

Concerns about the PennEast Pipeline and comments re: PENNEAST PIPELINE
PROJECT RESOURCE REPORT11: Reliability and Safety. FERC Docket No.PF15-1-000

Sir/Madam:

Section 11.2.1 Pipeline Safety:

“The highest percentage of transmission pipeline accidents or incidents is the result of damage caused by external forces (USDOT, Pipeline and Hazardous Materials Safety Administration). These external forces include third-party damage from construction equipment, earth movements (e.g. landslides), weather damage, or deliberate damage. PennEast will conduct thorough monitoring and inspections of its pipeline system for leak detection”

I understand that pipeline inspections for leaks will be performed. My understanding is that this will be done with robotics from the inside. Since the majority of incidents are the result of “external forces” how do they plan to monitor for these circumstances. We get severe storms with run-off and soil erosion, we have a high water table in most areas that could apply pressure on the pipe. What is meant by construction equipment causing harm? Does this mean that our rescue vehicles (both first aid and fire) are too heavy to drive over these pipelines thereby limiting our most direct access to a potentially critical patient? This may limit our access to a scene, especially when there are other obstacles in the way. What about landing a helicopter over a pipe?

Additionally, unlike Buckeye who has a booklet on what can and cannot be done within a given parameter of the pipeline, PennEast stated at one of their meetings for landowners who could potentially see the pipeline on their properties that the only restriction would be not to build on the pipeline or easement. This lends me to believe that safety is not one of their primary

goals in building this pipeline. Is there not a potential to disrupt the integrity of the pipeline through vibrations in the ground? What about building a pond next to the easement? What about rerouting the flow of water through the property? Would that effect the pipeline and how it sits in the earth?

Should there be no such restrictions near and around the pipeline I fear there would be an increase in incidents by external forces necessitating the services of the rescue squad and fire departments. Additionally, since the pipeline follows the route of some of the power lines, if there were a breach and a plume of fire what would this do to the power lines? What area does the power lines service? Our building does not have its own generator and therefore our ambulances would not be charged and ready to respond if we lose power. What about our citizens that use home oxygen and rely on the electricity to run their units? If they lose power there would be an influx of people needing EMS services for transportation to the hospital where they would be provided with their much needed oxygen. This would stress the services of the EMS community along with the hospital.

11.3.1 USDOT Class Locations

“External corrosion protection will be achieved by means of externally coated pipe and cathodic protection using rectifiers and anodes as required by 49 CFR Part 192. The cathodic protection systems will impress a low-voltage current to the pipeline to offset natural soil and groundwater corrosion potential.” According the US EPA website regarding cathodic protection systems for underground storage tanks “The system must be tested by a qualified cathodic protection tester within six months of installation and at least every three years thereafter. In addition, cathodic protection systems must be tested within six months of any repair to any cathodically protected UST system. You will need to keep the results of the last two tests to

prove that the cathodic protection is working. In addition, you must inspect an impressed current system every 60 days to verify that the system is operating. Keep results of your last three 60-day inspections to prove that the impressed current system is on and operating properly.” So if we are that strict on underground storage units would we not be as strict on the pipeline to make sure the integrity of the cathodic protection system is intact? Although they mention that the design will “allow for the use of electronic in-line inspection tools to detect the presence of metal loss defects, such as corrosion ...” the frequency and protocol is not spelled out. It just mentions that an electronic in-line inspection tool CAN be used.

One would also assume that this low voltage field in the ground would not be a danger to animals or humans. Since electricity does flow nicely in water, if someone walking through a very soggy field with the pipeline buried 30 inches in normal soil or 18 inches in consolidated rock be at risk? What if they had a pacemaker?

Visual inspections to identify potential problems is a safety feature. “Leak protection and detection is important to public safety. PennEast operating personnel will regularly perform visual inspections of the pipeline to identify potential problems. These inspections will be done on foot, by vehicle on the ROW, or by aerial survey.” Unfortunately, the word ‘or’ in this sentence means that all inspections can be done from the air. In an open field, this may be acceptable but when there are trees and brush an adequate visual inspection would be impossible from the air. Their language allows that aerial survey can be the only means of visual inspection of the pipeline. I feel this is inadequate. Additionally, how often will the pipeline be inspected? “[I]he pipelines will be inspected at intervals specified by USDOT regulations (typically 7 year intervals) within-line inspection tools capable of detecting anomalies that have the potential to

become leaks.” Refer to comments about the cathodic protection systems above. How often other means of inspection will be done is not specified in this document.

11.3.2 High Consequence Area

This section talks about the potential impact radius. Is the potential impact radius from this pipeline 660 feet as it seems to indicate in this document? That’s radius not diameter. If this is the case, then we need to rethink our concerns and how we may need to proceed to protect our community. Section 11.5 Contingency Plans is very broad and generic. Basically they will provide a means to communicate with the company during an incident. We are not trained nor do we have the resources to deal with an explosion similar to what occurred in Edison, New Jersey. We would need training and the appropriate equipment to deal with such incidents should the pipeline go in and any incidents associated with the installation of the pipeline. This training would need to be ongoing with drills to keep the skills that we hope we would never have to use. This training would include but not be limited to mass casualty incidents involving a breach in the integrity of the pipeline to trench rescue training.

After reading through the document provided, the above are my questions and concerns as they relate to said document. I would also request the following information be provided so that we may further evaluate the situation. Should there be a leak and it catches fire, what temperatures will it produce and how far out will temperatures be above 100 degrees F from the breach site? How long does vegetation need to be exposed to methane gas before their foliage turns? And how much methane needs to be leaking to cause this to happen? It is my

understanding that interstate pipelines are not required to add Mercaptan. This is the chemical that gives the gas that rotten egg smell. If this is the case, then small leaks can go undetected for up to 7 years or until someone lights a match or a spark ignites that gas. What if there is an electrical outage and the automatic shut off valves are not working? How long will it take for someone to get here and manually close the valves? Can the valves be manually closed by one person? Does that one person need to be very strong or just have endurance? How long would it take to manually close a valve?

We already have underground utilities throughout Hunterdon County, specifically Kingwood Township. How would this pipeline impact those underground utilities and other pipelines? If we are only inspecting the pipelines for potential leaks every 7 years, and one pipeline has a small leak and another blows, what will be the consequences? Are the pipelines that close that it will have an impact or could have an impact? If the area of intense heat projects out to another pipeline what will be the consequences? Up to what heat can the pipeline maintain its integrity? What if there is a house fire or brush fire on top or close by the pipeline? Will it affect the pipeline and thereby dictate where EMS should not stage? Or worse, a potential increase in victims of the incident.

After reading their safety information on line, once again the intervals between “pigging” the line is not specified. This is the stated process for cleaning and examining the pipeline. Interesting that they mention that the pig will collect fluid from the line and it will be disposed of in the proper fashion according to governmental regulations. What is this fluid? Is it harmful to animals and humans? How does it interact with the cathodic protection system around the pipe should there be a small leak? I assume when there is a breach in the integrity of the pipe, gas will flow to the area of least resistance, the breach, and escape. That being said, will the fluid that

accumulated in the pipeline also act the same way? Is that fluid harmful when aerosolized or burned?

Further research into this proposition has led to some other questions and concerns. These concerns have to do more with the installation of the pipeline. The obvious concerns have to do with trench rescues. We are not trained nor do we have the equipment to perform such a rescue. An emergency call to the site may pose a danger to the EMS community responding not being familiar with the special circumstances along with a delay in treatment should a specialized team need to be called in.

Secondly, my research indicates that during the installation of the pipeline there is a danger of heavy metal poisoning. According to Shi, P., Xiao, J., Wang, Y., & Chen, L. (2014). Assessment of Ecological and Human Health Risks of Heavy Metal Contamination in Agriculture Soils Disturbed by Pipeline Construction. *International Journal of Environmental Research and Public Health*, 11(3), 2504–2520. <http://doi.org/10.3390/ijerph110302504>,

“Children may absorb much more heavy metals from soils than adults during their outdoor play activities, resulting in more susceptibility for children to exposure to soil toxic metals [33]. Therefore, pipeline RoW [right of way] was a high health hazard risk zone and children were more susceptible to non-carcinogenic hazard risks. The human health risk assessment is an effective approach to provide a quantitative determination for future risk management and environmental monitoring of pipeline construction” (pp. 2515).

Copper and Cadmium were the two significant heavy metals found in the right of way of the pipeline. Cadmium is noted to be a by-product of welding. Cadmium can be a carcinogenic. It is implicated in lung cancer when inhaled. According to the US Department of Labor, OSHA website regarding cadmium, most studies included adults and animals exposed to inhaled cadmium. Inhaled cadmium can cause a pneumonitis within 10-14 hours after exposure in adults.

Since cadmium is associated with welding and the proposed pipeline will be near Kingwood Elementary School, I would be concerned for the safety of our children. I could not find documentation regarding cadmium toxicity and children. OSHA does acknowledge that cadmium can be absorbed through the skin. Therefore, it would be a concern for cadmium in the soil in areas where children might play. This concern would need to be further investigated with an expert in the field of toxicology.

I have reviewed the lessons learned from the Edison NJ incident in 1994. What is applicable to our EMS community is that we are not equipped to monitor and provide rehab services to the large number of firefighters that may be required for an incident. Additionally, if it is a large scale incident, we will stress the available EMS resources within the county. Automated monitoring equipment would help to alleviate some of these issues. Along with additional type of monitoring equipment to ensure the safety of our firefighters. Also, communication issues, especially in Kingwood Township, would need to be address. Radio signals in certain areas of the township are nonexistent, both for cell phone and portable radio communication.

I would be more than happy to discuss my concerns with you. I am sure as time goes on, as additional information is provided, it will stimulate further questions and concerns.

Sincerely,

Nancy Ponter

Chief, Kingwood Township First Aid & Rescue Squad