Dear Secretary Chivetta and PUC Commissioners,

The proposed rulemaking *Hazardous Liquid Public Utility Safety Standards at 52 Pa. Code Chapter 59; L-2019-3010267* put forth by the PA PUC is long overdue in light of all the foibles, violations, resultant fines, regulatory challenges, eminent domain abuse, improper restoration of properties after pipeline construction, acts of intimidation by pipeline workers and hired private security personnel towards landowners and inhabitants, the litany of lies and general lack of regard for public health and safety associated with Energy Transfer/Sunoco Logistics L.P. Mariner East project as well as the proliferation of new intra and interstate pipeline projects due to the fracking boom in the state and United States. There have also been numerous significant incidents including explosions of new and older pipelines in the eastern and other parts of the United States associated with all this expanding and or repurposed infrastructure [Texas Eastern/Enbridge 30-inch pipeline Lincoln County Kentucky on August 1, 2019; Energy Transfer Partners Panhandle Eastern Pipeline near Mexico, Missouri in March 2019; Texas Eastern/Enbridge 30 inch pipeline in Noble County Ohio on January 21, 2019; newly installed TransCanada/Leach XPRESS pipeline located in Marshall County West Virginia in June 2018; Energy Transfer's Revolution pipeline in Beaver County PA on September 10, 2018 (just one week after it went into operation); the Texas Eastern/Spectra pipeline in Salem Twp. Westmoreland County PA in April 2016; Energy Transfer Partners 36-inch pipeline located in Cuero, Texas June of 2015; the Columbia Gas pipeline explosion near Sissonville West Virginia in December 2012; ...] and Energy Transfer's leaking Mariner 1 pipeline in different areas of PA. A more complete list of pipeline accident reports can be found at this National Transportation Safety Board link: https://www.ntsb.gov/investigations/AccidentReports/Pages/pipeline.aspx . Additionally, there are numerous safety and environmental violations associated with the construction and operation of NGL and LNG pipelines that could be reduced and or prevented if appropriate regulations were established.

I firmly believe that the PUC should take all measures possible to set the bar higher than the current requirements set forth in 49 CFR 195 due to the continuing risk of the above stated incidents especially when pipelines are hastily constructed and lack the appropriate oversight and inspections. Plus, humans by nature (from private individual to corporate boards and CEOs ), are inclined to cut corners/costs whenever possible if there is an opportunity or make a greater profit. By setting higher more stringent standards the Pennsylvania PUC could finally become a leader relative to pipeline safety and a model for other states considering the same.

**Comments on specific parts of the proposed regulations**

**Cover over buried pipeline**

49 CFR Section 195.248 requires set amounts of cover for newly constructed HVL (to include NGLs) pipelines dependent on location [e.g. industrial, commercial, residential areas; bodies of water with a width of at least 100 feet, drainage ditches at public roads and railroads (areas prone to erosion) deep water zones etc.] to ensure the stability of said pipelines. Other locations prone to erosion such as streambeds should also be included relative to an adequate amount of cover. This is especially important in light of more recent changes in weather patterns/major rainfall
events occurring and predicted to occur with greater frequency from this time forward in Pennsylvania as a consequence of climate change. Also, pipelines exposed in streambeds are also at greater risk of external corrosion. Since particular amounts of cover are required for any new pipeline constructed, then it only makes sense that the same amount of cover be required and maintained throughout the lifetime of all pipelines (new or existing) to guarantee stability as well as prevent the risk of external damage and or corrosion. Older pipelines already in existence in any of the above-mentioned locations should be grandfathered in. Pipelines located in both high and low consequence areas should also be buried at deeper depths than currently required in 49 CFR 195.248.

**Pipeline conversion**

If or when a pipeline operator applies to convert a pipeline from non-service to in-service the PUC should strongly consider the potential significant impacts that could result from conversion to service, reversing the flow, and or changing the product transported in the pipeline as per the Pipeline and Hazardous Materials Safety Administration (PHMSA) advisory bulletin Docket no. PHMSA-2014-0040 (attachment #1) before any allowing any such permit approval. If after a thorough vetting process conversions are permitted the following parties should be held fully responsible for any and all damages including compensation to those persons whose lives and or properties are impacted should a leak, rupture, fiery explosion or worse result as a consequence of the conversion and or negligence of the operator of said pipeline: the operator of the pipeline, the companies whose HVL/NGL products are transported through the pipeline and the contractors who worked on converting the pipeline.

**Leak detection and Inspection of Rights-of-Ways**

Pipelines do and will leak as indicated by records maintained by PHMSA. According to U. S. Department of Transportation Pipeline and Hazardous Materials Safety Administration Final Report titled Leak Detection Study - DTPH56-11-D-000001 (attachment #2) which is based upon pipeline operator data the majority of all types of pipeline leaks (HVL, and natural gas) from January 1, 2010 through July 7, 2012 were not detected by the supposed "state of the art" Leak Detection systems (LDS), CPM (an algorithmic computer-based monitoring tool), supervisory control and data acquisition (SCADA) computer systems and pressure tests utilized by the industry. To the contrary the majority of leaks were first identified by local operating personnel, emergency responders and the public. Specific to HVL pipelines CPM, LDS and SCADA detected only 23 of 154 leaks (15%) and air patrols another 10 (6.5%) while local operating personnel, emergency responders and the public identified 38, 14 and 45 of all leaks respectively from January 1, 2010 through July 7, 2012. Due to the unreliability of these systems alone pipeline operators should employ a variety of leak detection technologies and methods simultaneously every 2 weeks to ensure more accurate and reliable leak detection or issues along pipelines. Please see documents titled "Recent Advances in Pipeline Monitoring and Oil Leakage Detection Technologies: Principles and Approaches" (attachment #3) and "An overview of pipeline leak detection and location systems" (attachment #4) along with methods and recommendations discussed in the above mentioned PHMSA report on leak detection for details. Bottom line, it is the pipeline operator who should be fully responsible in employing all methods and technologies available to ensure the continuous safe operation of their pipelines to ensure public safety not the public.
Odorants
Odorants should be used in all pipelines transporting products regardless of pipeline designation (local distribution through to interstate transmission), location (high vs. low consequence areas) and product (HVL, NGL, LNG etc.) being transported through pipelines. Odorants are commonly used in local distribution systems of LNG products and although the industry will argue that it is not feasible with NGLs the information and science is out there that states otherwise. It may be somewhat expensive but it can be done. Please see the 2 attached articles (#5 and #6) along with an international patent for the removal of mercaptans from NGLs (attachment #7) Adding odorants will help with earlier detection of leaks and further ensure safety and peace of mind of the public.

Public awareness/public safety meetings
Due to the transient nature of many communities today pipeline operators should regularly conduct several public meetings in each county focused on public awareness and public safety throughout each calendar year. This would better guarantee that new as well as more permanent residents would have ample opportunities to attend at least one meeting in their county. These meetings should be advertised via local and regional media including print, radio, and television. In addition, all inhabitants (property owners and renters) living within one mile (NIOSH recommended evacuation zone) of an HVL, LNG or NGL pipeline should also receive an invitation (via the U.S Postal Service) from the pipeline operator to inform them of these meeting dates, times and locations. See proclamation of Cumberland County Commissioners for more details.

Potential impact radius/ignition zones
The potential impact radius (PIR) and ignition zone of any and all intended products (being transported through each pipeline should be calculated relative to all potential scenarios and include factors such as elevation, slope, proximity to public and private buildings, water bodies, weather conditions. This information should include ignition, thermal and evacuation zones, should be entirely transparent and be made readily available to the public.

The industry's claims of withholding information due to security measures is in part contradictory to the fact that pipelines locations are usually quite obvious (on the ground or from satellite and aerial images) since they are usually denoted with brightly colored markers. Thus, they are already easily detected by the general public and could be would be saboteurs.

Accident & incident reporting and alarm systems
there should be an established and clear chain of command and notification from the pipeline operator through to the private citizen. In the event of a detected leak, rupture and or accident all of the following entities should be notified so that they can respond accordingly: Pipeline operator, local emergency responders (police, fire companies, hazmat responders, public officials (mayors, county commissioners, etc.), appropriate public employees, and local citizens in or near harm's way. It should be clearly communicated at all levels what has happened, what and whom will be affected and what measures/safeguards/actions need to be taken to ensure public safety and prevent/reduce potential harms.
In addition, a public alarm/siren system similar to what is in place for Three Mile Island (TMI) should also be installed along HVL pipelines at each pipeline company's expense like Metropolitan Edison, GPU Nuclear and Exelon have done relative to TMI. The Pennsylvania Emergency Management Manual for Municipalities states that alarm systems along with other measures should be installed or in place in these types of circumstances. Since these systems are fairly loud they could be installed near but not within the PIR to prevent the possible ignition of a leaking HVL product.

**Eminent domain abuse**

Seizure of private lands through eminent domain abuse should not be allowed when the actual pipeline is being used to transport products across Pennsylvania to intended entities overseas as happened with ETP/Sunoco Logistics L.P/ETE’s Mariner East Pipeline project. In this case the current certificate of public convenience (CPC) appears to have been acquired through manipulation of circumstances and facts, an adulteration of the definition of petroleum product and shrouded in deceit. The original CPC was given because the pipeline was used for the intrastate transport of gasoline from eastern PA to points west throughout the state where it (the gasoline) could be off-loaded at various locations and used by state residents as fuel for their cars. Yet the original CPC somehow became corrupted in order to facilitate the repurposing, flow reversal and modification of the original 80-plus yr. old gasoline pipeline (by adding extensions across state boundaries into Ohio and West Virginia) making the Mariner East 1 their 1st interstate pipeline to transport NGLs from these states to be shipped overseas for plastics and chemical manufacturing in Scotland and China. Then two additional pipelines ME2 and 2X were somehow grandfathered into the original right-of-way even though both were destined to transport a totally different product than the gasoline designated in the original CPC. Hardly for the public use or good of Pennsylvanians, definitely a boon to the corporate gains of ETP/Sunoco logistics LP/Energy Transfer Equity.

There are many others, besides me who have submitted comments on the need for stricter regulations, public transparency, a thorough vetting of pipeline project applications, drug and alcohol testing of contracted workers, enforcement of regulations, environmental impacts and so forth. Unfortunately, there is also a faction in PA that does not see, understand or just turns a blind eye to the short and long-term consequences of continued fracking and extraction of natural gas, the ongoing build-out of pipeline infrastructure in the state and how these impact the lives and safety of hundreds of thousands of Pennsylvanians and their families. I ask you to please consider the above comments/recommendations as well as how PUC outcomes will affect the quality of Pennsylvania citizen's lives and their safety as you move forward in this process. Thank you for your time and consideration.

Respectfully,

Kim Van Fleet
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