also suggest the development of a written preparedness, prevention, and contingency plan that addresses: (1) potential impacts from

drilling fluid discharges, (2) potential impacts to public and private water supplies and (3) underground mining and karst terrain.

Environmental Advocates agree about accurately distinguishing between “geotechnical” and “geophysical” testing in subsection (c)(2). It appears the terms were inadvertently switched, as the methods listed in that section are geophysical methods, not geotechnical methods. It is preferable for the rule to require geophysics for the full area where HDD is being considered because leaving it entirely up to an operator’s contractors – regardless of their certification – to decide where and to what extent geophysics is performed will result in operators avoiding geophysics altogether or performing geophysical studies that are too limited in scope.

Environmental Advocates support DEP’s comments regarding subsection (d), protection of water wells and supplies. Environmental Advocates note that Sunoco argues that the PUC should forgo these protections and instead defer to DEP, when DEP itself does not make that suggestion. On the contrary, DEP’s comments on this subsection are consistent with the need for interagency cooperation.

Environmental Advocates disagree with the DEP’s comments on proposed subsection (e), regarding adverse impacts to water wells and supplies. Environmental Advocates cannot agree with DEP that the rules and regulations DEP implements to protect water wells and water supplies are adequate. Environmental Advocates support the affirmative step the PUC has taken in its proposed rulemaking to embrace its own duty to protect water supplies and strongly encourages the PUC and DEP to cooperate in implementing these protections going forward.

ii. Sunoco

Sunoco opposes the Environmental Advocates’ recommendations that the PUC (1) enforce the guidance generated by PA DEP’s trenchless technology and alternatives

analysis workgroups in this section; (2) assert its full siting and regulatory authority to require that operators adhere to the guidance for all HDD operations, (3) consider implementing other regulatory measures instituted by its counterparts in other jurisdictions such as New Jersey, which requires that a pipeline operator prepare HDD guidelines as part of its operating and maintenance standards and submit them to the PUC for review, (4) expand the PUC's obligations under proposed subsection (d), "Protection of water wells and supplies," to include more categories of underground facilities, (5) require operators to notify all landowners within a reasonable radius of a subsurface project when there will be an earth disturbance, (6) require operators to provide a clear mechanism for landowners to report impacts, and then to inform the PUC of responses, and (7) require operators to identify and monitor private sanitary or water disposal systems within a reasonable impact radius of a project, test them for any impacts from the utility project, and mitigate any damages. Sunoco reiterates that the PUC should not and cannot incorporate DEP's Trenchless Technology Guidance into the instant rulemaking and that the PUC has limited siting authority. Sunoco states that the authority to monitor and protect water wells and supplies or private sanitary and water disposal systems is within DEP's jurisdiction and that review and approval over HDD plans should be left to DEP.

Sunoco opposes DEP's recommendation that the PUC issue regulations requiring hazardous liquid public utilities to comply with DEP's regulations and Trenchless Technology Guidance, including the submission of HDD plans to the PUC conforming to the TT Guidance. Sunoco submits that nothing in the Code grants the PUC authority to interpret or enforce DEP's enabling legislation or its regulations.

Sunoco claims the PUC should not be enforcing prescriptive, arbitrary requirements such as geophysical sampling every 250 feet as proposed by Chester County. Sunoco is troubled by Chester County's proposed notification and mitigation requirements regarding subsection 59.138(c)(4)(i) and states that creating inflexible

requirements could delay and inhibit an operator's ability to address emergency situations. Next, Sunoco contends there is no scientific basis for Chester County's recommendation regarding proposed subsection 59.138(d) that a base line geotechnical evaluation should be performed and then compared to a re-evaluation post construction.

Sunoco agrees with West Whiteland Township's suggestion to remove "exact" location wording from subsection 59.138(c)(5)(i)(A) as an operator should not be required to disclose the exact location of the pipeline for security purposes.

c. Disposition On § 59.138

In light of IRRC's comments, we have deleted the language at § 59.138(c)(1) "Consider geological and environmental impacts and comply with Department of Environmental Protection Trenchless Technology Technical Guidance and subsequent updates thereto." Instead, we have added the following language such that we are not delegating rulemaking authority to the DEP:

Conduct an analysis of geological and environmental impacts. An analysis similar in format to the Department of Environmental Protection's Trenchless Technology Guidance, Document No. 310-2100-003, as amended and updated, or in a manner at least as protective of public health, public safety and the environment which meets all applicable statutory and regulatory requirements, satisfies this requirement. The analysis shall be made available to the Commission upon request.

This way, we are referring to the document of another agency as guidance, but not a mandatory requirement. The hazardous liquid public utility may elect to conduct a separate type of analysis at least as protective of public health, safety and environment.

We agree with the DEP regarding proposed section 59.138(e), that adverse impacts to water wells and supplies are already adequately addressed by its existing rules. Additional regulations are unnecessary, and section 59.138(e) has been removed from the

final-form regulation. Additionally, we are dissuaded from directing, through this rulemaking, that the operators comply with DEP regulations or DEP's guidance in Trenchless Technology Technical Guidance and any updates thereto in subsection 59.138(d)(1). We will neither delegate nor cede our authority to DEP, a jurisdictional agency under the executive branch of Pennsylvania's government. Proposed § 59.138(f) is now § 59.138(e) (relating to records) in the final-form regulation.

Regarding IRRC's comment to define "construction" in section 59.132, we decline to define "construction." This term is commonly used and understood in the pipeline industry and does not require a definition. However, we have added a definition for "construction task" in Section 59.132 to differentiate it from "covered task," which is relative to Section 59.141 regarding the qualification of pipeline personnel.

Regarding IRRC's comment to proposed subsection (d), a hazardous liquid public utility can comply with this provision even if the public and private owners are unwilling to provide the required information by not only seeking information from the Pennsylvania Department of Conservation and Natural Resources and DEP, but also by using geophysical equipment that measures and maps groundwater before planning for HDD construction through that land. A hazardous liquid public utility relying solely upon the voluntary lists of wells in an area can be insufficient in avoiding aquifers and wells, which could result in the loss of potable well water for some residents. The PUC is interested in requiring the hazardous liquid public utilities under its jurisdiction to engage in reasonable and safe service.

With respect to the Associations' comment that retroactively requiring the proposed requirements for HDD, TT and direct buried methodologies to convert pipelines conflicts with PHMSA's regulations (49 CFR 195.5) by banning operators of existing pipelines from using the conversion to service process. The Associations recommend eliminating reference to "converting" pipelines. Operators using the "conversion"

process would only be impacted if their system needs upgrading (*i.e.*, cut outs, replacement, etc.). We agree with the Associations that “conversion” should not be in the HDD and TT section of these proposed regulations and have amended the final-form regulation A to remove the reference to converting.

Likewise, we agree with the Associations’ recommendation to allow an exception in section 59.138(b) for emergency situations where advance notice is impossible. The intent of this provision is to ensure that notice is given as soon as practicable to the affected public and the Pipeline Safety Section. We recognize, however, that emergency situations do occur that might not allow for notification within the required 24-hour period. The Associations also recommend exempting O&M activity from subsection (d). We agree and have removed all references to O&M from section 59.138(d).

With respect to Sunoco’s observation that Subsections (d)(2) and (d)(3) are in conflict, we agree. Proposed subsection (d)(2) would require a pipeline operator to identify public water supply wells within one-half mile of the HDD or TT construction or O&M activities while proposed subsection (d)(3) would require the operator to identify public and private water supply owners within 1,000 feet of HDD or TT construction or O&M activities. We have revised subsection (d)(2) and renumbered it as § 59.138(d)(1) to reflect that pipeline operators identify public water supply wells within 1,000 feet of the HDD or TT construction. We will not speculate on Sunoco’s assertion that it is “unlikely” that HDD or TT operations would impact water supplies beyond that distance; rather, we conclude that 1,000 feet is a sufficient distance requirement for the purposes of identifying public and private water supplies. This has resulted in renumbering proposed (d)(3) as (d)(2) and proposed (d)(4) as (d)(3) in the final-form regulation.

Sunoco is also concerned with the requirement in proposed (d)(2) on pipeline operators to identify “water supplies deemed at potential risk due to geological structures” as that language is not based on any industry standard and is not defined in the

proposed regulations. Additionally, Sunoco notes, the proposed language does not impose any distance requirement at which an operator must identify water supplies at potential risk due to geological structures, making the requirement vague, overly broad, and lacking clear expectations for compliance. We agree. In order for this requirement to be consistent with subsections (d)(2) and (3) in the final-form regulation, we conclude that a distance requirement will provide sufficient specificity to provide expectations for compliance. The intent of this provision is for hazardous liquid public utilities to ensure that public and private water supplies, which may be at risk of contamination from HDD or TT activities or from subsequent adverse impacts, are identified and protected from such activities.

While we agree with Sunoco's concerns that the PUC defer to the DEP for regulation of water wells and supplies, these regulations do not have the effect of regulating water wells and supplies. Rather, they simply require hazardous liquid public utilities to identify, document and record the existence of private and public water wells and supplies within a certain distance of planned HDD and TT construction. The intent of these regulatory provisions is to ensure that proper consideration is given to the location of water wells and supplies prior to HDD and TT activities, and that adequate records are kept.

Next, DEP suggests that the PUC consider including how to accomplish notice. DEP notes that, in 25 Pa. Code Chapter 78a, notice is required by certified mail and defines "certified mail" as "any variable means of paper document delivery that confirms the receipt of the document by the intended recipient or the attempt to deliver the document to the proper address for the intended recipient." DEP also recommends that the PUC consider how hazardous liquid public utilities will demonstrate compliance with the notification requirements, suggesting notice in the *Pennsylvania Bulletin* as well. We agree with these comments of the DEP and have revised the final-form regulation to be specific in § 59.138(b) (relating to notifications).

Likewise, we agree with DEP that further specification is needed for how notice can be made to the Pipeline Safety Section and will add the following language to the final-form regulation: A hazardous liquid public utility shall notify the Pipeline Safety Section and the affected public at least 30 days prior to commencement of construction by HDD, TT, or direct buried of the date that construction will commence. Notice to the affected public must be via door cards, regular mail, and local newspaper notices. Local government officials and county emergency management will receive notice through electronic mail. The Pipeline Safety Section will receive notice via electronic mail.

If the date of commencement of construction is extended or delayed, the hazardous liquid public utility shall renotify the Pipeline Safety Section, local government officials, and county emergency management by electronic mail of the date the HDD, TT, or direct buried construction will commence. The hazardous liquid public utility shall hold at least one planned public meeting with local government, residents and emergency responders at least thirty days before the commencement of drilling within the boundaries of the jurisdictions of the local governments. Twenty-four-hour notice must be given electronically and via telephone call to the Pipeline Safety Division supervisors and managers and must include the names of all municipalities affected and GPS coordinates of the entry point of the drilling operation and date when drilling will begin prior to the commencement of HDD, TT, or direct buried construction.

DEP expressed concern about this section of our proposed regulation being limited to pipelines with a “bore diameter 8 inches or greater, a bore depth greater than 10 feet, or a pipeline length greater than 250 feet.” Our intent is to implement these regulations based upon risk, rather than to have them become over-burdensome to hazardous liquid pipeline public utilities. We have determined that the risks posed by pipelines with large diameter bores were evidently clear during the construction of certain large sized projects, and that smaller diameter, shallow bores, have not caused many adverse impacts to the geology.

Additionally, DEP recommends that the PUC amend proposed section 59.138(c)(1) to add “(1) Comply with the applicable laws implemented by the Department of Environmental Protection, including but not limited to 25 Pa. Code Chapter 78a (relating to Unconventional Wells), 25 Pa. Code Chapter 102 (relating to Erosion and Sediment Control), and 25 Pa. Code Chapter 105 (relating to Dam Safety and Waterway Management).” DEP also suggests amending proposed section 59.138(c)(1) to read:

Conduct an analysis of geological and environmental impacts. An analysis in conformance with the Department of Environmental Protection’s Trenchless Technology Guidance, Document No. 310-2100-003, as amended and updated, or in a manner at least as protective of public health, public safety and the environment which meets all applicable statutory and regulatory requirements, satisfies this requirement. The analysis shall be made available to the Department and the Commission upon request.

We agree. Accordingly, we have revised § 59.138(c)(1) to add the requirement that a hazardous liquid public utility shall make the analyses available on request.

Additionally, with respect to section 59.138(c), DEP recommends adding a paragraph that states:

Develop a written preparedness, prevention and contingency plan that addresses: (1) potential impacts from drilling fluid discharges, (2) potential impacts to public and private water supplies and (3) underground mining and karst terrain. A plan developed in conformance with the Department of Environmental Protection’s Trenchless Technology Guidance, Document No. 310-2100-003, as amended and updated, or in a manner at least as protective of public health, public safety and the environment which meets all applicable statutory and regulatory requirements, satisfies this requirement. The plan shall be made available to the Department and the Commission upon request.

We agree with this comment of DEP. Accordingly, we have revised section 59.138(c)(2) to incorporate language substantially similar to that proposed by DEP. However, PUCSIDPA may preclude the disclosure of such a plan to the DEP, and so we decline to add language that such plans be made available to the DEP upon request.

The DEP also recommends adding a reference to DEP in proposed section 59.138(c)(5), now § 59.138(c)(6) in the final-form regulation and noting that the DEP has the ability to request the information in proposed section 59.138(c)(5)(i)-(iv). Again, PUCSIDPA may preclude the disclosure of such information to the DEP. Accordingly, we decline to adopt this suggestion.

We agree with the DEP that the language “private water supply wells” should be amended to “private water supplies” and that “public water supply wells” should be amended to “water wells, surface intakes, reservoirs or other water supply extraction points used by a water purveyor.” DEP states that proposed section 59.138(e) should be removed because adverse impacts to water wells and supplies are already adequately addressed by DEP’s existing rules and that additional regulations are unnecessary. We agree with the DEP that section 59.138(e) should be removed from the rulemaking. It has been removed from the final-form regulation and § 59.138(f) has been renumbered as § 59.138(e) Records.

We agree with Edgmont Township’s recommendations that the PUC take a more active role and interest in groundwater testing and reporting; work with local municipalities in their findings and reporting of groundwater issues; advocate for the “affected public” and require a more rigorous well water testing program for those in close proximity to pipeline construction. We conclude, however, that these actions are more appropriately handled by DEP rather than the PUC, and so we decline to make any modifications in the final-form regulation with respect to these comments.

With respect to Senator Comitta’s comment that the notification requirements in section 59.138(b) should include all DEP permit applications filed by the pipeline operator associated with HDD, TT, and direct buried methodologies, we agree. Notification to the Pipeline Safety Section and to the affected public should be made when DEP permit applications are filed associated with HDD, TT, and direct buried methodologies. Along those lines, we also agree with Senator Comitta that the term “affected public” should be notified via door cards, regular mail, and newspaper notices. County Emergency Management, local government officials will also be notified and public meetings will be held within municipalities where the construction will be performed.

Senator Comitta also comments that the word “consider” is nebulous in section 59.138(c)(1), recommending that the PUC modify the language to make an operator’s consideration of geological and environmental impacts a requirement by using “perform.” We agree that simply having hazardous liquid public utilities “consider” geological and environmental impacts without requiring an affirmative action in furtherance of that consideration is nebulous. Accordingly, we have modified the language in § 59.138(c)(1) to require the performance of geological and environmental impact studies.

With respect to section 59.138(c)(2), Senator Comitta comments that an operator should be required to establish a base line with a geotechnical evaluation and then perform another geotechnical evaluation when construction has been completed based on the same 250 feet criteria for comparative purposes. Senator Comitta advocates for submission of the geotechnical evaluation baseline and completed construction evaluation to DEP for its technical review and subsequent necessary enforcement actions. We agree with her suggestion, noting the astuteness of the observation that conducting geophysical evaluations of subsurface conditions at any given point in time, without first establishing a baseline for comparison, undermines the purpose of the evaluation.

Therefore, we have revised this provision to require an evaluation before and after construction so that DEP may evaluate the effects using a baseline comparison.

Senator Comitta also recommends that the mitigation of adverse impacts in proposed section 59.138(c)(4)(i), now § 59.138(c)(5) in the final-form regulation, begin within two hours of identification and that an action plan be provided to the Pipeline Safety Section within 24 hours. If additional mitigation time is required, a waiver request, with an action plan and timetable for completion, should be filed with the Pipeline Safety Section immediately after the anomaly is identified.

Next, Senator Comitta recommends language be added that requires all hazardous liquid public utilities to notify the PUC's Pipeline Safety Section within one hour of any discovered sink holes, subsidence, or other geotechnical anomaly within the pipeline right-of-way; the language, she contends, should require that a geotechnical evaluation be performed immediately to determine the root cause and the sink hole or subsidence should not be filled until the Pipeline Safety Section has been provided notice and approval to fill the void. Senator Comitta states that local government bodies should be notified immediately by the operator of rights-of-way sink holes, subsidence, or other geotechnical anomalies, as should structures within 660 feet of the right-of-way. Also, if a pipeline is exposed to a sinkhole, subsidence or other geotechnical anomaly, the operator should provide engineering calculations to the Pipeline Safety Section and county Emergency Management immediately regarding the unsupported pipeline span; these calculations should provide details as to the safe length of the unsupported pipeline span.

Senator Comitta believes that information to be provided to the Pipeline Safety Section upon request in proposed section 59.138(5), now § 59.138(c)(6) should be filed automatically. Senator Comitta also comments that a pipeline operator should be required to submit all geotechnical data to the Pipeline Safety Section via electronic

format determined by the Pipeline Safety Section or its consultant. Senator Comitta notes that subparagraph (c)(5)(iii) appears to conflict with paragraph (c)(2) and recommends that the minimum evaluation footage should be 250 feet.

For section 59.138(d), Senator Comitta states that a base line geotechnical evaluation should be performed and then compared to a geotechnical reevaluation when the construction is completed in the 250-foot section; this will identify whether the construction activity negatively impacted a water source. We agree with this comment and will change 500 to 250 feet in § 59.139(c)(6)(iii) in the final-form regulation.

Generally, with respect to siting authority, Senator Comitta notes that no governmental entities in the Commonwealth regulate pipeline siting. Senator Comitta recommends that the PUC take immediate steps to request legislative authority to implement pipeline siting of natural gas, hazardous liquid, water, and sewer pipelines built or operated in Pennsylvania. We will take this comment into consideration outside the parameters of this rulemaking.

Finally, Senator Comitta encourages the PUC to ensure that the Pipeline Safety Section is staffed properly to ensure all safety inspections are performed per the PHMSA required time schedule and recommends that the PUC update the legislature during budget hearings as to the Pipeline Safety Section's staffing levels and efforts to hire additional engineering staff. The PUC will also take this comment under advisement.

Accordingly, we have revised section 59.138 in the final-form regulation as discussed above, noting that the appropriate BI&E section is the Pipeline Safety Section in the Safety Division.

10. § 59.139. Pressure Testing

The proposed section 59.139 would have set forth the pressure testing requirements for hazardous liquid public utilities. The proposed section 59.139 would have worked in conjunction with 49 CFR 195.304. Subsection (b) would have addressed hydrostatic testing and reassessment and would have set forth requirements for pipelines installed before 1970, pipelines installed after 1970, and pipelines that have been placed back in service after a leak has been repaired. Subsection (c) would have addressed hydrostatic testing in High Consequence Areas (HCA). Further, subsection (d) would have required that a hazardous liquid public utility notify the PUC's Pipeline Safety Section and public officials prior to beginning testing. The proposed section 59.139 was intended to enhance testing requirements, while ensuring that methods and frequency are suitable for the type of pipeline involved. We shall recap the comments and reply comments that support and contest the proposed § 59.139 prior to explaining why we have not retained the proposed § 59.139 in the final-form regulation.

a. Comments On § 59.139

i. Association Of Materials Protection And Performance (AMPP)

Regarding § 59.139 (Pressure Testing), AMPP asserts that the proposed PUC requirement in § 59.139 for assessment by ILI tools is incompatible with the Federal standard at 49 CFR 195.416 because the Federal standard permits the use of alternative acceptable methodologies of pipeline assessments when the use of ILI is impracticable while the PUC's proposed requirement does not. The Federal standard permits the use of alternative methods when the use of ILI tools "is impracticable based on operational limits, including operating pressure, low flow, and pipeline length or availability of in-line inspection tool technology for the pipe diameter." The proposed PUC requirement, in contrast, offers no such alternatives to use when the use of ILI tools is impracticable. AMPP recommends that the PUC requirement be revised to permit the use of alternatives

acceptable methodologies of pipeline assessments when the use of ILI tools is impracticable.

Additionally, AMPP asserts that the proposed requirements at § 59.139(b)(1) and (c), which require an assessment using ILI tools, lack sufficient detail to describe: what constitutes a proper in-line inspection, whether the tool selection is appropriate, how an inspection should be conducted, and how the data should be maintained, analyzed and used. AMPP recommends that § 59.139 be revised to incorporate by reference the latest revision of the industry standard *In-Line Inspection of Pipelines* – NACE SP0102, *In Line Inspection of Pipelines*, which is incorporated by reference in 49 CFR 195.591, to ensure that mandated in-line inspections are conducted appropriately and in accordance with best industry practices. AMPP also refers to the industry standard, *What standards apply to direct assessment?* – NACE SP0502, *Pipeline External Corrosion Direct Assessment (ECDA) Methodology*, which is incorporated by reference in 49 CFR 195.588. AMPP believes either the NACE SP0102 or NACE SP0502 methodology, selected and applied by qualified practitioners, offers suitable and appropriate assessment of a pipeline. AMPP also recommends that the option to utilize EDCA methodology be available under appropriate circumstances as an alternative to pressure testing or in-line inspection.

ii. Environmental Advocates

The Environmental Advocates agree with the PUC’s proposal to require pipelines that have suffered a leak be reassessed with ILI at least annually for six years. In addition to the following comments, the Environmental Advocates ask the PUC to ensure that operators implement current best practices for pressure testing. For clarity, the Environmental Advocates also recommend renaming this section, “Pressure Testing and In-Line Inspection.”

(a) Testing Frequency

Environmental Advocates suggest that it makes more sense to use the age of the pipeline as the criteria rather than a static installation date. If the PUC chooses to keep 1970 as a temporal line of demarcation, it must edit the regulations so that the rule covers any pipelines installed in 1970, not just before (§ 59.139(b)(1)) and after (§ 59.139(b)(2)). For example, California requires testing pipelines over 10 years of age every five years (with effective cathodic protection) or three years (without effective cathodic protection). Cal. Gov't Code 51013.5. Environmental Advocates suggest a baseline of pressure testing every five years for the first 20–30 years after installation and more frequently thereafter. Other factors, such as placing a repaired line back in service, should trigger more frequent pressure tests.

Environmental Advocates note that the proposed regulation requires notice to the Pipeline Safety Section and to local public officials at least five business days before a scheduled test. However, it vaguely states that “shorter notice is permissible” to facilitate continued service during emergencies. Environmental Advocates argue that a minimum period of notice needs to be defined, even during emergencies. If not, then the PUC must establish additional safety protocols to compensate for the lack of notice.

(b) Testing Against Live Valves

The Environmental Advocates suggest that the PUC include a provision prohibiting pressure testing against live valves. Indiana contains a provision with express language to this effect for its gas lines. *See* 170 IAC 5-3-2 (5)(e) (“No testing, by a medium other than natural gas under this subpart, may be done against a valve on a jurisdictional part of the system that is connected by the valve to a source of gas, unless a positive suitable means has been provided to prevent the leakage or admission of the testing medium into a jurisdictional part of the system”).

(c) Additional Safety Measures

Environmental Advocates comment that utilities conducting repairs should be required to conduct non-destructive testing on repairs before a pressure test of the line, and then to conduct a pressure test before resuming service. The testing pressure should be determined by the maximal allowable operating pressure (MAOP) for the repaired pipeline segment. Environmental Advocates advise that the PUC update testing regulations to require a testing pressure that provides a substantial margin of safety over the proposed or current MAOP for the line being tested. A safety margin between 150% and 200% of MAOP is appropriate to better protect the public, especially in older lines or lines experiencing noticeable corrosion (more than 20% wall thickness loss).

(d). Testing Water Disposal

Environmental Advocates urge the PUC to coordinate with DEP regarding the disposal of water from pressure tests because DEP is the lead agency regulating water discharges. However, the PUC should also require best practices in handling and disposing of pressure testing fluids. The operator should be required to provide the PUC with copies of any report or other document the operator files with DEP or any other competent agency (*i.e.*, wastewater treatment authority) concerning the fate of such waters.

iii. Pipeline Safety Trust

Overall, PST notes that it shares in the concerns raised by West Whiteland Township in their comments, particularly with regard to risks posed by pipes susceptible to cracking. PST states that those pipes should be subject to “spike” tests in combination with the MOP strength test required under Federal code. PST also suggests that the regulations include provisions for owners and operators to make additional efforts for system specific threats for pipes not subject to integrity management rules. In addition,

PST asks that the phrase “alternating inline inspection tools meeting industry best practices” be clarified.

Regarding section 59.139(b)(3), PST suggests replacing the word “leak” with “failure” or “leak or rupture” to be broader. PST recommends that section 59.139(c) be revised since pipes susceptible to cracking should be subject to a spoke test before being put back into service. Also, with regard to section 59.139(e), PST suggests adding an obligation to transfer records to subsequent owners and operators as with section 59.138.

iv. PureHM – (AMPP)

AMPP notes that no exceptions for impracticability are included. Additionally, there is no option for pipeline operators to use another industry standard method of pipeline assessment. Section 59.139(b)(1) and (c) calls for an assessment using in-line inspection tools but does not provide sufficient detail to describe what constitute a proper in-line inspection, whether the tool selection is appropriate, how an inspection should be conducted and how the data should be analyzed, maintained, and used. AMPP suggests incorporating NACE SP0102 (In-Line Inspection of Pipelines that is also incorporated by reference in 49 CFR 195.591). AMPP also recommends offering an alternative methodology (NACE SP0502, Pipeline External Corrosion Direct Assessment Methodology, incorporated by referenced in 49 CFR 195.588).

v. The Associations

The Associations request clarification as to why pre-1970 and post-1970 dates were chosen. Many pre-1970 pipelines were not designed for passage of in-line inspection tools and operators could not comply with the proposed requirement without modifying these lines. The proposed regulation does not account for the presence of pipeline facilities in high consequence areas that are exempt from the in-line inspection requirements. The Associations suggest modifying paragraph (b)(3) to define the

magnitude of the leak involved and provide a technical basis for the six-year time requirement.

vi. Marcellus Shale Coalition

The MSC encourages the PUC to delete the proposed hydrostatic testing standards for pre-1970 pipelines, as well as the proposed requirement for assessment by in-line inspection tools every two years. The cost to comply with these requirements, while absent from the PUC's proposed rulemaking package, is estimated to be in the billions of dollars. It would necessitate intruding upon the properties of private landowners and significantly disrupting the continued use of their own property. It may also impose significant costs on these landowners, such as displacing or disrupting valuable farmland. Finally, these significant operating disruptions conflict with the PUC's own obligations to ensure safe and reliable utility service for consumers.

vii. Sunoco

Sunoco submits that the pressure testing requirements set forth in subsection 59.139(b) are inconsistent with PHMSA's requirements as the PUC fails to demonstrate that (1) additional testing would significantly increase safety beyond what is already required in Part 195 or (2) the federal pipeline safety requirements are insufficient. Sunoco notes that it is well-established in the industry that frequent and periodic testing can be destructive to the pipes, doing more harm than good. Sunoco contends that the proposed regulations illegally remove the operator's "managerial discretion" to determine the testing methodology most appropriate for each segment of pipe tested, which contradicts federal requirements. Sunoco claims the PUC has not adequately justified the need for both hydrostatic and ILI testing at different specified time intervals for each pipe segment or why it, rather than the operator, is best suited to make that determination without consideration of the pipeline characteristics, operational history, and relevant integrity threats. Finally, Sunoco is troubled by the potential costs of these requirements

and states that they are unnecessary in light of existing federal requirements, which appropriately balance pipeline safety, operator discretion, and reliable operation of these pipelines.

Regarding hydrostatic testing in HCAs, Sunoco states that the regulation should not be adopted but also comments that the title of the section does not appropriately reflect what the regulation seeks to address. Sunoco notes that HCA is not referred to at all and that references to in-line inspection are not limited to hydrostatic testing. Sunoco continues that the regulation is unnecessary in light of federal requirements and contends that the federal requirements allow for risk-based testing rather than the prescriptive solutions proposed by the PUC. Sunoco states that the PUC has not justified why hydrostatic and ILI testing must be performed for new, converted, replaced, or relocated pipelines and encourages the PUC to defer to the federal standards.

viii. Department of Environmental Protection

DEP asks the PUC to add the following: “comply with all regulations of the Department of Environmental Protection including but not limited to 25 Pa. Code §§ 92a, 93, and 95 as it relates to the discharge water from hydrostatic testing of pipelines to waters of the Commonwealth.”

ix. East Goshen Township

East Goshen Township recommends that all pipelines which transport hazardous liquids be hydrostatically tested every three years and assessed using appropriate in-line inspection tools at least every two years regardless of when they were installed.

x. IRRC

IRRC asks the PUC to explain its rationale for imposing more stringent standards and to provide data to support its conclusions for all of the subsections of section 59.139.

IRRC notes that commentors raised five primary concerns with subsection (b), including the rationale for different standards for pre-1970 pipelines, pre-1970 pipelines not being designed for in-line inspections and costly compliance, exempting pipelines installed in 1970, the vagueness of the term “appropriate” in describing the in-line inspections to take place every two years, and the lack of detail to describe what constitutes poor in-line inspection based on tool selection, how it is conducted, and how data is analyzed. IRRC asks the PUC to explain the difference between pre-1970 and post-1970 pipelines and to consider the practical and financial implications of in-line inspections for those constructed before 1970. IRRC requests that the PUC clarify the language of this subsection to address the commentors’ five concerns. Regarding subsection (c), IRRC notes that DEP submitted comments on its regulations for discharged water from hydrostatic testing of pipelines. IRRC asks the PUC to explain how discharged water is to be managed and what the cost will be.

xi. West Whiteland Township

West Whiteland Township observes that, while the PHMSA regulations use the term “pre-1970 pipe” often, vintage pipe and some other types of more modern pipes produced well past 1970 can be prone to longitudinal seam failure; thus, there is nothing magical about this year as a cutoff year.

Next, West Whiteland Township opines that the proposed assessment approaches in subparts (b)(1)-(b)(3), regarding hydrotesting and ILI, are gravely deficient in preventing pipeline ruptures from cracks or crack-like anomalies. West Whiteland Township continues that PHMSA research made clear that a special high-pressure spike hydrotest (in excess of 100% specified minimum yield strength, or SMYS) should be performed in combination with the historical MOP strength test currently in federal regulation for pipe at higher risk to failure from crack threats.

Concerning integrity management, West Whiteland Township suggests that the wording in Annex A requiring more frequent inappropriate hydrostatic and/or improper and unverified ILI assessments more often, especially if the ILI tools cannot prudently address the anomalies that caused a pipeline to fail, adds no safety benefit to a pipeline operation. West Whiteland Township also takes exception with the phrase “meeting industry best practices” that is cited in the PUC’s Annex A because it is not defined in the pipeline safety regulations. West Whiteland Township contends this phrase should be removed from the proposed regulations and replaced with more specific prescriptive safety requirements as needed. West Whiteland Township also believes that technology is years away from fracture mechanics science being used reliably to replace proper MAOP verification of pipeline integrity hydrotesting for at-risk pipeline containing cracks, especially crack threats in vintage pipelines.

With respect to subsection (b)(1), West Whiteland Township recommends that, for pipelines of any vintage possibly containing crack risk threats, especially such threats in low toughness steel, a spike hydrotest in combination with a MOP strength hydrotest be required. The spike hydrotest would include (1) a minimum spike hydrotest pressure of: a) 100 % SMYS, or b) 1.5 times MOP if traceable, verifiable, and complete (TVC) records are not producible for the pipeline. The spike test is to be followed with a 49 CFR 195.304 strength hydrotest; (2) hydrotest(s) protocol to include a pressure-volume plot as part of the hydrotest procedures/record, as this important hydrotest parameter is not specifically required in current federal pipeline safety regulations; (3) mandated forensic analysis of any pipeline segment that fails during a hydrotest and an associated hydrotest failure forensic report to be made public on all such hydrotest failures; and (4) if the pipe experiences numerous hydrotest failures that pipe should be considered unfit for service. Also, if the pipeline operator cannot demonstrate with records that are TVC that a pipeline does not contain pipe with possible crack threats, West Whiteland Township suggests that it must be presumed the pipeline is at risk to

cracking and must be subject to a spike hydrotest in combination with a MOP strength hydrotest.

Regarding the ILI requirement in subpart (b)(1), West Whiteland Township advocates that ILI runs should identify the threat(s) the pipeline operator has determined to be on a pipeline segment and specifically name the ILI tool(s) and the specific ILI vendor(s). West Whiteland Township suggests removing the phrase “meeting industry best practices” as it is the operator’s responsibility to identify the threat(s) the ILI is meant to identify, and to provide sufficient field verification digs to support the ILI vendor’s claim on the specific pipeline upon which it is being run. Next, given the unique challenges associated with crack or crack like threats assessment in pipelines, such as at-risk vintage ERW pipe containing possible low toughness steel, West Whiteland Township notes that a special type of ILI tool (phased array ultrasonic or PAUT), is becoming more pragmatic and may prove capable of dealing with such crack threats. The PAUT ILI tool’s tolerances to identify such cracks, however, *must* be coupled with proper field dig methods focused on crack evaluation to assure ILI tool effectiveness in this still developing, though promising use of technology. Moreover, ILI tool runs should be at least every 5 years if a pipeline operator can demonstrate the ILI tools claimed capabilities via field verification digs with compatible fracture mechanics science/analysis that should be made public. Pipelines that contain crack threats can still try to advance crack ILI tool technology by running ILI tools claiming to allow prediction of crack failures, but the crack threat ILI tool run and related fracture mechanics evaluations shall be complemented with a hydrotest pressure spike test in combination with a MOP strength hydrotest outlined previously.

West Whiteland Township contends that paragraph (b)(2) be rewritten: (1) to capture those pipelines, if any, that have not been hydrotested previously to a strength test limit and do not have potential crack or crack like threats, and (2) to require that if a

pipeline exhibits a release even during a hydrotest, the cause of failure must be identified by a prudent forensic analysis that is made public.

Regarding paragraph (b)(3), West Whiteland Township states that the term “leak” should be defined in state regulation to clearly mean any release from a pipeline because in pipeline fracture mechanics, leak has a specific definition and does not include pipeline ruptures. West Whiteland Township notes that running ILI tools that are able to identify other bona fide pipeline threats (*e.g.*, general corrosion, deformation, and tools) on a particular pipeline would be appropriate if these threats are present on certain pipelines.

According to West Whiteland Township, the PUC’s proposed regulations regarding § 59.139 (b)(1), (b)(2), (b)(3), and (c) as proposed, are technically incomplete, lack specificity, and create a dangerous illusion of a safety.

xii. George Alexander and Patrick Robinson

George Alexander and Patrick Robinson commented that the proposed “operation and maintenance” wording at 59.139 regarding leak detection based upon the Real Time Transient Model is insufficient. This method has failed to detect numerous pipeline leaks. The requirement to “[odorize] all HVL pipelines” should be immediate, not invoked after five years of failure.

b. Reply Comments

i. Environmental Advocates

The Environmental Advocates agree with AMPP that titling this section “Pressure Testing” is inaccurate and potentially confusing. This section already discusses both pressure testing and in-line inspection (ILI) extensively. AMPP also suggests that External Corrosion Direct Assessment (ECDA) may be appropriately included here. The Environmental Advocates suggest that this section be renamed “Integrity Testing,” or

another similarly inclusive option, with subsections addressing the requirements for when and how an operator should perform each type of test.

The Environmental Advocates' best practices framework would allow the flexibility needed by standard setters and industry actors to develop new best practices by requesting approval to employ newer technologies or methodologies as they evolve. Regardless of how the PUC approaches best practices here, the Environmental Advocates stress that it needs to add details to its regulations sufficient to instruct operators on "what constitutes a proper in-line inspection, whether the tool selection is appropriate, how an inspection should be conducted, and how the data should be maintained, analyzed and used," as requested by AMPP.

The Environmental Advocates strongly disagree with Sunoco's claim that the PUC lacks authority to require increased pressure testing in HCAs. The Environmental Advocates want to amplify East Goshen Township Board of Supervisors' concern that the PUC did not justify hydrostatically testing older pipelines less frequently. If that aligns with a best practice, the PUC needs to state that explicitly. At present, the proposed regulation is concerning because common sense seems to dictate that older pipelines would be more prone to corrosion and degradation, and thus would require additional pressure testing.

ii. Sunoco

Sunoco submits that the recommendations of the Environmental Advocates and of East Goshen Township about pressure testing are unnecessary considering PHMSA's existing requirements, specifically 49 CFR 195.452. Sunoco contends that to mandate pressure testing outside PHMSA requirements removes necessary discretion from the pipeline operator, interrupts service on the pipeline resulting in commodity shipment delays, will be costly, and provides no additional safety benefit.

Sunoco disagrees with the Environmental Advocates' proposal to prohibit testing against live valves or blocking in adjacent sections of a pipeline during pressure testing because it is too prescriptive and limits the operator's ability to design and carry out a pressure test as needed for a specific asset.

Sunoco also objects to the Environmental Advocates' proposals that (1) utilities conducting repairs should be required to conduct non-destructive testing on repairs before a pressure test of the line, and then to conduct a pressure test before resuming service, (2) the PUC should evaluate the use of hydrotesting when the product in the line would, if released, not be readily contained or confined and could cause a potential inhalation, explosion, fire, or other public hazards, and (3) the PUC should update testing regulations to require a testing pressure that provides a substantial margin of safety over the proposed or current MAOP for the line being tested. Sunoco states that adopting requirements to hydrotest a pipeline each time a repair is made is contrary to PHMSA regulations and adds additional permitting requirements which can cause significant delays in the ability to perform a hydrotest. Sunoco adds that the Environmental Advocates' suggestion that an operator perform a pressure test at 150% to 200% of MAOP is not feasible and that this pressure over a sustained period could create unnecessary and unsafe conditions.

Sunoco opposes the Environmental Advocates' position that the PUC should require best practices in handling and disposing of pressure testing fluids and coordinate with DEP and that an operator should be required to provide the PUC with copies of any report or other document the operator files with DEP or any other competent agency concerning the fate of such waters.

Sunoco objects to the recommendations of Pipeline Safety Trust and West Whiteland Township that if a pipeline experiences numerous hydrotest failures, then that pipe should be considered unfit for service. Sunoco contends that the federal

requirements allow a pipeline operator to remediate a pipeline for service where there is an unsafe condition.

Sunoco disagrees and expresses concern about West Whiteland Township's recommendation that § 59.139(b)(2) be rewritten to capture those pipelines that have not been hydrotested previously to a strength test limit and do not have potential crack or crack-like threats, and if a pipeline exhibits a release even during a hydrotest, the cause of failure must be identified by a prudent forensic analysis that is made public. Sunoco strongly disagrees that such analyses be made public.

iii. Responses To Data Requests – MIPC, Laurel, and Sunoco

MIPC responded to the data requests regarding this section as follows:

- a) Based on a recent project involving a 6-inch diameter pipeline that was less than quarter mile in length, MIPC's incremental cost to hydrostatically test a pipeline and record the results is \$75,000 per quarter mile.
- b) MIPC estimates that the cost to take a hazardous liquid pipeline out of service for purposes of performing a hydrostatic test is an extrapolation of our recent test as noted above, approximately:
 - i. \$300,000 per mile
 - ii. \$1,200 per 1,000 gallons of water
- c) MIPC has not hydrostatically tested a pipeline that is already purged of product.
- d) MIPC has not hydrostatically tested a pipeline that is already purged of product.

e) MIPC estimates that the breakdown of incremental estimated cost to run a hydrostatic test on a pipeline that is not flowing product but has not been purged or prepared for a hydrostatic test would be approximately \$75,000 per quarter mile.

According to Laurel, the incremental cost to hydrostatically test and record the results of the test is approximately \$345,000 per mile. This estimate would vary based on the length, complexity and other characteristics of the subject pipeline. Laurel estimates that the cost to take a hazardous liquid pipeline out of service for purposes of performing a hydrostatic test is dependent on the length, complexity and other characteristics of the subject pipelines.

Laurel estimates that the estimated cost to run a hydrostatic test on a pipeline that is already purged of product is dependent on the length, complexity and other characteristics of the subject pipelines. However, Laurel preliminarily estimates that this cost would be approximately \$500,000 to \$1 million per mile for a given pipeline. Based upon its knowledge and experience, Laurel estimates that the incremental estimated cost to run a hydrostatic test on a pipeline that is already purged of product is dependent on the length, complexity and other characteristics of the subject pipelines. However, Laurel preliminarily estimates that this incremental cost would be approximately \$100,000 to \$300,000 per mile for a given pipeline.

Based upon its knowledge and experience, Laurel estimates that the incremental estimated cost to run a hydrostatic test on a pipeline that is not flowing product but has not been purged or prepared for a hydrostatic test is dependent on the length, complexity and other characteristics of the subject pipelines. However, Laurel preliminarily estimates that this incremental cost would be approximately \$250,000 to \$500,000 per mile for a given pipeline.

According to Sunoco, it would cost approximately \$400,000 to purge either the 16-inch diameter pipeline or the 20-inch ME2X pipeline over a 1-10 mile segment for a period of 5 days. If both pipelines were hydrostatically tested, the total would be approximately \$800,000. This cost does not include lost revenue for suspending service on its pipelines, which adds substantially more cost to complying with the proposed regulations. This cost is broken down as follows. To hydrotest a pipeline requires a cost of \$36,000/mile (minimum \$350,000 for 1-10 mile segment). The average cost to purge an NGL line in preparation for hydrotest is: \$35,000/mile (minimum \$350,000 for 1-10 mile segment).

The average cost to dry an NGL pipeline after testing is \$7,500/mile (minimum \$75,000 for a 1-10 mile segment). The average cost of water treatment and disposal per 1,000 gallons is \$250/1,000 gallons. In order to hydrotest a section of hazardous liquid pipeline, the product must be removed and replaced with hydrotest water. Water fill conditions vary, but, if possible, water would be used to displace product from the pipeline section. The product would typically be displaced into downstream delivery terminal.

For NGL lines, a purge will always be required before water fill (*i.e.*, water cannot displace the product). Likewise, if elevation profile, delivery pressure, quality concerns, or other limitations prevent direct displacement of product with water, the pipeline section must first be purged of product.

After the line section is completely filled with water, a stabilization period follows to allow the temperature of water and surrounding soil to equalize. Blind flanges or other suitable isolations are installed at all end and branch connections to prepare the pipeline for hydrotest. When temperature stabilization and isolation installations are complete, instrumentation and test pumps are installed and the hydrotest is performed.

When the hydrotest is complete, isolation points are removed, and water is displaced from the pipeline section. If possible, product would be used to displace water to temporary storage. Often a purge must be used to remove water from the pipeline section. For NGL lines, the lines are typically dried before being returned to service.

11. Disposition On § 59.139

The proposed regulation will not be retained in the final-form regulation for the following reasons. First, we agree with AMPP that the proposed PUC requirement in section 59.139 for assessment by ILI tools is incompatible with the federal standard at 49 CFR 195.416 because the federal standard permits the use of alternative acceptable methodologies of pipeline assessments when the use of ILI is impracticable while the PUC's proposed requirement does not. The federal standard permits the use of alternative methods when the use of ILI tools "is impracticable based on operational limits, including operating pressure, low flow, and pipeline length or availability of in-line inspection tool technology for the pipe diameter." The proposed PUC requirement, in contrast, offers no such alternatives to use when the use of ILI tools is impracticable.

We also conclude that the pressure testing requirements are inconsistent with PHMSA's requirements under 49 CFR 195.5, 195.302, 195.416, 195.452, and 195.452(j). These standards were based upon industry experience, and we cannot conclude that additional testing will increase safety beyond what is already required in Part 195 or that these Federal requirements are insufficient. Further, more frequent pressure testing than that which is federally mandated could potentially adversely affect their integrity. We will not substitute our judgement for that of the operators' managerial discretion on how it wishes to comply with existing federal safety standards, which have been ideally thoroughly vetted with the industry.

Finally, the proposed additional and more frequent hydrostatic pressure testing requirements would be costly to the two hazardous liquid public utilities, Sunoco and Laurel, between \$86,500 and \$100,000 per quarter mile. This amount would not include the loss of revenues the entities would sustain by having to suspend transportation of HVLs on their pipelines for approximately 5 days to multiple weeks at a time. As Sunoco stated in its comments, the proposed regulation could cost over \$1 million in addition to labor and vendor costs as well as costs related to suspending a service line for multiple weeks disrupting sales, service and potentially reliable operations.

There is insufficient justification at this time to show why both hydrostatic and ILI testing must be performed separately at different time intervals and why the operator is not in the best situation to make that determination as the operator knows the condition of its pipelines and relevant integrity threats.

The industry standard *In-Line Inspection of Pipelines* – NACE SP0102, *In Line Inspection of Pipelines* is incorporated by reference in 49 CFR 195.591, to ensure that mandated in-line inspections are conducted appropriately and in accordance with best industry practices. The industry standard *What standards apply to direct assessment?* – NACE SP0502, *Pipeline External Corrosion Direct Assessment (ECDA) Methodology*, is also incorporated by reference in 49 CFR 195.588. NACE SP0102 and NACE SP0502 methodologies offer suitable and appropriate assessments of pipelines. The option to utilize EDCA methodology is available under appropriate circumstances as an alternative to pressure testing or in-line inspection. The NACE standards are already incorporated in federal safety standards; therefore, we see no need for additional safety regulations.

Finally, we agree with Sunoco's comment to subsection (c), which proposed a prohibition on miter joints of any deflection without exception. This proposed regulation expressly conflicts with the Federal requirements that allow for deflections up to three

degrees that are caused by misalignment; therefore, we have no technical justification to support the proposed requirement.

Accordingly, we have deleted proposed section 59.139 in its entirety in the final-form regulation as discussed above. The section number will be held in abeyance. Accordingly, we have not retained section 59.139 in the final-form regulation as discussed above.

11. § 59.140. Operations And Maintenance

Section 59.140 of the PUC's proposed regulations set forth operation and maintenance requirements for hazardous liquid public utilities. In particular, this section provided standards for emergency procedures manuals, liaison activities with emergency responders, liaison activities with school administrators when a school building or facility is within 1,000 feet or within the LFL of a pipeline or pipeline facility, public awareness communications, line markers, inspections of pipeline rights-of-way, leak detection and odorization, and EFRDs in HCAs.

Section 59.140(b) as proposed would require hazardous liquid public utilities to consult with emergency responders in developing and updating an emergency procedures manual. A manual must address (1) steps to inform emergency responders of the practices and procedures to be followed for providing them with information regarding the pipeline, (2) the development of a continuing education program for emergency responders and the affected public, and (3) table-top drills to be conducted twice a year and a response drill to be conducted annually to simulate a pipeline emergency.

Section 59.140(c)-(d) as proposed addressed liaison activities. Pertaining to emergency responders, subsection (c) required a hazardous liquid public utility to conduct the liaison activities set forth in 49 CFR 195.402(c)(12) via in-person meetings

held twice a year. Subsection (c) prescribed the way a hazardous liquid public utility must attempt to arrange these meetings, including via mail, or telephone call, facsimile, or e-mail. A hazardous liquid public utility is permitted to conduct liaison activities by alternative means if attempts to arrange an in-person meeting are unsuccessful. Similarly, subsection (d) required hazardous liquid public utilities to engage in certain liaison activities with school administrators when a school building or facility is located within 1,000 feet, or within the LFL, of a pipeline or pipeline facility, whichever is greater. For example, a hazardous liquid public utility would be required to appear regularly at school administrator meetings for such schools upon request. The liaison requirements in subsections (c) and (d) are similar to those required by other states, including Texas, and are intended to improve relations between hazardous liquid public utilities and the affected public, emergency responders, and public officials.

Moreover, subsection (e) as proposed provided for further hazardous liquid public utility interaction with emergency responders, public officials, and the affected public. Subsection (e) would work in conjunction with and goes beyond the practices set forth in API RP 1162. For example, subsection (e) as proposed would require a hazardous liquid public utility to provide baseline messages to the affected public and emergency responders at least twice a year and to public officials annually. This subsection also requires a hazardous liquid public utility to hold at least one open house or group meeting with the affected public annually, meet with emergency responders once per quarter, and meet with public officials annually. These requirements are intended to increase communications and information sharing.

The remaining portions of section 59.140 as proposed addressed the more technical aspects of O&M. For example, subsection (f) built upon 49 CFR 195.410 by setting forth requirements for the placement of additional line markers. Subsection (g) likewise built upon 49 CFR 195.412 by requiring group patrol of pipeline facilities in non-HCAs at least twice a year and ground patrol in HCAs at least four times a year.

Section 59.132 defined “ground patrol” as a method of non-aerial patrol that includes walking, driving, using a low-flying drone with sufficient optical resolution operated by a qualified drone operator with an altitude limit of 25 feet, or other like non-aerial means of traversing a pipeline right-of-way. Further, section 59.140 addressed leak detection. Subsection (h) built upon 49 CFR 195.444 by requiring, *inter alia*, leak detection systems that are Real Time Transient Models under API RP 1130. A hazardous liquid public utility is required to odorize an HVL pipeline if it does not meet the requirements of subsection (h) within five years. Finally, subsection (i) built upon 49 CFR 195.452 by requiring a hazardous liquid public utility to install EFRDs in consultation with public officials in all HCAs, based on limiting the LFL to 660 feet on either side of a pipeline. These proposed provisions were intended to enhance the current operation and maintenance requirements for hazardous liquid public utilities.

The PUC sought comments on the emergency procedures manual, liaison activity, public awareness, line marker, inspection of pipeline rights-of-way, leak detection and odorization, and HCA EFRD requirements proposed in Section 59.140.

a. Comments To § 59.140

DEP asks the PUC to review 25 Pa. Code § 78a.55 (relating to control and disposal planning; emergency response for nonconventional wells).

Edgmont Township supports standards for emergency procedures manuals, liaison activities with emergency responders, liaison activities with school administrators when a school is within 1,000 feet or within the LFL of a pipeline or pipeline facility. Public awareness communications, line markers and inspection are also supported.

i. § 59.140(b) Emergency Procedures Manual And Activities

The Environmental Advocates recommend that the PUC set standards for emergency responder manuals and for coordination with emergency responders in this proposed section.

Under paragraph (b)(1), Accufacts suggests wording to include “initiate and maintain early contact between emergency response personnel and pipeline control room personnel if pipeline is operated via a control room.”

The Environmental Advocates recommend that the PUC follow the evolving trend among states to require operators to submit plans for PUC approval and should mirror or exceed the more robust regulations from other states.³⁹ The Environmental Advocates continue that the PUC should, at a minimum, require operators to (1) submit emergency response and public awareness plans to the PUC for review and compliance; (2) set appropriate criteria for approval; (3) establish required intervals for updates to plans (the Environmental Advocates recommend annual updates); (4) authorize BI&E to audit public awareness programs; and (5) require operators to provide written draft plans to local public officials, solicit feedback, and then implement recommended changes whenever possible because the local officials best know how to get the word out to their communities, whether there are additional key individuals who the operator should inform directly, and any community-specific details for which the plans need to account.

³⁹ In Massachusetts and Minnesota, emergency response plans (ERPs) must be filed with and approved by the state public utility commission before operations may begin. 220 CMR 19.04, 19.07 (A “ company’s ERP shall go into effect when filed with the Department, pending Department review and approval, and shall remain in effect until a new ERP is filed or the Department directs otherwise.”); MS 299F §§ 59, 62. In Washington, ERPs must be filed with the public utility commission, which may, in turn, “after notice and opportunity for hearing, require that a manual be revised or amended.” WAC 48093180(2). In Indiana, Wisconsin, Maine, and Missouri, ERPs must be filed with the state public utility commission. 170 IAC 5-3-2(1)-(2) (“This plan, when filed, becomes a regulation for the particular operator who filed it”); PSC 135.019(4); 65-407 C.M.R. Ch. 420, § 7(D)(1)(c); 20 CSR 4240-40.030(1)(J)(1). Maine, Missouri, and New Hampshire require that pipeline operators file public awareness plans with the state public utility commission. 65-407 C.M.R. Ch. 420, § 7(D)(1)(f), 20 CSR 4240-40.030(1)(J)(1); N.H. Code Admin R. PUC 506.02(t)(2).

The Environmental Advocates suggest that the PUC require hydrocarbon and thermal monitoring by operators on remote valve sites, pump stations, and pipeline stations. Operators should also install a SCADA silent alarm system wired to their control rooms to facilitate a rapid response to any release. The Environmental Advocates also urge the PUC to require operators to install audible mass warning devices which will not create a spark along pipeline rights-of-way.

The Environmental Advocates also state that the PUC should require emergency response drills on a periodic schedule, including both tabletop drills and live exercises in the field and provides New Jersey as a guide, N.J.A.C. 14:7-1.10(f). As to section 59.140(b)(3), PST recommends that response drills simulate risks and conditions specific to those that could be faced by emergency responders in that area, running drills through all of the products carried. IRRC asks the PUC to clarify “geographic area” and “tabletop drill” in subsection (b)(3). IRRC also asks the PUC to identify the number of annual drills and whether separate drills are required for each different pipeline and product in each geographic area as well as how a hazardous liquid public utility is to comply with this subsection.

PST suggests that section 59.140(b) be amended to fulfill the recommendations of the NTSB following the San Bruno, California failure of a PG&E transmission line 11 years ago.

Edgmont supports section 59.140 and recommends that hazardous liquid public utilities be required to contribute funding to the development of emergency procedural manuals and emergency services training for public entities. Edgmont Township further recommends requiring funding contributions by pipeline companies to development of emergency procedural manuals and emergency training services.

Sunoco reasserts its concerns with the definition of “emergency responders.” Rather than requiring pipeline operators to coordinate the development of emergency procedures manuals with emergency response agencies and elected officials, Sunoco advocates for operators communicating with those agencies tasked with emergency response planning. Sunoco argues that the PUC fails to demonstrate that the federal requirements related to the development of emergency procedures are insufficient and states that the proposed regulation is duplicative of PHMSA requirements.

Sunoco submits that subsection 59.140(b)(3) is ambiguous about the number of table-top exercises and response drills that must be conducted annually; if an operator must conduct two table-top and one response drill every year in each municipality along the pipeline route, this would be unduly burdensome and extremely costly. Sunoco states operators may have difficulty complying with this frequency requirement where emergency responders are volunteers. Thus, Sunoco recommends the requirement be amended to require only that operators offer drills to municipalities. Sunoco also recommends that the subsection 59.140(b)(3) be revised to state:

Tabletop drills to be offered once a year in each county to simulate a pipeline emergency. The table-top drills must be conducted considering the actual products in the utilities’ pipelines in the area and in each county where the hazardous liquid public utility’s pipelines are located. Emergency responders having public safety jurisdiction along the pipeline right of way shall be invited to participate in the Table-Top drills.

Sunoco continues that the PUC’s regulation is unreasonably vague as it fails to define “geographic area” and does not explain “different pipelines” and “different products” refers to the operator’s jurisdictional area along the pipeline.

In its response to a data request, Sunoco states that the cost to perform one table-top exercise is approximately \$10,000. Sunoco Public Response at 14 provided by James

Shuler, Emergency Response Manager. Sunoco's hazardous liquid pipelines cross through 37 counties. Sunoco states that it is using its Mariner East Emergency Response Outreach (MERO) costs to provide an estimate to costs in performing training to localized emergency response officials. Each MERO session costs on average about \$3,000. Assuming one session per county per year, this would be a cost of approximately \$111,000 annually.

Sunoco estimates the required liaison activities (twice per year) would cost approximately \$200,000 annually. Sunoco already meets with local emergency responders once per year and holds various types of training sessions annually for local emergency responders. However, the proposed regulation would increase the number of required training and liaison sessions annually and while the proposed regulation is unclear on who must be invited to these events, it appears significantly more people would be required to be invited to each event. Sunoco believes the proposed regulations will more than triple what it already spends in Pennsylvania on liaison activities and training and Sunoco will be required to spend more in Pennsylvania than any other state where it has pipeline facilities, including Texas where Energy Transfer, Sunoco's parent Company, has 21 times the mileage of Sunoco pipelines than in Pennsylvania, crossing through 229 counties.

Ms. Fuller supports the proposed requirements of § 59.140(b) for the pipeline operator to consult with emergency responders in developing and updating an emergency procedures manual. Ms. Fuller submits that it is obvious that a pipeline operator should be involved in or responsible for developing an emergency manual for any dangerous product they are installing into the ground near HCAs, but she submits that Energy Transfer has failed to do this. Energy Transfer's plan for people to walk half a mile upstream to get away from a leak is totally unrealistic. There was and still is no credible or workable emergency plan in place for a hazardous liquid pipeline leak situation.

The Environmental Advocates contend that the PUC must establish minimum required content for mailers and meetings with the affected public, public officials, and emergency responders. The Environmental Advocates also note that the PUC should require that the affected public and emergency responders be given notice of flaring and venting events five business days in advance. The Industrial Associations recommend removing the proposal requiring operators to meet with the affected public and public officials at prescribed intervals and instead require meetings with the public as needed. The Industrial Associations recommend narrowing the definition of “affected public.”

CCAP asserts that § 59.140(b) provides a welcome update requiring hazardous liquid public utilities to consult with emergency responders in developing and updating an emergency procedures manual and various steps the manual must address.

ii. § 59.140(c) Liaison Activities With Emergency Responders

PST states that the PUC should require transmittal of system specific information to emergency responders, including, at minimum, pipeline size, location, and operating pressure and contents, and require education regarding the risks of the pipeline. The Industrial Associations suggest removing the proposal in subsection (b) because it is overly burdensome and recommend establishing standards requiring emergency responders to attend meetings with pipeline operators. The Industrial Associations argue that the term “emergency responders” should be more narrowly defined in § 59.132 and request clarity on paragraph (b)(3) regarding the term “geographic area.”

The Environmental Advocates proffer that the PUC should require that all operators use best cybersecurity practices to protect from internet-based risk which could disrupt utility operations and cause public harm.

With regard to subsection (c), IRRC notes that a commentor is concerned that some of the information to be shared with emergency responders could violate the CSI Act and the RTK Law. IRRC also notes that this subsection goes beyond 66 Pa.C.S. § 1512. IRRC asks the PUC to explain why this subsection does not violate these statutes and to consider revising this subsection to establish a standard that balances sensitive information while also protecting the public.

Sunoco contends that the PUC should defer to the Federal public awareness standards and procedures as required by 49 CFR 195.440 instead of adopting subsection 59.140(c). Sunoco also expresses concerns with the requirement that an operator conduct an annual hazard assessment zone analysis and present its findings to emergency responders, where “hazard assessment zone analysis” is undefined and has no basis in the federal pipeline safety requirements. Sunoco also notes that it is unclear why the assessment would need to be conducted annually. Sunoco once again references the vagueness around the term “emergency responders.” Sunoco also claims that the requirement to maintain records related to emergency responder liaison activities for seven years is beyond the current requirement of five years established by API RP 1162. Sunoco is concerned that the PUC has not adequately studied whether there is any benefit to these proposed regulations, the cost to comply with them, the labor involved, and the difficulty of interpreting the requirements and recommends the PUC defer to the federal requirements rather than adopting the proposed regulations.

iii. § 59.140(d) Liaison Activities With School Administrators When A School Building Or Facility Is Located Within 1,000 Feet, Or Within The LFL, Of A Pipeline Or Pipeline Facility, Whichever Is Greater

The Environmental Advocates argue that the PUC must detail minimum training which operators must provide to emergency responders and affected school districts. Among the necessary information should be when and how to evacuate an area, including

clear instructions regarding a minimum safe distance, whether cell phones may be safely used in coordinating evacuations or if the risk of a spark is too great, and if cell phone cannot be used, what to do instead.

PST also suggests that section 59.140(d)(2) be amended to require information to be provided upon written request from a school administrator and states the information should be a mandatory part of each operator's outreach to schools and should be required every four years in addition to each time there is a change in the contents of the pipeline.

With respect to subsection 59.140(d), Sunoco is troubled by the potential disclosure of confidential security information and recommends revision to specifically not require such disclosure. Sunoco states it is important that the PUC define the term "schools" to help operators clearly understand what is required for compliance. Sunoco is also concerned by the proposal to require operators to attend regularly scheduled meetings of school administrators upon request without consideration of the inability to attend in the absence of sufficient notice or the potential number of meetings an operator must attend if requested. Sunoco submits this requirement must be narrowed in scope.

IRRC asks the PUC to explain why subsection (d) does not violate these statutes and to consider revising this subsection to establish a standard that balances sensitive information while also protecting the public. In addition, IRRC asks the PUC to clarify the term "school."

Chester County believes that § 59.140(d)(3) is awkwardly written and recommends that commas be placed after "responders" and "agreement" because the current language may be interpreted that a nondisclosure agreement is executed within 60 days.

iv. § 59.140(e) Public Awareness Communication Requirements Beyond API RP 1162

In subsection 59.140(e), Sunoco has concerns with the increased frequency of baseline messaging and the requirement for in-person meetings, once again advocating for the PUC to defer to Federal requirements. At a bare minimum, Sunoco states the PUC should allow pipeline operators to consider other forms of communication to satisfy the proposed baseline messaging requirements. Ms. Emory recommends that for pipelines like Mariner East, this section should require (but would not currently) the wording: leaks from these lines “can cause property damage, personal injury, burns, asphyxiation, and death” be included as a warning in the safety pamphlets that are disseminated to residents and businesses located in close proximity to the hazardous liquid pipelines.

Chester County notes that the NOPR describes the process for holding an annual meeting and suggests that this subparagraph be modified to require the pipeline operator to host at least one meeting annually in each county in which the pipeline is located. Many of the hazardous liquid pipelines are located from one end of the Commonwealth to the other end of the Commonwealth and operate in multiple counties. As the current subparagraph language requires only one meeting annually, the chosen meeting location may not be convenient or even practical for members of the affected public to attend. Additionally, the County recommends that this subparagraph require knowledgeable pipeline operations and emergency preparedness personnel attend to answer questions from the public.

v. § 59.140(f). Line Markers

The Industrial Associations claim that clarity is needed for line marker requirements in subsection (f) and request an explanation for requiring “two line markers, one in each direction.”

Regarding subsection 59.140(f), Sunoco submits that the PUC should defer to Part 195.410, which sets forth sufficient requirements for the content and location of line markers. Sunoco notes that having markers visible in both directions at any point on the line will likely burden operators and public stakeholders and that this requirement does not consider the burden on operators to place a marker at every above ground location.

East Goshen Township asserts that lines carrying highly volatile liquids should be clearly identified by markers that specify “highly volatile liquids.”

John Jacobs resides in Chester County near the Mariner East pipelines. He requests that the PUC consider amending the proposed regulation regarding pipeline markers to reduce the impact on adjacent properties. He commented that there should be uniformity of line markings regarding the placement of multiple pipelines in the same right-of-way or easement. Mr. Jacobs advocates that only a single marker is needed in such a right-of-way instead of multiple markers for each pipeline.

vi. § 59.140(g) Inspection Of Pipeline Rights-Of-Way

In terms of subsection (g), IRRC and the Industrial Associations ask the PUC to consider aerial patrols as an effective method of performing inspections in non-HCAs and HCAs. The Industrial Associations contend that the PUC should also consider including aerial patrols for inspections in subsection (g).

Regarding subsection 59.140(g), Sunoco argues the proposed standard requiring specific ground patrols multiple times per year is unreasonably burdensome.

For subsection (g), Accufacts recommends adding wording to emphasize looking for activities off the right-of-way that could also possibly endanger the pipeline.

Ms. Emory states that the PUC's proposal for the operator to be involved in developing an emergency manual is a step in the right direction. However, she urges the PUC to require a plan that is actually feasible. For example, telling the public to "walk half a mile upwind" is not feasible.

vii. Proposed § 59.140(h) Leak Detection and Odorization

The Environmental Advocates appreciate that the PUC will require odorant if other required leak detection mechanisms are not installed. However, given the potentially devastating consequences of leaks, the PUC should allow only one year until odorant is required. The Environmental Advocates encourage the PUC to review additional O&M regulations implemented in other states to see whether any would enhance the PUC's proposed regulations.

Regarding proposed section 59.140(h), PST seeks significant clarification because words like "robust," "small," and "high sensitivity" are problematic for enforcement purposes.

With respect to proposed subsection (h), Sunoco identifies that PHMSA recently issued a final rule setting forth deadlines for pipelines to implement leak detection and requiring that any CPM system must be designed in accordance with API RP 1130, which makes the PUC's proposal unnecessary. Sunoco also notes the PUC's proposal that would require any leak detection system to be designed as a Real Time Transient Model under API RP 1130 is inconsistent with API RP 1130, as well as current industry standards and best practices. Sunoco notes that the PUC does not define "small leak" or set any threshold to measure compliance with the requirement to identify small leaks. Sunoco states that the proposed regulations fail to acknowledge that there are many unique and important circumstances that dictate how sensitive the CPM for any given pipeline can be. Sunoco submits that the PUC should not require odorization of HVL

pipelines as the odorant would impact the quality of some products and interfere with Sunoco's contractual obligations in violation of the Pennsylvania Constitution.

East Goshen Township argues that all valve and compressor stations should be required to install gas monitoring and central alarm devices that cover 100% of the footprint of the station.

Regarding subsection (h), Accufacts notes that the PUC's proposal does not appear to be technically achievable on leak detection, nor does the alternative to require odorant appear viable, given experiences with the dynamics of pipeline HVL releases. Further evaluation is warranted to see if odorization is capable of warning of a HVL release before such a requirement becomes codified.

Ms. Fuller supports the requirement of proposed § 59.140(h) regarding leak detection and odorization; however, she submits that more effective leak detection technology should be installed by Energy Transfer for the Mariner East pipelines, and if not, then odorization must be required immediately for these pipelines, not in five years. She refers back to the non-exhaustive list of 21 incidents she supplied earlier and highlights the failure of Energy Transfer's SCADA and CPM systems to detect leaks in so many cases, even though they were functional and operational at the time of the leaks. For example, she submits these systems failed to detect the 2015 gasoline leak on Valley Road where she lives. Also, she submits the systems failed to detect the 33,500-gallon leak into Darby Creek in 2018; it took Energy Transfer seven days to detect the source of that leak. Both leaks were spotted by people not equipment. Based on the following, Ms. Fuller questions in the case of HVLs, if Energy Transfer's SCADA and CPM systems are ineffective and if the product has no odor or color, how can a leak be detected and how are we, the public, to be protected. The leak detection equipment described here is based on monitoring pressure changes. That has proven insufficient. The system should be based on detecting escaping gases in the pipeline right-of-way. She submits that such

technology is available but apparently the cost is too high for Energy Transfer. If this is not installed, Ms. Fuller advocates for odorization to be required immediately, not in five years as currently proposed.

Ms. Moran advocates for a robust leak detection system to provide the pipeline operators, emergency teams and the public with enough time to respond appropriately.

Chester County recommends that subsection (h) be modified to require mandatory EFRDs in HCAs for all new and currently operating pipelines. The proposed language states that the pipeline operator “shall determine the need in consultation with public officials in all HCAs.” Consistent with the above recommendations with respect to EFRDs, the County recommends that new and currently operating hazardous liquid pipeline should be mandated to install EFRDs and allow for a two-year period to install EFRDs in HCAs. Additionally, the lateral spacing of EFRD valves in an HCA should be based on engineering calculations and in consultation with public officials to minimize public exposure to injury and probability of accidental ignition.

Mr. Young asserts that leak detection and alert systems should be required.

**viii. Proposed § 59.140(i) Emergency Flow Restricting Devices
In High Consequence Areas**

The Industrial Associations contend the PUC should remove the requirement in subsection (i) and clarify whether the proposal intentionally excludes check valve or whether check valve may be used to satisfy the requirement. Further, the Association notes that public officials may not understand when and where to place valves.

In subsection 59.140(i), Sunoco claims that the installation of EFRDs should be based on a risk analysis, not preferences with no technical or scientific basis. A requirement to determine the need in consultation with public officials would be

inconsistent with PHMSA regulations and violate managerial discretion to which operators are entitled. Sunoco is also concerned that the requirement may result in unreasonable requests for valve placement that are not supported by any technical justification or that provide no safety benefit to the public. Finally, Sunoco states that minimizing the LFL to 660 feet is not scientifically achievable in most pipelines; the PUC may limit the ability of HVL pipelines to operate.

Finally, as for the proposed requirements in § 59.140(i), Ms. Fuller submits that although limiting the flammable cloud to 660 feet on either side of the pipeline is still insufficient to protect public safety, the PUC's proposed requirement is an improvement over the existing Mariner East situation which could create a cloud extending over 6,000 feet.

ix. Miscellaneous

Ms. Moran states that the PUC's proposed section 59.140 regarding emergency plans is vital and needs to require clearer instructions for the public. Ms. Moran continues that many members of the general public do not know what "to go upwind" means. Ms. Moran questions how members of the public would keep in communication if cell phones could pose a risk.

b. Reply Comments

The Environmental Advocates assert that current public awareness and emergency response protocols are grossly inadequate and leave both emergency responders and the public at risk of real harm. Industry representatives repeatedly focus on the burden to the pipeline operator, but blatantly disregard the burden placed on the public and emergency responders. Relying on the National Response Center to properly inform counties and municipalities is also fraught with complications that put public safety at risk. The time it takes to notify the NRC and for the NRC to reach the appropriate emergency officials can

take critical minutes, if not hours. Industry representatives cannot simultaneously claim that pipeline routes and emergency preparedness plans should remain confidential security information and not disclosed to emergency responders or the affected public, and also put the onus of developing emergency response plans on local emergency management coordinators. Emergency responders and the public must be made aware of the risks associated with hazardous liquid pipelines, and how to respond in the event of an emergency.

Sunoco submits that the current requirements public awareness and emergency response plans, found in 49 CFR 195.440 and API RP 1162, are sufficient to ensure that the PUC receives information concerning Sunoco's Public Awareness Plan and that regulators and relevant stakeholders remain informed. Moreover, Sunoco states it is not appropriate to solicit feedback from local officials as they are not responsible for or experts in the public awareness requirements of pipeline operators. Sunoco opposes the recommendation of the Environmental Advocates that the PUC should require a hazardous liquid public utility to generate a comprehensive evacuation plan for the community that is approved by the PUC and the local municipality. Sunoco states that PEMA has responsibility for emergency management as separately implemented by local political subdivisions.

Sunoco notes that the PHMSA requirements comprehensively address monitoring and alert systems in response to the Environmental Advocates recommendation that the PUC require hydrocarbon and thermal monitoring by operators on remote valve sites, pump stations, and pipeline station and that operators install a SCADA silent alarm system wired to their control rooms. Moreover, Sunoco states the PUC should not adopt the cybersecurity recommendations proposed by the Environmental Advocates. Instead, Sunoco recommends that any cybersecurity requirements be dealt with in the context of a statewide generic proceeding initiated by the PUC's Office of Cybersecurity and Compliance Oversight.

Replying to the Environmental Advocates, among others, that argue for the addition of an odorant sooner than five years, and to East Goshen Township that recommends all valve and compression stations be required to install gas monitoring and central alarm devices that cover 100% of the footprint of the station, Sunoco restates its position that odorant should not be required by the PUC. Sunoco continues that the PUC should defer to PHMSA’s existing leak detection requirements. Lastly, Sunoco objects to the Environmental Advocates’ recommendation that the PUC require operators to verify both line markers and depth of pipeline cover at least annually, promptly replacing any missing marker and restoring any reduced cover to required levels. Sunoco states that 49 CFR 195.412 and 195.414 ensure that operators are routinely examining pipeline rights of way for any unsafe conditions.

Sunoco agrees, in part with the PST that the proposed § 59.140(h) needs more clarity to be enforceable; specifically, the PUC does not define “small leak” or set a threshold to measure compliance. Sunoco recommends that the PUC defer to federal requirements.

c. Disposition On § 59.140

i. §§ 59.140(a)—(g)

In response to the inquiry of IRRC regarding more stringent standards throughout Section 59.140 as compared to federal standards, there are several reasons for the PUC’s proposals. Generally, the proposed § 59.140 aims to allow the PUC to investigate in a more proactive way. Comments from various stakeholders agree that the PUC should exercise greater oversight. We conclude that stakeholder comments, as well as the

referenced PUC Orders, justify the need for these additional reporting requirements.⁴⁰

With respect to subsection (e), HVL pipelines operating in Pennsylvania have some of the highest pressures in the country. The 660-foot buffer is found in API RP 1162. However, HVL plumes can travel in different directions based on prevailing winds. The Pipeline Safety Section has reviewed the studies conducted by Sunoco, which predict potential injuries to the public well beyond 5,000 feet. To error on the side of caution, we conclude that more stringent requirements are necessary.

Moreover, section 6 of API RP 1162 suggests supplemental enhancements to an operator's Public Awareness Program (PAP) that a hazardous liquid public utility might choose not to implement because section 6 of API RP 1162 is not a mandatory provision. Section 59.140 essentially implements the non-mandatory section 6 of API RP 1162 based upon specific local situations that the Pipeline Safety Section, through field experience, has identified as problematic within the Commonwealth.

With respect to Accufacts suggestion to include the wording "initiate and maintain early contact between emergency response personnel and pipeline control room personnel if pipeline is operated via a control room," we find that the originally proposed language in section 59.140(b) is sufficiently clear and specific to require pipeline operators to liaison with emergency responders.

Next, we have not taken the step proposed by the Environmental Advocates to require pipeline operators to submit emergency procedures manuals to the PUC for approval. Pursuant to the Code, the PUC has authority to inspect and review such

⁴⁰ For example, *see Sunoco 2023* ("the Commission did not err in concluding that Sunoco's public awareness program failed to meet the reasonable service standard required by 66 Pa.C.S. § 1501."). *See also Baker*, at 10, 27-28 (The PUC agreed with the ALJ that "Although Sunoco's witnesses have testified that they have a public awareness program that engages the community, utilizing a variety of methods, including meetings, mailings, and specialized training (SUNOCO Exhibit No. 2 at N.T. 589-590), the evidence in this case is substantial to show there have been insufficient public outreach meetings in Cumberland County.").

manuals at a pipeline operator's facility, which alleviates certain confidentiality and custodial concerns. *See* 66 Pa.C.S. § 506. This authority allows the PUC to address many of the concerns mentioned by the Environmental Advocates directly with pipeline operators and gives flexibility to its review of such manuals without interfering with pipeline operators' management decisions.

Regarding the comments of IRRC, the Environmental Advocates, PST, and Sunoco about definitions for "table-top drills" and "response drills" as well as "geographic areas" in subsection (b)(3), we have added definitions for "table-top drills" in (b)(3) and added (b)(4) for "response drills." To provide greater clarity, both (b)(3) and (b)(4) reference "the county" rather than "each geographic area" in the final-form regulation. Regarding the Industrial Associations' and Sunoco's comments on the definition of "emergency responders," we have revised the definition as discussed earlier. We have also noted in added subsection (b) that the emergency procedures manuals must be made available to the Pipeline Safety Section upon request.

We agree with Ms. Emory and the Environmental Advocates that recommend that we establish minimum requirements for content of mailers and meetings with the affected public, public officials, and emergency responders as Sunoco has argued in the past that API RP 1162 is just a recommendation and is not mandatory. We heard complaints that the materials "safety pamphlets" distributed were not distributed to all residents within 660 feet of the centerline of the ME1 while it was transporting HVLs and that the material was insufficient in it only warned of skin irritation if contact occurred with the product and did not sufficiently warn of property damage, personal injury, burns, asphyxiation or death. *See Flynn; Baker.* Regarding paragraph (e), we agree also with Ms. Fuller that the warnings in safety pamphlets issued to residents and businesses surrounding the pipelines should include warnings that leaks from these hazardous liquid pipelines "can cause property damage, personal injury, burns, asphyxiation, and death." *See Flynn. See also Sunoco 2023*, affirming, in part, and reversing, in part, *Flynn*.

We will not go further than adding this language requirement in the safety pamphlet biannual mailings to the public, which does go beyond the API recommended practice in § 59.140(e). Additionally, we have not required pipeline operators to provide the affected public or emergency responders notice five business days prior to flaring or venting events.

Also, we reject the Industrial Associations request that we remove from our proposed regulations the requirement that pipeline operators meet at prescribed intervals with the affected public. As we work to balance the needs of consumers and those of the public utilities, when it comes to pipeline safety, we conclude that regular meetings are not only a best practice but are also necessary for the safety of all stakeholders.

Noting that IRRC and Sunoco raise concerns that subsection (c) goes further than 66 Pa.C.S. § 1512 and may violate the CSI Act and the RTK Law, we note the fact that Section 1512 of the Code discusses the scope of sharing emergency response plans, not liaison activities with emergency responders. Our decision to include requisite liaison activities does not involve divulging records that might constitute CSI or sharing records that might be discoverable under the RTK Law. Thus, liaison activities can coexist with the requirements of the statutes cited.

Regarding subsection (c)(2)(i), we have added a provision allowing for “videoconference” in addition to a telephone conference with emergency responders as an alternative method to meeting in person. To clarify “hazardous assessment zone analysis,” as requested by IRRC and Sunoco, we have amended the title of subsection 59.140(c)(3) to “Integrity management programs” and the language within that subsection to follow API RP 1162 Section 4.7.1 more closely. API RP 1162 addresses message content for the affected public within HCAs and references “supplemental hazard assessment and prevention programs” as a piece that should be included with public awareness materials.

We have revised subsection 59.140(c)(4) to align with the five-year record retention period established by API RP 1162 rather than the seven-year period previously proposed, an inconsistency that was identified by Sunoco.

We do not agree with the Environmental Advocates that the regulations must detail minimum training requirements in the regulations beyond subsection (b). Trainings, specifically table-top and response drills, will be the outgrowth of manuals, meetings, and messages with relevant stakeholders across this subsection. We also conclude that our regulations as proposed sufficiently address the suggestion of PST regarding furnishing records to school administrators.

While Sunoco expresses concern about the disclosure of CSI in sharing the information required in subsection (d)(2), we conclude that the need for schools to have most of this information outweighs the concerns. However, we determine that a description of the pipeline and pipeline facilities should not be a record furnished to school administrators to whom this subsection applies. Nothing in our regulation as proposed prohibits a pipeline operator from marking the remaining parts of emergency response plans that must be shared with schools as confidential security information or from requiring a memorandum of understanding or other agreement that information will not be shared beyond school administrators.

Mr. Jacobs' request for single markers regardless of what is in a given ROW is rejected, because although we appreciate the aesthetics of just one marker as opposed to one marker per pipeline and at varying distances, pipelines in a given ROW can change over time. It would be easier and less prone to error for each ROW occupant to manage its own markers rather than rely on multi-occupant markers. The purpose of the marker is to warn the public not to excavate over the line and call PA One Call before excavating anywhere near the marker. This is a good informative tool and a benefit to safety.

Therefore, we have not amended the proposed language in subsection (f) regarding line markers.

Responding to IRRC and the Industrial Associations, we note that the Pipeline Safety Section allows, though does not conduct, aerial patrols at times; however, aerial patrols have not curtailed sinkholes from forming on pipeline rights-of-way. Therefore, we have not amended the proposed regulation as requested. We have required ground patrols biannually in non-HCAs and quarterly in HCAs.

ii. §§ 59.140(h) And 59.140(i)

We have concluded that deferring to the Federal requirements for leak detection and odorization is appropriate for the following reasons.

Leak detection has been addressed at 49 CFR 195.134 during the pendency of our rulemaking. *See* 84 FR 52295 (October 1, 2019). Under that provision, pipelines constructed on or after October 1, 2019, were required to have a system for detecting leaks that complied with 49 CFR 195.444 by October 1, 2020. Pipelines constructed prior to October 1, 2019, are required to comply with Section 195.444 by October 1, 2024, which is less than one year from the date on which this FFRO is entered. Noting the deletion of (h) we have renumbered (i) as (h).

We are not inclined to make a requirement that odorant be added to the hazardous liquids such as ethane, as this product being shipped is a reactant with other chemicals in the process of making plastics and such a sulfur-based additive may interfere with its intended use. Unlike methane or natural gas, whose intended use is to be burned off for thermal reasons, ethane is a product used in the manufacture of plastics and other products. Furthermore, as natural gas goes into peoples' homes for heat, the areas of basements are confined spaces wherein an odorant is less likely to be dissipated and can

more easily be smelled and be a warning of a leak. Transmission HVL pipelines are outdoors where the odorant would likely dissipate. Finally, officials from PHMSA and the NTSB as well as other stakeholders have publicly concluded that the addition of odorant to transmission pipelines operating at high pressure in the United States is of lesser value than performing inline inspections and other integrity management program requirements to find any defects in the pipe before it leaks. Because transmission pipelines operate at high pressure and generally rupture rather than leak, it is unlikely that odorant could mitigate risk.

Instead, other required safety practices—such as internal pipeline inspections—can provide more preventative, risk-based safety management, according to PHMSA officials. In this regard, PHMSA officials have been strengthening risk-based safety requirements for transmission and gathering pipelines as part of on-going rulemakings. *See* GAO-18-409, *Gas Pipeline Safety: Stakeholders' and Official's Views on Federal Odorizing Requirements* at 1. <https://www.gao.gov/assets/700/692140.pdf>, last checked [January 28](#), 2024. There is further little evidence to show that an incident could have been prevented or was in any way related to odorization or lack of odorization in a transmission pipeline. Odorant is sulphur-based and corrosive to the internal surface of the pipe, which may cause more problems than solving as a warning system. Odorization is required under 49 CFR 192.625, which applies to natural gas, but it is not required in Part 195 pertaining to HVLs. The odorant must be of a concentration that the gas, at one-fifth of the lower explosive limit, is readily detectable by a person with a normal sense of smell. To assure the proper concentration of odorant in the gas pipeline, under 49 CFR 192.625(f), each operator must conduct periodic sampling of combustible gases using an instrument capable of determining the percentage of gas in air at which the odor becomes readily detectable. Therefore, the required periodic instrumental sampling, in this case, cannot be limited to testing at the bulk plant, but must be performed in the pipeline system to ensure the entire pipeline system has the required odorant levels. Transmission pipelines in Class 1 and Class 2 locations need not be odorized. 49 CFR 192.625.

There is not enough evidence to show a warning to the public benefit outweighs the potential cost to the shippers and the pipeline utilities and operators in having to put odorant in with the HLs. Ethane is a gas not for combustion but rather it can be a product or a reactant for ethylene production. Ethylene is widely used in the chemical industry and much of its production goes towards creating polyethylene, which is a widely used plastic containing polymer chains of ethylene units in various chain lengths.

There is no current Federal regulation requiring odorant be placed in all HL lines, and we are not persuaded to find that there is substantial evidence to support regulating that it be done in our state. Operators have the option of adding odorant; however, this is not a mandate. Thus, under the Federal pipeline safety regulations, a utility pipeline operator is not required to odorize a hazardous liquids pipeline. However, an operator may make a managerial decision to odorize its line(s).

For these reasons, we have determined not to proceed with the proposed § 59.140(h) regarding leak detection and odorization and we are deleting it from the final-form regulation. Conversely, we have determined to adopt proposed § 59.140(i) in its entirety, however, we shall renumber the proposed § 59.140(i) regarding EFRDs in High Consequence Areas as § 59.140(h) in the final form regulation .

iii. Proposed § 59.140(i); Final-Form § 59.140(h)

We did not amend the proposed § 59.140(i), now § 59.140(h), having concluded that the limiting reason for EFRDs described in the regulation subsection is appropriate.

Accordingly, we have revised Section 59.140 in the final-form regulation as discussed above.

12. § 59.141. Qualification Of Pipeline Personnel

Section 59.141 of the PUC’s proposed regulations prescribes requirements for hazardous liquid public utilities qualifying individuals to perform covered tasks on a pipeline facility. Section 59.141 of the proposed regulations defined “covered task” as carrying the same meaning in 49 CFR 195.501 but including a construction task identified by a hazardous liquid public utility. Section 59.141 was intended to work in conjunction with 49 CFR 195.505, which requires the development of a written qualification program meeting certain criteria. Subsection (b) requires that a hazardous liquid public utility’s qualification program must also include: (1) the adoption of the provisions for a written qualification program for construction tasks; (2) a process that trains all individuals qualified to identify and react to facility specific abnormal operating conditions; and (3) requalification intervals for each covered task.

Additionally, subsection (c) makes the record keeping requirements for covered tasks in 49 CFR 195.507 applicable to construction tasks. These additional requirements are intended to provide increased training opportunities for individuals performing covered tasks and enhanced oversight of pipeline personnel.

a. Comments On § 59.141

i. Covered Task

Again, the Environmental Advocates strongly urge the PUC to define “covered tasks” as any task that impacts operation, construction, maintenance, or the integrity of a regulated pipeline, including necessary tasks involving control centers, SCADA equipment and infrastructure, and other critical control systems directly impacting pipeline operations. The Environmental Advocates note that New Hampshire has done similarly, requiring that OQ programs include all tasks covering “operations, maintenance or new construction” that impact “the operation or integrity of the pipeline” for natural gas service. N.H. Code Admin. R. PUC 506.01(c)(2). The Environmental

Advocates also suggest that the PUC should consider requiring OQ certifications for on-site security workers during construction projects. Environmental Advocates Comments at 35.

The Environmental Advocates contend that the PUC should consider providing a list of the minimum required standards for OQ certification for each covered task. Any such list should be generated in consultation with industry and advocacy groups. At a minimum, the Environmental Advocates request that independent testing be required before a worker is OQ certified. Each operator needs to be required to supplement the training with local and project-specific information that would be unavailable through standardized training. Also, as is the case in North Carolina, OQ programs should integrate safe work practices. 4 N.C. Admin. Code § 11.R6-39(a). Environmental Advocates Comments at 35-36.

The Environmental Advocates further submit that the PUC is right to clarify what is a covered task as PHMSA does not seem to have a consistent definition. The Environmental Advocates submit that the PUC also properly exercises its authority in setting forth minimum standards for operators to follow to ensure that anyone performing a covered task, employee or contractor, is qualified. Currently, 49 CFR 195.505 and 195.507 leave it exclusively to the operators to set and enforce such qualifications. Given that PHMSA does not consistently regulate what is a covered task, there is a significant regulatory gap which the PUC rightfully seeks to fill in this rulemaking. Environmental Advocates Reply Comments at 28-29.

ii. Requalification Intervals

The Environmental Advocates recommend that OQ requalification intervals be determined by the PUC instead of by operators as currently proposed. Additionally, qualifications for a covered task should expire if a worker has not performed the task for

at least six months or another appropriate interval determined by the PUC.
Environmental Advocates Comments at 35-36.

iii. Construction Task And Federal Regulations

Again, the Associations contend that the four-part test in 49 CFR 195.501 cannot be applied to most construction tasks and recommends eliminating this proposed requirement as adding construction tasks would unnecessarily complicate the four-part test. In the alternative, they say, if this test is to be included in the final rule, construction tasks should be separated from inclusion in the four-part test. The Associations Comments at 13-14.

Sunoco advocates for the PUC awaiting guidance from PHMSA before adopting this provision that would require operators to develop a qualification program for training qualified individuals to identify and react to specific abnormal operating conditions. Sunoco Comments at 36-37. Sunoco continues that there is no basis to require operator qualifications for security personnel because the activities they perform do not meet any aspect of the four-part test. Sunoco supports the comments of the Association, which state that critical tasks on new construction are already governed by industry standards and qualification programs, such as welding qualifications and NACE certifications. Operating companies are required to provide inspection and oversight of work performed by contractors on new construction programs. And there are already multiple quality control steps and standards for new construction. If there are perceived shortcomings with the current oversight for new construction projects, then attention should be narrowly focused on those areas, rather than sweeping changes to an existing program that was designed for operations tasks.

The Associations recommend the PUC delete this proposed requirement and instead refer to the four-part test in Part 195, without adding construction tasks. Adding construction tasks would further complicate the four-part test.

Sunoco is concerned with the Environmental Advocates' proposals to have the PUC provide a list of minimum required standards for OQ certification for each covered task and establish requalification intervals instead of operators. Sunoco advocates for each operator to be allowed to develop a program that is tailored specifically to its operational staff. Sunoco claims it would be inappropriate to insist that projects requiring design by an OQ-certified engineer or geologist to be overseen by ones licensed in Pennsylvania. The PUC is not the appropriate agency to set forth minimum OQ requirements for these professionals. Sunoco Reply Comments at 59-62.

b. Disposition On § 59.141

As explained earlier, the definition of “covered task” in section 59.132 was intended distinguish a “construction task” from a task subject to the four-part test in 49 CFR Part 195. Although we incorporated the definition of “covered task” in 49 CFR 195.501 by reference, we *separately* referred to “a construction task identified by a hazardous liquid public utility.” We agree that construction tasks should not fall under the four-part test in Part 195 of PHMSA’s regulations. To avoid confusion, in Section 59.132, we have defined a “covered task” as “the term as defined in 49 CFR 195.501” and define a “construction task” as “an activity, identified by a hazardous liquid public utility, performed under 49 CFR 195 Subpart D . . . or § 59.137.” We have also revised the regulations to reference “covered task” and “construction task” in section 59.141. With respect to Environmental Advocates’ comments on the recommendation that OQ requalification intervals be determined by the PUC instead by of operators as currently proposed, we conclude that the operator is in the best position to determine whether a

worker is under-performing specific critical tasks where an operator may be compelled to retest or shorten the interval for all other OQ employees.

We have required OQ certifications for on-site security workers during construction projects in the final-form regulation. The Pipeline Safety Section will provide a list of the minimum required standards for OQ certification for each covered task. The list will be generated in consultation with industry and advocacy groups. Each operator will be required to supplement the training with local and project-specific information that would be unavailable through standardized training. Safe work practices will also be directed. While we agree that 49 CFR 195.501 does not apply to most construction tasks, OQ certified personnel trained with project-specific and location-specific guidance will enhance the operator's operations and ensure skilled personnel are ready to handle abnormal operating conditions. This provision has been added to the final-form regulation as § 59.141(b)(6). A definition for "operator qualification" has been added to § 59.132 in the final-form regulation since it is now used in Section 59.141.

We do not agree with Sunoco's recommendation in awaiting guidance from PHMSA before adopting this provision. The qualification program's provisions in Section 59.141 give the operator discretion in determining its written qualification program. As such, future PHMSA requirements may be incorporated into Section 59.141. Thus, we have added these requirements in Subsections (4) through (6) under section (b).

Accordingly, we have revised Section 59.141 in the final-form regulation as discussed above.

13. § 59.142. Land Agents

Section 59.142 of the PUC’s proposed regulations sets forth requirements for hazardous liquid public utilities employing or contracting land agents. In particular, Section 59.142 requires land agents to hold a valid Pennsylvania professional license as an attorney, real estate salesperson, real estate broker, professional engineer, professional land surveyor, or professional geologist during the performance of land agent work or services. This requirement will prevent hazardous liquid public utilities from employing or contracting individuals who are not properly qualified to act as land agents and will provide additional accountability in the performance of land agent work or services. We sought comments regarding the need for additional requirements addressing hazardous liquid public utilities employing or contracting land agents.

a. Comments On § 59.142

a. Standards For Land Agents

The Environmental Advocates aver that the PUC should use this rulemaking to set minimum standards for the professional qualifications and conduct of land agents, likely within the proposed OQ framework. It should also create and maintain a registry of land agents who are acting on behalf of public utilities, similar to the home improvement contractor registry maintained by the Pennsylvania Attorney General. To foster accountability, the PUC should establish a complaint system whereby a member of the public could inquire or complain about the conduct of land agents. The PUC should then investigate allegations of improper or prohibited conduct. Environmental Advocates Comments at 37.

Some individuals residing near the Mariner East pipelines offered comments on this section. Virginia Marcille-Kerslake, a resident of Chester County urges that land agents be licensed attorneys, real estate brokers, engineers, land surveyors or geologist Ms. McClintock commented this section should have a penalty for deceiving landowners

or abuse of eminent domain. Catherine Moran, a resident of West Whiteland Township, Chester County, commented that requiring land agents to be professionally certified is imperative. Consequences for landowner deceit/eminent domain abuse should be included. Moran Comments at 2.

Ms. Fuller commented that when she encountered a land agent from Energy Transfer Partners and asked the agent questions, the land agent admitted he was unqualified to answer her questions. The land agent explained that eminent domain would be pursued if she did not sign the easement agreement. Ms. Fuller asserted the PUC's proposed requirements are an obvious improvement for land-agent requirements and go toward protecting the unsuspecting landowners to some degree, but she believes the proposed requirements are not strict enough. She recommends that the PUC specify authority to impose penalties for land agents deceiving or bullying landowners or for any abuse of eminent domain. Fuller Comments at 9-10.

The Associations requested justification for including the requirement "to hold a valid Pennsylvania professional license in one of the following fields: attorney, real estate salesperson, real estate broker, professional engineer, professional land surveyor or professional geologist." The Association suggests that instead of attempting to regulate the agents, it would be more appropriate to regulate the process through which agents interact with landowners by considering a state certification process. Associations Comments at 14.

Shepstone commented that Section 59.142 of the PUC's proposed regulations requires land agents to hold a valid Pennsylvania professional license as an attorney, real estate salesperson, real estate broker, professional engineer, professional land surveyor, or professional geologist during the performance of land agent work or services. This requirement will supposedly "prevent hazardous liquid public utilities from employing or contracting individuals who are not properly qualified to act as a land agent and provide

additional accountability in the performance of land agent work or services.” This puts the PUC in the business of regulating matters far beyond its expertise and having nothing to do with safety. It is simply more bureaucracy. Shepstone asks: “Moreover, why should a geologist be able to negotiate an easement but a knowledgeable title agent not be entitled to do so?” Shepstone Comments at 2.

IRRC noted that commenters raised two issues, including the rationale for requiring one of the enumerated licenses and that the licenses listed represent only a fraction of the professionals who engage in pipeline infrastructure land acquisition. IRRC asked the PUC to explain why it concludes that the enumerated licenses are appropriate and the only professions capable of performing the required duties of a land agent. IRRC Comments at 15.

ii. Notice To Landowners

The Environmental Advocates contend that to reduce the knowledge and power disparity between land agents and landowners, the PUC should require each land agent to provide any owner with whom they are negotiating a contract on behalf of a pipeline operator with a detailed written disclosure of the landowner’s rights before commencing substantive negotiations. The written disclosure should educate the landowner about the land-agent registry, inform the landowner that any oral representations not in a final written agreement may not be enforceable, state the landowner’s right to seek counsel, and provide instructions on properly documenting the negotiations and agreements. Environmental Advocates Comments at 38.

Environmental Advocates submit that landowners should be presented at first contact with a “landowners bill of rights” so that residents clearly understand their rights in negotiation, including the right to legal counsel. Land agents are not just in the business of acquiring simple easements. The integrity of the entire pipeline installation

process can be compromised by their performance. Their failure has led not only to the spread of misinformation and abuse of trust, but also tangible harm that could have been avoided had landowners been provided sufficient information during negotiations. The Environmental Advocates contend that rules for land agents fall squarely within the domain of pipeline safety regulation. Environmental Advocates Reply Comments at 29-30.

Ms. Fuller generally supports the PUC's proposed requirement in Section 59.142. Ms. Fuller commented on her personal experience that in the easement document, hazardous liquids were included in a long list of possible products to be carried by the pipelines, but they were not specified as the product to be carried at the time she signed her permanent easement. At the time of signing her easement document, she was not given any document informing her of the potential danger she would be living with in the future or what to do in the event of a leak. Rosemary Fuller Comments at 9.

iii. Easements And Other Agreements

The Environmental Advocates also contend that the PUC needs to require that all agreements entered into by an operator through a land agent be publicly recorded in the County Recorder of Deeds office, as would normally be expected with a lease, deed, or easement. By contrast, easements and rights-of-way for pipelines currently need only be recorded in a simple memorandum which is too often lost. Environmental Advocates Comments at 38.

Further, the PUC should require land agents to disclose important information to landowners before commencing negotiations, including local site conditions, such as buildings and other structures; water and wastewater features; additional nearby underground utilities; landscaping; and other features which may be subject to damage from pipeline construction. Environmental Advocates Comments at 38.

The land agent should also provide the landowner with their name, address and contact information for the agent, as well as the contact information for the company employing the land agent and the operator on whose behalf the agent is employed. The PUC should also require land agents or their employers to immediately notify landowners in writing if a land agent is reassigned. Environmental Advocates Comments at 38-39.

iv. Reduction Of Land Agent Oversight

SMCI states that section 59.142 puts the PUC in the business of regulating matters beyond its expertise that are not related to safety. SMCI Comments at 2. The Marcellus Shale Coalition (MSC) encourages the PUC to remove this section for the following reasons:

- (1) the PUC lacks the statutory authority to impose professional licensure obligations upon land agents employed or contracted by a hazardous liquid public utility;
- (2) the proposed requirement is outside the scope of the proposed rulemaking;
- (3) this standard is arbitrary and confusing, as it would apply only to a fraction of the professionals in Pennsylvania who are engaged in pipeline infrastructure land acquisition – namely those working for or with a regulated public utility; and
- (4) the professional license classes referenced in this section bare little, if any, relevance to the professional duties of a land agent employed by a regulated public utility.

MSC Comments at 6.

Sunoco contends that the PUC lacks jurisdiction over the subject of land agents and cannot regulate employment or professions directly and, in this case, indirectly by regulation. Sunoco states that the PUC should not adopt this requirement but that, if it does, the more appropriate membership or certification is through the International Right of Way Association or through a similar professional organization or state registry.

Sunoco Comments at 87. Sunoco also contends that the PUC should not adopt the following recommendations from the Environmental Advocates:

- (1) Set minimum standards for the professional qualifications and conduct of land agents, likely within the proposed OQ framework detailed above.
- (2) Create and maintain a registry of land agents who are acting on behalf of public utilities, similar to the home improvement contractor registry maintained by the Pennsylvania Attorney General.
- (3) Establish a complaint system whereby a member of the public could inquire or complain about the conduct of land agents. The PUC must then investigate allegations of improper or prohibited conduct. If the PUC, using its ALJ system, finds that the land agent violated the public trust of their role, the PUC could both strip that agent of OQ qualification and report them to their professional oversight body within Pennsylvania for appropriate discipline. If, in reverse, the PUC becomes aware that the professional governing body disciplined the land agent for conduct related to their land agent duties, particularly if for fraud or misrepresentation, then the PUC should revoke their OQ qualifications.
- (4) Sanction the pipeline operator if a land agent engages in misconduct in the course of representing a company.
- (5) Require each land agent to provide any owner with whom they are negotiating a contract on behalf of a pipeline operator with a detailed written disclosure of the landowner's rights before commencing substantive negotiations. The handout should educate the landowner about the land agent registry, inform them that any oral representations not in a final written agreement may not be enforceable, state their right to seek counsel, and provide instructions on properly documenting the negotiations and agreements.
- (6) Require that all agreements entered into by an operator through a land agent be publicly recorded in the County Recorder of Deeds office.

(7) Require land agents to disclose important information to landowners before commencing negotiations, including local site conditions, such as buildings and other structures; water and wastewater features; additional nearby underground utilities; landscaping; and other features which may be subject to damage from pipeline construction, the utility's planned hours of construction or operation, the anticipated noise levels, any known or reasonably ascertainable disruptions the land owner may experience during construction; any foreseeable risks to their property or health; and any relevant emergency response plan.

(8) Require land agents or their employers to immediately notify landowners in writing if a land agent is reassigned.

Sunoco states that these proposals go well beyond the authority of the PUC and would only apply to land agents working on behalf of jurisdictional public utilities. Sunoco Reply Comments at 63-64.

b. Disposition On § 59.142

We agree with the commenters who assert that land agents must be held accountable to professional standards. With respect to our decision to require the enumerated licenses for the professionals who engage in pipeline infrastructure land acquisition, we have retained these licensure requirements to ensure that professionally licensed employees are negotiating agreements with landowners in good faith. By requiring land agents to be licensed professionals, they will be obligated under their respective licensing to be fair and equitable to both parties. To address IRRC's comment, by limiting the list to these enumerated licenses, we believe these professions are capable of performing the required duties of a land agent as they are held to a higher ethical standard within their respective professions. Licensing ensures land agents will be overseen by their respective licensing boards wherein complaints can be submitted and investigated. By requiring land agents to be licensed professionals, this obviates the need

for the PUC to enact additional requirements for land agents, as professional licensing should effectively govern land agents.

Individuals may file complaints at the PUC alleging violations of this regulation if they find that a land agent is not licensed. If the hazardous liquid public utility hires or contracts with land agents that do not meet the listed requirements, then the hazardous liquid public utility would be subject to civil penalties under Chapter 3301 of the Public Utility Code, 66 Pa.C.S. § 3301. There is a need for these requirements as members of the public residing along the constructed pipelines of the Mariner East Project commented on these regulations. They wish to be protected against fraudulent acts of land agents who are attempting to secure rights-of-way for the hazardous liquid public utilities. Protection is a safety requirement.

We agree that that the following proposals for Section 59.142 are outside of the PUC's statutory duties:

- (1) Minimum standards for the professional qualifications and conduct of land agents;
- (2) Creation and maintenance of a registry of land agents who are acting on behalf of public utilities;
- (3) Requirements for land agents to provide a detailed written disclosure of the landowner's rights before commencing substantive negotiations;
- (4) Requirements that all agreements entered into by an operator through a land agent be publicly recorded in the County Recorder of Deeds office;
- (5) Requirements for land agents to disclose important information to landowners before commencing negotiations;
- (6) Requirements for land agents or their employers to immediately notify landowners in writing if a land agent is reassigned.

We have, however, separated section 59.142 into subsections (a) and (b) and added subsection (c) to address violations and civil penalties under 66 Pa.C.S. §§ 3301—3316.

Accordingly, we have retained the substance of section 59.142 as was proposed in the NOPR and added the provision regarding violations and civil penalties in the final-form regulation.

14. § 59.143. Corrosion Control

Section 59.143 of the PUC’s proposed regulations prescribe the requirements for hazardous liquid public utilities protecting pipelines against corrosion. Subsection (b) requires written procedures for the design, installation, operation, and maintenance of cathodic protection systems, including, *inter alia*, the average and the worst-case corrosion rate experienced for each pipeline segment. Proposed subsection (c) and proposed subsection (d) address the level of cathodic protection that a cathodic protection system must provide and the frequency at which a hazardous liquid public utility is required to test a cathodically-protected pipeline, respectively. Proposed subsection (e) requires a hazardous liquid public utility to conduct close interval surveys, including paved surfaces, every three years and to adhere to the standards set forth in NACE International Standard Practice 0207-2007, *Performing Close-Interval Potential Surveys and DC Surface Potential Gradient Surveys on Buried or Submerged Metallic Pipelines* (March 10, 2007).

We sought comment regarding the cathodic protection provisions proposed in Section 59.143, including the level of cathodic protection and the frequency of testing to determine the adequacy of cathodic protection. We also sought comment regarding the requirements for close interval surveys and interference currents in section 59.143.

Finally, we welcomed comments regarding the need for any additional corrosion control measures.

In its data request dated July 20, 2023, at question number 9, the Law Bureau requested information from Sunoco and Laurel on additional costs associated with: (1) incremental cost of CIS runs including paved areas in an urban environment; and (2) incremental cost of CIS excluding paved areas in an urban environment.

a. Comments On § 59.143

i. Association Of Materials Protection And Performance (AMPP)

Regarding 59.143, AMPP raises various issues related to section 59.143(b), (c), (d), and (e), as described further below. Regarding 59.143(b), AMPP states that “Without supporting established sound engineering practices, pipeline operators have no way to reasonably conform to” the requirement of subsection (b), which requires a HL public utility to “determine and document the average and the worst-case corrosion rate experienced for each pipeline segment.”

Regarding proposed 59.143(c), AMPP asserts that the three criteria included in subsection (c), as worded in the proposed rule, are not technically correct, do not conform to the consensus industry standard NACE SP0169, and *are less stringent* than the federal regulations contained in 49 CFR Part 195. AMPP states that it does not condone use of the criteria for cathodic protection that has been altered from the consensus standard. AMPP explains that NACE SP0169 is the culmination of decades of consensus standards development and revisions, is the modern consensus standard in the corrosion-control industry, and is incorporated by reference in the federal regulations, at 49 CFR 195.571, as the sole determination of criteria for cathodic protection. AMPP explains that NACE SP0169 includes important precautionary notes, special conditions, and other considerations for determining whether cathodic protection is adequate for protection.

For this reason, more than any other, SP0169 includes the following language: “For accurate and correct application, this standard must be used in its entirety. Using or citing only specific paragraphs or sections can lead to misinterpretation and misapplication of the practices contained in this standard.”

AMPP’s specific problems with the proposed language in §59.143(c) include:

- (1) “A negative (cathodic) potential of at least 850mV with voltage drops removed from all current sources in the pipe to soil measurement. This potential is measured with respect to a saturated copper/copper sulfate reference electrode contacting the electrolyte.” According to AMPP, the standard NACE SP0169, in a similar criterion at §6.2.1.3 (2013) or §6.2.2.1.1 (2007), provides explanations of how other voltage drops should be considered. Failing to properly consider voltage drops, and the magnitude that should be removed, could result in a potential reading that appears to meet this criterion but does not.
- (2) “A negative polarized potential of at least 850mV relative to a saturated copper/copper sulfate reference electrode.” According to AMPP, this language is similar to a criterion found in the 2007 and earlier versions of SP0169, but was judged to have been misapplied, and incorporated into the §6.2.1.3 criterion of SP0169 in the detailed explanation of consideration. Without a definition of “negative polarized potential” and explanation of how it is measured or determined, this language is still subject to misinterpretation. CP – On/Off/& 100 mV cathodic polarization are three primary methods. In all instances IR drop must be accounted for.
- (3) “A minimum of 100mV of cathodic polarization between the structure surface and a stable reference electrode contacting the electrolyte. The formation or decay of polarization to satisfy this criterion and the length of time with current sources off must be based upon measured soil resistivities. The length of time must not allow exposure of an area of the pipeline and other foreign pipelines to the detrimental effects of corrosion.” According to AMPP, this language bears a similarity to the criterion found in SP0169 at §6.2.1.2 (2013) or §6.2.2.1.3 (2007), although the discussion in this criterion regarding length of time is a complete innovation. While length of time that cathodic protection is turned off to allow a structure to depolarize is a matter of concern for corrosion control professionals, it does not contribute to or belong in a criterion for protection. This language is vague, offers no guidance on how length of time should be correlated to soil resistivity, and is unrealistic. Turning off cathodic protection for any

length of time possibly exposes the structure “to the detrimental effects of corrosion”, and thus the criterion prohibits the technique used to measure it. Without other important considerations, this criterion as written allows approval of cathodic protection that does not meet the requirements of SP0169.

AMPP states that if the PUC uses language from a published standard, the standard must be fully referenced. SP0169-2013 is referenced by PHMSA, and thus there is no cost to use the standard. The PUC must incorporate the standard fully to ensure proper management and application.

AMPP cites to various additional details found in the full standard at pages 4-5 of its comments to support its recommendation that the regulations incorporate by reference the NACE SP0169, latest revision, in § 59.143(c).

Regarding 59.143(d)(1) and (2), AMPP explains that testing pipeline cathodic protection systems at regularly spaced test stations at one-year intervals is industry standard practice. AMPP asserts that the requirement of (d)(2) to test a pipeline that is carrying HVLs twice a year is unusual and does not add to the safe operation of the pipeline. AMPP states that a properly tested and maintained cathodic protection system is not affected by the contents of the pipeline and there is no technical basis for HVLs having increased cathodic protection (CP) monitoring levels. Once a year is adequate.

As to (d)(3), AMPP argues that remote monitoring devices are a superior method of monitoring rectifier condition than physical inspection. Remote monitoring provides real-time or more regular reports of rectifier potential failure or other abnormal conditions of concern. AMPP does not advocate for a requirement that all rectifiers should be required to have remote monitoring units, given that monthly checks of rectifiers in remote areas and bimonthly checks in areas of regular activity have long proven to be effective. However, if an operator has determined that the benefit of remote monitoring units justify their cost, there is no need to require a physical inspection of

each rectifier at least six times a year. AMPP explains that while it might be prudent for an operator to physically inspect a rectifier at least once a year for maintenance, there is no need to mandate one at all as long as the remote monitoring device reports that the rectifier is operating within expected parameters, and the requirement does not contribute to public safety.

As to 59.143(e), the PUC proposes to incorporate by reference in subsection (e) industry standard NACE SP0207-2007, *Performing Close-Interval Potential Surveys and DC Surface Potential Gradient Surveys on Buried or Submerged Metallic Pipelines*. AMPP explains that the standard is currently being revised and that a new version or affirmation may be issued soon. AMPP recommends that the PUC incorporate the latest revision. PUC cannot accept the new standard as long as PHMSA does not adopt it.

AMPP asserts the PUC's proposed requirement of conducting a close interval survey every three years (or at any arbitrary time intervals) is not sound engineering practice, is not practicable, and does not contribute to public safety. For that reason, AMPP explains that the federal regulations, at 49 CFR 195.573(a)(2), only require close interval surveys to be performed after a new cathodic protection system is installed. AMPP explains that this requirement is usually interpreted to mean that close interval surveys are required after substantial changes to an existing cathodic protection system. For these reasons, AMPP recommends that a more appropriate requirement for the PUC to adopt would be to conduct a close interval survey linked to changes in cathodic protection systems. Annex A could be revised to include language from here to allow CIS on a 5-year basis to better align with assessments.

AMPP further explains that when regulations proscribe the use of close interval survey, the inclusion of paved surfaces as an unrestrained requirement offers substantial challenges and are not always justified as a sound engineering practice. Given the greater effort required and reduced expectation of finding a problem in casings under paved

surfaces, testing under paved surfaces should not necessarily be included in every close interval survey being conducted, and a sample method at longer time intervals would be considered sound engineering practice. Moreover, close interval surveys could be considered unnecessary or redundant in the face of other methods of monitoring corrosion control. One of these methods would be in line inspections. AMPP suggests that reviewing in-line inspection tool survey data, in comparison with cathodic protection levels at test stations measured during annual survey, could be a better method of monitoring the effectiveness of cathodic protection.

ii. Environmental Advocates

(a) Best Practices

The Environmental Advocates urge the PUC to tie corrosion control requirements to evolving best practices, even if doing so requires BI&E to engage in additional rulemakings. The PUC should also authorize BI&E to audit operators' compliance with best practices to safeguard public safety.

(b) Additional Reporting And Testing

First, operators should immediately notify the PUC when a pipeline requires leak or corrosion repair so that a BI&E representative may, at its discretion, oversee the process or conduct an immediate inspection. Second, operators should collect data and conduct studies necessary to ensure that corrosion protection will be effective when they initially plan construction or make major changes in construction plans, including evaluating potential interference with any cathodic protection systems of crossing utilities. They should report their findings to BI&E. Third, operators should preserve pipe segments exhibiting signs of significant corrosion until a BI&E inspector reviews the involved pipe or a reasonable period of time, not less than thirty (30) days, passes. This would not only allow BI&E to investigate the root cause(s) of a failure but also to

collect data to assist in updating best practices for preventing or managing future incidents.

Fourth, operators should report all instances of significant pipe loss, cathodic protection failure or interference, coating loss or disbonding events, surface equipment failures, and other events with the potential to cause property damage or a release. Such “near miss” reporting has been a valuable tool for the airline industry, and it could similarly improve oversight and enforcement of pipeline infrastructure. Fifth, operators should conduct a cathodic protection study if a pipeline’s wall thickness drops below the required minimum or if there is a release. The operator should then report the results to the PUC unless there is a definitive root cause other than inadequate corrosion control. Hazardous liquid public utilities should have to inform BI&E if the original wall thickness of the pipeline has been reduced by 80% such that it is now 20% or less original wall thickness. This triggers a replacement of the pipeline requirement. Lastly, operators should report any pipe exposure within seven days of the exposure commencing. The report should include data on corrosion, loss of wall thickness, bare pipe, or disbondment.

(c) Potential Electrical Interference

The PUC should require pipeline operators to coordinate with each operator of a crossing line, regardless of whether the other line is within the PUC's jurisdiction, and share information necessary to validate their corrosion protection programs. Each operator should be required to file a report with the Pipeline Safety Section (1) describing each instance of potential electrical interference from another line, utility, land use, or structure; (2) the efforts the operator has taken to coordinate with the operator the potentially interfering structure; (3) a summary of information shared with the other operator; (4) a description of how their corrosion control program addresses any

interference; and (5) any other related information the operator believes the PUC might find useful.

(d) Aging And High-Risk Pipelines

The PUC should require periodic corrosion protection reviews of pipelines or pipeline segments that are at least thirty years old, including in-line tool inspections of such lines at least every three years. For high-risk segments, the PUC should require annual ILI inspections.

(e) Transparency

To the extent possible without compromising safety, corrosion control plans should be available for public review.

iii. PureHM – (AMPP)

AMPP is concerned that there is no way to conform to the requirement that “a hazardous liquid public utility shall determine and document the average and worst-case corrosion rate experience for each pipeline segment” because there are no supporting established sound engineering practices.

Specific concerns include:

- “With voltage drops removed from all current sources”—no explanations of how other voltage drops should be considered or the magnitude that should be removed could skew the reading.
- “A negative polarized potential of at least 850mV relative to a saturate copper/copper sulfate reference electrode” does not apply a definition of “negative polarized potential” nor does it explain how it is measured or determined. This will lead to misinterpretation.

- “A minimum of 100mV of cathodic polarization between the structure surface and a stable reference electrode contacting the electrolyte. The formation or decay of polarization to satisfy this criterion and the length of time with current sources must be based on measured soil resistivities. The length of time must not allow exposure of an area of the pipeline and other foreign pipelines to the detrimental effects of corrosion.” The length of time standard is in appropriate as it is vague nor offers to guidance on how length of time should be correlated to soil resistivity.

AMPP recommends incorporating NACE SP0169 in full instead of attempting to redefine criteria for cathodic protection.

AMPP explains that requiring twice a year testing of HVL pipelines is unusual and does not add to the safe operation of the pipeline. AMPP states that yearly testing is the industry standard. AMPP explains that remote monitoring is a superior method than physical inspection for rectifier monitoring and that mandating physical inspections when remote monitoring does not indicate a problem does not contribute to public safety.

AMPP notes that NACE SP0207-2007 is currently being revised and, while referenced, it is likely to change.

AMPP explains that requiring close interval surveys requires a greater effort and a reduced expectation of finding a problem that cannot be located at regular interval test stations. AMPP believes that close interval surveys are redundant in the face of other monitoring methods such as in-line inspections.

iv. Associations

The proposal lacks reason or technical justification, and the Associations recommend proving a technical basis including testing and inspection requirements.

- Remove the requirement in subsection (b) regarding to “determine and document the average and worst-case corrosion rate experience for each pipeline segment.”
- Clarify subsection (d)(1) requiring each impressed current ground bed be tested as part of the testing under 59.143(d) as “testing a ground bed” is vague. Any testing should be conducted at the rectifier.
- Remove the requirement to physically inspect rectifiers every other month in subsection (d)(3).
- Clarify whether remote monitoring is allowed in subsection (d)(4). A sound technology, if exists, would be allowed (concurrence with PHMSA may be necessary).
- Extend the timeframe to 1 month to initiate remedial measures in subsection (d)(5).
- Remove the requirement to conduct close interval surveys across all paved surfaces every three years. The proposal as written will require drilling permanent holes in all paved surfaces, including highways.

v. Sunoco

Sunoco submits that corrosion control requirements are already sufficiently addressed by Subchapter H of Part 195. Sunoco states that the type of analysis proposed

in subsection 59.143(b) would be costly, labor-intensive, and unnecessary given that existing federal pipeline safety corrosion and integrity management regulations adequately address the threat of corrosion. Sunoco recommends that the PUC not adopt this provision and instead defer to current PHMSA requirements.

Regarding subsection (d)(1)-(2), Sunoco submits that the increased testing frequency for HVL pipelines will provide little to no benefit and claims the PUC's proposal fails to consider the practical reality of conducting these tests and the increased associated costs. Sunoco also contends that subsection (d)(3) provides little to no benefit over the current federal standard. Sunoco also opposes subsection (d)(4) for not being an appropriate requirement and subsection (d)(5) for being impractical. Sunoco argues that 14 days may not provide enough time to properly diagnose the cause of a deficiency or plan proper remedial action.

Sunoco expresses concern about subsection (e) which would require close interval surveys every three years. Sunoco notes potential property damage and periodically needing to shut down highways, airport runways, the turnpike, roads, and large municipal and commercial parking lots to safely perform the surveys. Sunoco opines that the PUC has not justified this proposed requirement or the associated costs of implementation. Sunoco recommends deference to existing federal standards that provide operators with the discretion to develop their own practices based on industry standards and best practices.

vi. Department Of Environmental Protection

DEP recommends that the PUC cite 49 CFR Parts 192, Subpart I, and 195, Subpart H, as appropriate.

vii. IRRC

IRRC asks the PUC to explain its rationale for imposing more stringent standards and to provide data to support its conclusions for all of the subsections of Section 59.143. IRRC notes that the procedures in subsection (b) should be amended to address the requirement to determine and document the average and the worst-case corrosion rate experienced for each pipeline segment because an operator may not have the ability to fulfill this requirement. IRRC asks the PUC to consult the industry on this issue. In subsection (c), IRRC states that a commentor says that the level of cathodic protection does not reflect the most recent standard and is less stringent than the Federal regulations. IRRC asks the PUC to clarify the intention of this subsection. Regarding subsection (d), IRRC asks the PUC to provide further explanation of the need for and reasonableness of the frequency of testing for a cathodically-protected pipeline. Regarding subsection (e), IRRC notes that a commentor states that the standard for close interval surveys is being updated to cite the most recent version of the NACE standard in its final-form regulations.

viii. West Whiteland Township

Accufacts recommends removing “direct” from Subpart (f) so that the line reads “...or other current sources such as stray current.”

ix. County Commissioners Association Of Pennsylvania

CCAP supports notification to counties prior to all activities, construction, maintenance and changes for the purposes of county land use and planning responsibilities as well as providing for emergency response if necessary.

b. Reply Comments

i. Environmental Advocates

Some of the language from proposed § 59.143 is tracking the best practices standard SP0169. However, varying from SP0169 and omitting some of its language resulted in an inferior regulation. The Environmental Advocates urge that the PUC require compliance with the most current iteration of the full standard, including future updates. If the PUC chooses to vary from this standard, it must provide reasons.

The Environmental Advocates also urge the PUC to heed AMPP's caution and verify whether the proposed § 59.143(c), as written, is less stringent than the federal standards in 49 CFR 195. If that is the case, the PUC needs to evaluate whether it would remain less stringent if it were to apply the full SP0169 standard. If the full standard is more protective than the federal minimum regulations, then the PUC should require operators to follow it. If it remains weaker than the federal standard, then the PUC should check whether there is another more robust source of best practices, and, if not, revert to the federal standard.

The Environmental Advocates request that the PUC require operators to evaluate the potential for each underground pipeline system to suffer AC-related corrosion and to implement mitigation measures wherever observations indicate that it could impact a buried pipeline. The Environmental Advocates urge the PUC to ensure that operators properly evaluate the potential for MIC, carefully considering temperature, moisture levels, soil type, and other influential factors. For each of these issues, the PUC can likely turn to established or emerging best practices. AMPP mentions that SP0169 includes best practices for where MIC is a significant concern. The PUC should require that operators develop comprehensive corrosion-control plans rooted in best practices plans to fully evaluate all known and reasonably suspected causes of corrosion in pipelines.

The Environmental Advocates also suggest that the PUC rework § 59.143(c)(3), which currently prohibits shutting off electric current sources long enough to expose a pipe to “corrosion. However, an area with electric current discontinued is technically instantly exposed to corrosion, so the PUC must choose other criteria that are sufficiently protective while being achievable. Additionally, the Environmental Advocates strongly urge the PUC to recognize that at higher temperatures cathodic protection may require more negative potentials and that electrodes must be corrected for temperature. The regulations need to account for this and for other impacts of increased temperature, such as a potentially higher risk of MIC, and for the fact that temperatures will be continuing to rise for the foreseeable future because of the effects of climate change.

To best allocate resources, instead of always requiring semi-annual testing, the Environmental Advocates suggest that certain events trigger it for a period of three years, unless best practices indicate that baseline testing should remain every 6 months. The triggering events could include: (1) new system installation; (2) substantial system modification; (3) a cathodic system being found inadequate by the operator, by a third-party inspector, or by the PUC; or (2) corrosion requiring repair or other anomalies impacting more than a minimum number of sections of a pipeline segment per year.

The Environmental Advocates recognize that the current outdated PHMSA regulations are reactive, seeking for operators to only respond to loss of pipeline integrity by fixing anomalies retroactively. Regularly collecting data on average and worst-case corrosion scenarios throughout the pipeline system would instead allow operators and the PUC to be proactive, predicting where problems are likely to arise and acting to prevent them before they create dangerous and costly problems for the citizens of the Commonwealth. Such a regulation is entirely aligned with the PUC’s § 1501 duties.

Close interval surveys, when performed as part of a program including ILI, pressure testing, and other corrosion monitoring methods, help assure public safety. The

Environmental Advocates also agree close interval surveys are necessary particularly when ILI is irregular and are pleased that Sunoco gave a nod to the importance of operators following best practice. The Environmental Advocates note that the proposed rules would require hazardous liquid public utilities to “comply with NACE International Standard Practice 0207-2007” and ask that the PUC to append “and any updates thereto” to the reference to the best practice.

The PUC should also require pipeline operators to coordinate with owners of road surfaces crossing pipelines to minimize roadway disruption. Additionally, the PUC should require that operators fund efforts to provide access points, such as covered manholes, to more easily facilitate close interval surveys while minimizing public impacts, including traffic disruption and the expense of periodically repairing roadways. Further, pipeline operators should be required to make similar arrangements for owners of private roads, parking lots, and the like that cross pipeline easements and are not regulated by PennDOT.

Finally, regarding remote monitoring of rectifiers and physical inspections under proposed § 59.143(d), the Environmental Advocates acknowledge AMPP’s expertise and believe that inspection frequency can likely be decreased where remote monitoring indicates proper rectifier function. The Environmental Advocates believe, however, that dropping to annual inspections or less is too extreme because the inspector is likely to be the only individual setting foot on the easement for long stretches of time. There is no substitute for physical inspection.

ii. Sunoco

Sunoco contends there is no reason for the PUC to establish minimum requirements for corrosion control as proposed by the Environmental Advocates because the Federal standards adequately address this issue. Sunoco is also concerned with any

PUC-mandated, in-line inspection requirements as recommended by the Environmental Advocates because they are addressed comprehensively by federal requirements. Moreover, Sunoco submits that giving BI&E the ability to set criteria for determining whether a pipeline segment is high-risk is inconsistent with Federal requirements and risk-based criteria in Part 195.452(e). Finally, Sunoco objects to making corrosion control plans public as asserted by the Environmental Advocates because it is unclear what information the Environmental Advocates would like operators to disclose, records contain CSI, and there is insufficient evidence to show that disclosure to the public would enhance pipeline safety.

iii. Responses To PUC Data Requests

Sunoco responded to questions regarding incremental cost breakdowns for ILI tool runs using MFL, Caliper and Geo-tools as well as costs for adding another tool and cost increases to perform ILI runs on a three-year interval as opposed to a five-year interval. There is no cost added to incremental costs for ILI tool runs as all pipelines are assessed with MFL and Geometry ILI Tools, and this costs approximately \$9 million over a 5-year period. The cost breakdown only includes the cost of setting up, preparing for running the ILI tools but does not include costs associated with excavation and repair of any anomalies reported by the ILI tools.

If an Energy Transfer pipeline under PUC jurisdiction were required to add another inspection technology such as ultrasonic tools for crack detection, the incremental cost would be approximately \$300,000 to \$1,750,000 per pipeline segment. This cost range is dependent on the tool type, such as Circumferential MFL, Ultrasonic Crack, or Electromagnetic Acoustic Transducer (EMAT), the product the tool needs to run in and the length of the pipeline segment. If all Energy Transfer pipelines under PUC jurisdiction were required to add another inspection technology to an already planned tool

run the total costs would be approximately \$20 million to \$25 million over a 5-year period.

If the reassessment interval for all Energy Transfer pipelines under PUC jurisdiction were reduced from 5-year to 3-year intervals, the total cost for performing MFL and Geometry ILI tool assessments would increase approximately \$18 million over the next 15-year period. This cost does not account for inflation or the rising costs of ILI tools over the next 15 years. Decreasing the reassessment interval from 5-year to 3-year intervals would equate to five inspection cycles of all of the pipeline segments in the next 15 years as opposed to three inspection cycles as the Federal regulation sits today.

Sunoco replied to the data request regarding its incremental cost of CIS runs including paved areas in an urban environment and its incremental cost of CIS excluding paved areas in an urban environment as follows.

Sunoco’s Cost Estimates For CIS Over Paved ROW

	ME2	ME2X
Approximate paved pipeline miles in PA	10	10
\$6,000 per mile to conduct CIS over paved areas	\$60,000	\$60,000
\$2,700 per mile for traffic control	\$27,000	\$27,000
\$2,000 per mile for state, county & township permits	\$20,000	\$20,000
Totals	\$107,000	\$107,000

Sunoco’s Cost Estimates For Standard CIS (Unpaved ROW)

	ME2	ME2X
Approximate pipeline miles in PA	324	305
\$570 per mile to conduct standard CIS	\$184,680	\$173,850

Laurel replied that, based upon its knowledge and experience, incremental cost breakdown for ILI tool runs using MFL, Caliper and Geo-tools is dependent on pipeline mileage and other characteristics of the subject pipelines. However, Laurel preliminarily estimates that this incremental cost would be approximately \$75,000 to \$350,000. This estimate includes tool run, reporting, and field costs. Based upon its knowledge and

experience, Laurel estimates that the incremental cost breakdown for adding another tool, such as an ultrasonic tool for crack detection, to an already planned tool run is dependent on pipeline mileage and other characteristics of the subject pipelines. However, Laurel preliminarily estimates that this incremental cost would be approximately \$325,000 to \$1,000,000. Based upon its knowledge and experience, Laurel preliminarily estimates that the incremental cost increase to perform ILI tool runs on a 3-year interval versus a 5-year interval would be about \$225,000 per year. This estimate includes MFL, Caliper and Geo-tools at each assessment but does not include incremental costs of adding ultrasonic tools to each assessment.

The Laurel pipeline system consists of several pipeline segments totaling 364 miles in length. Currently, there is no regulatory mandate to perform a CIS on a regular schedule. Based upon Laurel's knowledge and experience of existing market conditions, it estimates that the cost of a CIS in an urban environment could be budgeted at a rate of approximately \$600/mile over unpaved land. When CIS is required over pavement/concrete (*i.e.*, roadways, parking lots), holes need to be drilled in the pavement for each reading, water filled into the hole, readings collected, and then each hole filled with pavement filler. In addition, if holes are not filled, water retention will cause pavement and concrete to crack from the freeze/thaw cycle over time. Based upon Laurel's knowledge and experience of existing market conditions, the process to take reads across pavement adds additional cost to a survey of approximately 10x the cost of unpaved land (*i.e.*, approximately \$6000/mile) for each area for additional time, materials, traffic control, and scheduling (often roadways can only be accessed at night). The incremental cost of CIS runs including paved areas in an urban environment is approximately \$6,000/mile. The incremental cost of CIS excluding paved areas in an urban environment is approximately \$600/mile.

MIPC responded that the incremental cost of a CIS run, including paved areas in an urban environment, to be approximately \$5,000/mile. MIPC estimated the

incremental cost of Close CIS run, excluding paved areas in an urban environment, to be approximately \$2,000/mile.

c. Disposition On § 59.143

Regarding § 59.143(c), we conclude that the three criteria included in proposed subsection (c), as worded in the proposed rule, are not technically correct, do not conform to the consensus industry standard NACE SP0169, and are less stringent than the federal regulations contained in 49 CFR 195. Accordingly, § 59.143(c) has been deleted and the following subsections have been renumbered in the final-form regulation.

Regarding proposed § 59.143(d)(1) and (2), testing pipeline cathodic protection systems at regularly spaced test stations at one-year intervals is an industry standard practice. The proposed requirement to test a pipeline carrying HVLs twice a year is, however, unusual and does not necessarily add to the safe operation of the pipeline. Properly tested and maintained cathodic protection systems are not as affected by the contents of the pipeline, and there is insufficient technical basis for HVLs having increased CP monitoring levels. Once a year is adequate. Accordingly, we deleted the proposed (d)(2). We have amended the proposed (d)(1), now renumbered as (c)(1), such that it reflects language in Section 195.573(a)(1), but is more stringent in that it does not allow for the exception to conducting tests on protected pipeline at least once each calendar year, but with intervals not exceeding 15 months. The federal requirement additionally states an exception: “However, if tests at those intervals are impractical for separately protected short sections of bare or ineffectively coated pipelines, testing may be done at least once every 3 calendar years, but with intervals not exceeding 39 months.” Thus, the PUC’s requirement is more stringent yet compatible with the federal requirement. Pennsylvania needs a more stringent requirement as Sunoco has placed pipes in close proximity to other pipes and underground structures in HCAs, and a more stringent standard for testing the cathodic protection should result in lessened corrosion and fewer leaks.

As to proposed subsection (d)(3), now (c)(2) in the final-form regulation, remote monitoring devices are a superior method of monitoring rectifier condition compared to physical inspection. Remote monitoring provides real-time or more regular reports of rectifier potential failure or other abnormal conditions of concern. It is prudent for an operator to physically inspect a rectifier at least once a year for maintenance; however, there is no need to mandate inspection for remote monitoring devices unless a device reports that a rectifier is either stopped working or operating outside the expected parameters. Proposed § 59.143(d)(4) is now § 59.143(c)(3) in the final-form regulation.

We agree with the industry to extend the timeframe to 1 month to initiate remedial measures in proposed subsection (d)(5), now § 59.143(c)(4). This is still more stringent than the federal standard.

As to proposed § 59.143(e), we decline to incorporate by reference in subsection (e) industry standard NACE SP0207-2007, *Performing Close-Interval Potential Surveys and DC Surface Potential Gradient Surveys on Buried or Submerged Metallic Pipelines*, as this standard is currently being revised, and a new version or affirmation may be issued soon. Federal regulations, at 49 CFR 195.573(a)(2), only require a CIS to be performed after a new cathodic protection system is installed. We have considered the comments as to the inclusion of paved surfaces as an unrestrained requirement offering substantial challenges not always justified as a sound engineering practice. Given the greater effort required and reduced expectation of finding a problem in casings under paved surfaces, testing under paved surfaces should not necessarily be included in every close interval survey being conducted. A sample method at longer time intervals would be considered sound engineering practice. Moreover, close interval surveys could be considered expensive, unnecessary, or redundant in the face of other methods of monitoring corrosion control. One of these methods would be in line inspections. Accordingly, we removed proposed § 59.143(e) entirely, and, while we encourage the operators to include paved areas in their inspections, it will not be a blanket requirement.

As a result, proposed § 59.143(f) has been renumbered § 59.143(d) in the final-form regulation.

Corrosion control plans need not be made public as asserted by the Environmental Advocates because it is unclear what information the Environmental Advocates would like operators to disclose. Some records contain CSI, and we fail to see how releasing plans to the public enhances pipeline safety.

We agree with Accufacts' recommendation and have removed the word "direct" from the subsection that is now § 59.143(d). The line now reads "...or other current sources such as stray current."

Accordingly, we have revised section 59.143 in the final-form regulation as discussed above.

15. Other General Comments Supporting The Regulation

The following general comments in support of the regulation have been considered and have been addressed in conjunction with the discussions and dispositions articulated above. Their comments include recommendations for higher standards and more stringent regulations, greater public awareness, preventing pipelines under buildings, safety before profit, and reliance on the Intergovernmental Panel on Climate Change (IPCC) Reports. *See* <https://www.ipcc.ch/reports>. To the extent that their concerns have persuaded us to revise the proposed regulations, those changes have been explained in the discussions above. To the extent that the commenters advocate for regulations that go beyond the parameters of this rulemaking, our decision not to include them in this rulemaking is not a determination on the merits of their suggestions.

a. Richard Cole

Mr. Cole advocates that the PUC should devise, implement, and enforce the highest standards as it relates to pipeline safety.

b. Carrie Gross, Exton In Chester County

Ms. Gross commented that Mariner East has made it clear that more stringent regulations are required. She agrees with comments that support stricter regulations.

c. Senator Tim Kearney

Sen. Kearney supports the regulation regarding the need for greater public awareness and communications regarding the construction, operation and maintenance of pipelines and requiring hazardous liquid public utilities hold annual meetings with county and local government officials through which these pipelines traverse. He commends the requirement that no pipeline be located under private dwellings, industrial buildings or places of public assembly. His comments and reply comments align with the Environmental Advocates.

d. Theodore Strand

Mr. Strand lives within an eighth of a mile of the Mariner East Pipeline and the Williams pipeline in West Whiteland Township. Mr. Strand comments that the current regulations in the Commonwealth do not sufficiently protect the safety of residents that are in the possible blast zone of any pipeline. He further asserts that the environment is not adequately protected from irreparable damage to the eco-system. The proposed regulations must be implemented and not watered down by corporate desires to minimize the cost to construct and maintain such pipelines. The people in proximity to pipelines must not be held “hostage” to corporate profit motives.

e. Garret Wasserman, Coraopolis

Mr. Wasserman requests stricter regulations such as those proposed by the PUC. Mr. Wasserman also cites the IPCC Report as authority for his position.

16. Comments Beyond The Scope Of The Rulemaking

The following comments go beyond addressing address specific provisions of the proposed rulemaking. A discussion and disposition is provided for each.

a. Greg Perry

Mr. Perry is a NACE CP Specialist regarding corrosion control. He requested that notice be posted on the PUC's website that the NOPR has been published, that the public comment period has begun, and the deadline for submitting public comments. He requested an extension of time for the public to submit comments, preferably 60 days after notice is posted.

Discussion and Disposition: The NOPR was entered July 15, 2021, and served on all jurisdictional hazardous liquid public utilities, the Office of Consumer Advocate, the Office of Small Business Advocate, and BI&E. The NOPR was posted to the PUC website at this docket number and at the PUC webpage for "Pipeline Safety." Premature comments were filed. The NOPR was delivered to the Legislative Committees and has been posted to the IRRC website since January 25, 2022. The NOPR was published in the *Pennsylvania Bulletin* at 52 Pa.B. 992 (February 12, 2022). The public comment period opened on February 12, 2022, and remained open through May 12, 2022, for a total of 90 days, consisting of 60 days for comments and 30 days for reply comments. We conclude that there was adequate notice of the rulemaking, and that additional time for filing public comments was not necessary.

b. Pittsburgh Works Together

PWT is an organized labor-business-civic alliance focused on creating a diversified economy that provides sustainable prosperity and opportunity for all residents of the Commonwealth. PWT asserts that the PUC's proposed regulations would have an impact on utilities, pipeline operators, and landowners directly and would also impact businesses and residents across the state. If additional regulations are essential, the PUC should make its case in a transparent way, backed by data. PWT asserts that this has not happened. The Regulatory Review Act requires the PUC to prepare a RAF to include an estimate of the costs to the regulated stakeholders to comply with the proposed regulation. PWT asserts that it is not aware of the PUC having prepared a cost-of-compliance analysis to understand the impact of the proposed rule on the regulated industry and by extension, the state's economy and residents. If ineffective and expensive regulations encourage the industry to transport liquids by truck or rail instead of expanding the pipeline network, a well-intentioned effort to reduce risk may lead to increased risk for Pennsylvania residents. Risk can never be eliminated, but it can be minimized and mitigated with sensible, effective regulation, which PWT supports. PWT urges the PUC to reject this proposed regulation unless and until an adequate analysis of the cost of compliance compared to the presumptive benefits is conducted and provided for public comment and feedback.

Discussion and Disposition: Since January 25, 2022, the requisite NOPR RAF, prepared by the PUC, has been posted on IRRC's website at <https://www.irrc.state.pa.us/docs/3330/AGENCY/3330PRO.pdf>. As detailed in the various Disposition segments in this FFRO, information in the NOPR and NOPR RAF has been supplemented by the responses from the various pipeline operators to the PUC's data requests. The requisite cost analysis has been conducted and documented in this FFRO and will be further documented in the FFRO RAF when it is delivered to the Legislative Committees and IRRC to the extent that the information is not CIS.

c. Responsible Drilling Alliance, aka Responsible Decarbonization Alliance

RDA is a Section 501(c)(3) education and advocacy coalition. RDA joins with other commentors that request the PUC look at pipeline expansion plans in much more detail to protect the public and sensitive environmental areas, as required under Article I Section 27 of the Pennsylvania Constitution. RDA urges the PUC to absorb the most recent IPCC assessment report and heed the warning in finalizing this rulemaking. RDA asks that the PUC undergo a permitting process before pipeline operators undertake major projects to expand their pipeline systems or change what they deliver or the direction of the flow. Currently, project siting is not reviewed by the PUC at all. RDA comments that the PUC needs to require project developers to identify all water supplies (reservoirs, wells, springs) within 2,000 feet of trenchless construction proposals and to include a risk analysis of potential impairment of the quality and quantity of water in those supplies. When a pipeline operator harms, impairs, or entirely fouls a water supply, the PUC should require the operator to bear all costs of returning that water supply to its pre-existing condition or better if conditions were previously substandard. Operators should also be required to also assume the costs to affected residents and businesses with unusable water supplies for as long as the existing water supply is unsafe to consume or use for household or business needs. RDA believes that the PUC's fines offer little incentive for operators to comply with existing regulations. When it comes to hazardous liquid pipelines, an operator should be required to prove to the PUC why it should continue to build or operate when sinkholes, explosions, or any line breakage occurs.

Discussion and Disposition: We do not have extensive siting authority conferred upon us from the General Assembly for a hazardous liquid pipeline. Our jurisdiction over the siting and location of public utilities, including pipelines and related equipment such as valve stations and pumping stations is limited. *West Goshen* at 10-11

As noted above, other than the authority to review plans to build shelters and buildings that cover a pipeline operator's facilities for determinations whether the MPC and zoning ordinances regarding the building of shelters protecting a public utility's facilities apply, current law does not charge the PUC with siting duties nor does it expressly authorize the PUC to review and approve siting applications regarding the proposed siting of HVL pipelines before they are constructed or being repurposed from transporting petroleum or refined product to HVLs. *Flynn* at 24, affirmed, in part, and reversed, in part, by *Sunoco 2023*.

Additionally, we do not have authority to order restitution for tort and property damages. Further, the maximum fines that we are authorized to impose have been set by the General Assembly in Title 66.

d. Lora Snyder, Edgmont Township

Ms. Snyder lives near the Mariner East 2 pipeline. Ms. Snyder requests that the government create siting authority for pipelines and that CO₂ pipelines be regulated the same way as HVL pipelines.

Discussion and Disposition: As discussed above, we do not have general siting authority over HVL pipelines or over CO₂.

e. Uwchlan Township, In Chester County

Uwchlan Township supports the comments of Chester County, the Environmental Advocates, West Whiteland Township, and Senator Comitta and adds that the PUC should site petroleum products or hazardous liquid pipelines as it has the authority to do so pursuant to caselaw, citing *Riverkeeper 2018* at 693, and *Chester Cty. v. Philadelphia Elec. Co.*, 218 A.2d 331, 333 (Pa. 1966).

Discussion and Disposition: As discussed above, we do not currently have conferred upon us siting authority over intrastate hazardous liquid pipelines in Pennsylvania. While pipelines that cross state lines must be approved by the Federal Energy Regulatory Commission (FERC), intrastate pipelines in Pennsylvania only face DEP siting regulations when their routes cross a stream or wetland.

f. Connor Young

In his comments, Mr. Conner asserts that HVL pipelines should only be allowed where a public good can unequivocally be demonstrated. If no public good exists and the pipeline is purely for private profit, the hazardous liquid public utility should have to share some portion of profit with the affected community. Additionally, he supports the recommendations of Food and Water Watch, PennFuture, Clear Air Council, and “other experts” aligned with his comments.

Discussion and Disposition: We do not have authority to redistribute the wealth, profits, or income of hazardous liquid public utilities. Our obligation is to balance the needs of consumers and public utilities; to ensure safe and reliable public utility service at reasonable rates; to protect the public interest; to educate consumers to make independent and informed public utility choices; to further economic development; and to foster new technologies and competitive markets in an environmentally sound manner.

III. CONCLUSION

We thank all commenters for their comments and reply comments on this rulemaking proceeding. For the reasons stated above, we are issuing this Final Form Rulemaking Order, which will be served as noted in the Ordering Paragraphs. Thereafter, it will be delivered with a regulatory packet to the Legislative Committees and IRRC. If the matter proceeds further, it will be delivered with a regulatory packet to

the Office of Attorney General and the Governor's Office of the Budget. If it proceeds further after that, it will be delivered with a regulatory packet to the Legislative Reference Bureau for publication in the *Pennsylvania Bulletin*.

Accordingly, under sections 501 and 1501 of the Public Utility Code, 66 Pa.C.S. §§ 501 and 1501; Sections 201 and 202 of the Act of July 31, 1968, P.L. 769 No. 240, 45 P.S. §§ 1201-1202, and the regulations promulgated thereunder at 1 Pa. Code §§ 7.1, 7.2, and 7.5; section 204(b) of the Commonwealth Attorneys Act, 71 P.S. § 732.204(b); section 745.5 of the Regulatory Review Act, 71 P.S. § 745.5; and § 612 of the Administrative Code of 1929, 71 P.S. § 232, and the regulations promulgated thereunder at 4 Pa. Code §§ 7.231-7.234, we have adopted the final-form regulations set forth in Annex A attached hereto. The final-form regulations will become effective 60 days after the date of publication in the *Pennsylvania Bulletin*; **THEREFORE,**

IT IS ORDERED:

1. That the Secretary is directed to serve this Final Form Rulemaking Order (Preamble and Annex A) upon all jurisdictional hazardous liquid public utilities; the Office of Consumer Advocate; the Office of Small Business Advocate; the Public Utility Commission's Bureau of Investigation and Enforcement; and all persons who have filed comments or reply comments at this docket.

2. That the Law Bureau and the Bureau of Communications are directed to coordinate the posting of this Final Form Rulemaking Order (Preamble and Annex A) on the Pennsylvania Public Utility Commission's website, www.pa.puc.gov, at the web page for *Pipeline Safety*.

3. That the Law Bureau is directed to deliver this Final Form Rulemaking Order (Preamble Annex A), with the regulatory packet, to:

a. The Majority and Minority Chairs of the Senate Committee on Consumer Protection and Professional Licensure and the House Consumer Protection, Technology and Utilities Committee.

b. The Independent Regulatory Review Commission, with confirmations of receipt from the Legislative Committees.

4. That the contact persons for the rulemaking are Kriss Brown, Deputy Chief Counsel, Law Bureau, kribrown@pa.gov; Elizabeth Barnes, Deputy Chief Counsel, Law Bureau, ebarnes@pa.gov; and Karen Thorne, Regulatory Review Assistant, Law Bureau, kathorne@pa.gov.

BY THE COMMISSION,



Rosemary Chiavetta
Secretary

(SEAL)

ORDER ADOPTED: February 22, 2024

ORDER ENTERED: February 22, 2024