August 28, 2019

Via the PUC e-File System

Pennsylvania Public Utility Commission
Attn: Secretary Rosemary Chiavetta
400 North Street
Harrisburg, PA 17120

Re: Joint Comments on Docket No. L-2019-3010267

Dear Secretary Chiavetta:

Clean Air Council (the "Council") hereby submits the following comments on the Pennsylvania Public Utility Commission's ("PUC" or "Commission") Advance Notice of Proposed Rulemaking Order ("ANOPR") docketed at L-2019-3010267, concerning hazardous highly volatile liquid pipeline safety standards.

The Council is a non-profit environmental and health organization headquartered at 135 South 19th Street, Suite 300, Philadelphia, Pennsylvania 19103. For more than 50 years, the Council has fought to improve air quality and the environment across Pennsylvania. The Council has members throughout Pennsylvania who support its mission to protect everyone's right to a healthy environment.

The Council has taken an active role in PUC pipeline regulation since April 21, 2014, when it filed its Petition to Intervene in the consolidated dockets Nos. P-2014-2411941 *et seq.* for petitions of Sunoco Pipeline L.P. ("Sunoco") regarding pump stations for the Mariner East pipeline system. Currently, the Council is an intervenor in *Pennsylvania State Senator: Andrew E. Dinniman v. Sunoco Pipeline, L.P*, supporting Senator Dinniman in his request for a halt to the construction and operation of the Mariner East pipelines in his jurisdiction following a series of safety incidents. PUC Consolidated Docket Nos. P-2018-3001453 and C-2018-3001451. As an intervenor, the Council played a key role in developing the factual record at a successful emergency hearing before ALJ Barnes. The Council also provided extensive briefing in support of Senator Dinniman's request, offering nuanced context of issues of overlapping interest to the PUC and Pennsylvania Department of Environmental Protection related to Sunoco's water permits. Senator Dinniman's case was consolidated with *Andover Homeowners' Association, Inc., v. Sunoco Pipeline, L.P.*, PUC Docket No. C-2018-3003605, and Clean Air Council is an intervenor in that case as well.

The Council is joined in these comments by Citizens for Pennsylvania's Future ("PennFuture"), the Delaware Riverkeeper Network, Environmental Integrity Project, Mountain Watershed Association, and the FracTracker Alliance (collectively, "Commenters"). Rich Raiders, Esq. of Raiders Law PC, who holds a Master's of Science in Petroleum Engineering and worked for many years in the field, contributed very substantially to these comments.

Commenters request the Commission to act within its broad existing authority to enact regulations to maximize safety factors for Pennsylvania pipelines, their operators, customers, neighbors, and the general public, and to prioritize protections for natural environmental features such as crossed streams and waterbodies when doing so. PHMSA regulates certain aspects of pipeline operation. *See* 49 CFR Parts 190, 192, 195. These regulations specifically require certain construction and operating parameters to be documented by pipeline operators. For natural gas pipelines regulated by the Federal Energy Regulatory Commission (FERC), PHMSA 49 CFR Part 192 regulations apply. For liquids lines not regulated by FERC, 49 CFR Part 195 regulations apply. However, the Commission has separate authority to regulate these pipelines, not only incorporating PHMSA regulations by reference, but by regulating separately when necessary. *See* 66 Pa.C.S. §§ 501(b) (general rulemaking authority, 313 (authority to enter into federal or state compacts), 314 (investigate federal service). As the recent spate of pipeline incidents has made clear, it is necessary for the Commission to take regulatory action now to protect the public.

The most important proposal in these comments is that the Commission implement a pre-action review and approval process—a permitting process—for new and expanding pipeline projects. Such a process would require upfront certification of compliance with PUC regulations and sworn representations about plans for projects, as well as allowing for public notice and participation.

With the benefit of expert input, Commenters also address every subject the Commission raised in the ANOPR. Comments on the identified subject areas correspond to the lettering and numbering the Commission used in the ANOPR. In addition, as the ANOPR provides that the topics listed therein are to "be used as starting points" and do not "limit the scope of the comments," Commenters also address other areas where Commission regulation would be in the public interest. The time is ripe for a review and overhaul of a framework that was designed for the needs of past generations. The needs of the present and future call for more protections for the public and for Pennsylvania's environment, including our ever-more-stressed streams and natural lands. Commenters appreciate this opportunity to help shape the Commission's critical role in these efforts.

A. Construction

The Commission should enact a permitting process for pipelines

Commenters join other organizations, community leaders, and members of the public in a call for the Commission to require a permitting process before pipeline companies undertake major projects to build new pipelines, expand their pipeline systems, or change their service, product, or direction of product transport. Pipeline regulations as they are currently implemented by the Commission rely heavily on pipeline companies' after-the-fact assurances of compliance. The Commission is often not provided key information regarding pipeline safety and risks to the public, the environment, and other resources until well after the project is in service, if that information is provided at all. Some aspects of projects, such as where they are sited, are not currently reviewed by the Commission at all. This all has undercut the Commission's ability to prevent problems before they arise. A more proactive approach, comparable to well-established permitting processes used by other agencies, would situate the Commission to better fulfill its

obligations to the public. This permitting process should apply to but not be limited to applications for certificates of public convenience (CPCs) and should include, among other things described below, (1) a determination of where the pipeline facilities should be located; (2) a demonstration by the applicant with sworn, written, public proof that the project will comply and continues to comply with PUC and Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations; and (3) public participation in the vein of ratemaking proceedings that includes hearings and comment opportunities. As the Commenters explain below, this is both vitally needed and also well within the Commission's existing authority.

Commenters understand that a permitting process would be a significant new undertaking for the Commission. The landscape for pipeline construction and operation has changed in recent years. With that change comes new opportunities and new complications. Pipeline construction has proliferated and its techniques have multiplied and grown more mechanized and impactful. At the same time, development of Pennsylvania's rural and natural lands has put more people in harm's way and made remaining natural resources scarcer and more precious. Pipeline expansion is no longer primarily designed to extend public utilities to isolated populations, but rather to exploit arbitrage and export opportunities. The balance of the equities has shifted. It is time now to put in place processes to scrutinize pipeline expansion plans more closely, with an eye to protection of vulnerable populations and resources.

The Commission has authority to implement a permitting process.

The Commission has substantial authority over all aspects of pipeline safety in Pennsylvania. 66 Pa. C.S. § 1501. Public utilities must provide "adequate, efficient, safe, and reasonable service and facilities." *Id.* Further, public utilities "shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public." *Id.* Acts that implicate "the reasonableness and safety of the pipeline transportation services or facilities," including siting and protecting public natural resources from pipeline infrastructure, are "matters committed to the expertise of the PUC by express statutory language. 66 Pa. C.S. § 1505." *Del. Riverkeeper Network v. Sunoco Pipeline L.P.*, 179 A.3d 670, 682 (Pa. Cmwlth. 2018). Siting of pipelines in particular is within PUC's powers, regardless of the fact that the Commission currently lacks regulations on pipeline siting. *PPL Elec. Util. Corp. v. City of Lancaster & PUC* ("*PPL v. Lancaster*"), Nos. 55 MAP 2017 and 57 MAP 2017, *slip op.* at 29 (Pa. Aug. 20, 2019) ("matters pertaining to the location of utility facilities lie within the ambit of the PUC's regulatory authority."). "In evaluating a request for a CPC, the PUC only considers whether the proposed service is 'necessary or proper for the service, accommodation, convenience or safety of the public.'" *Clean Air Council v. Sunoco Pipeline L.P.*, 185 A.3d 478, 487 (Pa. Cmwlth. 2018) (quoting 66 Pa. C.S. 1103(a)).

The Pennsylvania Commonwealth Court has clearly directed the Commission to take an expansive view of its statutory safety role, to regulate the pipeline industry in a manner that embraces the General Assembly's mandate that the Commission regulate pipeline safety as "necessary and proper" to protect all stakeholders. Governor Wolf has joined in this call,

charging the Commission with exercising greater control over the pipeline industry.[1] Just last week, the Pennsylvania Supreme Court reaffirmed that "the legislature vested tremendous regulatory discretion as well as oversight and enforcement authority in the PUC." *PPL v. Lancaster*, *slip op.* at 25. Commenters request herein that the Commission view its broad safety and protection mandate to require public utilities to provide truly safe and protective service, as emphasized by two of the three branches of state government.

The scope and process of permitting

A permitting process will create a formalized opportunity for the Commission to gather and review critical information regarding pipeline projects, to provide the public with transparency and a means of giving input, and for coordination between agencies and local governments. Many recommendations herein would, if adopted, require applicants for CPCs to file with their applications much more detailed plans, specifications, and analyses to demonstrate to the Commission why a project should be performed, what materials and systems should be utilized, how the pipeline operator implements best available technologies, processes, and procedures, and how the operator keeps systems, equipment, and processes current. While much of this information may not previously have been shared with the Commission, it is all information that any responsible pipeline company should have on hand its pipeline planning process regardless of the Commission's permitting. Thus, while Commenters, as detailed below, recommend broad Commission oversight in this permitting process, the process really is about accountability and verification, and would not be overly burdensome for a pipeline company that is already taking all necessary steps to protect the public. Commenters recommend the permitting process include the following elements.

First, applicants should be required to file with the Commission written proof that the project design complies with PUC and PHMSA regulations. This proof should be in files that are available for public inspection to the fullest extent possible while remaining sensitive to any valid confidentiality concerns. Providing assurance of compliance with these safety regulations after a project is already operational, as is currently happening, leaves the public vulnerable during a crucial gap of time during project construction, startup and initial operations. Similarly, the proof of compliance with PUC and PHMSA regulations should be sworn to under penalty of criminal liability by high-level officials at the applicant. *See* 18 Pa.C.S. § 4904. This added level of accountability is appropriate given the seriousness of the risks at hand and the nature of the materials being submitted. Relying on the pipeline company to self-report its own compliance status obviously creates a conflict of interests between the pipeline companies' desire to maximize profits and the publics' interest in safety. A sworn statement from the applicant increases the trustworthiness of the companies' statement absent verification of every detail of a proposed project by an independent expert. As explained further below, the decision-makers should understand that they are risking jail time if they lie to the Commission in their applications.

Commenters also ask the Commission to require through its regulatory authority that any

[1] *See* Office of the Governor, "Governor Wolf Issues Statement on DEP Pipeline Permit Bar," February 8, 2019, available at https://www.governor.pa.gov/newsroom/governor-wolf-issues-statement-dep-pipeline-permit-bar/.

pipeline operator wishing to expand or change any service or utilize lands not already encumbered by that pipeline (including but not limited to CPC applications) to declare, in advance:

- which lands the pipeline and accompanying infrastructure would encumber,
- how the operator seeks to obtain these rights,
- the estimated distance between any pipeline or pipeline facilities or assets and the population and community resources that could be relocated, harmed, removed, adjusted, or destroyed in the event of a catastrophic release from the proposed pipeline.

Consistent with statute, the Commission should then review the application to determine not only whether service is in the public convenience (for a CPC), but whether such expansion would be consistent with the provision of safe and reasonable service. The Commission should apply rigorously its statutory responsibility to only issue CPCs where it finds "that the granting of such certificate is necessary or proper for the service, accommodation, convenience, or safety of the public." 66 Pa.C.S. § 1103(a). Service is only *proper* where the applicant seeks to offer *reasonable* and *safe* service.

All such reviews should be referred to the Office of Administrative Law Judge for oversight, public participation, and hearing. The Commission should expressly recognize that authorization to engage in public utility service under the Public Utility Code and the corresponding power to condemn property under the Business Corporation Law implicates due process rights and considerations. *See* 15 Pa. C.S. § 1511(a); *In re Sunoco Pipeline (Martin)*, 143 A.3d 1000 (Pa. Cmwlth. 2015). Accordingly, the operator should be required to provide documented notice to each prospectively impacted landowner and water supply user, as well as each local government, fire company, county emergency management agency, and other critical stakeholder within a distance from the proposed or potentially modified pipeline where an impact may occur. Commenters elaborate below on the eminent domain implications of certification, and the need for the Commission to ensure that the certification process is more tightly controlled.

The Commission should integrate or coordinate as much of its activities with other interested stakeholders as possible. The Commission should identify all stakeholders in the public utility process, including municipalities, landowners, neighbors, governmental agencies, and other entities potentially impacted by the proposed project. The Commission, by joining with the Pennsylvania Department of Environmental Protection ("DEP") in the Horizontal Directional Drilling ("HDD") Technical Guidance Document ("TGD") workgroup, a project initiated by agreement between DEP and the Council and other groups, has some experience in broad-based regulatory processes which can allow a variety of stakeholders to inform the Commission. DEP is using this process to inform how it manages its erosion and sedimentation ("E&S") permitting processes for pipeline projects under 25 Pa. Code Chapter 102 and its water obstructions and wetlands permitting processes for pipeline projects under 25 Pa. Code Chapter 105. Commenters recommend a similar approach for several suggested Commission actions described more fully below.

The Commission should also identify public or private facilities potentially impacted by

the project, such as highways, parks, restaurants, schools, churches, and other locations where people gather. The Commission should require the applicant to identify the impact radius of each pipeline, surface facility, and other apparatus, and identify who the impacted communities may be within the potential impact zone.

Next, the Commission should require applicants to engage in a process with all potentially impacted municipalities, state agencies and other governmental entities to evaluate all potential interactions between each entity and the project. In its July 15, 2019 comment on the ANOPR docket, the Pennsylvania State Association of Township Supervisors (PSATS) also calls for greater integration and coordination among state and municipal agencies and officials. PSATS also seeks a review or approval process for advance notice to stakeholders of pipeline activities, which is consistent with and would benefit from a permitting process. In its August 19, 2019 comment, the County Commissioners Association of Pennsylvania likewise provides a number of considerations it urges the Commission to take into account in a siting process, which also lends itself best to a permitting framework.

Each municipality should have the opportunity to interact with the Commission to resolve any concerns about the proposed project, required local or agency permitting, environmental impact, public safety, and other concerns. Then, the applicant should be required to conduct a real and useful public awareness process where the public can learn the details of the project, raise their concerns, and be heard by the applicant and the Commission. Stakeholders such as residents on or near the project area should have the opportunity to intervene as of right and participate in the permitting process.

Then, the applicant should be required to show that the proposed project can be completed and operated in a safe, efficient, and environmentally protective manner. Such review should include real public awareness and public participation, where the operator documents in detail how it would protect the public in the event of a pipeline incident. The Commission should require the operator to document all reasonably known incidents and how the public, first responders, the operator, and the public should respond to such incidents in the future. The Commission should reject any project where the applicant cannot provide a meaningful, specific, and fully implementable safety plan that provides public participation without imposing excess risk upon unwary neighbors, visitors, and others.

As part of making a safety demonstration, the operator should be required to quantify individual and societal risk along the entire project corridor. The Commission should, as part of its statutory and judicial public safety mandate, develop a system to evaluate acceptable excess risks from pipeline operations using pre-agreed risk metrics to evaluate individual and societal risks. The Commission is believed to have accessed certain operator risk assessments in the past, and can, through its consultant relationships, engage experts to evaluate these risks. Commenters believe that excess risk is an appropriate evaluation tool as, without an additional pipeline or changed pipeline service, the risk to a member of the public, or to the entire public, is zero.

Entities and agencies evaluating risk should evaluate risks taken voluntarily differently from risks imposed on residents without a choice. People choose to operate a motor vehicle, and voluntarily take certain risks when doing so. However, especially under eminent domain, people often have no choice but to tolerate additional risk from a new or modified pipeline causing

additional risk. The Commission should be wary of the industry argument that the likelihood of a pipeline incident is minimal as compared to incidents associated with certain voluntary activities, and therefore discountable. The Commission has full authority to conduct risk-based regulation and permitting. It should use that authority to minimize the involuntary risk foisted upon the public.

The other side of risk is what happens in case of a disaster. Pipeline companies should be required to disclose their liability insurance coverage for accidental death, injury, and property damage. They should be required to carry sufficient insurance to cover a worst-case rupture at a worst-case location.

Commenters understand that the Commission would have to increase staff and would likely have to form a permitting bureau within the Commission. However, such a bureau is necessary to support the Commission with the required expertise to evaluate operator plans and designs.

In applying this model, which Commenters adopt in large part from DEP, one part of the system that would not have to be created would be the role of the first appeal body for any permit decisions by any permitting bureau. Commenters suggest that permit appeals would be heard by the Commission's Administrative Law Judges in the first instance, with appeals going through the existing Commission process.

Commenters suggest that the Commission adapt its electric rate case public participation process to allow interested stakeholders to comment on proposed projects before construction begins. The public should be allowed to comment on proposed siting, construction methods, operating methods, operator compliance history, operator compliance with other regulatory programs, and other issues under the Commission's purview. The Office of Administrative Law Judge may be useful as a conduit for such comments, where the permitting bureau would lodge a notice with the ALJ office, publish availability of a proposed permit in the Pennsylvania Bulletin, and present a proposed permit to the public for comment. The existing Commission procedures for handling highly confidential records may be needed to protect data privacy and national security concerns which may be raised by law enforcement or pipeline operators. Minor modifications of existing procedure may be necessary.

Siting considerations the Commission should formalize in the permitting process

Commenters propose that the Commission consider in its siting analysis the following factors:

- Protection of the environment during construction, in ongoing maintenance and operations, and in the overall footprint taken up by the facilities;
- Compliance with the ordinances and desires of the local governments and residents;
- Public and worker safety;
- Input from coordinating agencies;
- Environmental justice; and
- Pipeline operator desires.

As the Commission does not currently exercise its authority to determine siting for pipelines, pipeline operator desires are the determining factor now. While an operator's preferences are of course an important consideration, \the other factors should be formalized in a siting process to ensure the publics' interests are given due consideration.

Starting with environmental considerations, there is a common misconception that DEP has the environment covered and other agencies need not concern themselves with environmental matters. The Commission understands that this is not true, and indeed, there is much that is beyond the jurisdiction of DEP, and much more that DEP does not regulate even where it could. For example, DEP does not regulate deforestation. DEP does not regulate habitat loss outside of water bodies, and even then, not directly. Even though its regulations cover preserving recreational and aesthetic uses of streams and wetlands, such as fishing, swimming, and hiking, DEP does not as a matter of fact work to specifically protect those uses.

Even where the jurisdiction of DEP and the Commission overlap, the Commission should be coordinating with DEP on siting. After all, DEP issues permits for earthmoving and water crossing for specific locations. The two agencies should ensure that they are not working at cross-purposes or providing conflicting authorizations. This may sound complicated, but it need not be. DEP and FERC already coordinate in exactly the same way: FERC exercises siting authority and DEP issues permits for particular crossings and footprint. Setting up a similar coordination system for PUC-jurisdictional pipelines would promote uniformity of process across types of pipelines in Pennsylvania.

The natural world is valuable in, of, and for itself. It is also true that "safe water implicates public safety." *Pennsylvania State Senator Andrew E. Dinniman v. Sunoco Pipeline, L.P.*, PUC Docket No. C-2018-3001451, page 40 (Opinion and Order June 14, 2018) (citing *Popowski v. Pa. PUC*, 589 Pa. 605, 910 A.2d 38 (2006)). The Commission is aware that pipelines such as Mariner East have polluted waters that serve as sources of drinking water, as well as destroyed private wells. The Commission should exercise its siting authority to protect sources of drinking water, including natural streams and rivers. Streams and rivers across Pennsylvania are under myriad stresses and threats from land development, pollution, and other human activities. Threats and stresses to the streams in the Delaware River Watershed have been compiled in an interactive map available at https://www.delawarewatershed.org. This map helps visualization of the cumulative impacts on any given sub-watershed within the larger watershed. Healthy streams can be the lifeblood of communities: focal points for recreation, sources of food and leisure through fishing, sources of drinking water, and beautiful areas lined with riparian buffers that serve as refuges for wildlife and quiet spaces for contemplation.

Protecting forest habitat should be another significant consideration for the Commission. Linear infrastructure, and pipeline development in particular, is contributing to a massive increase in habitat fragmentation, which is a major cause of wildlife stress and decline. Siting so as to avoid habitat fragmentation is crucial.

Avoiding unnecessary felling of trees even in less "natural" areas, such as suburban backyards or along roadsides, can make quite a difference to the people who live by those trees and enjoy their shade and beauty.

There are a thousand environmental considerations that matter in siting pipelines. The Commission does not need to become an expert in every one. It can rely on the expertise at DEP, the Department of Conservation and Natural Resources, and the Pennsylvania Fish and Boat Commission, as well as that of the public. What is important is that the Commission prioritize environmental protection in pipeline siting. This will mean occasionally rejecting projects or parts of projects that cannot be built without unduly degrading the environment. This will also mean requiring that pipelines be re-routed around sensitive areas sometimes. As human activities expand and natural lands diminish, their conservation grows more important.

The Commission should also consider strongly local needs as expressed by residents and local governments. As the ANOPR docket already reflects, and as the Commission has already experienced over the past several years, municipalities and other local governments and authorities are often set aside and left disempowered in the process of pipeline development. These same is even more true of residents. As the Supreme Court affirmed last week in *PPL v. Lancaster*, the Public Utility Code almost entirely pre-empts local regulation of pipelines jurisdictional to the Commission. The same is true for pipelines jurisdictional to FERC. The last half century is littered with judicial decisions documenting failed local attempts to regulate utilities.

While a desire for uniformity is understandable in building large projects that cross jurisdictions, the pendulum has swung too far back at this point. Municipalities understand and consider the needs of a place and the people of that place much better than any Commonwealth agency, let alone a public utility corporation beholden first to its shareholders. It is a township or borough or city and its residents that will know best whether a pumping station will fit with the character of the neighborhood or depress home values and be a risk to the elementary school next door. It is a local government and the landowners that will know whether an area is prone to landslides and washouts and might be best avoided for pipeline siting. The local government is most responsive to its citizenry. It cannot fairly be said that a pipeline project is in the public interest if the public has raised its voices and mobilized its representatives and they have cried out "*No!*" The Commission should therefore loop local governments and residents into the process early and weigh strongly their comments and opinions regarding siting.

Public safety is discussed throughout this comment, and Commenters suggest that many of these considerations be incorporated into the siting process.

Input from coordinating agencies should be garnered as part of the increased coordination that Commenters and others are now suggesting as part of this rulemaking process. DEP, PEMA, and PennDOT are some of the agencies that likely will have important things to say about the location of pipeline facilities.

Taking environmental justice into account means avoiding excessive siting of pipelines and polluting pipeline infrastructure in poor or minority neighborhoods. These communities already disproportionately suffer from a concentration of polluting facilities, legacy contamination, and infrastructure such as highways and pipelines that are intended for the common good but often come at the expense of residents in environmental justice neighborhoods. The Commission should take care to not add to this already weighty burden when siting pipelines.

Finally, additional considerations beyond these broad categories should be taken into account in siting. This should include setbacks—both minimum setbacks from houses and other places that the Commission should set regardless of jurisdiction, and also setbacks set by municipalities that the Commission should respect and enforce.

A permitting process will help the Commission comply with its obligations under the Environmental Rights Amendment

A permitting process will also serve as a fitting vehicle for ensuring the Commission fulfills its obligations under Article I, Section 27 of the Pennsylvania Constitution (the Environmental Rights Amendment or "ERA") vis-a-vis pipelines. All instrumentalities of the Commonwealth have a public trust duty to protect the environmental, natural, and historic resources of the Commonwealth. *Penn. Envtl. Def. Found. v. Commw.* ("*PEDF II*"), 161 A.3d 911, 932 (Pa. 2017) (citing *Robinson Twp. v. Commw.* ("*Robinson II*"), 83 A.3d 901, 956-57 (Pa. 2013)). The Pennsylvania Supreme Court has specifically held that the Commission, like every other arm of the state, must comply with the ERA. *Moosic v. Pa. Pub. Util. Com.*, 429 A.2d 1237, 1240 (Pa. 1981) (PUC must apply ERA as it applies to an operator's "conduct which is within the ambit of the regulatory jurisdiction of the commission as created by statute and directly affects the environment"). The Commission may not abridge the rights of the people to "clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment." Pa. Const. art. I, § 27. It must also "conserve and maintain" Pennsylvania's public natural resources "for the benefit of all the people." *Id.* Pennsylvanians have, among other rights, the right of historical preservation. *PEDF II*, 161 A.3d at 931. Any law that unreasonably impairs historic preservation rights is unconstitutional. *Id.*

For over fifty years, the constitutional protection of the Commonwealth's environmental, natural, and historical resources was seen as merely an aspirational goal. *PEDF II*, 161 A.3d at 940 (concurrence and dissent of Baer, J.). Until *PEDF II*, courts used a now-unconstitutional standard in *Payne v. Kassab* ("*Payne I*"), 312 A.2d 86 (Pa. Cmwlth. 1973) to defer trusteeship duty to an agency of the Commonwealth rather than allow courts to review the Commonwealth's performance of trusteeship duties. *PEDF II*, 161 A.3d at 926-27.

> [W]hen reviewing challenges to the constitutionality of Commonwealth actions under Section 27, the proper standard of judicial review lies in the text of Article I, Section 27 itself as well as the underlying principles of Pennsylvania trust law in effect at the time of its enactment. We must carefully examine the contours of the Environmental Rights Amendment to identify the rights of the people and the obligations of the Commonwealth guarantee thereunder.

PEDF II, 161 A.3d at 930. The Commission expressly provides some authority to require public utilities to consider how each public utility corporation must comply with the ERA. *See* 52 Pa. Code § 59.18. This regulation, promulgated prior to *PEDF II*, has not been reviewed in the light of the process and procedure to protect the public's right to historic preservation under *PEDF II*.

In the years since *PEDF II*, our appellate courts have had a few opportunities to describe

the limits of judicial action under the ERA. An agency is not entitled to full and complete deference solely on its prior actions when a plaintiff finds that the agency failed to properly act within its mandate. *Del. Riverkeeper Network v. Penn. Dept. Envtl. Prot.*, 179 A.3d 670, 682 (Pa. Cmwlth. 2018). A party may challenge a regulation implementing the ERA when the standards for interpretation "leave people of ordinary intelligence guessing at their meanings." *See Marcellus Shale Coalition v. Dept. Envtl. Prot.*, 193 A.3d 447, 466 (Pa. Cmwlth. 2018) (citing *Whymeyer v. Commw.*, 997 A.2d 1254, 1259-60 (Pa. Cmwlth. 2010)).

Since *PEDF II* and the extinction of the deferential *Payne* test, some agencies have been wondering how they must change their practices to comport with the ERA. These ERA obligations come into play in particular where the Commission would exercise its pipeline siting authority.[2] Obviously, siting and the accompanying land development implicates environmental considerations. For example, siting a pipeline through an "exceptional value" wild trout stream popular with anglers would have significant environmental impacts that would likely far outweigh the impacts by siting it through a reclaimed brownfield. Historic considerations are encompassed within the ERA as well. For example, Energy Transfer bought and destroyed a historic house in Ohio (dating to 1843 and eligible for listing in the National Register of Historic Places) after lying to FERC about its intentions for the house.[3] Under the proposed permitting process, the Commission could prevent such a tragedy in the first place by avoiding the siting of pipeline facilities through such historic properties.

Arguably, the ERA *currently requires* the Commission to exercise its siting authority for pipelines where the Commission's issuance of a CPC has made the operator eligible to condemn land under the Business Corporation Law. When the public voted on the ERA, part of the explanatory brochure about the amendment made clear that exercises of the use of eminent domain by utilities would be subject to the Amendment. The Pennsylvania Supreme Court has made note of this in its groundbreaking decision in *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 953–954 fn. 42 (2013) (quoting from the brochure "Q. Won't the right of eminent domain still exist? A. Yes, however, it will have to be exercised in conformity with this amendment. A highway department or utility company could not take land without fully considering the public's right to a decent environment. [The amendment] should force a much more judicious use of eminent domain."). Right now, pipeline utilities exercise eminent domain with no agency review and, by any objective measure, do not act with the care expected of trustees of Pennsylvania's natural resources. A permitting process encompassing both CPCs and pipeline expansions would ensure that all projects potentially requiring condemnation would pass before the Commission, allowing the Commission to apply the ERA and only site the pipeline where it would not unduly degrade Pennsylvania's environment.

1. Pipeline Material and Specification

The Commission has the authority to require a pipeline operator to submit plans to

[2] This is not in any way to suggest that this is the limit of the Commission's authority and obligations under the ERA. Aesthetics, for example, obviously matters when regulating how utility facilities and equipment look.

[3] *See* FERC Order on Clarification and Denying Rehearing, 161 FERC ¶ 61,244 (Nov. 30, 2017), available at https://www.ferc.gov/CalendarFiles/20171130161519-CP15-93-002.pdf.

demonstrate compliance with the Commission's omnibus safety statutory authority, though the Commision by and large refrains from using this authority.

The Commission, in its broad safety oversight role, should require pipeline operators proposing to update, build, or maintain any pipeline to use the best available technology, and to update systems to the best available technology when making changes to pipeline and public utility systems. "Best available technology" is a concept that DEP has used for decades to ensure that polluters do not stall in their efforts to reduce pollution by using outdated technology. *See* 25 Pa. Code §§ 127.1 and 127.12(a)(5) (defining and requiring the use of best available technology). Most environmental regulations, including the Clean Air Act, Clean Streams Law, federal Water Pollution Control Act and others require project proponents to update their technology from time to time and revisit old technologies to see if the operator can do better. This upgrade and technology-based review is especially important in situations where the Commission needs to consider end-of-life issues for older infrastructure with either obsolete or mixed technologies being employed. The Commission could promulgate, but has not yet promulgated, regulations requiring state-of-the-art systems, materials, procedures, and components. For example, highly volatile liquid pipelines should be required to only use valves that can be operated from the SCADA control center, onsite, or nearby using a remote operations panel. The Commission should require operators to equip valve sites, pump stations, and other above-ground facilities with hydrocarbon detectors to detect increasing concentrations of product being released from any pipeline above-ground facility, not just the larger terminals or refineries.

One area of particular concern is the coatings and weldings protecting new construction pipelines. There have been reports that some of the 3M coatings may be photosensitive and delaminate if left in the elements for an extended time.[4] Any pipeline operator should be required to affirmatively show, in its application for a CPC or other permit from PUC, that it understands all construction risks and is taking appropriate action to avoid such risks to the maximum extent practicable. The Commission should ascertain and take into account the maximum time that pipelines may be exposed to the elements (including sun exposure) without undue risks to their coatings and integrity.

Another concern is the inspection and verification of welds in the pipe segments and the coatings applied at welds. When building or repairing a pipeline, welds must be coated onsite to allow a full coating on the pipeline for corrosion control. Pipeline public utilities should be required to justify their coating and welding programs before construction begins, show the Commission why it selected such pipe, coating systems, and welding technologies, and show what steps are required to properly perform quality assurance reviews of each coating, each weld, and each section of pipe or other equipment installed.

Another concern for the public is the fate of "high consequence areas" ("HCA"). Federal regulatory authority recognizes HCAs, and, in the case of natural gas pipelines, provides additional required protections from those required in non-HCA areas. *See* 49 CFR § 192.903, contrasted with 49 CFR § 195.452. The Commission should review all requirements for

[4] *See* FERC "Information Request for the Atlantic Coast Pipeline and Supply Header Project," July 3, 2019, Docket No. CP15-554, available at https://elibrary-backup.ferc.gov/idmws/common/OpenNat.asp?fileID=15300047.

hazardous materials pipelines and adopt those most protective.

2. Cover Over Buried Pipelines

The regulations governing pipeline depth of cover must reasonably balance sufficiently covering pipelines to prevent risks due to surface disturbances and soil movement while not requiring excessive earth disturbance and construction rights of way during pipe burial. While reasonable minds may differ on exactly how to strike that balance, there should be no disagreement on amending the regulations to require operators to take affirmative measures to *maintain* an adequate depth of cover over time.

This deficiency has come to light most strikingly in the several locations in which the Mariner East pipelines have lost all cover, or in other cases, most cover. Anecdotally, this appears to happen most often in creek beds. Before construction of the Mariner East 2 line, a resident sent the Council photos and a location diagram of Mariner East 1 exposed in a creek in Carlisle, Cumberland County. *See* photos and diagram attached as Exhibit A hereto (exposure at latitude: 40.241792, longitude: -77.25825). The resident alerted Sunoco of the depth of cover violation in 2016, but Sunoco has still taken no action on it as of August 2019. Residents also identified a creekbed in Exton where both the Mariner East 1 and the Sunoco Pipeline Icedale line were exposed side-by-side for at least five years. *See* photos attached as Exhibit B hereto. Not until two months after reporting it did Sunoco begin to do work to fix the problems with the pipes in that location. Because these are two locations where residents have mobilized in opposition to the Mariner East project and residents are particularly vigilant, it is likely that there are numerous other locations with less active local populations where Sunoco and other pipelines remain exposed to the elements.

Today, the Commission has no regulations for any periodic review of depth of cover. We understand that the typical practice is to review depth of cover during maintenance activities or in the event of an incident, with operator vigilance in evaluating and correcting cover depth not necessarily subject to direct Commission review unless a problem arises. The Commission should require an annual review of depth of cover to ensure the depth remains at or above the minimum in all locations, with periodic surveys or samples to be taken at critical locations. In addition to in-line inspection (ILI) runs, the Commission should (a) require operators to document depth of cover during any maintenance or construction event where a pipeline segment is exposed for any reason, (b) require full documentation of depth of cover during construction or rehabilitation of any pipeline segment, and (c) require periodic ground penetrating radar (GPR) or similar survey of areas identified with a significant risk of exposure to erosion or loss of ground cover. The Commission should also require operators to use GPR or similar technologies to evaluate sample points along a pipeline route to verify depth of cover, and should coordinate GPR evaluations with ILI evaluations. In addition, the Commission should require that each operator document the depth of cover at every ancillary service location where a buried pipe section is connected with any surface equipment., i.e., cathodic protection probes, and document elevation changes greater than one inch (1”) per year at any such location. Any deviations from the minimum should require burial to a proper depth the next time the operator handles or maintains nearby equipment, or at least within a year, and any pipelines exposed to the elements should require burial to a proper depth within one month. Upon completing each periodic review, the operator should submit a sworn report to the Commission operator containing the

depth measurements at regular intervals including at least one measurement every thousand feet in areas that do not exhibit erosion potential, every hundred feet in areas identified with significant erosion potential, and at least one measurement at each water body crossing. All such reports should be available for public inspection. Older or "grandfathered" active pipes should not be exempt from this review and correction process.

Commenters believe that pipelines should never be exposed to the air but for surface equipment, i.e., valve sites, pumps and necessary at-grade ancillary equipment. The Commission should disallow any exposed pipeline at any other locations. All cover should be not less than four feet (4' or 48") at any location. The increased depth of cover requirement, which should not be grandfathered for lines buried only three feet (3' or 36"), is critical to avoid inadvertent line strikes from digging and farming, providing additional buffer in the event of a pipeline incident below ground, and to minimize erosion and stream exposure of pipelines. Depth of cover requirements exist for a reason. The Commission should also look into requiring additional cover in areas where erosion problems are more likely: where a pipeline is proposed to pass through unconsolidated materials, especially on hillsides, and under waterways. The Commission should work closely with DEP to require additional depth between waterways and pipelines, as DEP (often in conjunction with the U.S. Army Corps of Engineers) regulates the open-cut processes often used to construct pipelines across waterways. The Commission should provide a reasonable safety margin in its requirements for minimum depth of cover, especially at or near waterways and high erosion potential locations. This review would necessarily require pre-construction review of the geology of the proposed pipeline route, work that, to an extent, would be required anyway for DEP permitting. Some of the same data from the DEP permitting process could be submitted to the Commission to ensure appropriate depth of cover for purposes of safety and pipeline integrity as that is not something DEP evaluates.

Further, Commenters suggest that the Commission require enhanced local in-person periodic monitoring of stream crossings, in addition to the current corridor monitoring now required under PHMSA regulations. Aerial reconnaissance may not detect emerging erosion issues that may uncover or expose a pipeline segment, such as a washout or stream erosion event. This monitoring should be extended to areas of potential landslide or washout of unconsolidated sloping overburden, to avoid or minimize the harm from events such as the explosion that occurred on the Revolution Pipeline in Center Township, Beaver County.

3. Underground Clearances

49 CFR § 195.250 as currently written contains two main weaknesses. First, the clearance is not great enough to account for typical underground utility maintenance practices, which results in utility line strikes such as we have seen recently on the Mariner East lines. Second, the exception provided by the term "impracticable" is in practice too large, and swallows the rule.

Similar to the depth of cover discussion above, interference from other infrastructure is critical. The placement on multiple hazardous liquids and/or gas lines in close proximity on the one hand conserves space on the surface, but on the other hand increases the risk of strikes on other lines during work on one line, and the risk of one explosion rupturing and igniting other

lines.[5]

The Commission's Bureau of Inspection and Enforcement ("I&E") division recently struggled with Sunoco Pipeline and its failure to adequately address interference from other infrastructure. *See* PUC Docket No. C-2018-3006534. A year ago, Aqua America struck an installed segment of Mariner East II during typical work on Aqua's water line infrastructure.[6] The current standards for distances between competing infrastructure (at least competing in the design and operation of cathodic protection systems) are inadequate, in large part because they fail to account for the construction work involved to maintain and replace neighboring infrastructure. The Commission should revise the regulations around distance between a pipe being installed and other underground structures to account for the construction work that is expected to take place around the lines. A good default absent unusual circumstances is spacing of ten feet horizontal and three feet vertical. The operator should need to prove to the Commission the existence of unusual and compelling circumstances justifying a waiver of the default clearance. Under no circumstances should a clearance less than twelve inches be allowed. The average bucket width of a backhoe doing mechanical excavation is 18 to 24 inches, meaning standard mechanical excavation beside a pipe could not be undertaken at all if the pipe were merely 12 inches from another structure underground.

The problem with allowing utilities to go below the minimum clearance (current twelve inches) if maintaining that minimum is "impracticable" is that no one enforces what "impracticable" means and no reporting is required on what is "impracticable." Thus, the regime is one of self-enforcement, which has not worked.

To give a recent example, Sunoco is currently proposing to install two Mariner East pipes within a single casing in certain locations, leaving only a few inches between the two pipes and between each pipe and the casing. The situation is explained in detail in the regulatory comments the Council submitted to DEP on June 3, 2019.[7] Upon questioning by PHMSA, which occurred only after public complaint, Sunoco explained to PHMSA that it was "impracticable" to use proper spacing due to constraint by a nearby water supply line, perhaps referring to an incident similar to the one mentioned above in which Sunoco gave Aqua bad information on the location of Mariner East 2. Sunoco had nonetheless planned the entire 300-plus-mile route of Mariner East 2 without once needing to put its parallel pipes mere inches apart. Only within the last year has doing so suddenly become "impracticable." This is not credible. Therefore, Commenters request that the Commission revise the clearance regulations

[5] *See*, e.g., the Associated Press, "Official: One dead after pipeline explosion near Midland," August 5, 2018, available at https://www.gosanangelo.com/story/news/local/texas/2018/08/05/official-one-dead-after-pipeline-explosion-near-midland/911494002/.

[6] Jon Hurdle, "Officials: Water Main Contractor Struck Mariner East 2 in Delaware County," *StateImpact Pennsylvania*, June 6, 2018, available at https://stateimpact.npr.org/pennsylvania/2018/06/06/officials-water-main-contractor-struck-mariner-east-2-in-delaware-county/.

[7] Available here: http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/HDD_Reevaluation_Reports/Glen_Riddle_Road/1st%20comment%20period%20-%20Clean%20Air%20Council%20-%206-3-19%20-%20Glen%20Riddle%20Road,%20Southern%20PA%20RR%20Crossing%20-%2042.%20comment.pdf.

to make them wholly objective, not subjective, self-enforcing, and reliant on practically meaningless terms like "impracticable."

To further ensure safety from adjacent infrastructure, the burden should be on the proponent of a project involving placing new pipes within fifty feet of any existing public utility infrastructure to demonstrate, in advance of the project, how it and the existing infrastructure would not interfere with other infrastructure in place. This, of course, requires that the operator provide exact siting information before seeking a CPC or other permit from the Commission, identify nearby adjacent infrastructure, and document proper design criteria to protect the proposed and existing systems. The project proponent should be required to put owners of potentially impacted infrastructure, the surface owners of such property, and adjacent stakeholders on notice of the Commission's review of such information and grant those stakeholders comment rights before construction begins.

The Commission should keep records on utility strikes during such things as adjacent utility excavation. The regulations should thus include a requirement for operators to report to the Commission where there has been contact and near-misses with adjacent underground infrastructure during work.

4. Valves

Valves should be treated with security and safety foremost in mind. The Commission should use its safety and siting authority to regulate where a pipeline valve site, pump station, or other critical infrastructure will be located. For example, Sunoco Pipeline operates a consolidated valve station in Thornbury Township, Delaware County. This valve site, which, upon completion will host four (4) adjacent pipeline valves, is less than one hundred feet (100') from the kitchen and smoking area of a busy restaurant, and approximately that distance from busy Pennsylvania State Route 352 and several nearby residences. This presents obvious safety risks.

In 2016, Sunoco discharged a significant amount of gasoline from a pipeline into a tributary of the Susquehanna River. This incident highlights the risks of pipeline operations which the Commission should evaluate before authorizing any project. In this incident, due to the nature of the rain and landslides occurring along the pipeline corridor, released product traveled approximately fifteen (15) miles to impact a watershed relied upon by many thousands of people for drinking water, commerce, and recreation.[8] Had Sunoco been able to remotely detect a leak and instantly shut down the product flow from a valve beside the tributary, the release would have been much less.

Sunoco also operates a Mariner East valve site and pump station in West Goshen Township, adjacent to the busy Boot Road exit on U.S. Route 202 and a crowded residential neighborhood with nearby commercial districts and other facilities where people gather. This site suffered a vapor cloud explosion on August 5, 2019, where the first responders did not know

[8] Reuters, "Sunoco Pipeline Spills Gasoline Near Pennsylvania River," October 22, 2016, available at https://fortune.com/2016/10/22/sunoco-pipeline-spill-pennyslvania/.

about the release of uncombusted vapors from the pump station/valve site for at least an hour, had no idea how to respond to the explosion, and received what Commenters believe is an inadequate explanation for the vapor cloud explosion from the operator.[9] Analyses used in evaluating general duty risks, such as calculation models to determine the potential impact radius from a potential pipeline incident, would help inform the Commission in siting decisions.

Commenters are also concerned about the potential of two-phase flow in highly volatile liquids (HVL) pipelines, and the stresses and additional maintenance and design care required for these pipelines. HVL pipelines often transport substances, such as ethane, propane, butane and blends of these molecules and similar materials, liquefied under significant pressure, often hundreds or thousands of pounds per square inch. At or near the suction side of pipeline pumps, these products will be under significantly less pumping pressure than the same materials on the discharge side of each pump, simply due to friction losses. Commenters request that the Commission require each HVL pipeline operator to prove, for each pipeline segment, that the materials being transported do not boil off due to reduced pipeline operating pressures at locations at or near the suction side of each pump providing motive force to each pipeline segment. The resulting dual phase flow could cause additional internal corrosion or erosion of the pipeline surface, temperature change in the system influenced by factors beyond normal pipeline transportation, deformation of ancillary equipment, and other harms to the system and the nearby community. One area of specific concern is gaskets and other surface materials of construction near valves, pump stations, and other ancillary equipment potentially subjected to dual phase flow. Any identified likelihood of dual phase flow should be addressed before construction, including monitoring plans, additional pump stations, modified materials of construction to address dual phase flow, and other diligence.

Commenters believe that the Commission should coordinate its broad safety authority over above-ground facilities with other agencies with similar and complementary roles. One such agency, with a similar mandate to OSHA, is the U.S. Environmental Protection Agency ("EPA"). Both OSHA and the EPA have statutory "general duty" clauses that require facility operators to take care to protect workers (OSHA) and the general public (EPA) from harm due to the use, transportation, or creation of extremely hazardous substances. *See* 29 U.S.C. § 5(a)(1); 42 U.S.C. § 7412(r)(1). Many pipelines regulated by the Commission transport these extremely hazardous substances, such as gasoline, natural gas, natural gas liquids, and other materials. The general duty clauses, typically directly enforced by the competent federal authorities, may provide an additional cooperative avenue for the Commission to require enhanced safety practices, procedures, and equipment from pipeline operators.

As with other components of the pipeline, valves and other above-ground infrastructure should be required to use the safest technology, implementing a standard similar to the Best Available Technology in air permitting, discussed above. For example, Sunoco uses "product-lubricated" single-seal pumps for its Mariner East I system. These pumps are required to "leak"

[9] In this instance, the Commission should work with DEP, which issued an air quality permit for this facility, to determine what happened and how Sunoco can avoid repeating such events in the future. Commenters cannot confirm that one or more Sunoco employees or contractors were working at this location during the vapor cloud explosion, but if this incident was due to work being performed on the site, the Commission should inquire with the Occupational Safety and Health Administration (OSHA) to determine if Sunoco violated OSHA regulations.

a small amount of product from the pipe shaft seal to lubricate the pump and continue operation. This also requires emission controls regulated by DEP. Typically, the emission controls used in this situation would be an enclosed flare, often described as a "vapor combustion unit" or "VCU." In the August 2019 Boot Road incident, the pilot flame on the Sunoco VCU was not operable for reasons Commenters have not been privy to. Sunoco seemingly allowed natural gas liquids to be emitted at an unknown rate for what may be more than an hour before the vapor cloud ignited and exploded in what Sunoco reported as a "backfire." Commenters are concerned that single-seal product-lubricated pumps should have never been allowed in service, where a double mechanical seal pump with a barrier fluid to separate the product from the public would have been a more technologically reasonable pump design.

Further, the Commission should require perimeter monitoring of combustible gas vapors along the fenceline of fixed pipeline facilities, such as pump stations, valve sites, pig launchers/retrievers and other locations where pipelines are exposed above the ground surface. Each pipeline operator should be required to install a perimeter monitoring grid around the above-ground facility to detect building product fumes and plumes that could ignite or cause other harms to the nearby community. Such equipment, believed to be installed at many pipeline operator large facilities, would be able to provide operators, neighbors, EMAs and other stakeholders of advance warning of an emerging pipeline problem. Operators should be required to provide local annunciators and/or warning lights to provide residents, visitors, and other stakeholders what could be a precious few minutes to evacuate before another vapor cloud explosion, jet fire, or other incident builds enough force to create a risk of harm to the community. The Commission should require an operator, especially a HVL operator, to install periodic monitors along the pipeline route, especially at HDD end points, potential erosion points, intersections with other utilities, and other sensitive areas. SCADA systems are not sensitive enough to identify leaks, and Commenters remain concerned that these releases are often only identified by passers-by or local residents.

The Commission should also require all new valves to be remote-operated rather than manually operated. Manually-operated valves are at this point out-of-date. Remote-operated valves have faster closure times after leaks and are thus substantially safer for the public. Whenever there is a change of service, the operator should be required to update any manually-operated valves to be remote-operated. The Commission should also require the operator proposing a change of service to replace all ancillary equipment unless the operator can demonstrate that replacement is not technically necessary. While Commenters do not wish to encourage waste, the Commission should firmly place the burden of proof about existing infrastructure and ancillary equipment squarely within the project proponent's proof when applying to the Commission to upgrade or update equipment. While Commenters understand grandfathering old systems in place until natural replacement and the policy ramifications of requiring replacing potentially functioning equipment, the presumption should be that equipment must be replaced before being reused. If a project proponent suggests that existing infrastructure is adequate, the project proponent can prove to the Commission that reuse is a good idea.

Further, as pipelines age, operators should be required to update to "best management practices" or "BMPs" for materials, installation, operations and maintenance. The pipeline operators should have the burden, at least once a decade, to declare that each operator has equipped each pipeline with the appropriate BMP equipment, procedures and systems. The

Commission should require such reports supporting this conclusion at least once per decade, and have the right to audit BMPs on demand.

Upon further review, Commenters believe that the Commission could find many other such areas that it would be appropriate for it to exercise its regulatory authority to ensure safety in the equipment appurtenant to pipelines. These range from, for example, pump spacing to avoid dual phase flow in natural gas liquids pipelines, to reviews of gasket selection criteria, to an operator being required to present to the Commission a feasible shutdown scenario where a pipeline segment must be deinventoried at any valve site or pump station on a pipeline.

B. Operation and Maintenance

1. Pipeline Conversion

As detailed in the first section of this comment, the Commission should require proponents of pipeline conversions to go through a permitting process including a detailed technical review subject to public participation and comment. In no situation should any public utility have any right to convert a pipeline for any different use or reverse flow on any pipeline segment without a fully transparent technical review process.

Commenters agree with Representative Danielle Friel Otten's concerns about pipeline conversion as expressed on the ANOPR docket:

> The Pipeline and Hazardous Materials Safety Administration (PHMSA) has found that it is extremely dangerous to convert oil or gas pipelines to highly volatile gas liquids. Regulations must state that gas and oil pipes shall not be converted to highly volatile gas liquids pipes since it is contraindicated by the industry. Furthermore, regulations must state that pipes made with substandard steel or deteriorated, or defective protective coatings shall not be used on any Pennsylvania pipelines. This information was detailed in Pipeline Safety: Guidance for Pipeline Flow Reversals, Product Changes and Conversion to Service published by PHMSA in 2014. More information can be found at http://www.phmsa.dot.gov.
>
> Also, of concern regarding pipeline conversions are the property rights of landowners who have existing easements. Generally, incident risk is greater for highly volatile gas liquids pipelines than for traditional oil and gas pipelines. A certificate of convenience and necessity and easement agreements should not be transferrable. Whenever they propose changing the product that runs through an existing pipeline or adding a new pipeline to the easement, pipeline operators must be required to obtain new certificates and easement agreements.

Commenters further request that the Commission, as part of the permitting process to evaluate conversions or reversals, require the project proponent to submit a detailed sealed

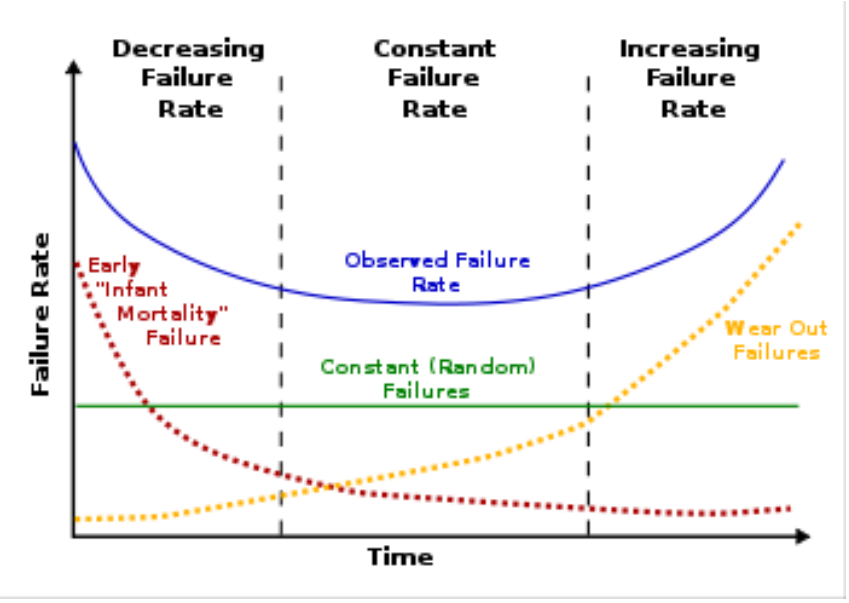
engineering evaluation of pipe condition, wall thickness, corrosion, ancillary equipment, coatings, ground cover, and all other aspects of pipeline safety. The Commission should require that such reports be prepared for and endorsed by a third-party licensed professional engineer who is responsible for presenting such plans to the Commission, a delegated Commission ALJ, or other Commission-designated expert panel for detailed technical review and comment. The Commission should have the authority to demand modifications or reject a proposed change of service or reversal. Each such application should include a detailed end-of-life plan, maintenance plan, and pre-commissioning testing and evaluation plan. This plan should require pressure testing, ILI and GPR reviews of the entire proposed conversion or reversal segment, as well as pig digging of the line for enhanced visual inspection of the line, coatings, and other ancillary equipment. All ILI should be completed before commissioning and repeated on an enhanced schedule for all lines over an expected 25-year lifetime. The Commission should also evaluate all protective coatings, impressed current cathodic protection systems, interaction with nearby, adjacent, related or crossing infrastructure, and reevaluation of the HCA status of each pipeline segment before approval. Any corrections to meet Part 192/195 or Commission requirements should be completed before commissioning, not after the line is allowed to commence operations.

Commenters commend I&E for acknowledging that Sunoco should complete an end-of-life study for the Mariner East I pipeline. Such a study, if proper in scope and carefully overseen by the Commission, is a necessary first step to allow the Commission to evaluate additional measures that an operator of any pipeline over 25-50 years in service should complete when operating or proposing to operate older pipeline infrastructure. While the specific proposal containing the end-of-life study for Mariner East I requires refinement, I&E was correct to note that old infrastructure is susceptible to additional or increased risks, and that additional monitoring of those risks is needed.

Further, a pipeline operator should be required to update existing infrastructure to the state of the art before being allowed to change service. For example, the operators should be required to update cathodic protection, automate all valves, replace valve packing and gaskets before restarting service, and upgrade other equipment which may be impacted by the upgrade. The operator should be required to remove any single-sealed pumps from liquids service as they are no longer current technology, even if the operator complains that operating double mechanical seal pumps with barrier fluid may add to operating costs. All service should be current to maximize all safety margins or be phased out of service.

2. Construction Compliance

When considered as a population, failures of pipelines exhibit what is known as a "bathtub curve," plotting failure rates on the y-axis against age on the x-axis:



Thus, most failures can be expected initially, when there has been a defect in manufacturing, installation, or construction, and then decades down the line, when the materials have started to wear out.

The permitting process Commenters propose should reduce early pipeline failures. This process should encompass petitions by operators to upgrade, repurpose, or reverse an existing line. All of those operations involve changes to the pipeline system that can kick off a new "infant mortality" failure period.

And as suggested immediately above, the Commission should also promulgate regulations to require end-of-life studies to account for wear-out failures that are to be expected with aged pipelines. Pipelines carrying hazardous materials should not be allowed to operate until they fail. Instead, they should be put out of service before the risk of continued operation outweighs the societal benefits. Rather than create an unworkable framework where the regulated party wants to haggle with the Commission and the public over what an appropriate end-of-life timeline is in each instance, the Commission should set forth a transparent and objective system with clear guideposts and expectations. The Commission should develop end-of-life guideposts using a risk analysis model which considers risks both to human health and welfare (e.g. quality-adjusted life year modeling) and to the natural environment.

Risks to the natural environment are often discounted or treated as zero because nature never asks to be paid for its services. But nature is valuable for itself as well as to humanity in the form of aesthetic beauty, ecosystem services, and social benefits such as higher real estate values. The costs that the Commission should take into consideration in designing an end-of-life model should at the very least include the more easily quantified costs, such as those tabulated by Key-Log Economics in its report Economic Costs of the Atlantic Coast Pipeline: Effects on Property Value, Ecosystem Services, and Economic Development in Western and Central

Virginia.[10]

In quantifying environmental costs, the Commission should also consider protection and preservation of the waterways crossed by the pipeline. Some waterways are home to threatened or endangered species for whom a "temporary" impact killing a large population of the species could prove a fatal blow to the species as a whole. For example, the endangered clubshell mussel (*pleurobema clava*) remains in only parts of a dozen streams across five states, including Pennsylvania.[11] Clubshell mussels require clean water to live. A spill of petroleum products from an aging pipeline into a run of clubshell mussel habitat could wipe them out, an unacceptable outcome. In other areas, a spill into a stream could kill off angling, hiking, and other recreational activities in the area for months or years depending on cleanup and recovery times. Setting aside spills, continuation of the maintenance of the right-of-way and periodically digging up the line for repairs or maintenance takes a toll on the terrestrial ecosystem and adjacent or crossed streams. All of this and more should be considered in evaluating the costs and benefits of continued operations of a pipeline.

3. Pressure Testing and Maximum Operating Pressure

Commenters recommend that the Commission require each pipeline operator to reevaluate maximum allowable operating pressure ("MAOP") every five years, regardless of other maintenance steps or results. The pipeline operator should be required to maintain these records for the entire operating life of the pipeline.

The operator should include in any application to adopt or increase any MAOP a review of all visual inspections, in-line inspections, pressure tests, and other evaluations of integrity and performance for each pipeline segment, subject to an independent reviewer selected by the Commission and its staff. This evaluation is critical to help guide each pipeline operator to increase its vigilance about corrosion, erosion, or operating conditions that could reduce the safety factors built into each pipeline project. Without this information, the public is at risk of a potential safety hazard which could cause a release. ILI testing and similar technologies are not now adequate to replace visual inspection and pressure testing of lines, especially in an industry where the average pipeline leak is detected by someone other than a pipeline operator. The operator should further be required in such an application to evaluate and make public the people and assets newly within the expanded blast zone due to the pressure increase, and accordingly adjust its risk analysis, outreach efforts, etc.

A public utility proposing any MAOP change or other substantial operating change should be required to certify, under penalty of law, that it has or will comply with all other required authorities, including but not limited to various environmental permits which should include all likely and reasonably identifiable operating or maintenance scenarios. The Commission should establish a mechanism to refer such questions to DEP or other competent agencies having full or partial jurisdiction over such related issues and matters.

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[10] Updated May 2016, available at http://friendsofnelson.com/wp-content/uploads/2016/05/EconomicCostsOfTheACP_TechnicalReport_REVISED_20160516.pdf.

[11] *See* U.S. Fish & Wildlife Service, "Endangered and Threatened Species in Pennsylvania," available at https://www.fws.gov/endangered/map/pa-info.html.

The Commission should establish a presumptive MAOP for various types of pipelines, where operation at higher pressures is presumed to not be authorized because it is unsafe. Commenters are concerned that operators may, without sufficient knowledge, foresight, and technical support, increase MAOP beyond the capabilities of the existing infrastructure. The Commission should consider the impacts not only on the pipe, but on other infrastructure, such as pumps, valves, seals, gaskets, cathodic protection systems, and other related equipment before authorizing any MAOP increase. Such MAOP increases could increase internal corrosion, wear and tear, and stress failure, and increase other risks of property damage, injury, and other harms.

Concerns over excessive MAOP are not hypothetical. Within the last year, the Council discovered that Sunoco increased its planned operating pressure for the Mariner East system from 1480 pounds per square inch gauge (psig) to 2100 psig, despite its pump station components only being designed for 1480 psig.[12] The press quoted pipeline safety expert Rick Kuprewicz of Accufacts, Inc. as stating that "All I can say is federal regulations wouldn't prevent you from running it at 2100, but you would be out of your mind."[13] Commenters are not aware of substantive guidance on how to set appropriate MAOP. That said, there should not be a single component in the entire pipeline system rated only to a lower pressure than the MAOP, and the Commission should take into account the greater risk and destructive potential of running a pipeline system at a higher operating pressure.

Further, the Commission should require HVL pipeline operators to maintain a minimum operating pressure to avoid two phase flow in HVL pipelines. Two phase flow is possible if the pressure in the suction side of a pump system falls below the minimum pressure to maintain the product as a liquid. If two phase flow is allowed in any pipeline segment, that segment and all ancillary equipment may be subject to additional internal corrosion and stresses that are otherwise avoidable in single phase flow regimes.

4. Line Markers

The current regulations for line markers are not perfect, but are a good starting point for the Commission to regulate further. There is no requirement for how close horizontally to the actual location of the pipeline the line markers should be. Commenters suggest that the markers should be no more than two feet from the actual location of the top of the pipeline, so that people do not mistakenly believe that the ground may be dug into at a location where it would be dangerous to do so.

The requirement that the product carried be labeled is not specific enough. Some

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[12] *See* Sunoco Pipeline Mt. Union pump station emissions calculation worksheet, page 13 of 28 (pdf page 154 of 196), available at http://files.dep.state.pa.us/RegionalResources/SCRO/SCROPortalFiles/Community%20Info/AQ/Sunoco%20Pipeline%20LP/Sunoco%20Pipeline%20LP%20-%20Mount%20Union%20Pump%20Station%20%E2%80%93%209-21-17%20DEP%20Addendum%20Memo%20and%20Revised%20Draft%20State-Only%20Operating%20Permit%2031-03036.pdf.

[13] StateImpact Pennsylvania, "Higher operating pressure prompts new safety concerns over Sunoco's Mariner East 2X pipeline," March 21, 2019, available at https://stateimpact.npr.org/pennsylvania/2019/03/21/sunoco-mariner-east-pipeline-safety/.

industry actors—at the very least, Sunoco—treat the term "petroleum" as meaning any substance that may be extracted or distilled from crude oil, including ethane, natural gas, arsenic, etc. *See* excerpt of testimony of Matt Gordon, Principal Engineer & Project Manager for Mariner East, attached as Exhibit C. Sunoco currently describes ethane as a "petroleum product" despite the chemical being a gas at standard temperature and pressure and having a much higher explosive potential than, for example, gasoline. The Commission itself interprets the term very broadly.[14]

Because these products act very differently upon a release, they should be marked differently along line markers. The Commission should avoid allowing vague industry terminology such as "petroleum" in favor of specific terminology including the scientific names for the specific chemicals carried by the lines, such as isobutane, kerosene, mixed ethane and propane, etc. Such markings should reflect the expectation that a pipeline marker is a manifestation of the required public awareness program. *See* 49 CFR § 195.440. As such, appropriate markings, warnings, and clear and usable instructions in the event of an incident should be plainly visible on such markers and available to be read and followed. The instructions should include who if anyone to call and how to respond. Since more leaks are detected by bystander reports than any other method, this would reduce explosions, injuries, and deaths.

Line markers should also indicate the operating pressure of the product moving through the lines as well as a description of the smell of the product, in order for a bystander to be able to better gauge whether an off odor or the lack thereof may indicate a leak.

Above in this comment, Commenters recommend an annual depth-of-cover certification process. As part of that process, the operator should also certify to the Commission that the line markers remain in-place, upright, clear, and readable, including sending public, photographic evidence of the same to the Commission. Any markers that need fixing or replacement should be fixed or replaced as part of that process.

5. Inspections of Pipeline Rights-of-Way

The Commission should expand on existing PHMSA regulations on pipeline inspection protocols. Pipeline operators are required to periodically inspect their systems. Current PHMSA regulations grant significant leeway to operators conducting pipeline surveillance activities. For example, operators may walk, drive, or fly the right-of-way to conduct visual surveillance. *See*, e.g., 49 CFR § 195.452. Commenters request that the Commission require that each pipeline operator conduct a full on-foot surveillance visit at least once a calendar quarter in lieu of weekly fly-overs. Surveillance personnel should wear high-visibility clothing clearly indicating the name of the pipeline operator in large print so that residents do not mistake the personnel for trespassers. Operators should survey potential erosion locations monthly.

PHMSA allows a pipeline operator to petition to avoid ILIs in certain situations for older pipelines. *See* 49 CFR § 195.120. The Commission should disallow any such procedures and require all operators to conduct ILIs on all pipeline segments, add such capabilities, or retire

[14] *See* PUC "Response in Support of Petition of Sunoco Pipeline L.P. for Permission to Appeal the Interlocutory Order of March 1, 2016," April 7, 2016, at 7-8, attached as Exhibit D.

segments not subject to ILI. Commenters are concerned that older pipeline segments should be subjected to *increased* ILI frequency, not allowed to be waived out of ILIs. This risk is especially acute for HVL pipelines, where the consequences of a release are more dramatic than for oil lines.

The Commission should consider additional protections for pipeline segments under waterways or buried more than five feet (5') below surface: additional ILI runs, more frequent pressure testing, or other methods to better detect early issues. Repairs of these segments could be more difficult and should be subjected to more scrutiny than segments more likely to be reached and repaired by a pig dig.

The Commission should require pipeline operators to develop a plan to periodically verify burial depth. Some infrastructure, such as cathodic protection equipment, may be able to be used to confirm depth of cover. In other situations, especially at or near watercourses or other potential erosion sites, the Commission should require pipeline operators to confirm, with ground penetrating radar, periodic elevation measurements, or other technology, that adequate cover exists at all locations along each pipeline to protect the public. The Commission should require annual inspections for high-erosion-protection areas and five-year intervals for other areas.

The Commission should require pipeline operators to disclose, in advance, work being performed on lands of others. Landowners and residents, including private homeowners, businesses and governments, should be given advance notice of work being performed on their property, and the nature and purpose of the work. Where easements contain multiple pipelines, the operator should be required to disclose which pipeline is being worked on. Regular, transparent communication between the pipeline operator and landowners will ultimately make the pipeline operator's work easier because it will encourage cooperation on the part of landowners. It will also make the public safer, as landowners along the right-of-way are literally on the front lines when there is a problem with a pipeline and informed landowners will be in the best position to communicate potential problems they notice.

The Commission should require pipeline operators to install and operate appropriate procedures to detect products potentially released from pipelines or ancillary equipment. As discussed below, in fixed surface facilities, hydrocarbon pipeline operators should be required to install and operate a fenceline hydrocarbon detection network calibrated to preferentially detect product vapors. For buried facilities, inspectors should be required to periodically evaluate hydrocarbon vapors using portable detection equipment during all inspections, walk-throughs, and other work or visits. Remote sensing for pipeline surveillance should be conducted with, *inter alia*, thermal imaging infrared cameras able to detect product to supplement visual observations of pipeline conditions.

The Commission should regulate pipeline inspection procedures to supervise the balance between inspection fly-overs and the reasonable expectations of landowners and tenants. Commenters believe that there is a potential that fly-over inspections can become invasive if conducted in a harassing manner, are particularly low-flying, or are used to monitor or spy on the ground occupants. Companies conducting fly-over inspections on behalf of pipelines should be required to use state-of-the-art camera (visual and infrared) lenses and detectors to maximize the flight level and minimize ground level disturbance, and should be prohibited from recording

ground occupants or areas of land more than a *de minimis* amount outside the easement. Operators should notify residents of their inspection schedule to avoid needless conflict between operators and residents.

6. Emergency Flow Restricting Devices

As detailed above in the section on valves as well, Commenters urge the Commission to require all new valves to be operated remotely rather than manually, and that remote operation of the valves be installed any time there is a change of service on a line.

Backflow prevention should be mandatory in high-consequence areas rather than left to the discretion of the utility, as it is now. The regulation as it currently stands is weak to the point of meaninglessness. "If an operator determines that an EFRD is needed on a pipeline segment to protect a high consequence area in the event of a hazardous liquid pipeline release, an operator must install the EFRD." 49 CFR § 195.452(i)(4). Any time an operator does not want to install a backflow preventer, it will determine that it is not needed.

Backflow preventers are especially important in the case of highly volatile liquid lines. On such lines, the operator cannot just pump out the product and stage it in a tank. After an explosion, the flame jet normally is left to just burn itself out after the liquids in the line are done escaping. Backflow preventers will minimize the amount of fuel for the flame, and thus the damage in case of an incident.

Regarding siting and spacing of valves, as set forth above, Commenters believe the Commission should exercise its authority to approve valve siting based on safety, environmental, and other concerns, in coordination with other agencies with overlapping jurisdiction.

7. Leak Detection

The Commission should require state-of-the-art "best available technology" leak detection systems for all hazardous liquid pipelines. This technology, which is advancing year over year, can assist the public and the pipeline operators in detecting pipeline leaks. As stated above, the average pipeline leak is detected by a bystander or passer-by, not by the pipeline operator. The SCADA technology is not yet sensitive enough to allow the control room operator to detect a pipeline leak from the control center. While current technology may not be able to immediately detect and stop any leak, current technology may be able to allow faster response times to incidents and allow pipeline operators to shut in or stop operations in enough time to minimize property damage and preserve life.

Commenters suggest that perimeter monitoring systems around above-ground infrastructure are necessary to allow first responders, residents, visitors, workers, and the general public as much notice as possible of a pipeline leak at or near above-ground infrastructure. These systems are already in place at many larger pipeline terminals and stations, and could easily be implemented at various valve sites, pump stations, and other critical locations. Such equipment should be tied into the company's SCADA systems, the county's EMA systems, local switchboards, and local annunciators to announce that an incident may be underway and that the public should take evasive action.

On August 5, 2019, Sunoco suffered a vapor cloud explosion at its Boot Road pumping station in West Goshen Township, Chester County. This pump station was not equipped with a perimeter monitoring network that would have detected the vapors that Sunoco allowed to collect in, and spill over the top of, the vapor combustion unit ("VCU") it used to control product lubricant emissions from the far-from-state-of-the-art single-seal product-lubricated pump used to transport HVLs in the Mariner East system.

This recent incident illustrates several gaps in existing regulations. First, single-seal pumps are not appropriate for HVL service for any reason, and, like all other obsolete equipment, should be phased out in favor of long-established double mechanical seal pumps with barrier fluid. Second, other obsolete equipment should be phased out, such as manually operated valves and valves in services that require they be subjected to two-phase flow in HVL service. Third, there should be no provision for a pipeline operator to defeat any safety systems or to continue operating any pipeline when safety systems, such as the VCU fire eye detector or high concentration organic alarm believed to be installed in the Boot Road VCU, are not operable. This line should have been shut down, with the ongoing operation while the VCU was not operating declared by the Commission as a leak. Thus, the Commission should consider any release of any product from any part of any pipeline system outside the control of the operator to be a leak subject to Commission enforcement, intentional or not, regulated by DEP or PHMSA or not. Immediate reporting of all leaks is appropriate and should be required of all operators.

The operator should be required to have a third party design a monitoring system to detect leaks in the manner that the product would travel upon release: higher monitors for ethane or propane releases, ground-level for butane and heavier product releases, and liquids monitors for potential pooling liquids releases. Industry is likely to comment that such monitoring systems would potentially be subject to false positive alerts and become discounted as "crying wolf." However, the impetus should be on the operators, not the public, to bear the burden of showing how the pipeline operator can quickly and accurately alert the public of a leak. Right now, the burden of detecting a leak seems to be stuck with the public far more than is appropriate. Operators need to take more responsibility to notify the public of pipeline problems. The current situation, where the public bears too much of this burden, is untenable.

Lastly, the Commission should require all public utilities to submit their 192 or 195 Manuals to the Commission for audit by I&E. I&E should have copies of the latest Manuals at their disposal for review at any time, especially at the time of an incident where the Commission may need to respond. Typically, the Commission does not have file copies of 192 or 195 Manuals, but relies on the operator to provide such Manuals on demand. If the companies are required to provide the Commission their 192 and 195 Manuals, even as confidential documents, the operators may be more careful to create, implement, and document fully compliant PHMSA manuals. The Commission should further require additional information beyond PHMSA requirements be appended to the 192 or 195 Manual.

8. Corrosion Control and Cathodic Protection

As evidenced in the Sunoco Morgantown incident that was the subject of I&E's enforcement action, the current state of corrosion control and cathodic protection technology is inadequate. The regulations allowed Sunoco to operate a more-than-80-year-old pipeline where

the line failed in a manner that mercifully did not cause significant damage or harm to the public. However, Sunoco's cathodic protection plan was subject to an I&E review that showed that the cathodic protection plans just do not work properly. As part of the permitting process and at regular intervals after beginning service, the Commission should require all operators to document and prove that their cathodic protection systems will and do actually work, that they protect the pipelines and the public safety, and that, using periodic visual inspection, ILI and other data sources, they actually maintain full pipeline integrity.

As part of this analysis, the Commission should set minimum pipe thickness at not less than half the design pipe thickness for ongoing operation. The Commission should find that pipes with less than half the original wall thickness indicate that cathodic protection systems are no longer adequate to maintain proper safe operation of hazardous liquid pipelines, regardless of operator assurances for lines with less than half the original wall thickness still managing to maintain operation. Further, no pipeline operator who cannot certify at least half wall thickness should be allowed to increase MAOP, but should be required to reduce MAOP to compensate for the less-than-half wall thickness requirement.

In addition, the Commission should require every pipeline operator to develop and implement a plan to demonstrate that all pipeline coatings are actually bonded to the pipeline and adequately protect each pipeline segment from corrosion, water, bacterial, and other sources of metal loss. The Sunoco Morgantown incident was likely caused by pipeline coating disbonding from an 80-year-old pipeline segment, causing a corrosion event which caused a release. If a pipeline operator cannot develop a plan to address disbonding of a coating due to the age of the line, then the Commission should order that the line to be abandoned or all segments coated, with the obsolete coating to be replaced.

C. Additional Subject Areas for Public Comment

1. Utility interactions with local government officials, including but not limited to such topics as emergency planning and emergency response coordination, periodic drills with utility/municipal coordination

Pipeline operator interactions with local officials are often wholly inadequate and need to drastically improve. As demonstrated by several filings on this docket from municipalities and municipal officials, public utilities sometimes shut out officials and refuse to work with them at the utilities' convenience, regardless of the consequences for public health, safety, and welfare. As quasi-sovereign entities entrusted with the immense power of eminent domain and granted monopoly power, utilities should treat public officials and other arms of government with respect and cooperation. Since that has not happened without regulation, regulation is appropriate to ensure it does going forward.

Public utilities should be required to demonstrate that all municipalities, school districts, water utilities, as well as authorities and other governmental bodies within the blast radius of any pipeline, have agreed to and endorsed all proposals submitted by any pipeline operator to the Commission for any new, increased, modified, or enhanced service. Any disagreements should be brought to the Commission. While the authorities and governmental bodies would not have veto power over the utility projects, the Commission should resolve the disagreements by

altering, moving, or nixing the projects as appropriate, giving great deference to the local authorities in light of the authorities' greater understanding of the needs of their communities.

Topics to discuss among local authorities and the operator would include EMA reviews of action plans and drills, evacuation and other drills to protect sensitive populations, advance and real-time drills to test the public awareness plan, and full planning and participation by any municipal entity at any time. The Commission should automatically grant intervenor status to any governmental entity requesting to participate in any Commission proceeding involving any pipeline operating within five miles of the jurisdiction of that governmental entity. No further petitioning process should be necessary for a potentially impacted governmental entity to intervene as of right. Local emergency response officials should have the right to access all data, images, alerts, and information generated from any pipeline in their jurisdiction or where the governmental entity is within the blast radius of the pipeline, with no or minimal filtering by the operator. The Commission should require that each operator provide each interested governmental entity current real-time or near-real-time data streams to review pipeline operations and provide immediate notice over the internet that an emergency is emerging.

As we unfortunately learned in the Sunoco Boot Road incident, the current public awareness plans cannot work and do not work. West Goshen Township did not have any idea how to respond to concerned citizens. The appropriate governmental stakeholders did not find out until far after the fact that Sunoco seems to have allowed a vapor cloud explosion to occur at Boot Road. Operators should be bound to the unsworn falsification to authorities standard in any representations made to any governmental officials, agents, and representatives. *See* 18 Pa. C.S. § 4904.

The Commission should implement regulations requiring operator officials to appear before any governmental body requesting such attendance for meetings, public forums, or other governmental sponsored functions. Only a notice to attend, not a subpoena or other demand, should be required to compel full participation by appropriate operator staff to any event where a public utility matter is discussed in the operation of government. Likewise, any governmental entity should be able to, by filing a simple request with the Commission, request any data required by that entity to perform its sovereign function. This way, Commission data confidentiality requirements would apply, could be overseen by the Office of Administrative Law Judge, and protect both the governmental entity and the operator from undue release of confidential data to the public without proper due process.

The comment PSATS submitted on July 15, 2019 focused on improving communications between pipeline companies and municipalities. Commenters agree with the recommendations PSATS sets forth in its comments and joins it voice with that of PSATS in urging the Commission to incorporate into its regulations these common-sense measures to fix communications and better prepare the municipalities to handle this infrastructure within their borders.

2. Requiring periodic public awareness meetings with municipal officials and the public

As described above, pipeline operators should be required to attend and answer

questions when governmental bodies with construction and/or operations within their jurisdiction make such requests. Even absent requests from governmental bodies, the utilities should be required to hold a public awareness meeting at least once every six months upon having received requests from a quorum of ten citizens of a municipality. The Commission should set minimum requirements for such meetings that would promote transparency and awareness. Commission personnel should audit such meetings on occasion without announcement. These unannounced visits will ensure that the meetings are being held as required and the operator is telling truthful statements and not withholding non-confidential information. As with any instances of non-compliance, the Commission should take enforcement action where the operator fails to meet these obligations, especially if the operator makes false or misleading statements to the public or local officials.

3. Pennsylvania-specific enhancements to public utilities' public awareness programs pursuant to 49 CFR § 195.440 and API Recommended Practice 1162

PHMSA public awareness requirements include vague references to systems pipeline operators must implement to allegedly make the public aware of how to respond to pipeline incidents. However, the guidance used by many operators to implement this program, the American Petroleum Institute ("API") RP-1162 manual, is inadequate in providing any useful framework for an actual public awareness program fully integrating the public's official representatives and municipal and state government. API RP-1162 also fails to provide operators with any meaningful metrics to determine if the public awareness program is of any use. Given what happened in the West Goshen incident, the Commission in no way should rely on API RP-1162 to guide any public awareness program.

Instead, the Commission should implement its own public awareness system based on the metrics of full contact of every potentially impacted property owner, renter, business operator, facility operator, and governmental entity which or who may be expected to take any action during a pipeline incident. First, each stakeholder within the blast radius must be identified by the operator and contacted with specific, actionable information about the hazards of the exact pipeline, not a generic "petroleum" notification for hazardous HVL pipelines like Mariner East. The public awareness program should be required to provide legitimate guidance, like to go uphill for a butane incident or downhill for an ethane incident. This guidance should also describe simple yet critical tasks like how to exit your home, how to determine wind direction, how far is a safe distance, when it might be safe to turn on a cellular phone, where to or where not to drive in the event of an incident, if sheltering in place is a better option and, if it is, where, when, and how to shelter in place, and what responses the stakeholder should expect from the government. Plans based on API RP-1162 do not contain these steps.

Because API RP-1162 is inadequate, the Commission will need to develop rules to provide real and useful guidance to the pipeline operators in implementing a real and useful public awareness plan. Commenters recommend that the Commission create a program similar to the HDD TGD program implemented by DEP, in which the Commission is represented. Residents, operators, first responders, Commission staff, governmental actors, and facility management should all be invited to attend a process to develop a framework for the Commission's consideration. The plans must be credible and effective before the Commission

can approve them.

4. Pennsylvania-specific enhancements for operator qualification

PHMSA mandates operator qualification training requirements. The Commission should consider requiring specific operator qualification training on emergency management, incident command and response, Pennsylvania regulatory requirement compliance, and public awareness in addition to existing operator qualification requirements.

5. Enhancing transparency while protecting confidential infrastructure security information

Commenters understand that the Commission by statute must take into account certain confidentiality concerns in its work. That work often involves proprietary or confidential work product by operators, data used to develop rates and tariffs, and other issues that could compromise operators if released. The public, in contrast, has an interest in transparency. Residents near pipelines need to have information to make reasoned decisions about their futures and their families' futures, including where they want to live, whether and how to participate in regulatory or legal process, etc. Businesses near pipelines have similar interests. These interests are no less important than the interests of the utilities.

However, various authorities appear to have taken an overbroad approach to restricting access to information that is not especially sensitive but is of great importance to the public. This is particularly so for measures of the "impact radius" of a potential pipeline incident, especially related to HVL lines. The inputs to these calculations, often performed using public domain models like EPA's SLAB model, are in the public domain. Pipeline locations are often mapped and are always available by visual observation—not least where utilities carelessly leave them exposed to the elements. Capacity calculations are available in tariff documents, open season announcements, and other trade information readily available on the internet and from other sources. Census information and locations of nearby land uses are available from the government, any number of mapping websites, software, systems, county assessor's offices and other sources. Elevation data is readily available from the United States Geological Survey and any number of other sources. Ground cover is available from many sources. Physical properties of various products are readily available in any number of engineering handbooks, references, web sites, engineering texts and other sources. SLAB is one of several models which a person can use to calculate many impacts, and is downloadable from the internet. Therefore, none of the inputs required to estimate the impact radius of a common pipeline incident are in fact private or confidential.

Both Delaware County and a private citizens' group conducted risk assessments of the Mariner East project. Commenters are not aware what assessments Sunoco or the Commission may have performed on this pipeline, and if any such risk assessments adequately correlate with risk assessments in the public domain or not. The Commission endangers the public when it does not make any definitive statement of who should or should not be subjected to an evacuation plan in the event of a pipeline incident. The pipeline operator should know this information, as should the Commission. The public is becoming more sophisticated in developing this information, but only after significant cost and effort to generate information that

the public should have had access to. Commenters are concerned that the Commission may hide behind secrecy to prevent the public from being able to properly respond to an incident. First, the Commission cannot evaluate a public awareness program if it does not know what the impact radius is from a potential impact location. Second, a pipeline operator cannot certify to the Commission that it has an adequate public awareness program if it cannot certify which land owners and facility operators may be impacted if a pipeline suffers a catastrophic incident. Third, innocent residents, visitors, customers, workers, new buyers, and passers-by are prejudiced by not being adequately protected by a public awareness and emergency response plan.

Commenters are not aware of any terrorist attacks on pipelines in U.S. history. In contrast, everyone is well aware of the explosions and deaths that pipelines have caused. The Commission and utilities currently bend over backwards to keep confidential information that presents no real security risk but is of great public importance. Commenters can only speculate that from the perspective of the Commission, this behavior is based on assumptions of risk that are not supported by the data. From the utilities' standpoint, hiding information about risk is clearly in their self-interest. Commenters suggest that the Commission prioritize public safety from pipeline incidents over public safety from extraordinarily unlikely acts of sabotage. Therefore, the Commission should engage in a process to evaluate how to maximize public safety and disclosure while honoring its requirements to not unduly release information.

In cases where there is a legitimate dispute over claims of confidentiality, the Commission should create a process outside the context of litigation to allow the public to challenge those claims.

6. Regulation of construction techniques such as horizontal directional drilling

While the Commission has called out horizontal directional drilling (HDD) in particular, the risks that HDD poses are also posed several of the broader suite of pipe installation methodologies known as trenchless technologies. The Commission should regulate the use of trenchless technologies besides HDD as well. Otherwise, the industry may simply modify its drilling practices modestly to something that is not technically HDD in order to evade the regulations while nonetheless creating the same risks.

HDD used for pipeline construction has its benefits and its drawbacks. In ideal circumstances, it can be used to reduce surface impacts by drilling under special features such as streams, endangered species habitat, highways, etc. As such it is often preferable to open trench construction methods where sensitive surface features need to be protected. However, trenchless installation, if planned or executed poorly, also carries with it large risks of contaminating or depleting water wells, drying up aquifers, creating sinkholes, and spilling drilling fluids. In at least one incident on Mariner East with which the Commission is familiar, the sinkholes were severe enough to make the adjacent houses unlivable, and they were bought by the pipeline operator, forcing families to abandon their homes. The "pads" used for the entry and exit apparatus for HDD take up large amounts of land, and the process of drilling can entail months or years of noisy and disruptive construction work.

Destroying aquifers and water wells should not be considered acceptable. Millions of

Pennsylvanians prefer their wells to public water, and it is their right to do so. Public water hookups (where they are even available) and "water buffalos" do not compensate residents adequately for destroying their wells.

If done properly, the risks trenchless installation methods bring can be greatly reduced. The operator needs to study the land, water, and adjacent features closely and with hydrogeologic and geotechnic expertise. Decisions need to be based on comparative and quantitative risk to waterways, lands, and property, as well as the health and wellbeing of neighbors. Disasters come from failing to understand the geology and hydrogeology before making decisions and failing to pay attention to the specifics of the site.

Pennsylvania would be ill served if HDD and other trenchless technologies were no longer in the toolbox for pipeline construction. Open trenching is very damaging to the environment, and causes ecological wounds which can take decades to heal, if they ever do. But the current situation, in which these trenchless construction tools are often used for the sake of expediency and without sufficient forethought or oversight, is equally untenable.

DEP is currently implementing an HDD and alternatives analysis project to improve its management of its 25 Pa. Code Chapter 102 and Chapter 105 programs. The Council is involved in this project. The Commission should coordinate on trenchless technologies with DEP. However, one major gap in this process is that DEP only has authority over water obstructions and encroachments on the one hand, and erosion and sedimentation concerns on the other. The Commission should invite the participants in these work groups to evaluate how they would change their work product to incorporate areas not in DEP's jurisdiction into best practices for implementing trenchless technologies. That group developed a significant body of work which the Commission should use as a starting point for its review of HDD and other trenchless technology reviews. The Commission should additionally invite the participation of groups focused mostly or exclusively on public safety concerns, such as the Pipeline Safety Coalition, which will have a lot to add.

In the meantime, the Commission should also review the process FERC is undertaking in developing its own guidance on trenchless technologies. FERC is developing its guidance with a process at Docket No. AD19-6-000. FERC's draft guidance as of Fall 2018 did not go far enough to protect safety and the environment. However, it is an improvement over the status quo. That draft is available at https://www.ferc.gov/industries/gas/enviro/guidelines/hdd/guidance.pdf. The Council and partner groups commented on the guidance.[15] Commenters urge the Commission to take into consideration the concerns and suggestions outlined in the Council's comment.

To emphasize once more, the most important things that can be done to improve the use of trenchless technologies in Pennsylvania is to ensure that enough study is done of the site proposed for its use, ensure that all potential problems are worked out in advance or an alternative technology or site is chosen, and provide strict oversight so that the proponent cannot

[15] That comment is attached here without accompanying exhibits to save space, as Exhibit E. The comment with exhibits is available in full on the FERC docket here: https://elibrary.ferc.gov/idmws/file_list.asp?document_id=14732591.

shirk these obligations.

7. Accident and incident reporting criteria, notification criteria for reporting incidents or unusual events to local emergency officials

Lack of prompt and sufficient incident reporting is a known problem in the pipeline industry. As with so many other problems, Mariner East serves as an instructive example. The Mariner East project has suffered multiple incidents where the appropriate authorities were not contacted in a timely manner or Sunoco's reporting was wholly inadequate to protect public safety. As the Commission is well aware, Sunoco's Mariner East construction created a substantial sinkhole problem in West Whiteland Township, Chester County. However, Sunoco did not immediately notify first responders and the PUC when the problem began to emerge.[16] Sunoco failed to report the August 5 West Boot Road incident as it began to no longer combust vapors from the vapor control unit until after community members had contacted the Chester County 911 center. This report should have been submitted to the Commission, DEP, and other authorities before Sunoco even began this "maintenance" procedure where it created conditions that caused the vapor cloud to explode. The Commission should strengthen its immediate incident reporting requirements and impose heavy fines, presumed at the Commission's maximum daily penalty, for late or incomplete or falsified incident reports.

Under many circumstances, pipeline operators do not need to report hazardous liquid spills of less than five barrels on the right-of-way, which most often will be on other people's property. 49 CFR § 195.50. The Commission should set a reporting threshold the same as under the Clean Air Act: any excess emission or release of any amount. The problem with setting quantitative release reporting thresholds is that operators are notorious in underreporting spills and quantitative thresholds incentivize undercounting. An example of that is the recent revelation that a spill on a hazardous liquids pipeline in North Dakota was reported as ten gallons, but is in fact at least hundreds of thousands of gallons, and may be millions of gallons.[17] The spill and underreporting have highlighted flaws in the state's reporting system. The Commission can avoid similar problems by requiring full reporting on all releases.

Release reports should be certified by a Professional Engineer and a responsible official subject to unsworn falsification penalties. The Commission should require all releases from any pipeline or related ancillary equipment, including releases in violation of other law or regulation of DEP or any other agency, to be reported immediately to the appropriate 911 center and every potentially responsive governmental entity. In addition, the responsible pipeline operator must develop and implement immediate public notification systems to reach every potentially impacted resident, visitor, operator of any gathering place or other potential victim of said incident with appropriate advice on how to respond. Commenters are concerned that the public could receive conflicting messages, such as evacuate or shelter-in-place. Commenters do not

[16] Sunoco may have released more material from the Morgantown, Berks County, release event than was previously reported, as it seems that Sunoco failed to report lost material from before it became aware of the event. The Commission should audit this information and attempt to determine how long before Sunoco noticed this event that it was releasing material from the pipeline.

[17] *See* James MacPherson, "Spill revelation raises questions about North Dakota system," *Associated Press*, August 21, 2019, available at https://www.apnews.com/66ea7aeb51dd4fd1a10ed558fefdcfa3.

believe that the public is fully aware of how to respond to an incident, as was demonstrated in the Boot Road vapor cloud explosion of August 5, 2019.

Commenters understand that a comprehensive public awareness and incident response program may require interagency cooperation among the Commission, PEMA, each County EMA, municipalities, school districts, PennDOT, the Surface Transportation Board, DEP, OSHA, Fish and Boat Commission, and other agencies and governmental entities. Commenters also understand that other agencies may need to engage in rulemaking or seek additional authority from the General Assembly to fully implement a real public awareness and incident response plan. The Commission should research these interactions and submit a report to the Governor and the General Assembly, after public review, to detail what is required for a functional public awareness and incident response program that protects people within the potential impact radius of a pipeline incident. Emergency notification and evacuation plans must include individuals with disabilities and be compliant with the Americans with Disabilities Act.

8. Advance notification and/or Commission preapproval of major construction activities

Commenters above describe in detail how a preconstruction permitting process for pipeline modifications, new constructions, changes in service, reversals, increases in MAOP, and other changes that modify the footprint or risk profile of a pipeline operation should be implemented.

9. Odorant utilization

Commenters understand that certain shippers using certain pipelines do not want odorants added to their product during transportation. Most typical odorants used in fuel systems (various mercaptan products such as methyl mercaptan, ethyl mercaptan and others) may be seen as contaminants in downstream overseas plastics manufacturing processes. However, the Commission should place the burden to demonstrate why olfactory warning properties should be unavailable to the public upon the operator, with the operator required to compensate for the lack of an olfactory warning property that is available to the public in natural gas distribution scenarios.

The August 5 Boot Road incident illustrates the problem. Commenters understand that Sunoco allowed vapors from the Boot Road pumping station to collect and be emitted for somewhere between a half-hour and an hour before re-igniting the vapor combustion unit. If odorants were added to the product stream, there would have been a higher probability that the public would have been alerted to the impending vapor cloud explosion. Unfortunately, Sunoco did not notify any agency that it was not combusting the vapors that eventually exploded, and the public did not call anyone. The public may have not called first responders because it may have not known there was an issue at the Boot Road pump station that was about to cause a vapor cloud explosion.

10. Geophysical testing and baselining

As discussed above, as part of its exercise of its siting authority, the Commission should review the project proponent's assessment of the geology of specific locations. This should

include the Commission requiring that the applicant undertake geophysical testing where the geology indicates potential problems during pipeline installation that could be avoided or better identified by testing.

Also as discussed above, the Commission sent representatives to the DEP HDD TGD work group. Commenters strongly recommend that the Commission evaluate the work group's work product, develop a plan to apply that work product to the Commission's regulatory framework, expand applicability to areas outside of DEP's wetlands and erosion and sedimentation regulatory framework, and adopt that framework for its own permitting process.

The Commission would benefit from having access to the geological and geophysical testing plans and procedures outlined in the TGD before issuing authorizing pipeline construction. This approach was specifically developed to avoid the inadvertent return, collapse, sinkhole, and lost circulation problems that plagued the Mariner East project. Had Sunoco conducted a comprehensive pre-construction review of the geological facts on the ground before attempting construction, it would have avoided many of the problems plaguing the project.

11. Protection of public and private water wells and supplies

Pennsylvania law currently does not require private water supply operators to register water supplies. However, the Commission has the authority to take any and all steps to protect private water supplies under its broad safety mandate as confirmed by the Commonwealth Court and Supreme Court. Certain trenchless construction technologies, including HDD, pose a significant threat to the integrity of public and private water wells and supplies, when employed by reckless actors. Even conventional pipeline installation through trenching or conventional auger boring can pose a risk under certain circumstances. Because trenchless technologies using pressurized drilling fluid pose a particularly large threat, special precautions are merited for using those technologies during pipeline installation.

The Commission should require the project proponent to identify all water supplies (including wells and springs) within 2,000 feet of those trenchless construction alignments and include an analysis of the risk of impairing the quality and quantity of water in these water supplies. Karst is certainly a risk factor for water contamination. But HDD near water wells and springs can be quite risky regardless, and landowners in non-karst areas should be protected as well. Having a water supply within that radius should trigger a requirement that the builder offer water quantity and quality testing of the water supply before (baseline), during, and after construction. Water quality testing should include testing for at least bacteria, turbidity, hardness, specific conductance, pH, trace metals, BTEX, hydrocarbons indicative of fuel or product spillage, and substances indicative of drilling fluid contamination (such as bentonite). Water supply owners within that radius should also be notified of the start of and progress of drilling in their vicinity.

The 2,000-foot distance is based on reasonable risk of harm to water supplies. As pipeline operators and contractors have acknowledged, hydrogeological connectivity across

2,000 horizontal feet is common.[18] Real-world testing has demonstrated that water supplies within 2,000 feet are at risk from HDD operations. For example, Sunoco identified a risk to public water supplies located at 1,170 feet, 1,600 feet, and 1,900 feet from its HDD alignment in Chester County.[19]

The Commission should require full and complete reporting from every pipeline operator of each incident known to that operator, regardless of if any settlements of any claims were conducted under confidentiality, of each interference with private water supplies from pipeline construction activities.

When a pipeline operator damages or destroys private water supplies, the Commission regulations should require specific steps to be taken by a responsible operator. First, the operator should be strictly liable for any such harm to private water supplies, without the opportunity to offer any defense. Second, the operator should be required to provide water to all impacted landowners and tenants at the operator's full expense for as long as may be required to protect the landowner or tenant. Third, the operator, and not the landowner or tenant, should be responsible for all costs of such systems, including but not limited to the cost to heat and pump alternative water supplies, the cost to replace wells, even if drilled in different aquifers, the full cost of converting from well water to utility water where such supplies are available, and the cost to repair and replace piping, fixtures, water heaters, and other landowner water infrastructure. If the water quality changes from well water to municipal water or any other water source, the Commission should require the operator to fully fund installation of any water treatment or softening system requested by the property owner or tenant to minimize the impact on the ultimate user(s) of the water supply. As mentioned above, replacement water supplies are not a satisfactory substitute for a landowner's private water supply. A home that is neither on a well nor on public water is essentially unsellable. However, sometimes there is no alternative once the damage to a well has been done.

Likewise, pipeline operators can and do harm nearby septic fields. The Commission should require that the pipeline operator take full responsibility for any damage to any septic system harmed during pipeline construction.

Water supply owners harmed by pipeline companies often end up paying what amount to hidden fees and costs, even if they receive a modest payment from the pipeline operator. The Commission should require all costs to be compensated. So, for example, the Commission

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[18] *See* Hydrogeological Re-Evaluation Report by Skelly & Loy for Sunoco PA Pipeline Project Mariner East II Wetlands A54 & A55 Horizontal Directional Drill (HDD) Location (S3-0161), available at http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/Wetland%20A54%20%26%20A55%20HDD%20S3-0160%20%26%200170--16%20HDD%20Reanalysis-reduced.pdf, at page 4 ("Wells spaced less than 2,000 feet apart along strike often experience interference effects (Newport, 1971)."") (citing Newport, T.G., 1971, Ground-water Resources of Montgomery County, Pennsylvania, Pennsylvania Topographic and Geologic Survey, Water Resources Report, W29, 83 pages).

[19] *See* pages 2-3 of Horizontal Directional Drill Analysis North Pottstown Pike Crossing, PADEP Section 105 Permit No.: E15-862 PA-CH-0212.0000-RD (SPLP HDD No. S3-0370), available at http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/HDD_Reevaluation_Reports/N.%20Pottstown%20Pike%20Crossing%20-%20S3-370%20-%20PA-CH_0212.0000%20-%20HDD%20Reanalaysis.pdf.

should require that the operator pay, in advance, for increased operating costs for replacement water or sewer systems, depositing with the land owner fifty (50) years' operating expenses with the property owner to cover increased operating costs. The Commission should also promulgate a regulation that the pipeline operator is fully responsible for reasonable fees sought by contractors, experts, engineers, and attorneys hired by landowners to assist landowners seeking property damage recovery from pipeline installation, with the operator required to classify the maximum extent of such payments as damages instead of income for the land owner to not unduly prejudice the land owners. Further, the pipeline operator should be required to estimate the tax burden due on such payments and gross up the payment to compensate the land owner for negative tax consequences of seeking recovery from the pipeline operator for property damage often outside the easement agreement process. Otherwise, the pipeline operator is not taking full responsibility for its actions.

The Commission should work with DEP to address pipeline construction and operating activities that contaminate surface water or groundwater supplies. DEP and the Commission began this process when Sunoco caused sinkholes and destroyed groundwater supplies in West Whiteland Township, Chester County. The Commission would be the only regulatory actor concerning private water wells, as DEP does not regulate private water well quality or quality.

12. Land agents and eminent domain (see 52 Pa. Code § 57.91)

Land agent regulation

There have been many incidents of land agents making oral representations that are never reduced into easement agreements, lying to landowners, and negotiating in bad faith when dealing with landowners. Some of the more common lies these pipeline company representatives make have been "You'll never know we're here," "All your neighbors have already signed leases," and "If you don't sign now, we'll just take your land with eminent domain and you'll be getting a lot less money." Most landowners don't know the first thing about the pipeline land acquisition process and don't have enough money to hire a lawyer or agent to represent their interests. In contrast, many land agents are used to deceiving landowners day in and day out, and are very good at it. They regularly secure easements on landowners' property for pennies on the dollar. Just this week an article came out of Texas noting that going through the eminent domain process netted a group of landowners *88 times* what they had been offered by the land agents before the pipeline company took them to court.[20]

Just as pernicious as the deceit and lowballing are the terms that pipeline companies sneak into easements. Pipeline companies put in language that, far from allowing just the pipeline in question, allow the company to install as many pipelines as it wants, with no time limit (a term called "additional line rights"). They put in language allowing construction work with no time limit. Language allowing total exclusion of the landowner from their own property. Language making the landowner liable for damage caused by the pipeline company. Language allowing contractors to put a lien on the landowner's property for a payment dispute with the

[20] *See* Erin Zwiener, "The public should have a say before anyone cuts a pipeline through the Texas Hill Country," *The Texas Tribune*, Aug. 26, 2019, available at https://www.tribtalk.org/2019/08/26/the-public-should-have-a-say-before-anyone-cuts-a-pipeline-through-the-texas-hill-country/.

pipeline company. It goes on and on.

The Commission should regulate pipeline land acquisition in a manner that much better protects landowners and the public. For example, pipeline operators should be held strictly liable for the actions of contract land agents hired to acquire or manage land projects for a specific project.

Land agents should be required to set appointments to visit landowners unless landowners have previously agreed knowingly and voluntarily that an appointment is not needed. The Commission should establish by rule that land agents shall not harass landowners and residents to obtain easements or for other efforts. The public should be able to file a simplified complaint against noncompliant land agents, land agents who misrepresent the facts, and land agents who commit other misconduct. Such a system would empower landowners, provide the Commission with valuable information, and enhance accountability for conduct that might not always rise to the level of criminality, but nevertheless harms the public and must be prevented. The Commission should independently credential land agents and land agent companies, and decertify land agents or their companies for misconduct.

The Commission should require that all representations made by land agents to land owners be made in writing, and not changed once the process of reducing the agreement to writing is finalized. That way the landowner can have, from the land agent, a record of promises actually made by the company through the land agent, rather than trying to rely upon memory and losing rights that landowners may believe they had perfected in oral discussions with land agents. As the Commission has done with the use of eminent domain for electrical utilities, there should be standard and regulated notice forms apprising landowners of their rights in eminent domain negotiations and proceedings. *See* 52 Pa. Code § 57.91. Any landowner aggrieved by a land agent should have the regulatory right to petition the Office of Administrative Law Judge for relief from the land agency and the pipeline operator, who should be held jointly and severally liable for such misrepresentation and non-performance of easement agreements. Actions for nonperformance of easement agreements should be heard either at the Commission or the Court of Common Pleas, at the discretion of the landowner.

Copies of all easement agreements, not just the memorandum of agreement commonly filed with the local Recorder of Deeds, should be filed with the Commission as official documents. Filing all full easement agreements with the Commission will allow faster and more efficient adjudication of disputes between landowners and Public Utilities should a dispute arise.

The Commission should set minimum standards for easements. Certain rights should be universal for all landowners and not subject to negotiations. Standard and clear plain English language in boldface type should be required to be included for any grant of additional line rights. The temporary construction period should be capped at a certain number of years with no exceptions. Landowners should have an absolute right to be on and use the easement, with at most a very narrow exception for times when the company is actively performing work on the easement and the occupancy is incompatible. The easement agreement should make clear that pipeline operators or their agents are liable for all damage they cause or allow to occur. The agreement should disallow liens to be placed on the underlying property where the dispute at issue was not caused by the landowner. Standard language should be included that makes clear

the tax implications of signing the easement agreement. Language should be included as well that specifically obligates the pipeline operator to pay for damages it or its agents cause to the landowner's property.

Landscaping issues are hugely important as well. Such easement rights should include the right to a minimum depth of overburden cover (as described above), removal of rocks from the surface, placement of at least six inches (6") of topsoil over the entire limits of disturbance, even if, after segregating topsoils from other soils, the pipeline operator is required to acquire and place additional topsoil of comparable quality to the topsoil removed to fully fill in the work area. Pipeline operators should be required to repair all fences, walls, and other structures altered or removed during construction with equivalent features, adjusting for areas immediately over the pipeline where such structures may be found as interference. Pipeline operators should be required to close off all fenced areas to maximize the effect of fencing after construction, even if additional fencing is required to make the fencing usable after construction. Pipeline operators should have to replant trees removed from work areas outside of ten feet (10') from pipelines, replacing trees from areas where the operator used the land as temporary work space, temporary easement, or permanent easement not strictly required to be cleared for pipeline safety purposes.

Today, many landowners do not get the benefit of full restoration of their property under many easements currently in force. Landowners suffering from inadequate agreements in these respects should have the absolute right to petition the Commission or the Court of Common Pleas for relief. The Commission should investigate other areas where landowners are in need of standardized or minimum terms to protect from abusive or unconscionable easement agreements.

The Commission should set these standards not just for "voluntary" easements but also for easements imposed through the use of eminent domain.

Use of eminent domain

Regarding the use of eminent domain, Commenters recognize that much of that law is set in statute (the Business Corporation Law in particular) and through judicial decisions.

> A public utility corporation shall, in addition to any other power of eminent domain conferred by any other statute, have the right to take, occupy and condemn property for one or more of the following principal purposes and ancillary purposes reasonably necessary or appropriate for the accomplishment of the principal purposes … (2) The transportation of artificial or natural gas, electricity, petroleum or petroleum products or water or any combination of such substances for the public.

15 Pa.C.S. § 1511(a). A "public utility corporation" is defined as a corporation "subject to regulation as a public utility by the Pennsylvania Public Utility Commission or an officer or agency of the United States" or predated that regulation and would have been subject to it. 15 Pa.C.S. § 1103. The use of eminent domain, however, is restricted to certificate holders. 66 Pa.C.S. § 1104. A utility needs a CPC to "offer, render, furnish or supply within this Commonwealth service of a different nature or to a different territory." 66 Pa.C.S. § 1102(a)(i).

The Commission has no authority to change any of that language. But statute also bestows upon the Commission the responsibility to determine whether "the granting of such certificate is necessary or proper for the service, accommodation, convenience, or safety of the public." 66 Pa.C.S. § 1103(a). "The commission, in granting such certificate, may impose such conditions as it may deem to be just and reasonable." *Id.* It is also left to the Commission to define what is considered to be "service of a different nature" and what is "a different territory." 66 Pa.C.S. § 1102(a)(i).

The current process by which the Commission certificates operators is flawed. The Mariner East project should never have been considered a public utility, because any service "for the public" is minimal; the vast majority of the use of the pipeline is private, for overseas customers. The Commission has participated in some of the legal proceedings litigating these issues, and Commenters will not repeat the briefing here. Nonetheless, the first and most important change is that the Commission needs to conform its process to the eminent domain restrictions in the Pennsylvania Constitution, which mandate that eminent domain only be employed for public use. Pa. Const. art. I § 10 & art. X § 4. Use by the "public" means the Pennsylvania public. *Darlington v. United States*, 82 Pa. 382, 387 (1876) ("The state may take the property of a citizen for public use by virtue of its right of eminent domain, but it cannot take it for the benefit of another sovereignty, for the use of the citizens of the latter… .").

> According to our Court, a taking will be seen as having a public purpose only where the public is to be the primary and paramount beneficiary of its exercise. In considering whether a primary public purpose was properly invoked, this Court has looked for the real or fundamental purpose behind a taking. Stated otherwise, the true purpose must primarily benefit the public.

Middletown Twp. v. Lands of Stone, 939 A.2d 331, 337 (Pa. 2007) (cleaned up). This public use framework holds true regardless of whether the taking is allegedly for a public utility. *See*, e.g., *Fayette County Gas Co. v. PUC*, 33 A.2d 761, 764 (Pa. Super. 1943).

Because the Commission is a Commonwealth agency, and because a grant of a CPC empowers a corporation to use eminent domain, the Commission cannot grant a CPC constitutionally where it would enable the use of eminent domain for anything *other* than a public use. Even more to the point, every grant of a CPC must be for the "true purpose" to "primarily benefit" the Pennsylvania public.

There is no law that requires the Commission to grant CPCs with abandon. "Although there are many instances when the Public Utility Code must be liberally construed in order to effectuate its purposes, it need not be so construed, and instead strictly construed, when private property is subject to appropriation by a private pipeline." *Application of Laser Northeast Gas Gathering, LLC*, PUC Docket No. A-2010-2153371, page 6 (Dissenting Statement of Commissioner Cawley, May 19, 2011). Therefore, the Commission should strictly construe the Public Utility Code such that it grants CPCs to a pipeline company only where the company has submitted proof subject to cross-examination—not mere self-serving statements—that the pipeline service will be for the primary and paramount benefit of the Pennsylvania public. Projects designed to export Pennsylvania resources to other states or countries will not meet that

standard. Projects with 75% private service and 25% public service will not meet that standard. Projects like Mariner East, where there is at most nominal service of natural gas liquids in Pennsylvania in contrast to the overwhelming purpose to export product abroad, would not meet that standard.

CPCs should also lapse, requiring periodic reauthorization for continuation of service. This is important for compliance with constitutional due process principles, since potential condemnees are due notice and a hearing to participate before their land is presumptively subject to condemnation. This is also important to ensure that the certificate holder is continuing to provide service primarily benefiting the Pennsylvania public. Furthermore, CPCs should be specific as to location. Currently, "territory" is construed as encompassing entire counties. This may make sense in other utility contexts, but it does not make sense for carriers of products such as butane that are not distributed directly to the public. In those instances, "territory" should encompass specific sites that the Commission approves using its siting authority.

Finally, to build on the topic of the burden of proof, the Commission should not accept self-serving representations by certificate applicants just because they make them. It was very easy for Sunoco in 2014 to claim that its project needed to change from the purely interstate project it had earlier claimed to a project intended to serve a Pennsylvania public need. It was very easy to concoct a story built around the "polar vortex" and argued changed circumstances. But the proof also would have been easy to come up with if it existed: signed contracts with pipeline customers, economic analyses of supply and demand, etc. The Commission accepted as fact that Sunoco was legitimately planning on serving the Pennsylvania public. It very clearly was not, except perhaps a drop here or there in order to claim the status that would allow it to exercise eminent domain. This was an abuse of the system. The Commission must be more discerning. Allowing such abuses discredits the entire regulatory scheme, and it discredits the Commission itself.

13. Background investigations of employees and contractors

The Commission should require pipeline operators or their agents to conduct targeted background checks before employing workers for specific jobs in the field. This does not need to be overbroad. Someone who has been convicted and paid their dues to society should not be barred from working as a pipeliner for that reason alone. However, people who have a record of harassing the public in previous jobs as a pipeliner should not be hired back in a position where they will interact with the public in the field. Someone with a recent history of repeated substance abuse offenses should not be operating heavy machinery near people's houses. Someone with a recent criminal record of fraud should not be employed as a land agent.

The Commission should set such targeted standards for what level of legal noncompliance constitutes prohibiting or restricting such workers with a negative background check from working in the field on pipelines in Pennsylvania.

14. Integration of new regulations on existing facilities

Commenters describe above in several places how operators should be required to update their facilities when making changes. The Commission should apply these rules equally to new

construction and existing facilities to the maximum extent practicable and allowed by law. In most instances, the regulations suggested herein should easily apply to existing facilities going forward.

D. Further Important Subject Areas

The Commission has done a commendably thorough job identifying important areas in which to update its pipeline regulations. Only a few more comments on compliance and enforcement are included below.

The existing enforcement process at the Commission is relatively slow and is dependent upon governmental action to initiate reviews, rather than a system of self-certification and review common in other regulatory schemes impacting public utilities. Using the DEP processes as a model, many sources of air emissions are required to self-certify compliance with all applicable requirements on a periodic basis. The Commission should similarly require all operators, especially of hazardous liquids and natural gas pipelines, to periodically self-certify and report compliance exceptions in a manner similar to how major sources of air pollution and permitted water discharge sources must perform similar self-certification and reporting. *See*, e.g., 25 Pa. Code §§ 92a.61, 127.511, and 273.277. The Commission should place the compliance burden on the operators in the first instance, rather than bearing the burden by having to initiate enforcement and inspection actions on the operator before enforcement can begin.

Regarding enforcement, there is a widespread problem of regulatory enforcement mechanisms being too weak, and fines too low, to change behavior. PHMSA, for example, does not levy any fine at all in the vast majority of pipeline explosion incidents.[21] Even when PHMSA does issue fines, they are minuscule compared to the company's investment in the project. The result is sometimes scofflaw operators such as Sunoco.

Commenters request that the Commission use its discretion to maximize penalties for repeat violators of Commission regulations, laws, and permits. The Commission should take into account an operator's compliance history, not only concerning PUC obligations, but other compliance and legal issues where the operator is found to have violated substantial law concerning pipeline operations. Penalties should be enough to deter future noncompliance. Fines should always be issued where authorized, and never waived.

The Commission should also promulgate regulations where the default position in the event of a hazardous liquid pipeline incident is to automatically shut down pipeline service, rather than allow service to continue in the presence of sinkholes or explosions. Today, pipeline operators too often fail to shut down service, at times requiring the Commission to order a stop to service until the operator can identify the issues and conduct repairs. The onus should be on the operator to prove to the Commission why it should continue to operate, not on the Commission to show why the operator should shut down pending the Commission showing that operating unsupported pipelines in sinkholes is bad practice. The pipelines considered in this docket are not gas pipelines used for heating homes or water pipelines used to quench thirst. A service

[21] *See* Mike Soraghan, "No penalties for 90% of pipeline blasts," *E&E News*, Nov. 15, 2018, available at https://www.eenews.net/stories/1060106253.

shutdown may be an inconvenience, but it is not an emergency. In contrast, the risks to safety these pipelines cause can very well be emergencies.

Finally, though Commenters have touched on the problem of pipeline companies lying, it is worth treatment in the context of enforcement. The experience of the public and Commonwealth and municipal officials over the past several years has made perfectly clear that pipeline companies in Pennsylvania feel free to lie at their convenience without repercussion. This subverts the regulatory process and clouds attempts to understand what is happening. The consequences are many and severe: illegal projects are approved for construction, landowners have their property taken by fraud, shoddily built pipelines slip and explode, etc. If the decision-makers running these companies faced realistic prospects of jail time for lying to regulators and to the public, there would be a lot less lying and manipulation. Fines alone have not proven effective to gain compliance and honesty.

Therefore, Commenters urge that the Commission require that all representations an operator submits to the Commission in support of any application, to demonstrate compliance, or to respond to Commission inquiries should be made by a high-level official under penalty of individual criminal liability (including jail time) for knowing misstatements. The Commission should take any other measures it thinks prudent to ensure truthfulness in all representations to the public and to officials.

Conclusion

Commenters appreciate the Public Utility Commission offering the opportunity to comment on the current state of pipeline regulation and would welcome the chance to further assist the Commission in addressing the challenges presented by pipeline expansion. The Commission has an opportunity to substantially strengthen its regulations within its existing statutory authority, as reinforced by recent Pennsylvania Commonwealth Court and Supreme Court opinions. Unfortunately, recent history shows that the Commission and the public cannot relying solely upon a pipeline operator, without substantial advance Commission oversight, to propose, install, and operate a safe and efficient transportation service as required by law. Extensive rulemaking will be needed to implement the permitting proposal offered here, as well as the other details of regulations that Commenters believe are in the public interest. It is time to make these changes. The public, the courts, local governments, the executive branch, and many other stakeholders expect nothing less.

Sincerely,

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Exhibit A


04/26/2016

Location of exposed ME1 pipeline, Cumberland County PA ☆

Location of proposed ME2/PPP Pipelines ═══

Exhibit B

Aug 16, 2019 at 5:40:01 PM
344 N Pottstown Pike
Exton PA 19341
United States

Exhibit C

IN THE COURT OF COMMON PLEAS,
HARRISON COUNTY, OHIO

SUNOCO PIPELINE L.P.
PLAINTIFF,

Vs.

Case No. CVH 2015 0058
Appeal No. HA 2016 0002

CAROL A. TETER TRUSTEE, ET AL
DEFENDANT.

- - -

APPEARANCES:

ON BEHALF OF PLAINTIFF:
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ALSO PRESENT:
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General Counsel for Sunoco
Mr. Bruce Moore

ON BEHALF OF DEFENDANT:
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- - -

TRANSCRIPT OF PROCEEDINGS
October 22, 2015

- - -

Transcript of proceedings of PETITION FOR APPROPRIATION conducted in the above styled case, before the Honorable T. Shawn Hervey, Judge.

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THE WITNESS: For our purposes, yes.

BY MR. ANDERSEN:

Q Also you could transport more.

A I guess it depends but yes, definitely for these particular products, yes.

Q So we've talked a little bit about ethane. Now we're going to talk about propane and butane. Are there any other kind of hydrocarbons you could flow through this pipeline?

A Well, I could flow any hydrocarbon through the pipeline if I modified my pumps correctly.

Q You could flow any hydrocarbon through there.

A More or less, yeah. I can flow non-hydrocarbons as well. Just depends on what the customers want to ship and if it meets the need.

Q Okay. Would it be your -- I'm not putting words in your mouth, I'm just asking -- if something were a product of fractionation at the Scio plant and it were able to be liquefied into a liquid pursuant to -- to go through your pipeline, could you liquify anything?

A I'm not sure what you mean by liquifying.

Q Could you liquify benzene?

A I'm really not familiar with the properties of benzene. I'd have to look it up.

Q It's a hydrocarbon though.

A I would assume if you look at the charts for benzene at

a certain temperature and pressure you get above the saturation point it would be a liquid and you could transport it as a liquid but I've never tried.

Q Would you call pure ethane petroleum?

A Would I? Yeah.

Q Would you call pure butane petroleum?

A Yes, when they're LPG's, liquefied petroleum, yes, so, yes.

Q When there's a mixture of LPG.

A You're saying pure.

Q I'm saying pure.

A So like when you to the gas station to buy propane it's an LPG. It's marked LPG, liquefied petroleum, yes. So propane when you buy it for your grill is in a liquid phase in that tank.

Q Would you say any component from petroleum is petroleum?

A I don't see why not.

Q Okay. How about arsinic?

A If it's derived from petroleum I guess technically. I'm not a chemist.

Q How about mercury?

MR. BRUNTON: I'm going to object. He's not a chemist.

MR. ANDERSEN: I'm sorry, he's building a pipeline to ship hydrocarbons.

A I could move arsinic or mercury through the pipeline.

THE COURT: Well, here's what I think the question is, and I think we can move on after we get this clarification.

We've talked about what we can send through the pipeline in a liquefied state and we talked about would we define those items as petroleum. And I think the question is some other derivatives of petroleum might include mercury or arsinic and if we're going to define -- if we're going to broaden the definition of petroleum to propane and butane and ethane can we define arsinic and mercury as petroleum too then? Is that --

MR. ANDERSEN: Exactly right.

A I think when you're talking about moving it through a pipeline, for example, I move crude oil through a pipeline. It has all those components that you're saying in it. Sand and mortar as well. It's all part of the petroleum stream at that point. I guess if you're saying if you refine it to a certain point is it no longer petroleum? Is that question?

Q I think there's been -- again, the whole point here is for the Court to hear all this stuff, and then my point is, which I think you've already testified to, that, you know, if it comes from petroleum it's petroleum. You could build a pipeline to ship, if it meets your hydraulics, static pressures and your temperatures you can ship it. And that's

accurate, right?

A Yes.

Q Now, real quick, and I -- I'm not going to apologize but this is unfair -- you were the witness I just happened to pick to do this. Do you consider yourself to be a part of the oil and gas industry?

A Generally, yes.

Q Do you know other Sunoco employees --

A Yes.

Q -- that you would -- are there any Sunoco employees you would say aren't part of the oil and gas industry?

A I can't think of any off the top of my head.

Q But Sunoco does like research and development -- there's guys who are doing research and development they are a part of the oil and gas industry if they work for Sunoco, correct?

A Which Sunoco are you referencing?

Q Any of them.

A We don't really have a research and development wing in the pipeline.

Q At any Sunoco.

MR. BRUNTON: Objection. He's gotta lay a foundation that he knows about all the Sunoco industries other than just the Sunoco Pipeline company that he works for.

THE COURT: How about we ask it like this.

Exhibit D

IN THE SUPERIOR COURT OF PENNSYLVANIA
EASTERN DISTRICT

Clean Air Council, *et al.*,	:	
Respondents	:	
	:	
v.	:	**No. 42 EDM 2016**
	:	
Sunoco Pipeline, L.P.,	:	
Petitioner	:	

RESPONSE IN SUPPORT OF PETITION OF SUNOCO PIPELINE L.P. FOR PERMISSION TO APPEAL THE INTERLOCUTORY ORDER OF MARCH 1, 2016

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RESPONSE IN SUPPORT OF INTERLOCUTORY APPEAL

On March 31, 2016 Sunoco filed its Petition for Permission to Appeal in the above captioned matter. (*Sunoco Petition*). Pursuant to Pennsylvania Rule of Appellate Procedure 531 and 1311, the Pennsylvania Public Utility Commission (Commission or PUC) files this petition *amicus curiae* in support of the Sunoco Pipeline L.P. (Sunoco) petition for permission to appeal the February 5, 2016 Order of the Court of Common Pleas of Philadelphia County, Civil Trial Division (*Opinion*). The Court of Common Pleas certified Sunoco's interlocutory appeal to this Court by Order entered March 1, 2016.

The Commission acknowledges that public utility eminent domain proceedings generally fall under the jurisdiction of Pennsylvania courts of common pleas.[1] However, this appeal does not relate to the actual exercise of eminent domain by Sunoco. Instead, the Plaintiffs filed their Complaint pursuant to the Declaratory Judgment Act, 42 Pa. C.S. §§ 7531 *et seq*. Plaintiffs sought, among other relief, a declaration that the Sunoco "**pipeline does not have a proper certificate of public convenience** and, thus, cannot lawfully exercise the power of eminent domain." *Opinion* at 2. The Commission respectfully submits that the reasoning and arguments adopted in Judge Carpenter's *Opinion* constitute an

[1] The sole exception is contained in Section 1511(c) of the Business Corporation Law, 15 Pa.C.S. §1511(c), which requires a PUC preapproval process for any public utility intending to exercise eminent domain "for the purpose of erecting poles or running wires or other aerial electric, intrastate aerial telephone or intrastate aerial telegraph facilities...." *Southeastern Pa. Transportation Authority v. Pa. Public Utility Commission*, 991 A.2d 1021 (Pa. Cmwlth. 2010).

impermissible collateral attack on the Commission's statutory jurisdiction over the issuance of certificates of public convenience and several final Commission orders regarding Sunoco Pipeline L.P. and its PUC-regulated intrastate public utility service.

The Pennsylvania Supreme Court has determined that decisions of whether to issue a certificate of public convenience are squarely under Commission jurisdiction and discretion. *Popowsky v. Pa. Public Utility Commission*, 937 A.2d 1040, 1054 (Pa. 2007) *citing Philadelphia Suburban Water Co. v. Pa. Public Utility Commission*, 229 A.2d 748, 754 (Pa. 1967). Even in the context of appropriate appellate review before Commonwealth Court, it has been determined that the General Assembly did not intend for courts to weigh various factors entering into whether the PUC should grant a certificate of public convenience under 66 Pa. C.S. § 1103. *Elite Indus., Inc. v. Pa. Public Utility Commission*, 832 A.2d 428, 432 (Pa. 2003). The Commission respectfully requests that this Court clarify that courts of common pleas lack jurisdiction to entertain challenges to the validity of Commission-issued certificates of public convenience. The Commission has exclusive jurisdiction over this area of law and only the Commonwealth Court and Pennsylvania Supreme Court have jurisdiction to hear challenges to these Commission determinations. *Popowsky v. Pa. Public Utility*

Commission, 706 A.2d 1197, 1203 (Pa. 1997); *Rohrbaugh v. Pa. Public Utility Commission*, 727 A.2d 1080, 1085 (Pa. 1999).

For all the reasons discussed below, the Commission urges this Court to grant the *Sunoco Petition* to address this issue of significant public importance.

BASIS FOR JURISDICTION

This Court has jurisdiction under 42 Pa. C.S. § 702 and Pennsylvania Rule of Appellate Procedure 1311, *et seq*.

STATEMENT OF INTEREST OF AMICUS CURIAE

Pursuant to Pennsylvania Rule of Appellate Procedure 531, the Commission files this Petition *amicus curiae* to address an important jurisdictional concern. Respondents' arguments, if ultimately adopted, would permit litigants opposing any public utility project to challenge the validity of PUC-issued certificates of public convenience before any court of common pleas throughout the Commonwealth. The Commission seeks to preserve the Commonwealth's administrative agency system by preventing impermissible collateral attacks on otherwise valid orders of the PUC and other Commonwealth administrative agencies. To assist the Court in the efficient resolution of this matter, the Commission will file a brief in this matter should the Court grant Sunoco's Petition for permission to appeal.

TEXT OF ORDER SUBJECT TO REVIEW

Judge Carpenter's *Opinion* concludes that the Mariner 2 East facilities will provide mostly interstate service and that this is determinative of jurisdictional issues vis-à-vis the Commission and the Public Utility Code. *Opinion* at 7. For example, the *Opinion* provides as follows.

> While Sunoco has averred that the pipeline could be contemporaneously interstate and intrastate and that Sunoco has, at all time, sought to comply with the certification and tariff requirements related to the different genres of commerce, this court finds that, for purposes of determining the jurisdictional arguments at issue here, the Plaintiffs have sufficiently plead that Mariner East 2 project is interstate commerce.

Opinion at 8. Similarly, Judge Carpenter opines that the Public Utility Code, 66 Pa. C.S. § 104, directs that the provision of any interstate service on a pipeline facility places the entire facility outside Commission jurisdiction. *Opinion* at 7-8. Judge Carpenter also interprets the Public Utility Code to find that the "public" is not the beneficiary of the services offered by the Mariner 2 East facilities and that this further isolates the project from Commission jurisdiction. *Opinion* at 9.

Nevertheless, the *Opinion* simultaneously acknowledges the jurisdictional difficulty of this determination. Regarding the lack of exclusive jurisdiction of any one state or federal agency over pipelines, Judge Carpenter opines

> [i]n making this finding, this Court also acknowledges the additional concern of the implications arising from conflicting

> determinations by the respective regulating authorities and finds that such consideration refutes any argument in support of contemporaneous interstate and intrastate commerce.

Opinion at 8, Fn. 21. The regulation of the joint and common use of petroleum pipeline facilities is conceptually and legally complex because operators may provide different types of service (some intrastate, some interstate) from the same pipeline.[2] That is, a pipeline is not necessarily a one-trick pony in terms of either use or jurisdiction.

The main error of the *Opinion* is in its conclusion that Sunoco's use of Mariner East 2 for interstate services precludes Sunoco's use of Mariner East 2 for intrastate services; thereby eliminating all attendant state jurisdiction and regulation for petroleum products pipeline transportation service with both beginning and end points wholly within Pennsylvania. Section 104 of the Public Utility Code has never been so broadly interpreted to divest the Commission of its exclusive jurisdiction over intrastate service simply because the public utility service being provided has both interstate and intrastate capabilities.

[2] Pipelines such as Sunoco's Mariner East project are not the only type of public utility facilities subject to both federal and state jurisdiction for interstate and intrastate operations respectively as this dual jurisdiction also exists with respect to electric and telecommunications facilities.

STATEMENT OF THE CASE

The essential facts are not in dispute; the question before this Court is a matter of law. The dispositive issue is whether a court of common pleas may entertain a collateral attack on an otherwise valid Commission-issued certificate of public convenience, or *sua sponte* examine the validity of a certificate of public convenience lawfully granted by the Commission to decide another matter. The Commission respectfully contends that Pennsylvania's courts of common pleas have no authority to entertain litigation over the validity of certificates of public convenience issued pursuant to Commission jurisdiction.

CONTROLLING QUESTIONS OF LAW PRESENTED FOR REVIEW

The Pennsylvania Public Utility Commission has exclusive jurisdiction to determine whether pipelines operating within the Commonwealth are providing public utility service subject to regulation under the Public Utility Code. The Pennsylvania General Assembly delegated jurisdiction over matters concerning the certification and regulation of public utilities to the Commission through the Public Utility Code. 66 Pa. C.S. §§ 101 – 3316. The Public Utility Code charges the PUC with responsibility to determine which entities are public utilities and to regulate how public utilities provide public utility service; the PUC has successfully fulfilled this legislative charge for over a century. *Pottsville Union Traction Co. v. Pa. Public Service Commission*, 67 Pa. Super. 301, 304

(1917). The General Assembly intended the PUC to have statewide jurisdiction over public utilities and to foreclose local public utility regulation. *Duquesne Light Co. v. Monroeville Borough*, 298 A.2d 252 (Pa. 1970).

Pipeline transportation services are defined as public utility services under Section 102 of the Public Utility Code. 66 Pa. C.S. § 102. Section 102 recognizes the intrastate transportation by pipeline of petroleum products as public utility service under subsection 1(v) of the definition of "public utility:"

> 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. The Commission has interpreted the definition of "petroleum products" broadly to encompass what would otherwise be an exhaustive list of products. Propane is a petroleum product. *Petition of Sunoco Pipeline, L.P. for Amendment of the Order Entered on August 29, 2013,* Docket No. P-2014-2422583 *(Amendment Order* at 9*)*, (July 24, 2014). This interpretation is consistent with the definition of "petroleum" in the federal hazardous liquids pipeline safety regulations at

49 C.F.R. § 195. Part 195 has been adopted by the Commission[3] and defines "petroleum" to include natural gas liquids and liquefied petroleum gas, which can include propane. 49 C.F.R. § 195.2.

The certificates of public convenience Sunoco obtained in 2003 through its acquisition of Sun Pipe Line Company and Atlantic Pipeline Corporation were for an integrated pipeline system – a pipeline network – not a single pipeline. *Amendment Order* at 2. This Order, as well as a related Commission Order issued on October 2, 2014, confirmed that Sunoco's intrastate transportation of propane and other petroleum hydrocarbons were within its existing certificated authority for petroleum and petroleum products. *Id.* at 9, n.5; *Petition of Sunoco Pipeline, L.P.,* Docket Nos. P-2014-2411941, P-2014-2411942, P-2014-2411943 *et al.*, Opinion and Order at 39 (October 29, 2014). This Commission order was not appealed to the Commonwealth Court by any party.

The Mariner East 2 pipeline is simply a phase of Sunoco's larger Mariner East project, not a separate utility service that requires an additional Commission - approved certificate of public convenience under 66 Pa. C.S. § 1102. In fact, most of Sunoco's filings to the Commission refer to both

[3] *See* 52 Pa. Code § 59.33(b).

Mariner East and the Mariner East 2 phases of the project. The following example shows this is (and has been) the case.

> Subject to continued shipper interest, SPLP intends to expand the capacity of the Mariner East project by constructing a 16 inch or larger pipeline, paralleling its existing pipeline from Houston, PA to the Marcus Hook Industrial Complex and along much of the same route. This second phase, sometimes referred to as 'Mariner East 2,' would make additional pipeline capacity available for both intrastate and interstate propane shipments...

Petition of Sunoco Pipeline, L.P. for Amendment of the Order Entered on August 29, 2013, Docket No. P-2014-2422583, Petition at 29 (May 21, 2014).

Expansions and extensions of public utility facilities within a utility's existing certificated service territory do not require new or amended certificates of public convenience. Absent facilities acquisitions, Section 1102 of the Public Utility Code requires a new or amended certificate only if a utility proposed to offer service of a different nature or in a different territory. 66 Pa. C.S. §1102(a).

In 2014, Sunoco recognized it needed such a new certificate of public convenience to extend Mariner East service into Washington County. Sunoco applied for and obtained a certificate of public convenience for Washington County. *See, Petition of Sunoco Pipeline, L.P. for Issuance of a Certificate of Public Convenience*, Docket No. P-2014-2422583 (*filed* June 6, 2014, *approved* August 21, 2014). It is important to note that Sunoco's application and the

Commission's order both refer to the repurposed existing pipeline and Mariner East 2.

On numerous occasions, the Commission has asserted its regulatory authority over Sunoco and its public utility service on the Mariner East system. Judge Carpenter's conclusion that the Commission lacks authority over the Mariner East pipeline simply because "the Plaintiff's Complaint pleaded facts that the proposed pipeline is inherently and primarily *interstate* and *commercial* in nature" raises serious jurisdictional concerns. *Opinion* at 9.

The Commission acknowledges that the courts of common pleas have jurisdiction to review whether a public utility attempting to exercise eminent domain has done so within the bounds of Pennsylvania's eminent domain law.[4] However, Commonwealth Court has stated "[t]he administrative system of this Commonwealth would be thrown into chaos if we were to hold that agency decisions reviewable by law by the Commonwealth Court, are also susceptible to collateral attack in equity in the numerous common pleas

[4] Under Sections 1103 and 1511 of the Business Corporation Law, 15 Pa. C.S. §§ 1103, 1511, the public utility must be a "public utility corporation" – a "domestic or foreign corporation for profit ... that is subject to regulation as a public utility by the Pennsylvania Public Utility Commission...." 15 Pa. C.S. § 1103. The Public Utility Code reinforces this requirement by requiring public utilities to possess a certificate of public convenience before exercising eminent domain. 66 Pa. C.S. § 1104.

courts." *Aitkenhead v. Borough of West View, et al.*, 442 A.2d 364, 366 n.5 (Pa. Cmwlth. 1982).

Plaintiffs' arguments regarding the nature of the service offered by Sunoco amount to nothing less than collateral attacks on the Commission's lawfully issued and unappealed orders and certificates of public convenience. It is hard to imagine a clearer collateral attack than in this case, where the Plaintiffs' Complaint asserts Sunoco "has neither applied for nor obtained an appropriate certificate of public convenience – the needed authorizing document – from the Public Utility Commission." Complaint at p. 2; see also Complaint pp. 20-23 (challenging whether Sunoco meets the Public Utility Code definition of "public utility"). The Commission respectfully requests that this Court recognize the collateral nature of these attacks by granting Sunoco's Petition for Permission to Appeal.

SUBSTANTIAL GROUNDS FOR DIFFERENCE OF OPINION

The Public Utility Code specifies the effect of Commission orders:

> Whenever the commission shall make any rule, regulation, finding, determination or order, the same shall be prima facie evidence of the facts found and shall remain conclusive upon all parties affected thereby, unless set aside, annulled or modified on judicial review....

66 Pa. C.S. § 316. The Commonwealth Court, not the courts of common pleas, is empowered to review Commission decisions and orders. 42 Pa. C.S. § 763. Accordingly, the Commission submits that the general rule should be that courts of common pleas must give conclusive effect to a final Commission order issuing a certificate of public convenience.[5]

A substantial difference of opinion exists not only among various parties challenging the completion of Mariner East 2, but also among various courts of common pleas. The Commission is not alone in its opinion that black-letter law provides it with primary jurisdiction over these matters. The *Opinion* directly contradicts other companion cases. For example, the Commission is currently participating as *amicus curiae* before Commonwealth Court in the appeal of *Scott and Pamela Martin et al. v. Sunoco Pipeline, L.P.*, Docket Nos. 1979 C.D. 2015, 1980 C.D. 2015, 1981 C.D. 2015 (*argued* March 9, 2016)(*Martin*). The Commonwealth Court has yet to rule on the appeal.

Under appeal in *Martin* was the Order of Judge Guido of the Cumberland County Court of Common Pleas overruling landowner preliminary objections based on arguments similar to those adopted by Judge Carpenter. Judge Guido concluded that the Mariner East 2 pipeline was

[5] This is consistent with the standard of appellate review that an administrative agency is entitled to deference for the agency's interpretation of its enabling statute. *Popowsky 1997, infra.*

regulated by both the Federal Energy Regulatory Commission and the Pennsylvania Public Utility Commission because Mariner East 2 was configured to be both an interstate pipeline as well as an intrastate pipeline subject to PUC regulation. *Sunoco Petition* at 9-11. It is apparent that various common pleas courts are arriving at opposite conclusions on the jurisdictional issue addressed in this case. This shows that a substantial difference of opinion exists. Resolution of this jurisdictional issue warrants granting the Sunoco Petition.

APPLICATION OF DOCTRINE OF PRIMARY JURISDICTION

Even if this Court believes the court of common pleas court had jurisdiction to hear the Complaint, the Commission respectfully submits that this Court should direct the lower courts to apply the doctrine of primary jurisdiction to bifurcate the case.[6] In such situations, the case should be sent to the Commission on the issue of public utility status, rather than allowing the Commission order to be subject to collateral review by the court of common pleas. *See, e.g. White v. Conestoga Title Ins. Co.*, 53 A.3d 720, 728 n.14 (Pa. 2012) ("[t]he doctrine of primary jurisdiction is jurisprudential, developed by this Court to accommodate 'the respective spheres of adjudicatory authority' of the Commonwealth's administrative agencies and

[6] The Commission does not imply that any unusual circumstances exist in this case.

the common pleas courts. Under the doctrine, a trial court, which has subject matter jurisdiction over a claim, determines that an agency's expertise is needed on a particular issue. Accordingly, it refers the question to the agency and stays judicial proceedings, pending the agency's determination. The agency's subsequent determination on the issue, when final, is binding and not subject to collateral attack upon the resumption of judicial proceedings.") (*citations omitted*).

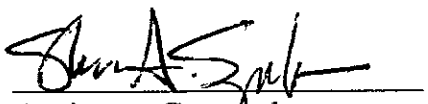
Lastly, the Commission notes that Section 701 of the Public Utility Code permits any person or corporation to "complain in writing ... of any regulation or order of the commission." 66 Pa.C.S § 701.[7] The Commission respectfully submits that adjudication of such matters by the Commission, subject to appellate review by the Commonwealth Court, is preferable to the conflicting rulings and chaos which would result if Commission orders were to be subject to collateral attacks in common pleas courts. *Aitkenhead, infra.*

[7] Section 701 reads in its entirety: "The commission, or any person, corporation, or municipal corporation having an interest in the subject matter, or any public utility concerned, may complain in writing, setting forth any act or thing done or omitted to be done by any public utility in violation, or claimed violation, of any law which the commission has jurisdiction to administer, or of any regulation or order of the commission. Any public utility, or other person, or corporation likewise may complain of any regulation or order of the commission, which the complainant is or has been required by the commission to observe or carry into effect." 66 Pa.C.S. § 701.

CONCLUSION AND STATEMENT OF RELIEF SOUGHT

WHEREFORE, for the foregoing reasons, the Pennsylvania Public Utility Commission, acting as *Amicus Curiae*, respectfully requests that this Honorable Court grant the Sunoco Petition for Permission to Appeal. Granting the Sunoco Petition will materially advance the termination of this and similar matters by providing certainty and guidance on whether Pennsylvania common pleas courts are to abstain from adjudicating the validity of public utility certificates of public convenience.

Respectfully submitted,



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Dated: April 7, 2016

CERTIFICATE OF SERVICE

I hereby certify that I am this day serving the foregoing document, Response In Support Of Petition Of Sunoco Pipeline L.P. For Permission To Appeal The Interlocutory Order Of March 1, 2016, upon the persons listed and in the manner indicated below:

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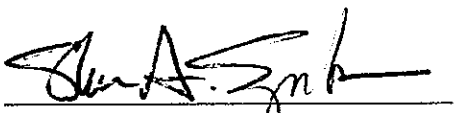

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Dated: April 7, 2016

Exhibit E

December 27, 2018

Via E-Filing

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Re: Joint Comment on Draft Guidance for Horizontal Directional Drill Monitoring, Inadvertent Return Response, and Contingency Plans, Docket No. AD19-6-000

Dear Secretary Bose,

Thank you for your consideration of this timely filed joint comment on Docket No. AD19-6-000, regarding the draft Guidance for Horizontal Directional Drill Monitoring, Inadvertent Return Response, and Contingency Plans ("Draft Guidance"). Clean Air Council, Mountain Watershed Association, Inc., and the Delaware Riverkeeper Network submit this comment on behalf of themselves and several other non-profit organizations working in the public interest of protecting health, safety, and the environment ("Commenters"). Commenters also include the Natural Resources Defense Council, the Chesapeake Bay Foundation, and Citizens for Pennsylvania's Future.

Commenters thank the Commission for its attention to this very important matter and strongly support clear and protective Guidance for Horizontal Directional Drill Monitoring, Inadvertent Return Response, and Contingency Plans.

Commenters

Clean Air Council is a non-profit environmental organization headquartered at 135 South 19th Street, Suite 300, Philadelphia, Pennsylvania 19103, with thousands of members in Pennsylvania and across the Mid-Atlantic. For more than 50 years, Clean Air Council has fought to improve the air quality across Pennsylvania. Clean Air Council works to protect everyone's right to a healthy environment.

The Mountain Watershed Association, Inc., home of the Youghiogheny Riverkeeper, is a non-profit, community-based environmental organization located at 1414 Indian Creek Valley Rd., Melcroft, Pennsylvania 15462, with more than 1,400 members. Our major purposes include bringing about remediation of the numerous abandoned mine discharges, developing community awareness, promoting cooperative community efforts for stewardship, and encouraging sound environmental practices throughout Pennsylvania's Laurel Highlands region and surrounding areas. Our mission is the protection, preservation, and restoration of the Indian Creek and greater Youghiogheny River watersheds.

The Delaware Riverkeeper Network is a non-profit organization established in 1988 to protect and restore the Delaware River, its associated watershed, tributaries, and habitats. The Delaware Riverkeeper Network is a membership organization headquartered in Bristol, Pennsylvania, with more than 16,000 members. To achieve these goals, the Delaware Riverkeeper Network organizes and implements streambank restorations, a volunteer and scientific monitoring program, educational programs, environmental advocacy initiatives, recreational activities, and environmental law enforcement efforts throughout the entire Delaware River watershed and beyond when that litigation has direct implications for the watershed.

The Natural Resources Defense Council (NRDC) is a national, nonprofit, nonpartisan environmental advocacy organization. NRDC has a long history of litigating and advocating for clean water and against fossil fuel drilling activities at the federal, state and local levels. NRDC also has deep expertise on the issue of fracking. Among other work, NRDC launched the Community Fracking Defense Project in 2013 to provide communities with policy, legal, and technical tools to protect themselves from the risks of fracking, including groundwater contamination; air, climate, noise and light pollution; toxic chemical and wastewater spills; and the risk of catastrophic accidents, such as wellsite explosions.

The Chesapeake Bay Foundation (CBF) is a 501(c)(3) non-profit organization, founded in 1967. The organization's mission—carried out from offices in Maryland, Virginia, Pennsylvania and the District of Columbia—is to restore and protect the ecological health of the Chesapeake Bay, the nation's largest and one of its most vital estuaries. As such, and on behalf of our over 275,000 members and e-subscribers across the United States, we are very interested in matters that will impact the health of the Chesapeake Bay, the waters that feed into it, and the health of those who live and work within the Bay watershed.

Citizens for Pennsylvania's Future (PennFuture) is a public interest membership organization dedicated to leading the transition to a clean energy economy in Pennsylvania and beyond. PennFuture strives to protect our air, water, and land, and to empower citizens to build sustainable communities for future generations. PennFuture works to protect Pennsylvania's waters and the conservation of its resources for future generations through public outreach and education, advocacy, and litigation.

Background: HDD Plan & HDD Re-Evaluation Process

As a result of litigation prosecuted in 2017 and 2018 by Commenters Clean Air Council, the Delaware Riverkeeper Network, and Mountain Watershed Association, Inc. ("Litigants"), a new HDD Plan was developed for preventing and responding to inadvertent returns for Sunoco Pipeline L.P.'s Mariner East 2 pipelines ("Mariner East 2 Project"). This plan contains model provisions that should be incorporated into FERC's final Guidance. Litigants had appealed

permits issued by the Pennsylvania Department of Environmental Protection for the Mariner East 2 Project, a set of pipelines outside of the Commission's Natural Gas Act jurisdiction.[1]

Following over sixty inadvertent returns, over a dozen contaminated water wells, and numerous contaminated streams and wetlands--all over the course of just a few months of construction--Litigants sought the equivalent of a preliminary injunction against the use of HDD for the Mariner East 2 Project. A temporary cessation was ordered, followed by a court-approved settlement in August 2017 which, among other things, modified and improved Sunoco's HDD Plan. The settlement also required Sunoco to undertake technical re-evaluation of many of its HDD construction plans to limit future inadvertent returns and better protect drinking water supplies. Due to further events, the parties (Sunoco, the Litigants, and the Pennsylvania Department of Environmental Protection) again modified and further improved the HDD Plan in the spring of 2018. The resulting plan is attached hereto as Exhibit A.[2]

Key ideas from the improved Mariner East 2 Project HDD Plan have since been used for another major pipeline project in Pennsylvania, the Shell Pipeline Company LP Falcon Ethane Pipeline System. *See* Shell Falcon Pipeline IR Plan without attachments, Exhibit B hereto. Shell wrote that its pipeline HDD plan is "consistent with industry best management practices." *Id*. at 1. While the HDD plans for the Mariner East 2 Project and the Falcon Pipeline are not perfect, there are some important elements derived from the Mariner East 2 Project HDD Plan that would strengthen the Commission's Guidance. These comments draw on the Mariner East 2 Project HDD Plan and the expertise Litigants gained through working to address the problem-plagued HDD operations of the Mariner East 2 Project.

Definitions

Defining and sharpening the definitions of certain terms used in the Draft Guidance would greatly strengthen the document. The three terms Commenters focus on are (1) "HDD," (2) "IR," and (3) "significant" with respect to "loss of drilling fluid circulation."

Though HDD is defined as "Horizontal Directional Drill," "Horizontal Directional Drill" is not itself defined. It needs definition. There is no universal definition for the term, and there is a growing body of borderline cases of construction methods which could arguably be considered HDD. This became an issue in the construction of the Mariner East 2 Project, where Sunoco employed a variety of trenchless construction techniques that utilized pressurized fluid and a question arose over whether the HDD Plan in that case applied to the techniques. These techniques included, for example, what it called "guided bores" that sometimes used a bentonite slurry, and "FlexBor," a new proprietary technology that aims to limit the use of bentonite in later stages of drilling but still relies on pressurized fluid. Per order of the Pennsylvania

[1] *See* Environmental Hearing Board docket no. 2017-009-L at http://ehb.courtapps.com/public/document_shower_pub.php?csNameID=5409.

[2] The re-evaluation reports are available through the Pennsylvania Department of Environmental Protection's website at https://www.dep.pa.gov/Business/ProgramIntegration/Pennsylvania-Pipeline-Portal/Pages/HDD-Reevaluation-Reports.aspx.

Department of Environmental Protection, Sunoco disclosed its list of trenchless technologies used on the Mariner East 2 Project in early 2018. *See* Sunoco Pipeline L.P. "Trenchless Construction Methodologies," Exhibit C hereto.[3] It specified that six separate technologies posed a risk of inadvertent return, only one of which Sunoco has been calling "Horizontal Directional Drill." Ultimately, given the similarities of these technologies, especially as they relate to the threat of inadvertent returns, the revised Mariner East 2 Project Plan used an appropriately inclusive definition of HDD: "HDD shall include trenchless construction methodologies that utilize fluids under pressure." This has helped prevent ambiguity as to when the Mariner East 2 Project HDD Plan is to be applied and has ensured that the Plan's protections from inadvertent returns cannot be undercut by shifting between similar and hybrid drilling methodologies that can still result in inadvertent returns.

Failing to specifically define "HDD" in this guidance presents the risk that the regulated community will interpret "HDD" more narrowly than intended (as Sunoco did), and will not apply the guidance to all horizontal directional drilling technologies that can cause inadvertent returns, the main concern of the Draft Guidance. As inadvertent returns are most often caused by the use of pressurized fluid during a drill, Commenters propose that "Horizontal Directional Drill" be defined as "trenchless construction methodologies that utilize fluids under pressure."

"IR" is defined in the Draft Guidance as "Inadvertent Return of Drilling Fluids to the Ground Surface." Problems can arise when trying to distinguish between "drilling fluid" and other liquid that might return to the ground surface during construction, such as wastewater, used drilling fluids, or groundwater. This problem is not theoretical; as with some other points Commenters raise here, such a disagreement arose during the Mariner East 2 Project construction. From an environmental standpoint, returns of groundwater from the subsurface can be as problematic as returns of drilling fluids. Returns of groundwater from the subsurface can carry an array of naturally occurring chemical and biological contaminants as well as sediment. Returns of groundwater during drilling can also be indicative of significant subsurface geostructural complications that need to be addressed before proceeding with drilling in order to ensure the safety of the public and the environment. Rather than leaving the potential for disagreement about which IR is really an IR and which is not, the better solution is to refine the definition of IR to be "Inadvertent Return of Fluids to the Ground Surface," eliminating the qualifier "Drilling."

Finally, on pages 8 and 9, the Commission variously refers to "significant or complete loss of drilling fluid circulation," and "significant or total loss of drilling fluid circulation." The Draft Guidance specifies that HDD Plans should have procedures in place for those conditions. This is very important and should remain in the final Guidance. Environmental concerns around loss of circulation are at least twofold.

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[3] Also available at http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/Summary_of_Order/Para%202%20-%20Exhibit%20A%20-%20Trenchless%20Construction%20Methodologies.pdf.

First, loss of circulation means that drilling fluid has migrated from the borehole into the surrounding subsurface. This alone can cause hydrogeological problems. Drilling fluid is often bentonite-based and will form an impermeable barrier upon drying. Groundwater flows may be stopped or diverted by migrating bentonite slurries, which can lead to the drying up of wells or streams.

Second, loss of circulation is often an indication of or precursor to inadvertent return. Sometimes continuation of the drilling will push the fluid further out from the borehole and eventually to the ground surface. Addressing these incidents at the loss of circulation stage can prevent them from becoming inadvertent returns.

However, "significant" is a subjective term and should be defined. The Commission should clarify that when it refers to "significant" loss of drilling fluid circulation, it means any discernible loss of circulation that could (1) cause hydrogeological concerns or (2) be an indicator of a potential inadvertent return to come.

Advance Measures

The Draft Guidance at page 2 specifies, in addition to the information listed in the Procedures at Section V.B.6.d, that Companies should incorporate the following into their applications:

> crossing-specific geotechnical information and crossing profiles showing the feasibility of the crossing; a hydrofracture and IR risk evaluation; drilling fluid composition (including the use of drilling mud additives, and source water identification and analysis) and management; HDD monitoring procedures and document retention; and unique conditions identified along proposed HDD alignments that may increase the risk of HDD construction complications, inadvertent releases, or cause other environmental concerns.

Commenters support the inclusion of these items, and suggest the following additional details:

First, many but not all states require professional licensure for geologists. It is very important that project applications include analyses of geotechnical information and crossing profiles, hydrofracture and IR risk evaluation, and other geological analysis that are separate and sealed by a licensed professional geologist in the state where the HDD is planned, if the state has licensure requirements. In the experience of commenters, reports sealed with a geologist's stamp are significantly more likely to contain reliable analysis than reports filtered through the permitting consultant, which sometimes downplay risks associated with a given HDD, or even contradict the report of the licensed geologist.

Second, Companies should identify all water supplies (including wells and springs) within 2,000 feet of the HDD alignment and include an analysis of the risk of impairing the quality and quantity of water in these water supplies. The Draft Guidance only recommends doing so within karst areas and only out to 1,000 feet from the alignment. *See* Section 4.1. This is not sufficient.

It is unquestionable that HDD presents risks to water supplies. So far during the course of construction of the Mariner East 2 pipelines, dozens of water wells across Pennsylvania have either dried up or been contaminated by Sunoco's use of HDD. *See*, e.g., PA Department of Environmental Protection press release, "DEP Announces Accountability Actions for Mariner East 2 Violations; Environmental Hearing Board Issues Temporary Partial Halt to Drilling," July 25, 2017.[4] The Commission itself recognizes that water supplies are at risk with HDD operations. Contamination does not only occur in karst areas or through underground communication. Surface spills can flow into water supplies and drilling can alter underground pathways from things such as septic fields. *See*, e.g., "Water problems persist along Mariner East pipeline route despite court intervention," StateImpact Pennsylvania, October 12, 2017.[5] Karst is certainly a risk factor for water contamination. But HDD near water wells and springs is quite risky regardless, and landowners in non-karst topographies should be protected as well.

The 2,000-foot distance is based on reasonable risk of harm to water supplies. As pipeline operators and contractors have acknowledged, hydrogeological connectivity across 2,000 horizontal feet is common. *See* Hydrogeological Re-Evaluation Report by Skelly & Loy for Sunoco PA Pipeline Project Mariner East II Wetlands A54 & A55 Horizontal Directional Drill (HOD) Location (S3-0161), attached as Exhibit D,[6] at page 4 ("Wells spaced less than 2,000 feet apart along strike often experience interference effects (Newport, 1971)."") (citing Newport, T. G., 1971, Ground-water Resources of Montgomery County, Pennsylvania, Pennsylvania Topographic and Geologic Survey, Water Resources Report, W29, 83 pages). Real-world testing has demonstrated that water supplies within 2,000 feet are at risk from HDD operations. For example, Sunoco identified a risk to public water supplies located at 1,170 feet, 1,600 feet, and 1,900 feet from its HDD alignment in Pennsylvania. *See* pages 2-3 of Horizontal Directional Drill Analysis North Pottstown Pike Crossing, PADEP Section 105 Permit No.: E15-862 PA-CH-0212.0000-RD (SPLP HDD No. S3-0370), attached as Exhibit E.[7]

Third, Companies should evaluate the risk of the HDD borehole creating a preferential pathway for aquifer drainage. Experience has shown that where there is a significant difference in elevation between the entry and exit pits, and the borehole intersects a body of groundwater, the groundwater can flow downward along the hole and come gushing out the lower pit. This can lead to major problems at the lower site and surrounding property, and also the drying up of uphill water supplies and springs. During construction of Mariner East 2 outside Philadelphia,

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[4] Available at https://www.media.pa.gov/pages/DEP_details.aspx?newsid=827.

[5] Available at https://stateimpact.npr.org/pennsylvania/2017/10/12/water-problems-persist-along-mariner-east-pipeline-route-despite-court-intervention/.

[6] Also available at http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/Wetland%20A54%20%26%20A55%20HDD%20S3-0160%20%26%200170--16%20HDD%20Reanalysis-reduced.pdf.

[7] Also available at http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/HDD_Reevaluation_Reports/N.%20Pottstown%20Pike%20Crossing%20-%20S3-370%20-%20PA-CH_0212.0000%20-%20HDD%20Reanalaysis.pdf.

Sunoco's inability to contain fluid flowing downhill into the staging pit during HDD operations has led to numerous violations and discharges into streams. *See*, e.g., CBS 3 Philadelphia, "Sunoco Working To Contain Spill Linked To Pipeline," July 18, 2017.[8] The Draft Guidance mentions identification of "significant grade change" at page 5, but actual analysis is best and should be required.

We support the Commission's inclusion that Companies should include "a hydrofracture and IR risk evaluation" in site plans but believe there should be more specificity to the statement. Companies should also include an exhaustive list of the factors that were reviewed in order to come to a conclusion in their risk analysis and how those data points were analyzed.

Finally, Companies should include an analysis of comparative depths of HDD profiles and angles of entry and exit. It is often (but not always) the case that an increase in depth below ground surface can reduce the likelihood of inadvertent return and water supply impairment, simply due to the additional overburden. Sunoco undertook dozens of re-evaluations of its Mariner East 2 HDDs pursuant to its July 2017 settlement with the Litigants. For many of those, it altered its HDD plans to deepen the profiles in order to reduce the risk of IR. *See*, e.g., page 8 of Horizontal Directional Drill Analysis Spinner Road Crossing PADEP Section 105 Permit No.: E11-352, PA-CA-0069.0000-RD (SPLP HDD No. S2-0080), attached as Exhibit F[9] ("The redesign adjusts the HDD profile deeper to place the HDD pathway through bedrock having better structural integrity than a shallower profile…"). This is a relatively low-cost and straightforward way to reduce the harm to neighbors and the environment from HDD operations, but without proper analysis, the opportunity to design a safer drilling profile is lost.

Operational Measures

In addition to ensuring the HDD survey and construction plans are well-thought-out and protective, as discussed above, measures to ensure safe operation are key.

The Draft Guidance sensibly recommends "commit[ment] to implementation of qualified, responsible oversight" of HDD operations in Section 3.2. Commenters urge the Commission to include in the Guidance that Companies have onsite at all times a contractor or other agent with the authority and responsibility to order HDD operations halted or modified as needed in the event of an IR, contamination incident, or other urgent event. While that may seem implicit in "stopping or changing the drilling program in the event of an observed or anticipated IR," it is better written explicitly. It cannot be assumed that being responsible for stopping or changing the drilling program means that it can actually be done in the field.

[8] Available at https://philadelphia.cbslocal.com/2017/07/18/sunoco-pipeline-drilling-incident/.
[9] Also available at http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/HDD_Reevaluation_Reports/Spinner%20Road%20Crossing%20-%20S2-0080%20-%20E11-352%20-%20PA-CA-0069.0000-RD.pdf.

This was a problem in the Mariner East 2 Project. Sunoco said that its contractors or subcontractors would not all have the authority to alter the drilling program, despite having the responsibility to do so in order to comply with the permits. As a hydrogeologist for the Pennsylvania Department of Environmental Protection explained in a litigation expert report, "I was twice told by the onsite Professional Geologists that they were not permitted to speak directly with the driller. In general, there appear to be too many layers in the chain of command until an employee with sufficient authority to direct drilling operations is notified." *See* PADEP Sigouin Expert Report, attached as Exhibit G hereto.

During an agency-ordered shutdown of the project in January 2018, Sunoco was required to draft an operations plan in part to address this deficiency. That plan is attached hereto as Exhibit H.[10] Particularly pertinent is Section 4.1 of the operations plan, "Stop Work Authority." The first sentence of that section reads: "Any employee of SPLP [Sunoco Pipeline LP], any contractor, and/or any subcontractor on each construction site has the responsibility and authority to stop work and report to Lead EIs [Environmental Inspectors] and staff EIs site-specific activities that are not in compliance with the environmental permits or conditions."

The Guidance should include a recommendation that Companies put in place a similar stop work authority for all projects, specifically ensuring that those onsite who believe that the drilling needs to stop can make it happen.

We support the Commission's recommendation for training to be included as a pre-construction activity. *See* Section 3.3.1. HDD-specific implementation and safety training have the potential to make great strides towards more successful drilling. Training should also include chain of command reporting requirements. With the Mariner East 2 Project, the Litigants saw instances where impacts from inadvertent returns could have been mitigated if the appropriate person or agency had received timely notice. As well, training would hopefully achieve more consistency in reporting, which allows for the Companies and the Commission to better understand and gauge the impacts when there is an inadvertent return.

The Draft Guidance states that the HDD plan should describe how landowners would be notified of HDD activities. As an addition or modification to Sections 3.3.2 and/or 3.3.3 of the Draft Guidance, the Commission should also include that Companies discuss the construction plans with landowners or other residents on the land in question shortly before construction commences. The people who live in a given community have the best understanding of their land and what the Company can expect to come across during the construction process. Frank and informative discussions thus can best ensure that no unexpected roadblocks are encountered. Moreover, notifying landowners of what will happen on their property and when is common courtesy that is unfortunately lacking sometimes. This lack of communication not only makes for worse HDD design, but also strains relationships between Companies, residents, and other members of the impacted public who may need to cooperate in the event of an inadvertent return

[10] Also available at http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/Summary_of_Order/Para%209%20-%20Exhibit%20E%20-%20Operations%20Plan.pdf.

or other construction incident. Inclusion of frequent resident consultation in the Guidance would improve that situation.

Table 3.4-1 should be amended to include documentation of the use of loss control materials and other drilling fluid additives, including the quantity, timing, and location of use. Documentation of "Drilling Fluid Composition" as expressed in the Table does not currently capture that. Records of the use of these materials are important for: (1) corroborating actions taken to prevent or control IRs; and (2) documentation of materials injected in the ground that may later be found to have contaminated water supplies, for testing and causation determinations.

The Commission should remove the word "consider" from the second sentence of Section 3.6.1 to strengthen the recommendation. Annular pressure monitoring is a best practice not only for avoiding IRs, but also for simply conducting a well-run HDD operation.

Commenters support the Commission's recommendation that Companies proactively reach out to landowners that are perhaps beyond the right-of-way and receive permission to enter should there be a need to remediate an inadvertent return on land beyond the easement. *See* Section 3.7.1. This is beneficial in multiple ways. First, as the Commission stated, it expedites response time if a spill occurs and limits downtime during drilling operations. Secondly, it works to help notify the community of the activity so that it can be on alert and more prepared to take any responsive actions they may need to.

The Commission should include in the Guidance a recommendation that Companies have and describe a protocol for notifying landowners, residents, and anyone else who might use a water source within 2,000 feet of the alignment as soon as possible in case of an IR or "significant" loss of drilling fluid circulation. Some changes to water quality may not be evident and residents may continue to use water that is at risk of contamination, or their children or animals may have access to contaminated groundwater. Residents must be notified to take precautions to protect the health and safety of themselves, their families, their tenants, livestock, and pets. Also, a resident or landowner will have access to the whole property to inspect for drilling fluid or any other change. And again, it is common courtesy that when industrial waste is discharged on someone's property or into their water source by a third party, the responsible party notify the impacted resident immediately.

Additional measures should be included in Section 3.7. When an IR occurs and is not contained, the Company should cease drilling at least until the IR is contained. Otherwise the problem continues to worsen and becomes harder to contain as time goes on.

The Draft Guidance does not mention borehole grouting or casing in its discussion of IR prevention or response. It should. These are common and often useful techniques. The Commission should ask Companies to submit their plans for determining when they will use grouting or casing, and what methods they will use.

Water Supply Testing

As discussed above, the Commission acknowledges that water supplies such as wells and springs deserve protection from HDD operations. Also as discussed above, they are sometimes depleted or contaminated due to those operations. Companies often dispute their responsibility for impairment incidents. Such disputes can leave landowners in the lurch, their property and water sources damaged with no remedy. Many cannot afford lawyers or do not know they may have rights. The Companies, in contrast, are profiting from the construction—sometimes to the tune of billions of dollars—and are experienced in limiting their liability.

The best practice for avoiding such disputes is having pre-construction baseline water quality and quantity testing done, and post-construction testing done where concerns arise. Companies often do such testing for at least a certain subset of landowners. We recommend that the Companies should conduct pre-construction water well and spring quality and quantity testing by third-party independent certified testing labs for all landowners along HDD alignments, as well as post-construction monitoring when concerns arise. As noted above, water supplies within 2,000 feet from the alignment may be impacted, and so that is an appropriate radius within which to conduct testing. The water quality testing should measure turbidity, pH, dissolved and suspended solids, hardness, alkalinity, specific conductance, anions, trace metals, bacteriological contamination, and indicators of construction machinery, blasting, and drilling contamination, including a full list of volatile and semi-volatile organic compounds, blasting agents, and herbicides.

The need for testing for bacteria, though not unusual in the pipeline construction field, is worth explaining. While drilling fluid itself is not normally contaminated with bacteria, the process of carving holes through the earth can and does transport bacteria and other substances, creating new pathways for contamination. Bacteriological cross-contamination is especially likely in farms and areas with septic fields, which Companies may not map out and watch for if they have not consulted with local landowners.

Pre-construction testing should be conducted before construction more than once to capture annual, seasonal, or other hydrologic variations.

Water quantity should also be tested using a sustained yield test, which measures the amount of time an aquifer can maintain a flow rate. Loss of water quantity can be just as devastating to a landowner as water contamination. *See* Downstream Strategies, "Threats to Groundwater from the Mountain Valley Pipeline and Atlantic Coast Pipeline in Virginia," May 23, 2018.[11]

[11] Available at https://assets.nrdc.org/sites/default/files/downstream-strategies-threats-to-groundwater-from-the-mountain-valley-pipeline-atlantic-coast-pipeline-in-virginia_2018-05-25.pdf.

Abandoned Mine Risks

Abandoned mine voids are common in certain parts of the nation and pose unique risks for HDD activity conducted near or through them. If an inadvertent return occurs in a previously undermined area, that return could release not just groundwater or drilling fluid, but acid mine drainage. HDD activity that forces out previously contained acid mine water could create a new discharge that must be treated in geologic perpetuity. In addition to this concern, mine subsidence can impact construction and maintenance of pipelines. Subsidence can be incredibly difficult to predict and can not only alter the predictions for an individual HDD drill site but can put eventual strain on the pipeline. The potential for future strain from mine subsidence must be considered during the HDD site planning phase. If it is not properly analyzed, we leave open the possibility of subsidence causing pipelines to completely fracture or rupture in the future.

Commenters support the Commission's recommendation that Companies should include in their HDD plans how they intend to minimize risks when unique conditions or features are discovered near the alignment. Commissioners give a list of such features in Section 3.1, "e.g., existing contamination, karst features, slope instability, abandoned and/or orphan oil and gas wells." Commenters understand that this list is not intended to be exhaustive, however, we recommend the inclusion of underground mines in the list. It could prompt Companies and state agencies to consider this risk where they perhaps had not before. It is worthwhile to encourage Companies to consider something that has such potentially dire consequences. We recommend that a thorough evaluation of the physical and chemical impacts of the abandoned mine is conducted and reported prior to any drilling activity. We also recommend that a plan to mitigate these impacts is approved by a professional geologist or professional engineer prior to any drilling activity.

Commenters also support the Commission's instruction to include information from geotechnical investigations that may increase the risk of drill complications. As with the previous section, we ask that underground mining be included. The portion in Section 4.1 should read:

> For each HDD, you should describe subsurface conditions identified by geotechnical investigations that may increase the risk of drill complications (e.g., artesian groundwater, karst conduit porosity/permeability, highly weathered bedrock, potential sources of cross contamination such as **from** abandoned oil/gas wells **and mines** in the vicinity of the drill alignment).

Conclusion

Commenters greatly appreciate the Commission taking the time to seriously consider the refinements suggested in this joint comment.

Sincerely,

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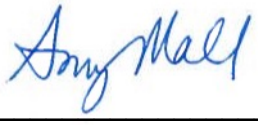

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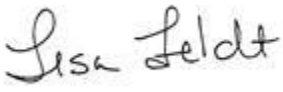

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