PENNSYLVANIA TRANSPORTATION COMMITTEE
"THE DELAY IN DELIVERY OF TRANSPORTATION PROJECTS" HEARING
TESTIMONY OF BENJAMIN C. DUNLAP, JR., ESQUIRE,
NAUMAN, SMITH, SHISSLER & HALL, LLP
ON BEHALF OF THE
KEYSTONE STATE RAILROAD ASSOCIATION
FEBRUARY 2, 2016

PROPOSED STATUTORY AMENDMENT FOR "QUICK TAKE" CONDEMNATION PROCEDURAL ISSUE

Background:

Section 1511(g)(2) of the Business Corporation Law ("BCL"), as codified at 15 Pa.C.S. §1511(g)(2), contains an alternative to the otherwise exclusive condemnation procedures found in the Pennsylvania Eminent Domain Code. The alternative procedure pertains to the condemnation by public utility corporations having the power of eminent domain of rights-of-way and easements "for occupations by electric, underground telephone or telegraph, gas, oil, or petroleum products lines used directly or indirectly in furnishing service to the public." Id. Section 1511(g)(2) sets forth a procedure for specified public utilities to exercise what is commonly referred to as a "quick-take" condemnation, which permits the condemnor to obtain a possessory interest prior to the litigation of the condemnee's defenses upon court approval of the filing of a condemnation bond.

Public utility companies have recently used quick-take proceedings in a number of states to acquire easements for the construction of utility pipelines underneath active railroad rights-of-way. Some of the public utility companies have used quick-take procedures to circumvent railroad industry practices which were implemented to protect public safety and railroad operational concerns. There is no effective means in quick-take condemnation proceedings by which the rail industry can challenge the taking prior to the construction of the pipeline. Thus,

courts lack authority in quick take condemnation proceedings to ensure that subsurface utility lines are constructed in a safe manner which does not interfere with active railroad operations and is consistent with standard railroad industry safety standards. The proposed amendment to Section 1511(g)(2) discussed herein will protect public safety and railroad operational concerns; and level the playing field between the natural gas, oil and rail industries.

Public Safety Concerns:

Some public utility companies have used quick-take condemnation procedures to circumvent railroad industry practices which were implemented to protect public safety, frequently pursuant to federal safety standards and regulations. For example, in a case involving a subsurface sewer line, the Utilities Board of the City of Sylacauga, Alabama ("Utilities Board") instituted quick-take condemnation proceedings in state court. The Eastern Alabama Railway, LLC ("EARY"), a Class III railroad, sought relief from the Surface Transportation Board ("STB") because the Utilities Board "acted without the consent of EARY, without notification to EARY, without complying with rail or utility standards accepted and common in the industry, without complying with EARY's operational and engineering standards, without complying with federal regulations (*e.g.* 49 C.F.R. §214 et seq. ("Railroad Workplace Safety Rules")), or without agreement with EARY. Eastern Alabama Railway LLC Opening Statement.[1] EARY set forth nine specific instances of Utility Board actions that endangered public safety including incidents where: (a) contractors fouled EARY's track to mark the rail without EARY's knowledge or consent, (b) contractors strung a line over EARY's track without EARY's knowledge or consent that was later struck by a maintenance-of-way contractor, and (c) a subgrade water pipe burst and EARY was forced to cease operations until the Utilities Board was able to locate a water cut-off

[1] Dated February 8, 2012, Eastern Alabama Railway LLC -- Petition for Declaratory Order, STB Finance Docket No. 35583, available at: http://www.stb.dot.gov/filings/all.nsf/WEBUNID/96B95561B73F9A228525799E007B4523?OpenDocument.

valve which had been covered in violation of engineering standards. See Opening Statement pp. 6-9.

The R.J. Corman Railroad Group submitted comments during the EARY proceedings to notify the STB that it had experienced similar public safety concerns:

> R.J. Corman has several pending or threatened situations where a utility or agency has condemned a broadly-stated easement for a utility crossing, and then balked at any restrictive language that routinely accompanies a license agreement for entry on a railroad right-of-way. Those conditions, for example, include advance notice of the utilities' intent to enter railroad property, a requirement that utilities either use only existing crossings when moving equipment across the rail line or construct a temporary crossing for that purpose. The absence of the latter requirement can be particularly dangerous, as heavy equipment moved over track without proper lateral support can leave the track out of gauge and subject to derailments.

Comments of R.J. Corman Railroad Group.[2]

There have been several instances in Pennsylvania where natural gas companies have used the quick-take procedure under Section 1511(g) of the BCL to likewise circumvent legitimate public safety concerns. In Carbon County, a gas company took steps at one point to begin boring beneath an active railroad right-of-way of the Reading Blue Mountain & Northern Railroad in blatant disregard of the railroad's requirement to arrange and provide for flagmen and safety inspectors. In Bradford County, a gas company bore a hole for a natural gas pipeline beneath an active railroad right-of-way of Norfolk Southern without notification to or knowledge of the railroad.

The federal courts have recognized the inherent danger presented by the unchecked use of condemnation proceedings. In condemnation proceedings instituted by a natural gas utility, Texas Eastern Transmission, LP, to construct a 30-inch natural gas pipeline underneath the

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[2] Dated February 21, 2012, as submitted to the STB in Eastern Alabama Railway LLC -- Petition for Declaratory Order, STB Finance Docket No. 35583, available at http://www.stb.dot.gov/filings/all.nsf/WEBUNID/29C27132C766BDE4852579AB0073D54C?OpenDocument.

active railroad right-of-way of Consolidated Rail Corporation ("Conrail") in New Jersey and New York, the United States District Court for the District of New Jersey found that the natural gas utility could not use its federal condemnation power as an excuse to ignore valid safety concerns, and required the utility to comply with the railroad's standard safety specifications and regulations. See Texas Eastern Transmission, LP v. 0.02 Acres of Land, Civil Action No. 12-03671-SRC-MAS (D.C.N.J. June 28, 2012) (Order for Preliminary Injunction).

In light of the unsafe circumstances which have arisen in the cases outlined above, it is imperative that the legislature amend Section 1511(g)(2) of the BCL to ensure that public utilities cannot use quick-take condemnation proceedings to circumvent public safety concerns.

Operational Concerns:

Some public utility companies have avoided entering into agreements with railroads defining the terms of coexistence between active rail lines and subsurface utility pipelines; instead using quick-take procedures to impose their own terms.

Railroads have traditionally required public utilities and municipal entities seeking subsurface easements to sign standard license agreements which contain terms essential for the protection of railroad operations, including requirements to: (1) construct the pipeline to meet the minimum standards of the American Railway Engineering and Maintenance-of-Way Association ("AREMA"), (2) comply with federal regulatory standards for safety, (3) indemnify railroads from any losses or damages sustained by the railroad on account of the construction of the pipeline and related facilities, and (4) give the railroad the right to require the utility to relocate the subsurface easement at its cost where necessary to permit and accommodate changes of grade or alignment and improvements in or additions to railroad facilities. Regarding the bearing of costs, it is to be noted that these pipeline occupations generally provide no benefit to the

railroads, only risk.

There have been a number of recent instances where public utilities have refused to sign such license agreements. One example involved the Paducah & Louisville Railway, Inc. ("P&L") which advised the STB that a water utility was attempting to install a pipeline without signing P&L's standard license agreement:

> P&L and others have experienced problems with uncooperative public entities that have rejected legitimate railroad property interests and safety and operational concerns. ... P&L is having a similar experience with Louisville Water Company ("LWC") ... LWC is a public utility who is seeking to install a water line under P&L's rail line at a location where P&L holds the underlying land in fee but over which there is a rail crossing ... LWC has indicated that it is not required to obtain P&L's consent, and in fact does not need any form of permission to install its line, and that it is not obligated to enter into any form of license or other agreement with P&L. LWC goes as far to claim that it needs no eminent domain authority or any other authority to undertake the proposed project. In short, LWC intends to install the water line with or without P&L's permission or any form of state, local or regulatory authority. This raises serious questions over whether LWC ... has shown disregard for railroad property interests, rail safety, and concerns that the water line installation not unreasonably interfere with rail operations.

Comments of Paducah & Louisville Railway, Inc.[3] Other examples include the aforementioned cases involving the Reading Blue Mountain & Northern Railroad and Norfolk Southern. In the Norfolk Southern case, the natural gas utility not only refused to sign the standard license agreement, it also filed a broadly drafted easement description which would have interfered with Norfolk Southern's surface rights by preventing Norfolk Southern from constructing structures within the easement area and from crossing the easement area with equipment.

The use of Section 1511(g)(2) proceedings to avoid compliance with the standard license agreements described herein is contrary to law and detrimental to the public's interest in maintaining safe operations in the railroad industry.

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[3] Dated February 15, 2012, as submitted to the STB in Eastern Alabama Railway LLC -- Petition for Declaratory Order, STB Finance Docket No. 35583, available at http://www.stb.dot.gov/filings/all.nsf/WEBUNID/64D4B6F93BD843B9852579A5007863A4?OpenDocument.

Standard and Quick-Take Condemnation Procedures:

The primary difference between the quick-take procedures set forth in Section 1511(g) of the BCL and the standard condemnation procedures set forth in the Eminent Domain Code is that the right to possess the condemned property passes in a quick-take proceeding prior to the determination of any challenges that the condemnee may raise to the power of the condemnor to appropriate the property to be condemned or the procedures used to condemn.

In a standard condemnation proceeding instituted pursuant to the Eminent Domain Code, condemnation is effected by the filing of a declaration of taking with the required security. 26 Pa.C.S. §302(a)(1). Within 30 days after the filing of the declaration of taking, the condemnor must give written notice of the filing to the condemnee. 26 Pa. C.S. § 305(a). The condemnee may file preliminary objections to the declaration of taking within 30 days after being served with the notice of condemnation. 26 Pa.C.S. §306(a)(1). Preliminary objections are the exclusive method of challenging, among other things, the power or right of the condemnor to appropriate the condemned property and the procedures used by the condemnor to effectuate the taking. 26 Pa.C.S. §306(a)(3).

The condemnor, after the expiration of the time for filing preliminary objections by the condemnee to the declaration of taking, is entitled to possession or right of entry upon payment of or a written offer to pay to the condemnee the amount of just compensation as estimated by the condemnor. 26 Pa. C.S. §307(a)(1)(i). If a condemnee or any other person then refuses to deliver possession or permit right of entry, the prothonotary upon praecipe of the condemnor shall issue a rule to show cause why a writ of possession should not issue. 26 Pa. C.S. §307(a)(1)(iii). The court, unless preliminary objections warranting delay are pending, may issue a writ of possession conditioned upon payment to the condemnee or into court of the

estimated just compensation and on any other terms as the court may direct. 26 Pa. C.S. §307(a)(1)(iv).

In a quick-take condemnation proceeding instituted pursuant to Section 1511(g)(2) of the BCL, in the event the public utility cannot agree with the condemnee on the amount of damages sustained, the public utility may make a verified application to the appropriate court for an order directing the filing of a bond to the Commonwealth, in an amount and with security to be approved by the court, for the use of the person or persons who may be found to be entitled to the damages sustained. See Section 1511(g)(2)(i). Upon entry by the court of an order approving the bond and directing that it be filed, the title that the corporation acquires in the right-of-way or easement described in the resolution of condemnation passes to the corporation and the corporation is entitled to possession. See Section 1511(g)(2)(iii).

As set forth above, in a standard condemnation proceeding instituted pursuant to the Eminent Domain Code, a railroad may file preliminary objections if the utility refuses to sign a standard license agreement addressing the railroad's safety and operational concerns. This allows the Court to address public safety and operational concerns prior to the construction of the pipeline beneath the active railroad right-of-way. For instance, a railroad could raise preliminary objections that a condemnation as proposed would unreasonably interfere with railroad operations and thus be preempted by the Interstate Commerce Commission Termination Act, 49 U.S.C. § 10101 et seq. ("ICCTA"), unless the condemnor was required to comply with the railroad's safety and operational concerns. This would go to the power or right of the condemnor to appropriate the condemned property under 26 Pa.C.S. § 306(a)(3).

Preliminary objections are not available to challenge the scope of the quick-take condemnation proceedings instituted pursuant to Section 1511(g)(2). See the Amended

Committee Comment to Section 1511(g). Thus, railroads have no method to raise challenges to quick-take condemnation proceedings, and courts have no authority to ensure that subsurface utility easements are constructed in a safe manner in such a proceeding.

Instead, the railroad would be forced to bring a separate action in equity to challenge the validity or scope of the condemnation. See Amended Committee Comment to 15 Pa.C.S. § 1511(g). However, a court decision in a separate suit might not be made until after the utility has obtained possession of the easement and caused damages by not following standard safety and operational procedures. Instead, as the Comment to Section 306 of the Eminent Domain Code notes, "it is better to have these matters [which can be raised by preliminary objections] raised in the condemnation proceeding rather than in a separate suit." 1964 Comment to 26 Pa.C.S. § 306.

Proposed Amendatory Language:

§ 1511. Additional powers of certain public utility corporation, 15 Pa.C.S. § 1511.

(g) Procedure.—

(1) The act of June 22, 1964 (Sp.Sess., P.L. 84, No. 6) known as the Eminent Domain Code, shall be applicable to proceedings for the condemnation and taking of property conducted pursuant to this section.

(2) Notwithstanding paragraph (1), a corporation having the power of eminent domain that condemns for occupation by electric, underground telephone or telegraph, gas, oil or petroleum products lines used directly or indirectly in furnishing service to the public an interest (other than a fee) for right-of-way purposes or an easement for such purposes may elect to proceed as follows in lieu of the procedures specified in sections 402, 403, 405 and 406 of the Eminent Domain Code.

(i) If the corporation and any interested party cannot agree on the amount of damages sustained, or if any interested party is an unincorporated association, or is absent, unknown, not of full age or otherwise incompetent or unavailable to contract with the corporation, or in the case of disputed, doubtful or defective title, the corporation may make a verified application to the appropriate court for an order directing the filing of a bond to the Commonwealth, in an amount and with security to be approved by the court, for the use of the person or persons who may be

found to be entitled to the damages sustained. The application shall be accompanied by the bond and a certified copy of the resolution of condemnation. The resolution shall describe the nature and extent of the taking.

(ii) When this paragraph (2) is utilized to condemn a right-of-way or easement for underground occupations beneath operating railroad property, the corporation shall be obligated (a) to construct the underground line to meet the minimum standards of the American Railway Engineering and Maintenance-of-Way Association specifications then in place; (b) to construct the underground line to meet federal regulatory standards for safety and railroad operational standards; (c) to indemnify the railroad owner and operator for any costs or damages arising out of the construction or presence of the underground occupation, including the exacerbation of any condition of the railroad property; and (d) to bear the costs associated with any subsequent relocation of the underground line necessitated by railroad operations. The potential costs of such indemnification or relocation shall not be considered in the amount of any award of just compensation.

~~(ii)~~(iii) If the address of such interested party is known to the corporation, written notice of the filing of the application under subparagraph (i) shall be sent to such party by mail, or otherwise, at least ten days prior to the consideration thereof by the court. Otherwise the corporation shall officially publish such notice in the county or counties where the property is situated twice a week for two weeks prior to consideration by the court and shall give such supplemental or alternative notice as the court may direct.

~~(iii)~~(iv) Upon entry by the court of an order approving the bond and directing that it be filed, the title that the corporation acquires in the right-of-way or easement described in the resolution of condemnation shall pass to the corporation and the corporation shall be entitled to possession.

~~(iv)~~(v) The papers filed by the corporation with the court under this paragraph shall constitute the declaration of taking for the purposes of sections 404, 408 and 409 and Articles V through VIII of the Eminent Domain Code.

Reasons for the amendment:

There is a long history of cooperation between the rail and other public utility industries

regarding the intersection of active railroad rights-of-way and subsurface utility lines. More recently, however, with the explosion of new gas pipelines in particular arising out of the Marcellus Shale boom, some utility companies have refused to enter standard license agreements and instituted condemnation proceedings under Section 1511 (g)(2) instead. The use of quick-take condemnation proceedings to avoid legitimate safety and operational concerns is detrimental to public safety and contrary to law. The proposed legislative amendment to Section 1511(g)(2) would prevent the abuse of the privilege to use the quick-take procedure.

First, the proposed amendment will protect public safety. Ordinarily, a railroad will not permit a third party to perform work over, through, or under an active railroad right-of-way unless the third party agrees to comply with industry engineering standards and federal safety regulations. As demonstrated above, public utility companies have used quick take condemnation procedures to avoid entering into such agreements. The proposed amendment will ensure that public utility companies comply with these requirements and that subsurface utility occupations are constructed in a safe manner.

Second, the proposed amendment will protect railroad operational concerns. Public utilities, including natural gas companies, may not use state condemnation procedures, like the quick-take procedure under Section 1511(g) of the BCL, to condemn property necessary for rail transportation in a way that will unreasonably interfere with railroad operations. Courts have held that ICCTA can preempt the use of state eminent domain law to condemn railroad property.[4] Although the STB has found that routine, non-conflicting uses, such as non-exclusive

[4] See Union Pacific Railroad Company v. Chicago Transit Authority, 647 F.3d 675 (7th Cir. 2011); Wisconsin Central Ltd. v. City of Marshfield, 160 F.Supp.2d 1009 (W.D. Wis. 2000); Buffalo Southern R.R., Inc. v. Village of Croton-On-Hudson, 434 F.Supp.2d 241 (S.D.N.Y. 2006); Dakota, Minnesota & Eastern R.R. v. South Dakota, 236 F.Supp.2d 989 (D.S.D. 2002); Fort Bend County v. Burlington N. and Santa Fe R.R. Co., 237 S.W.3d 355, 358 (Tex.App.-Houston [14th Dist.] 2007). Pursuant to 49 U.S.C. § 10501(b), the Surface Transportation Board ("STB") has "exclusive" jurisdiction over: (1) transportation by rail carriers ... and (2) the construction, abandonment, or

easements for at-grade road crossings, wire crossings, sewer crossings, etc. may not be preempted, this is only true so long as they would not impede rail operations or pose undue safety risks.[5]

The proposed amendment will ensure that the construction and operation of subsurface utility lines will not unreasonably interfere with railroad operations. Underground lines will be installed in compliance with industry engineering and safety standards. Public utility companies will bear the costs of construction and be responsible to indemnify the railroad for damages caused by the operation of the utility line or the exacerbation of preexisting conditions. Finally, if the railroad is required to relocate or change the grade of the rail line, public utility companies will be required to relocate the utility line and bear the costs of relocation.

The amendment regarding the relocation of lines is consistent with Pennsylvania's common law. Railroads maintain a unique status under Pennsylvania law. A railroad line, although privately owned, "as soon as acquired is impressed with a public use; it constitutes a public highway." Conwell v. Philadelphia & R. Ry. Co., 241 Pa. 172, 174 (1913), quoting, Delaware, Lackawanna & Western Railroad Co. v. Tobyhanna Co., 228 Pa. 487, 492 (1910). Various legal incidents attach to this public trust, including that a party cannot adversely possess against an active a rail line. Id.

The common law rule applicable to the location of non-transportation public utilities in

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discontinuance of spur, industrial, team, switching, or side tracks, or facilities, even if the tracks are located or intended to be located, entirely within one state ..." The STB has recognized that "using state eminent domain law to condemn railroad property or facilities that are necessary for railroad transportation" constitutes a form of regulation that Section 10501(b) will not permit. City of Lincoln-Petition for Declaratory Order, Fed. Carr. Cas. (CCH) ¶ 37154, 2004 WL 1802302 at *2 (S.T.B. Aug. 11, 2004) petition for review denied by City of Lincoln v. Surface Transp. Bd., 414 F. 3d 858 (8th Cir. 2005). This preemption is broad enough to preclude all state and local regulation that would prevent or unreasonably interfere with railroad operations. Norfolk S. Ry. Co. & the Alabama Great S. R.R. Co. Petition for Declaratory Order, STB FINANCE 35196, 2010 WL 691256 at *2 (S.T.B. Feb. 26, 2010) (collecting cases).

[5] Maumuee & Western Railroad Corporation and RMW Ventures, LLC-Petition for Declaratory Order, 2004 WL 395835, *1-2 (S.T.B. March 2, 2004).

highway rights-of-way is that such utilities "obtain no property rights in the highway and can be ordered by a competent state or municipal agency to relocate their facilities at their cost." Delaware River Port Authority v. Pa. Public Utility Comm'n, 393 Pa. 639, 645, 145 A.2d 172, 175 (1958). The basis for this rule is that "since these utilities occupy the highways free of cost, they should not be entitled to compensation if they are forced to relocate their facilities because of highway improvements." Id., 393 Pa. at 646, 145 A.2d at 175. This common law rule does not apply to public rail-highway crossings, however, which are under the exclusive jurisdiction of the PUC, which has authority to allocate relocation costs upon a "just and reasonable" basis. PECO Energy Co. v. Pa. Public Utility Comm'n, 568 Pa. 39, 791 A.2d 1155 (2002).

Public utilities may assert that the common law rule applicable to the location of non-transportation utilities in highway rights-of-way is not applicable here because the public utility company will acquire title to the easement or right-of-way for its pipeline in a quick-take proceeding (See 15 Pa.C.S. § 1511(g)(2)(iii)) and the utility's occupation under the rail line is not without cost, as the company must pay just compensation to the railroad. Even if this common law rule is not applicable, it does not follow that the utility would not be required to move its easement to accommodate changes necessitated by railroad operations. In the absence of a contract which provides otherwise, an easement may be relocated under Pennsylvania law where the resulting easement is as safe as the original location, the relocation results in a relatively minor change and the reasons for moving the easement are substantial. Soderberg v. Weisel, 455 Pa. Super. 158, 164, 687 A.2d 839, 842 (1997). While a railroad most likely could force the owner of a pipeline easement acquired through condemnation to relocate its line if later necessary for railroad operational purposes, the cost of the relocation is another matter. Under standard easement principles, the cost of relocation could be allocated to the railroad, which is

fundamentally unfair in these situations. Lukens v UGI Corp., 461 Pa. 465, 336 A.2d 880 (1975); Minard Run Oil Co. v. Pennzoil, 419 Pa. 334, 214 A.2d 234 (1965); Soderberg, 455 Pa.Super. at 170-171, 687 A.2d at 845-846.

The third and final reason for the proposed amendment is fundamental fairness. Railroads have traditionally obtained protection for their present and future operations and liability indemnification for pipeline occupations under their tracks through standard agreements. A number of public utilities, particularly natural gas companies, have recently sought to avoid those protections by resorting to the quick take condemnation procedures under 15 Pa.C.S. § 1511(g). The costs and risks of these occupations should not be shifted from the public utility to the railroad, which is another public utility under Pennsylvania law.

The railroad's proposal is in the public interest and comports with principles of equity. In order to take advantage of the streamlined procedures under the quick take provisions of § 1511(g), public utilities exercising that option would be required to provide the basic liability and operational protections that the railroads have traditionally obtained by agreement.

What is proposed in the amended statutory language is to make the utility company obligated to indemnify the railroad owner and operator for any damages that may be caused directly or indirectly by the underground occupation or costs associated with any subsequent relocation of the underground line necessitated by railroad operations. It would provide that the potential costs of such indemnification shall not be considered in the amount of any subsequent award of just compensation to the railroad.

While this amendment might lead to lower awards of just compensation, in those cases where a railroad otherwise might be successful in arguing that these potential risks should be figured into the award, it would provide certainty in those circumstances of most concern to

railroads and the public. This course would also provide more certainty for utility companies, which would be relieved of the possibility of paying for these potential risks as part of the just compensation award and would only have to pay if the underground line does cause damage or needs to be relocated. The language that such companies will pay for relocation only when "necessitated by railroad operations" provides a level of legal protection for utility companies, in addition to the practical matter that railroads do not relocate their tracks without good reason.

Written Testimony of Middletown Coalition for Community Safety
Before the House and Senate Veterans Affairs and Emergency Preparedness Committees
16 November 2016

On Friday April 29th, 2016 at around 8:13 am, something horrible occurred in Salem, PA. Workers at the Delmont Compressor station heard a massive explosion, and determined that one of their nearby Spectra Energy Texas Eastern Natural Gas transmission pipelines had been breached and exploded. They began the shutdown process on the line, and reported the explosion to the National Response Center about an hour later.

The plume of gas and resulting smoke from the fire was so large it showed up as a false weather front 40 miles long during the weather segment of the news.

The explosion and resulting fire devastated the community. It left a hole 1,500 feet in diameter, and 40 acres of land were burned. Here is a chopper view of the blast site at Gilli's Lane and Route 819 in Salem Township, PA. The road was closed for days afterwards.

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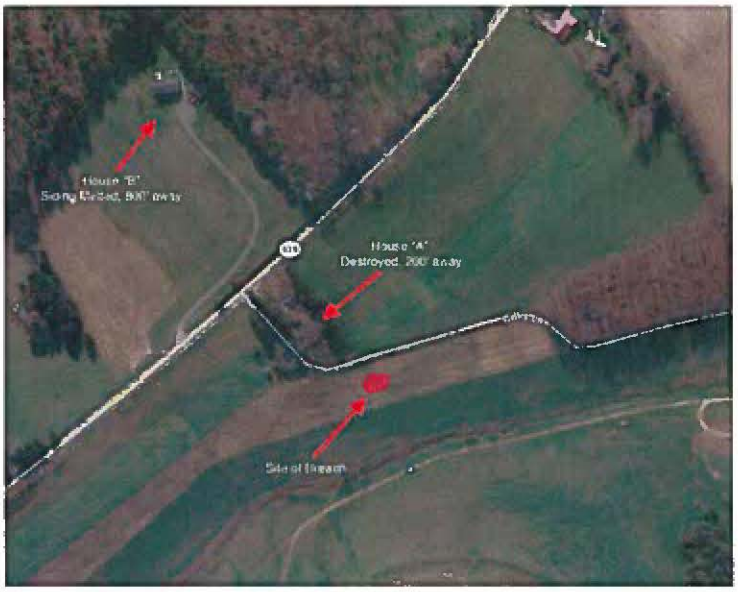
Here's what the site used to look like, courtesy of Google Earth:



The approximate site of the breach is marked near the bottom-middle of the picture in red.

"House A", 200' from the breach, was completely destroyed and razed to the ground, along with all the trees surrounding it.

This is house "A" after the breach.
KEITH SRAKOCIC / AP

House "B" was 800' away from the breach. It was so hot that the vinyl siding melted from the garage.
KEITH SRAKOCIC / AP

A 26 year old man was admitted to the hospital with 3rd degree burns over 75% of his body. Trees and telephone poles located thousands of feet from the explosion were charred and smoking for hours after the incident occurred. KEITH SRAKOCIC / AP

As with many blasts, the blast zone and heat focus was asymmetrical due to the terrain and the exact nature of the blast. In this case, the pipeline was in a bit of a valley. Geography and prevailing winds pushed the heat towards House A and House B.

The Pipeline Hazardous Materials Safety Administration (PHMSA), the federal agency charged with regulating gas pipelines, performed a preliminary inspection and determined that it had "identified evidence of corrosion along two of the circumferential welds: one at the point of failure and another excavated after PHMSA's response to the Failure Site. The pattern of corrosion indicates a possible flaw in the coating material applied to girth weld joints following construction welding procedures in the field at that time". In fact, the pipeline company, in this case Spectra, later admitted that a routine inspection in 2012 showed a 30% decrease in the thickness of the pipeline wall precisely in the location where the pipeline blew.

This story is a tragedy for the young man who was severely injured, his family, and his community. The silver lining, if there is one, is that the explosion took place in a sparsely populated rural setting, and only one person was harmed. Imagine the devastation of an explosion of this magnitude, or worse, occurred in a densely populated community, or next to a school.

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Expanding Pipeline Infrastructure in Pennsylvania

The primary function of government is to reasonably provide for public safety. With regard to oil and gas infrastructure, our State and Federal governments use a complex regulatory framework to ensure public safety. These regulations are particularly important with regard to pipelines that transport materials over many thousands of miles, and in close proximity to residents, schools, hospitals, and other vulnerable sites. As the existing infrastructure expands, and new pipelines are planned for densely populated communities, it is imperative to determine if such pipelines are properly classified within the existing regulatory framework, or whether additional regulations are required to ensure public safety. An examination of existing emergency preparedness plans and capabilities is also necessary to determine whether additional resources are needed to address new and emerging technologies, or if a project must be re-engineered, rerouted, or re-planned in order to provide reasonable assurances to public health and safety.

In the Commonwealth of Pennsylvania, the number of proposed new pipelines stemming from Marcellus Shale is extensive. For the purposes of highlighting the potential risk to public safety, this testimony will focus on one such project, the Mariner East set of pipelines, comprised of currently operating Mariner East 1 (ME1) and the proposed Mariner East 2 (ME2). These high pressure Highly Volatile Liquids pipelines transport ethane, butane, and propane at up to 1,440 pounds of pressure per square inch (PSI) 350 miles, across 17 counties in the state, from the Marcellus Shale Formation in western Pennsylvania to Delaware County's Marcus Hook Industrial Complex for processing and transport overseas. The project includes 11.4 miles of pipeline running through densely populated Delaware County. Mariner East 2 will include an initial 20-inch diameter pipeline with ability to deliver approximately 275,000 barrels per day but could ramp up to 450,000 barrels, according to Sunoco. An optional secondary 16-inch pipeline could also deliver an additional 250,000 barrels per day. This is in addition to the existing Mariner East 1 pipeline that currently transports 70,000 barrels.

A simple framework for examining risk is likelihood and severity. If the likelihood of an incident is high, but the severity of impact low, risk to public health and safety is often determined to be acceptable. Similarly, even if the severity of the impact is deemed high or catastrophic, if likelihood of an incident is very low, we often determine it to also be an acceptable level of risk. It is when both likelihood and impact are high, that we must take pause as a community, or regulatory body, legislative body, and determine what measures are needed to mitigate the risk. In the case of Mariner East 2, and other high pressure Highly Volatile Liquids lines, the likelihood and severity for a catastrophic event are both high, yet the pipeline is not being regulated as such. This is in part due to a gap in regulatory framework that has allowed this particular type of pipeline to be treated as a liquids line, rather than Natural Gas, thereby bypassing some of the regulatory processes that would mitigate risk to public safety. This is further complicated by the fact that appropriate emergency preparedness plans are not in place.

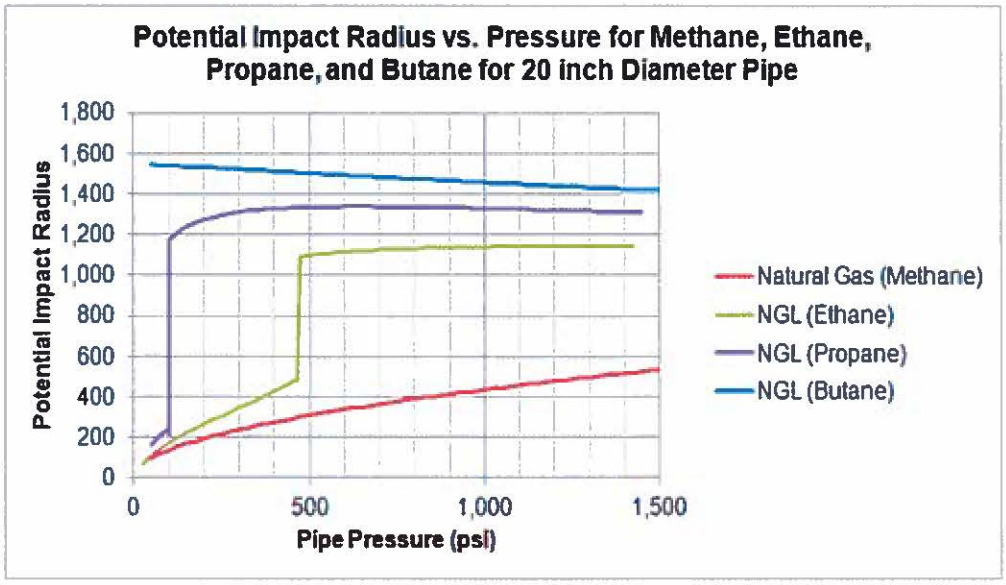
In order to make reasonable assurances for the preservation of public safety, Mariner East 2, and other "Natural Gas Liquids" lines must be properly classified at the federal and state level, with appropriate siting, independent 3rd party risk assessment and impact studies, and credible plans for emergency notification and evacuation at the planning stages of the pipeline.

Assessing Risk

The extent to which a pipeline leak represents a risk to public safety depends on a number of factors: materials contained within, pressure and diameter of the pipe, location in rural vs. densely populated areas, topography, wind direction, ignition sources, and many other factors. But the simplest way to assess risk is to analyze the combination of likelihood and severity.

In the case of the proposed Mariner East 2, the severity of a leak has the potential for catastrophic consequences, particularly in densely populated Delaware County. The materials contained within the pipe are liquid only in the artificial environment of the pipe, due to extremely high pressure. If a leak occurs, the materials would escape the pipe in a gaseous state, odorless, invisible, asphyxiating, and highly combustible. Unlike methane, which is lighter than air and dissipates up into the atmosphere, "Natural Gas Liquids" such as ethane are heavier than air, hang low to the ground, and move according to topography and wind, pooling in low lying areas, thus making evacuation impossible for those closest. They are so explosive that something as mundane as a cell phone or garage door could create the spark igniting a fire wall.

A resulting explosion at the site of the pipe would have an approximately 1100 – 1500 foot blast zone, with thermal impacts (including damage to building and severe burns) up to a distance double in size. This, of course, is assuming immediate ignition at the source of a leak. A much larger impact area could result from the gas traveling before finding an ignition source, in which case the explosion would extend from the point of ignition back to the source of the leak. PHMSA provides a means of calculating Potential Impact Radius (PIR) based on pipe diameter and operating pressure, a useful tool for comparing severity for different types of pipelines. The equation is provided for methane, but can readily be adapted for ethane, propane, and butane by adjusting for each Natural Gas product's density relative to methane under the same pressure. The chart shows PIR in feet as a function of pressure for a 20 inch diameter pipe, the same size as Mariner East 2.



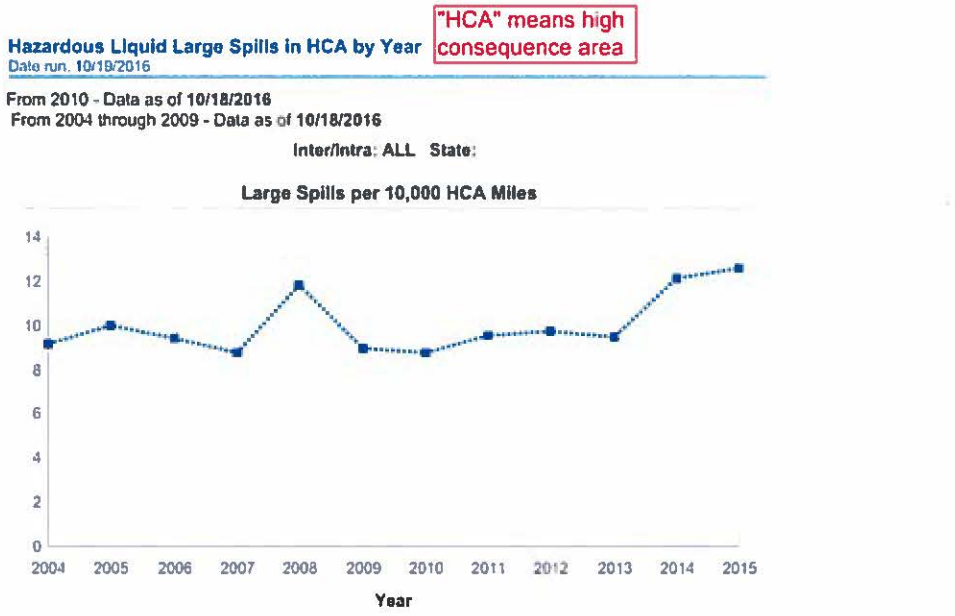
The severity of an impact is further compounded by the placement of such a pipeline in a "high consequence area," such as Delaware County, Pennsylvania, where the population density is 3,000 residents per square mile. The Texas Eastern pipeline that exploded in Westmoreland County (referenced earlier in this document) is located mainly along rural, Class 1 and 2 areas. However, Mariner East 2 route is proposed to run through much higher risk Class 3 and 4 areas including neighborhoods, schools, hospitals, and other highly sensitive areas. Compare this to the Salem blast where only two residences were impacted, keeping in mind that a house 200 feet away was leveled by a considerably lower energy pipeline than ME2.

Here's the Glenwood Elementary School on Route 452 in Middletown Township. The Mariner East 2 will run just 625 feet from the playground, and just 800 feet from the closest part of the building, which houses the kindergarten and first grade classrooms.

Here is the pipeline construction as it runs through Glen Riddle Apartments. As you can see the pipeline runs right through the complex, less than 25 feet from some of the buildings.

In this picture, the pipeline is seen as it runs 631 feet from Lima Senior Living Estates, and adjacent to the Wawa on Baltimore Pike. It also runs *just 9 feet* from the Pennsylvania State Police barracks. Imagine a situation where first responders are unable to answer an emergency call because they are located within the blast zone. It is a ludicrous, and yet entirely plausible scenario.

It is clear that a leak or explosion along Mariner East 2, or other NGL pipeline situated in a high consequence area could have catastrophic severity. The question then becomes what is the likelihood? The answer is too high. Large hazardous liquids leaks are actually steadily increasing, reaching their highest level in 2015 (the last year for which we have records).



Sunoco Logistics, the operator of the proposed Mariner East 2 pipeline has a particularly poor record, with over 270 leaks over the past ten years.

Data for 2006-2016 (source: PHMSA web site):

SUNOCO PIPELINE L.P. All Incidents, All Pipeline Systems: 2006-2016			
Year	Number	Property Damage	Gross Barrels Spilled (Hazardous Liquids)
2006	28	$957,179	1,423
2007	25	$4,462,834	2,696
2008	23	$2,274,784	577
2009	23	$2,282,837	5,041
2010	26	$1,571,302	324
2011	21	$1,789,272	1,537
2012	25	$19,734,998	2,142
2013	36	$8,165,845	1,863
2014	19	$1,270,649	505
2015	31	$4,452,222	1,346
2016 (YTD)	14	$610,514	287
Totals	**271**	**$47,572,436**	**17,747 (745,374 gallons)**

Leaks have occurred in Aston Township, Pennsylvania twice in the past 6 months alone.

Emergency Preparedness

Given the combination of both high likelihood and high severity, it is essential to examine existing emergency preparedness plans and determine if additional plans and resources are required. Current first responder training, as provided by pipeline operators, consists of avoiding the impacted area and establishing a perimeter, thereby accepting casualties within. The industry's plan for the public in the event of a known or suspected leak includes: do not operate a cell phone, a doorbell, or a vehicle; to evacuate, on foot and upwind, to a distance of at least one-half mile. This generic plan is severely incomplete and implausible for many residential, institutional and commercial properties within the potential impact zone in heavily populated areas. It fails to identify the conditions that warrant an evacuation, the extent of the area to be evacuated, or which if any procedures for carrying out the evacuation would actually contribute to the severity of any accident. The public is left without credible area specific disaster response plans.

This is particular problematic and disturbing when we consider the proximity of the proposed pipeline to schools, and how many schools up and down the pipeline route lie within a potential blast zone or evacuation zone. In Rose Tree Media School District, Delaware County the entire Glenwood Elementary school building is within a blast zone, and three additional schools are within an evacuation. In neighboring Penn-Delco School District, Northley Middle School lies within an impact zone, and all 5 other schools are within an evacuation zone. In Chester County, 12 schools are located within close enough proximity to Mariner East 1 and 2, that a toxic and asphyxiating gas cloud would reach the school within 10 minutes. Saint Peter and Paul School is just 100 feet from the pipeline.

Our communities and our schools are in dire need of credible notification and evacuation plans in order to preserve the life and health of our students and our residents. This is why the Rose Tree Media School Board and so many municipalities (Thornbury, Middletown, Media,

Westtown, Swarthmore and others) have passed Resolutions declaring their grave concern regarding the existing ME1 and proposed ME2 lines. As it stands thousands of school children, residents, and other highly sensitive groups are sitting ducks

Regulatory Issues

The lack of attention to public safety with regard to pipeline siting, and the absence of credible emergency response plans prior to construction, is in large part due to regulatory issues and the misclassification of certain pipelines. There are several different types of pipelines. Natural Gas pipeline typically refers to methane gas, which we use for home heating and cooking. Liquids pipelines refer to liquid gasoline or petroleum products, which liquid within the pipe and spill as a liquid in the event of a leak. "Natural Gas Liquids" or NGL is an industry term that describes gas products such as ethane, propane, and butane that are artificially condensed to a liquid within the pipeline, despite the fact that they are naturally gaseous, and revert to a gaseous state if leaked. In the condensed state within the pipeline, these NGL or "Highly Volatile Liquids" materials contain about 500 times the energy density per unit volume as the methane Natural Gas, and are therefore much more combustible than stable petroleum liquids such as crude oil or gasoline. By making NGLs and stable liquids pipelines interchangeable within the regulatory framework, the public's safety is put at unacceptable risk.

Due to this misclassification, NGL pipelines are not regulated at the federal level the way gas pipelines are; rather they are regulated at the state level similar to a true liquids line. This is exceedingly problematic and creates gaps in the existing regulatory framework. For example, no regulatory body in Pennsylvania is currently exercising siting authority around NGL pipelines. An operator can place a pipeline wherever it is possible to gain easements or rights of way. There is no regard for the distance from the pipeline to residential homes, schools, hospitals, or any other sensitive site. The only state regulatory body that has any siting authority over an NGL pipeline is the Pennsylvania Department of Environmental Protection (PA-DEP), which can enforce siting around water crossings and wetlands, but not with regard to public safety. Rather than identify alternative routes that would minimize impact to public safety, pipeline operators will simply reuse an existing rights-of-way, which may have an appropriate setback for an oil pipeline, but not an NGL.

Further, Natural Gas pipeline regulations require increased pipe wall thickness in high consequence areas. This makes the pipe less susceptible to corrosion-induced rupture. No location-specific wall thickness requirements are in place for Natural Gas Liquids. In fact, Sunoco has disclosed that they propose to use a wall thickness of .380 inches on Mariner East 2. As a result, the Mariner East 2 pipeline will be traversing through densely populated Class 3 and 4 areas with 16% and 50%, respectively, less wall thickness than it would have were it carrying the less energy-dense methane Natural Gas product. The table below shows how the Mariner East 1 and 2 NGL pipe wall thickness would be required to change if they were treated as a Natural Gas under Part 192 depending on its proximity to populated locations:

	Mariner East 2	Mariner East 1
Fluid within Pipeline	Ethane	Ethane
Diameter (in)	20	8
Pressure (MAOP) (psi)	1,440	1,500
Pipe Material	API5L X65	80+ year old Carbon Steel
Material Yield Strength (psi)	65,000	40,000
Required Wall Thickness (in) per 192.111 for Class Locations per 192.5		
Note: No Class-Specific Design Requirements are Enforced for NGLs in Title 49, part 195		
Class 1 (10 or fewer buildings)	0.308	0.208
Class 2 (>10 but <46 buildings)	0.369	0.250
Class 3 (>46 buildings OR <100 yards from small, well-defined outside area with >20 people 5 days/week)	0.443	0.300
Class 4 (<220 yards from 4-story buildings)	**0.554**	**0.375**

Finally, Natural Gas pipelines are required to contain odorant, and NGLs are not. In the event of a gas leak, odorant allows for detection by the endangered public. NGL pipelines also leak in a dangerous gaseous state, yet provide no sensory means of public detection. It is interesting to note that the Natural Gas Act was established in 1938 as the result of a horrific pipeline failure in 1937. Odorless methane Natural Gas leaked into the basement of a Texas school and ignited. resulting in the deaths of 298 students, grades 5-11. It took the federal government another 33 years after this unimaginable tragedy to adopt further safety regulations requiring the addition of an odorant to Natural Gas, preventing many further tragedies from occurring. And yet now, in the absence of proper regulation, we are faced with a pipeline operator siting an NGL pipeline, more dangerous than Natural Gas, capable of leaking odorless, asphyxiating, and explosive gas within close proximity to upwards of 30 schools across the state. And the question remains: will we maintain a culture of responding to the last accident rather than preventing the next one? How long will we allow a gap in the regulatory scheme to needlessly expose the public to risk?

What Is Needed at the State Level

The discovery of Natural Gas deposits in Pennsylvania has led to a rapid expansion of infrastructure, particularly for gas and NGL pipelines. We can all agree that our country's energy infrastructure is critical. However, energy infrastructure is a strategic entity that requires planning. It must been organized and laid out in such a way as to maximize public benefit and maintain public safety.

As such, it is essential to consider additional steps our state should take to ensure the safety of Pennsylvanians. There is an opportunity within the legislation in the General Assembly to recognize the significant risk posed to public safety with regard to high pressure gas and Natural Gas Liquids lines, and to mitigate those risks through a proper regulatory framework.

Specifically, legislation is needed that would allow state agencies to properly classify Natural Gas Liquids pipelines as gas lines, and to exercise siting authority with respect to public safety. Independent third party risk assessment and impact studies must be required to determine probable blast zones, thermal impact zones, and evacuation zones before high pressure gas and Natural Gas Liquids pipelines are routed through densely populated high consequence areas. No one expects elected officials to be experts in pipeline safety. However, we do expect you to assemble an unbiased team to provide you with good information to allow for educated decision making.

Finally, credible area specific emergency preparedness and response plans are needed for all communities, and in particular for schools, hospitals, and other highly sensitive populations. Again, the worst-case scenario emergency must be developed by an independent third party with a comprehensive plan set in place that would properly inform residents of the possibility of such an event. Methods for alerting and evacuating the general public must be well established and understood by everyone living in the predetermined evacuation area.

Our State has already seen significant pipeline leaks and explosions in Unityville, Lycoming County, in Salem Township, Westmoreland County, in Jackson Township, Cambria County, and others. To date, we have avoided a mass casualty event, primarily due to siting in rural areas. If we continue to push forward high pressure gas and NGL pipelines in to densely populated high consequence areas, it is only a matter of time before a tragedy occurs. Our mission is to prevent that tragedy. We call upon our legislators to take meaningful and decisive action to ensure the safety of our children, our families, and our communities.