

Question and Answer Session for the Sunoco Pipeline Project
West Whiteland Township, March 19, 2018

Panelists: Paul Metro,
Manager Safety Division,
PA Public Utility Commission (PUC), Bureau of Investigation and Enforcement

Ian Woods,
Community Liaison, Eastern Region,
US Dept of Transportation Pipeline & Hazardous Materials Safety Administration (PHMSA)

Pat Patterson,
Southeast Regional Director, PA Dept of Environmental Protection (DEP)

John Hohenstein,
Acting Waterways & Wetlands Regional Pgm Manager, PA Dept of Environmental Protection

Question 1: In the use of eminent domain, Sunoco has not seemed to respect safety and recently drilled near a geological fault causing damage to property. What sin does Sunoco have to commit before they are made to shut down permanently?

A: Sunoco has had public utility status for over 10 years. The pipeline has been in the same right of way since 1931 and is subject to federal regulations governing operation and maintenance, including completion of an integrity management plan identifying risks associated with the pipeline and the consequences if there is a failure.

Once the pipeline is in the ground, state and federal regulators continue to review the safety of its operation and maintenance. It would be very difficult to shut a pipeline down because the public considers it unsafe; that can only happen if there is a failure to comply with regulations. If PUC regulators determined that the pipeline did not comply with regulations and was unsafe, an emergency petition would be filed with the PA Public Utility Commission, as was done two weeks ago prior to this meeting after the latest sink holes appeared on Lisa Drive.

If PUC regulators determine that Sunoco is out of compliance with the integrity management plan for ME1, they would have to perform certain mitigation measures – there may be a need to rebuild a portion of the pipeline, increased inspections, more direct assessment, consideration of alternative routes, etc. PUC Engineers are driven by data - we analyze it and make recommendations to ensure compliance with the federal regulations.

Question 2: What is the product traveling through the pipeline?

A: Propane, butane, and ethane. It is a hazardous liquid pipeline, carrying highly volatile liquids.

Question 3: How does the gas become a liquid?

A: The gas is compressed at high pressure that turns it to a liquid to flow through the pipeline.

Question 4: If there was a leak, would I be able to see it?

A: It usually would appear to be a white cloud that would hover near the ground but the extent and elevation would depend on the pressure in the pipe at the location of the leak, the size of the leak, etc. There is no odorant added to natural gas liquid pipelines.

Question 5: Would the cloud reduce my oxygen?

A: It could, depending where you are. It's heavier than air and tends to stay close to the ground.

Question 6: What could cause it to ignite? A car? Cell phone? Doorbell?

A: It depends on atmospheric conditions, including the amount of air and ventilation near the leak. A car, cell phone or doorbell could be possible sources of ignition.

Question 7: If there is a leak, how will we find out from first responders that we are to evacuate?

A: If there is a leak and you can safely get to the pipeline marker, do so and notify the pipeline operator of the leak. Always call 911. Emergency responders have emergency plans, which will be implemented based on the situation. The situation may require first responders to go door to door.

NOTE from West Whiteland Township: There is a risk that a cell phone could ignite a leak and we don't want to minimize that. However, conditions must be exactly right for use of a cell phone to be an ignition source. You would have to be close enough to the leak in an environment that has the exact mixture of flammable vapors and air required for ignition, and even then, the chance of the phone as an ignition source is small. The many benefits from calling in an emergency or receiving emergency notifications far outweigh the small risk of a spark – after first walking away from the leak.

Here are signs of an aboveground pipeline leak:

- Because pipelines transporting NGLs are pressurized, if the leak occurred in water or even a puddle, the pressure would cause bubbling.
- If the leak is underground but close enough to the surface to impact vegetation, you may see dead grass or a brown spot in otherwise healthy vegetation, or an isolated area of frost on the ground.
- Because pipelines transporting NGLs are pressurized, you would hear a hissing sound from a leak, like air coming out of a balloon.
- NGLs that leak into the atmosphere typically form a visible vapor cloud, like white mist or smoke, as water molecules in the air condense when mixing with the cold gas. Because the vapors from the NGLs are heavier than air, they tend to hang low to the ground.
- Oily sheen on water
- Dirt blowing from a hole in the ground

Question 8: Why does DEP permit Horizontal Directional Drilling (HDD) drilling here knowing the geology of the area, and why are they allowing drilling to resume at Shoen Road when there are still two homes with no public water and flooding continues down the area from the aquifer. Also, knowing that Sunoco geologists have made mistakes, why are we relying on them to do the analysis for this halt – shouldn't it be done by someone independent?

A: The HDD was so deep that it would have been in solid rock, below karst geology. Because the karst area crosses the right of way line, the karst area would have been crossed using open trench as well. The depth of the HDD seemed to avoid the issue.

Regarding HDD at Shoen Road, Sunoco has met all the requirements pending resolution of the home still to be connected. One has refused, and the other is still outstanding.

Question 9: What about the flooding situation on Shoen Road – it will return as soon as they start drilling again.

A: There will be ongoing monitoring of the Shoen Road area. To be clear, the seep that opened up on to Shoen Road is not causing sink holes.

Question 10: Why are you relying on Sunoco geologists to do an assessment on Lisa Drive?

A: The PUC is investigating what is causing sinkholes to form there. Sunoco conducts the tests and the results are reviewed by PUC engineers and a geophysical firm under contract with the PUC.

Question 11: Considering the definition of a Public Utility, how is our community benefitting from Sunoco?

A: The Public Utility Code defines "public utility" to include situations that apply here: those such as PECO that are in the business to distribute nature gas to homes and businesses and companies that transport various gas and petroleum products through pipelines as common carriers for the public for compensation. The product moving through the Mariner East 1 (ME1) pipeline has drop off points throughout the state where, for example, propane goes to local dealers, and it transports product for companies from point A to point B.

Question 12: What is Sunoco's record for accidents on ME1 and similar pipelines?

A: There have been very few leaks discovered. There was a leak that qualified as an accident in an open field on April 1, 2017, and the PUC and PHMSA are investigating that. The accident occurred in a farm field and there were no injuries.

Question 13: If a similar leak happened in Meadowbrook Manor, would that leak have been more catastrophic?

A: A small amount was released. Pipelines are the safest form of transportation compared to moving the product via train or truck.

Question 14: The pipeline is passing very close to the well that supplies public water from Aqua to our entire neighborhood of 186 homes. What's the contingency plan should that well be damaged?

A: Sunoco has [contingency plan](#) for public water and it is available on DEP's website.

Question 15: The area around the Chester County Library is being used as a staging area for the pipeline. Trees are being cut down. This area is prone to flooding. What mitigation measures are being taken to ensure we don't experience flooding when the work is done?

A: Tree roots do provide streambank stabilization, but the carrying capacity of the stream – and therefore its likelihood of flooding - is based on the channel width and shape, and Sunoco is not changing that. If a cross cut or open cut is needed across the stream, they will restore the channel. There is a restoration plan associated with every earth disturbance.

Question 16: The Township ordinance prohibits what Sunoco is planning to do to Valley Creek. Doesn't the township have a say in that?

A: Sunoco has proposed to bore under Valley Creek and that is not prohibited by Township ordinances. The Township's ordinances regulate structures, not underground pipelines. Erosion and sedimentation controls are the only applicable Township regulations, which mirror DEP's erosion and sedimentation control regulations.

Question 17: Are water buffalos the resolution if water is lost due to the pipeline or construction? (NOTE: A water buffalo is the industry's largest mobile water supply with a capacity to hold up to 300 gallons of water.)

A: Sunoco would offer property owners a water buffalo tank or bottled water until a permanent solution can be found.

Question 18: Is it true that you cannot plant trees over the pipeline?

A: Generally, utilities do not like large trees planted over their pipelines. From a safety point of view, they have to have the ability to do aerial and on-the-ground surveillance of their right-of-way and they can't do that with trees and shrubbery in the way.

Question 19: I've heard that the pipeline construction regulations are substandard and not up to stringent safety standards, and that Sunoco wrote the standards themselves.

A: There are minimum safety standards for all pipeline construction. Typically, an operator such as Sunoco will exceed the minimum federal standards. When we send out inspectors to monitor the pipeline construction, we look at everything, including grade of steel, welding, qualifications of welders, etc. It wouldn't pass if construction was found to be substandard.

Question 20: What is your collective experience with catastrophic failures in Pennsylvania?

A: There were some interstate gas transmission lines that catastrophically failed, most recent was Belmont, Pennsylvania, but none of the panelists were aware of any hazardous liquid lines that have failed in Pennsylvania.

Question 21: My home is 30-50 feet from the pipeline. I recently paid out of pocket to have my home inspected. Who do we call among your organizations when we have safety concerns? Who is responsible for compensating me if my home is damaged? How do you plan to restore the trust between you, and the community?

A: Paul Metro, PUC: You can call me at 717-787-1063 with questions about pipeline safety; also go to the PUC's webpage and get the pipeline safety division contact information.

DEP: call 484-250-5900, 24/7/365 for complaints.

Ian Woods, PHMSA: ian.woods@dot.gov or (609) 468-9478

If damage is done to your home, contact Sunoco first, but property owners also can contact Ian Woods at PHMSA who, as a Community Liaison, can serve as a mediator between the public and a pipeline operator.

For restoring trust, the approach is education, such as through forums like tonight's – let people know what the regulations are, responsibilities of the operators and of regulators, etc.

Question 22: If there is a leak, we have a lot of elderly residents who could not walk to safety. The density of the area has changed so much in 80 years, can't we compel Sunoco to consider other routes?

A: There are no current siting regulations in the state, outside of compliance with DEP regulations for environmental impacts such as water obstructions. There is no agency that reviews which routes a pipeline can take in Pennsylvania. The community needs to talk to their state senators and representatives.

Question 23: Can we get any help funding a risk assessment?

A: There's been public use of the word "risk assessment" to mean "what are the consequences if there's a failure". Sunoco prepares an integrity management plan, which includes risk assessment, and that is reviewed by the PUC and PHMSA. The PUC and PHMSA monitor the execution of the integrity management/risk assessment plan on an annual basis. Pennsylvania is the first state to require annual reviews of integrity management plans. Engineers have to meet federal standards to be certified to inspect.

Question 24: What will protect those in Meadowbrook Manor from decreased property values?

A: That is not something any of the regulators can address.

Question 25: I don't feel that Sunoco is trustworthy and honest or cares about the public interest. Do you think Sunoco knew where wells were across the state?

A: They were obligated to notify any owner of private well within 150 feet of the pipeline – that has now been expanded to 450 feet.

Question 26: Do you think it's safe to bore through karst geology?

A: Geophysicists for the PUC are investigating what is causing the sinkholes and Sunoco is performing tests. It will take a couple weeks to get the results back. We need time to review and make a data-driven decision.

While DEP regulates water encroachments, not drilling, the DEP geologist said that it is better to drill below the karst geology, in solid rock, not through karst geology.

Question 27: Is West Whiteland a high consequence area for people and a high risk based on its geology?

A: Because of the ongoing investigation into the sinkholes on Lisa Drive, the PUC cannot comment.

Question 28: What sort of mitigation was required when the leak that occurred in the 1980's happened? Was it cleaned up; were soil samples taken? The pipe has been abandoned but not removed.

A: DEP can come out again and look at it. That case was closed out five years ago, but it's worth another look. (NOTE: WWT has asked DEP to confirm when they will come out for another look.)

Question 29: As citizens how do we overturn the laws to take the power away from Sunoco and give it back to the people?

A: Contact your local senators and representatives.

Question 30: Was the HDD drilling done at the wrong level or outside of the permit? And why didn't the state know about the fault line?

A: At this point, there is no information that Sunoco drilled at the wrong level. The fault line in that area was known but the design depth of that drill was expected to take it through stable bedrock and not impact the fault.

Question 31: Is there a certain percentage of material or product that Sunoco has to actually use or sell within the state to qualify as a public utility or common carrier?

A: No.

Question 32: If the majority of the product is being shipped overseas, isn't this a loophole?

A: The statutes are very clear – shipping products interstate qualifies. There are specific definitions and laws that apply here.

Question 33: Who is conducting the studies required for the Lisa Drive investigation? How can we be sure that there are no conflicts of interest between Sunoco, DEP, and PUC?

A: There's a staff of PUC engineers working on Lisa Drive. Sunoco was required to submit a plan for testing, which is reviewed by the PUC. Sunoco has to make changes to the plan if the PUC wants different test or wants the tests done in a different form with different specifications.

The emergency petition to the Public Utility Commission noted questions regarding the safety of ME1 and whether it was compromised based on the sink holes. Following the review of the test results, PUC engineers and geophysicists must be satisfied that ME1 has not been compromised and have the knowledge and experience to know if results have been altered. PUC engineers and geophysicists will provide their review and recommendations to the Public Utility Commission and they will make a decision.

Question 34: Why is DEP requiring me to use a water buffalo or connect to Aqua, forcing me to go off my well?

A: No one is forcing you to go off of your well. You're free to continue to use your well.

Question 35: What does Amtrak have to say about drilling? The drilling could affect a train derailment.

A: **NOTE from West Whiteland Township:** The questioner did not wait for an answer so none was given during the Q&A Session. The Township has been in repeated contact with Amtrak, which is regularly inspecting the area near Lisa Drive. Amtrak has found no impact to the tracks or any indication of problems under or near their tracks during any part of ME2 construction. Work that was done on the tracks in that area in 2017 was regularly scheduled maintenance.

Question 36: How is the pipe being monitored for leaks?

A: Sunoco has systems in place to monitor the pipeline. A SCADA (Supervisory Control and Data Acquisition) system remotely monitors for any change in pressure 24/7. Visual inspections from flyovers show if vegetation has died, which would be an indication of a leak. The pipeline is checked for corrosion during inspections by smart pigs.

Question 37: Do you have any idea what percentage of leaks are detected?

A: Eventually all leaks are discovered; how quickly depends on the type of leak.

Question 38: Volunteers could be put at serious risk for the benefit of Sunoco – has anyone from the Fire Company addressed this with Sunoco?

A: West Whiteland Fire Company should answer that question, but also note that PUC personnel respond to pipeline emergencies.

NOTE from West Whiteland Township: Firefighters from West Whiteland Fire Company have received extensive training to respond to accidents involving pipelines and other hazardous materials. They are aware of the risks but also prepared to respond.

Question 39: Can you assure us that the pipe is not sitting in a pool of diesel fuel from the 1987 leak?

A: DEP can come out again and look at it. That case was closed out five years ago, but it's worth another look. (NOTE: WWT has asked DEP to confirm when they will come out for another look.)

Question 40: How many of you on the panel live in the blast zone?

A: There is no such thing as a blast zone. There is a buffer zone which estimates a potential impact radius – the area near a pipeline that may be affected if a leak were to ignite. The rupture of a pipeline or extent of an ignition would depend on many factors, including wind, temperature, dewpoint, etc., which is included in Sunoco's calculation of the buffer zone.

State employees are prohibited by state law from releasing confidential security information, including the pipeline operator's calculated buffer zone. PHMSA reviews the calculated buffer zones and the information is shared with the PUC. It also is shared with local emergency responders and County emergency managers and they can use that information to prepare their emergency plans.

NOTE from West Whiteland Township: A related question we get is "what is the evacuation zone"? There are so many different factors that have to be considered in any situation – the extent and type of leak, weather conditions, etc. In one case, the best response may be to shelter in place; in another, it may be to evacuate some or all of a neighborhood. There is no single answer or "one size fits all" answer because there are so many different scenarios. Our emergency responders are trained for this and will get to impacted residents quickly. If you recall the response to the Barclay fire last fall, a large number of responders from many different fire and EMS companies responded. If there were a large pipeline accident, there would be a similar level of response, with many responders on the ground able to help and get to residents. We encourage you to sign up for ReadyChesco and Smart 911, so responders can act even quicker in your interest.

Question 41: As a public utility, Sunoco is required to follow all federal guidelines under Title 49 Code, which require the valves currently being installed to have breakout tanks. Sunoco does not have these and is not following the Title 49 Code. Why is the PUC not shutting Sunoco down?

A: The answer was that the panelists could not comment on the subject of an ongoing proceeding, apparently meaning the shutdown of ME1. However, the question was asking why Sunoco is being permitted to install an automated shutoff valve on the Laborers Training Center site (where Sunoco has an easement) near Ship Road and Lincoln Highway as part of the ME2 construction. After the meeting, WWT followed up with the panelists who stated that federal regulations do not require breakout tanks to accompany valves.

Question 42: Are there federal regulations for siting?

A: The Federal Energy Regulatory Commission (FERC) has siting authority for natural gas pipelines, both inter- and intrastate. For hazardous liquid lines, the Interstate Commerce Commission, not FERC, has responsibility and the federal regulations for interstate commerce are a lot different.

Question 43: Why didn't you investigate the geophysics on Lisa Drive before the sink holes appeared?

A: There are no agencies in Pennsylvania that enforce siting regulations for these type of pipelines, and therefore no agencies had the authority to review that. DEP's review was limited to water obstructions and erosion and sedimentation control.

Question 44: Are there plans in place for future expansion of Routes 100 and 202 and, if so, what happens to the pipeline when they expand these routes?

A: PennDOT will contact all of the companies with underground facilities during design and meet with their engineers to go over the plan.

Question 45: I have concerns about the wildlife in the area and the fish in the stream behind my house – will Sunoco look out for that? I've heard reports that Sunoco has contaminated other streams.

A: A permit modification request has been submitted. The original plan called for continuous HDD through the entire area. Based on further investigation, Sunoco decided that was not the proper way to go, so they submitted a re-evaluation of that area to DEP, and based on that re-evaluation they submitted a modification that includes open trenching, conventional boring, flex boring, and a short HDD. All those plans are available now on DEP's website. There will be another public meeting to discuss Sunoco's requested modifications to the original plan.