

DEP Permit # E23-524
DEP Permit HDD Reference # PA-DE-0032.0000-RD
DEP HDD # S3-0580
Township – Edgmont
County - Delaware
HDD Site Name – Gradyville Road Crossing

2nd Public Comment Period

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1. Comment

No one should be getting a Water Buffalo. We have a right to clean Water!

Drilling in this area will spread MTBE pollution.

In this location, there is the additional issue of that overflow water containing petroleum and MTBE from the leak site. What indication is there that Sunoco will handle this location better than others in the past? How will Sunoco protect the nearby land and Chester Creek from pollution? The plan says only that the flow-back water will be monitored for sheens and smells. The DEP must require Sunoco to do better. Sunoco must consider the risk of human injury or death. (1)

2. Comment

This letter is in response to Sunoco re-eval analysis for HDD drilling site Gradyville Road Crossing in Edgmont PA DEP section 105 permit SPLP HDD No. S3-0580 and HDD S3-0580-16 for August 2018. I am an Edgmont resident and live very close to this proposed HDD site. I rely on clean water from my private well water system for my family, pets and farm animals. I am in severe opposition to this HDD plan due to the following items:

Number 1: DEP's request of number 6 on re-eval that a borehole geophysical suite needs to be performed in geotechnical borings must be completed and not ignored by SPLP. The safety of the community and our private wells must be adhered to and not ignored just because it is an inconvenience for SPLP and will take them more time to complete!

Number 2: Even though clean up and remediation has occurred at this site by GES this month from the petroleum leak in April 2015, I have severe concerns that MTBE and other petrochemical residues will still be in the environment and spread contamination to all our private wells! We all know MTBE is almost impossible to eradicate from the environment once contamination occurs! Why should homeowners here have to take this risk???? The soil should be continued to be monitored for any more contamination for months and even years after the cleanup just this month.

Number 3: Sunoco has stated 3 properties are on public water. This is false! All properties are on private water/well systems. SPLP must report all accurate information about wells within 450 feet of drill site! Sunoco has stated there are no ponds within area. This is false! Many of my neighbors along this proposed HDD site have spring fed ponds! One neighbor lost her pond and all aquatic life perished when Sunoco just completed mini HDD only several feet, drilling under Valley Road last year! I can't imagine the groundwater that will be used up for this long stretch of proposed HDD area!

Number 4: This proposed drilling land is located along an upland ridge area and serves as a local groundwater recharge zone, thus placing our wells at increased risk for contamination and drainage!

Number 5: At least 26 wells are at same depth as boring, which will increase our chances of drilling fluids and left over MTBE and petroleum hydrocarbon residues to

contaminate our wells.

Number 6: At least 3 linear fractures cross drill path at 275 feet, 1520 feet and 2740 feet increasing our risk of well contamination.

Number 7: There is no option for public water hook up in this area once our wells become contaminated. To remain on alternative water buffalo type water supply systems once our wells become contaminated for a permanent basis is not feasible.

Number 8: Sunoco is recommending residents have “alternative water supply” in place during drilling, which seems as though they are expecting contamination of our wells. We cannot take this risk!

Number 9: Increased risk of damaging Mariner East 1 pipeline during drilling with destabilizing of ground support around fracture lines that run under ME 1, exposing residents to more petroleum leaks and mass explosions! The “Bedrock Lithology” of the 4 geotechnical brings from depths 13.8 and 30 feet recorded “very intensely fractured” weathered gneiss, suggesting saprolite to a depth of at least 30 feet. Saprolite is a clay like rich rock and will allow for future settlement of areas inundated with water from where the drilling is completed, presenting the risk of shifting and collapse of earth around NGL active ME1 and in future NGL active ME2 and repurposed 12 inch line. The HDD drilling should not be allowed with the rock geology in this area.

Due to the above facts, open trench should be the only option allowed here at this site. Construction on valley road would not be a hardship, since it runs parallel to route 352 and all traffic could be easily rerouted. Sunoco does not want this option since it will cost them more money and time, but I ask you DEP is Sunoco’s and ETPs profits more important or the safety of the community and a resident’s rights to have clean water more important??? (2)

3. Comment

This e-mail is in response to Sunoco re-eval analysis for HDD drilling site Gradyville Road Crossing in Edgmont, PA, DEP section 105, permit SPLP HDD No. S3-0580 and HDD S3-0580-16 for August 2018.

I am an Edgmont Township resident. And I am the one who had my pond drained (a large 20 X 30 ft natural spring fed pond) due to digging of the aquifers to support your pipeline initial dig – your point #8). It was empty for 4 months killing all the life in the pond, and when I attempted to get resolution from Sunoco (you all did send an engineer and EPA official who I will say for the record, agreed off the record your digging in fact DID impact the water source to my pond). But because I’m 1500 ft away from the pipeline, it was let known to me that I had to provide “uncontestable” proof that your digging didn’t affect the water source flows in the area (despite the fact that all SPLP previous reports indicate its extremely difficult to predict water flow with crack fissures in rock being the primary method for water distribution in the area –and your “jurisdiction” of responsibility only lies @ 450 ft or whatever that

arbitrary measure is). It was the draining of my pond actually led me to understand what was really happening with this pipeline effort because I had absolutely no knowledge before what was going on.

This response is more pontification than a targeted rebuttal to the response. I did that the last time, and the resultant impact is a longer and more arrogant response provided by Mr. Larry J. Gremminger, on behalf of SPLP without regard to really “listening” to the issues. So, this to call out the responder, Mr. Larry J, Gremminger, who has historically, based on his personal (internet work related) profile, has provided support, under the guise of environmental “political correctness”, projects that are inherently harmful to the environment, no doubt used as a pseudo environmentalist, to find loopholes in federal, state and local regulations to pave the way for supporting projects that are inherently ignoring impacts of water quality and environmental safety, safety to children and older citizens.

Trying to find Mr. Gremminger’s actual credentials (as in, any actual academic or research based, deep credentials) has proven to be a tough challenge, which begs the initial opening question as to, how does this person have the knowledge or credentials to really address environmental impacts? Mr. Gremminger is from Texas. I find it odd that he is responsible for addressing eastern PA concerns and topography challenges. Perhaps he has hidden his academic or research credentials because they are obvious? I did find numerous “projects” where the objective was “defense” of non-friendly environmentally harmful endeavors. Which begs the question even more about Mr. Gremminger’s credentials, and SPLP’s attempts to only find people willing to provide “rebuttals”, without any necessary “research and scientific” credentials, to actually address the real questions vs just deflect.

So, I will take my engineering hat off, and purely and simply, and attempt to call out the insanity and audacity of this effort to “justify” the laying of pipelines in highly, highly densely populated areas, transporting radically unstable “liquefied gas” materials just a few feet from many of our homes, schools, neighborhood shops and stores and where we live, without regard to the “legacy of risk” left behind both in the short, medium and long term (because in 5 years, as also has historically been proven SPLP will ignore maintenance, safety and environmental concerns.

Incidents will happen, people’s water sources will be contaminated and get sick (or their animals), carcinogens will be found in the soil and all the crazy stuff that happens when there is insufficient respect for people’s health and safety. People will not be able to hold SPLP accountable because it will require massive legal funds to mount against these collective incidents that over time, will surface as a pattern. Explosions WILL occur because the instability of the product being piped through these new (and now presumably old) pipelines WILL happen because the earth and terrain naturally shift, and pipelines are just simplistic, physical tubes that are not meant to stand the test of time through the natural shifting of earth topography,

All for the sake of a few years of short term profits (questionably profitable which is why SPLP is taking every opportunity to cut cost corners to maximize short term profits). And for products that will be obsoleted in a few years (hopefully earlier) which is why you all need to race to gain an ROI on the inexpensively executed, non-thoughtful manner in which SPLP has moved forward. Without regard to life, safety, environmental long term impacts, or just building a business that has sustainable long term potential vs this short term gain thing.

Anyways, I will close with this. I'd like to see Mr. Gremminger's academic and research credentials (not his project which I've already outlined are just regulatory rebuttal pieces of work) to show whether SPLP is taking any of our questions seriously. We are not from Texas. So we need something a bit more substantial proof wise, grounded in facts and real research to show SPLP skill in assessing risk, engineering tasks and impacts.

Also, I strongly advocate that DEP institute a "HUGE" penalty for every infraction (leaks, cracks, explosion, ground deterioration caused by this project that is pre-defined (not able to be contested); and for each infraction, if they try to hide any infraction, multiply the fine by 100 times. At least then PA and local counties might be able to gain from any incompetence monetarily vs only assuming all the risk and none of the profit.

To all the SPLP supporters and profit receivers. I would like to see you buy a home and live beside the pipeline here in PA. Feel free to contact me regarding the "pond drainage" issue caused by your digging that you refute in this rebuttal. (3)

4. Comment

On August 23, 2018, Sunoco submitted a letter to the Department in response to the Department's June 12, 2018 request for additional information regarding horizontal directional drilling ("HDD") Site PA-DE-0032.0000-RD ("Site"). Pursuant to the Corrected Stipulated Order entered on EHB Docket No. 2017-009-L on August 10, 2017 ("Order"), and on behalf of Clean Air Council, Mountain Watershed Association, Inc., and the Delaware Riverkeeper Network ("Appellants"), we respectfully submit these comments in reply. Our comments mirror point by point the requests and responses from the Department and Sunoco.

Sunoco's proposal for this location continues to present an unacceptable risk to the neighbors. The Department should deny Sunoco's proposed HDD plan for the Site.

Point 1.a. (location of leak)

The Department rightly requested the location of the repaired Point Breeze to Montello pipeline leak to understand where the Mariner East 2 HDD might intersect the plume. Sunoco has not identified the extent of the MTBE contamination underground, however, limiting its discussion to the petroleum spill. Appellants understand that Sunoco has claimed that in 2015 when the spill was discovered, the

product flowing through the leaking pipeline did not contain MTBE. This implies that the MTBE pre-existed that spill, likely from an earlier spill, as it is a gasoline additive. Residents have reported that there was another nearby spill in 1992.

Sunoco has not discussed the MTBE contamination, and it is very possible that that plume extends outside the boundaries of the identified petroleum plume. Sunoco should identify the location of this contamination as well to, as the Department stated, “be useful in predicting when potentially contaminated cuttings and/or contaminated groundwater may be encountered in the HDD.”

Point 1.b. (plan to address contamination)

Though Sunoco added a small amount of detail to its Re-evaluation Report to address the Department’s request that it include “[a] more detailed plan which addresses not only procedures to be employed during drilling to properly handle potentially spill contaminated drill cuttings and groundwater but also adequately addresses and prevents migration of contaminated groundwater from the spill area post construction,” the new detail is incomplete and inadequate.

The plans for handling contaminated materials after containment are merely the following: “If impacted cuttings or water is determined in the field, then all waters, fluids, and cutting will be captured and disposed of in accordance with waste regulations.” This is nothing more than a statement that Sunoco will follow the law, and illuminates nothing. How Sunoco will ensure that the containments it sets up will not overflow as they did by Martins Lane, also in Delaware County, is not stated. Sunoco states that its containments will be “sufficient to store both water and cutting produced on a daily basis.” But Sunoco is relying on laboratory testing to determine the presence of contamination. Laboratory testing is not generally accomplished in under a day. Therefore there is a substantial risk that water or cuttings will be disposed of as if they were not contaminated before the presence of contamination is detected.

Moreover, Sunoco has for other HDD locations illustrated where and how its containment system will operate. Despite the greater importance of containment here, Sunoco has failed to do as it did at those other locations. This is critical. Containment that can only contain a day’s worth of water and cutting also will be insufficient. Sunoco needs to specify how and where it will contain these potentially contaminated materials. These plans should be incorporated into the E&S plan for Delaware County.

The plans for laboratory testing are undisclosed. Sunoco speaks of testing for petroleum. Again, it is unclear that that would account for all toxic chemical plumes that the construction may mobilize.

Finally, Sunoco’s plan does not “adequately address[] and prevent[] migration of contaminated groundwater from the spill area post construction.” Besides the general

ground remediation work which Sunoco has undertaken, its only plan to prevent migration of contaminated groundwater is grouting the entry and exit points of the HDD. While that is needed, it is not sufficient. The drilling of an HDD borehole creates a large risk of mobilizing the plume along the borehole annulus. The annulus extends through a residential neighborhood reliant on private wells drawing from the same aquifer. It is unacceptable for Sunoco to do nothing to prevent the spread of contamination through the borehole.

This is not an appropriate route for Mariner East 2 due to this risk. Sunoco has not offered a plan, let alone a credible plan, to address this risk.

Point 5 (surface geophysics)

Sunoco has not complied with the Department's request to employ surface geophysics. It claims that it does not need to "because the bore will remain well-below the already confirmed soil/rock interface," given that core samples show bedrock at between 8 and 55 feet below ground surface.

It also tries to downplay the value of geophysical studies. Sunoco's excuses fail for multiple reasons.

First, despite Sunoco's assurances that its drilling will be well below the 55 feet bedrock boundary it has measured, there are hundreds of feet of the HDD profile along which the borehole would be above 55 feet below ground surface. Even if, as Sunoco has stated, the "majority of the bore will be 100 feet below ground surface," there is no way of knowing based on Sunoco's test bores if the maximum depth of the bedrock interface over the length of this drill is actually 55 feet below ground surface. It is unreasonable to interpolate the bedrock depth of the entire HDD length from five borehole data points.

Second, though Sunoco may generally prefer to use geophysical survey methods – to the extent it uses them at all – as "a diagnostic tool prior to soil sampling and/or rock coring," valuable information can be gleaned from pairing the results of the test bores it already conducted with geophysical data. Appellants, of course, agree that without supplemental data it would be unclear what the boundaries shown in the MASW results actually depict. However, the test bore data Sunoco has already gathered would support the MASW results by showing actual boundaries and together those two data sets would allow Sunoco to determine the depth of the bedrock interface for the length of the profile.

Finally, the Report acknowledges that the route contains "complex structural geology exhibiting a high degree of fracturing." Simply being within fractured bedrock does not mean that the thickness of the bedrock is irrelevant to determining risk.

The Department should require Sunoco to comply with this request.

Point 6 (borehole geophysics)

Again, Sunoco refuses to follow the Department's instruction regarding geophysics, this time with borehole geophysics. Sunoco claims "[b]orehole geophysics would require many newly constructed additional borings, most lying outside the SPLP right-of-way." This is not true. Borehole geophysics can be done with fewer than "many" borings, though obviously more comprehensive measurements require more locations. The locations that Sunoco already bored can be used again, despite backfilling.

Sunoco's response generally here appears to be more of a justification for not doing something it does not want to do rather than a principled conclusion that the work cannot be done or would be of no use. The claim that eminent domain for boring outside of the easement would be required really depends on the relationship Sunoco has with its neighbors. Companies without the power of eminent domain still manage to operate in Pennsylvania and build projects, such as the Shell Falcon Pipeline in the Pittsburgh area, which acquired a right-of-way with no eminent domain.

Point 7 (complaint response plan)

The Department requested Sunoco develop a complaint response plan that is "specific and prescriptive." Sunoco has refused to do so and its plea of ignorance as to what types of complaints might arise at the Site is both concerning and unpersuasive. If the Department ultimately does allow construction to proceed at this high-risk site, the very least Sunoco can do is have a specific plan to address the dangerous consequences. The water supply testing protocols it listed are not specific to the Site and do not account for site-specific threats, such as the migration of toxic plumes. The standard water supply testing protocols were not designed to address petroleum products entering water supplies. Given the fractured geology, water supplies outside of the 450-foot radius might also be at risk. Sunoco's plan does not address this concern.

At this late point in the process, Sunoco should certainly have sufficient information to understand the types of complaints that may arise at the Site. If it does not, that is another red flag that these construction plans should not be approved. The Department's request for a table of potential impacts and remedies is sensible and straightforward. Appellants urge the Department to demand Sunoco follow through with a complete and substantive response to this important request.

Points 8.b. and 9 (grouting plan)

As noted above, Sunoco's grouting plan is inadequate to prevent the migration of contaminated substances along the borehole annulus.

Also, while Sunoco claims there are “only two minor wetland areas in vicinity to [sic] this HDD,” one resident commenting on the Re-evaluation Report wrote that Sunoco had under-represented the extent of wetlands near the 2015 spill site.

Finally, separate from the points the Department raised, the new plan view for geologic analysis of the HDD profile contains an unmarked thick broken yellow line at the left end. It is unclear what this is and whether it is material to the analysis.

Thank you for considering these comments. Please keep us apprised of your next steps on this HDD Site. (4-8)

Letter – [Clean Air Council – 8-29-18 – Gradyville Road Crossing](#)

5. Comment

In compliance with the Corrected Stipulated Order dated August 10, 2017 (the “Order”), a Reevaluation Report on the above-referenced horizontal directional drill (“HDD”) was submitted to the Department on March 1, 2018. In a letter dated June 12, 2018, the Department requested further information which SPLP has now supplied. Please accept this letter as our response to SPLP’s comments.

On page 16, regarding the re-route analysis, there is no supporting documentation to prove that Sunoco has actually analyzed another route. Sunoco has used this route solely for its own convenience – the fact that there was an existing easement for ME1.

In truth, Sunoco should not have used the ME1 easement for their next planned pipelines. First of all, putting all these pipelines together increases the risk for all those living nearby (see Quest’s Mariner East Quantitative Risk Analysis presented on August 28, 2018). When ME1 was constructed there were no densely populated residential areas as there are now.

If Sunoco chooses to transport dangerous, highly volatile NGL’s then they should bypass ALL highly populated urban and suburban residential areas. These are not industrial sites and should not be treated as such. They are families, homes, communities, schools, hospitals and elderly residential homes where people cannot run “upwind, uphill” at the sight of a vapor cloud and, quite frankly, shouldn’t have to.

This is the first time in American history that a highly dangerous pipeline carrying HVL’s – ethane, butane and propane – has gone through such highly populated areas. We are, in fact, Sunoco’s “experiment”. The well-documented path of destruction that this project has so far left in its wake - property damage, sink holes, flooding basements, contaminated and damaged private wells, dozens of violations, fines of historical proportions for non-compliance and illegal activities, etc. – only goes to prove that this should never have been allowed in the first place. However, we can prevent further damage and horrendous ordeals for Pennsylvanians by halting the issuing of permits now.

The fact that no public risk assessment or emergency plans were put in place prior to construction is unbelievable and negligent. It makes every regulatory agency, public official and the Governor himself who supported this, negligent and open to involuntary manslaughter suits should something occur.

We, the residents, who have had to endure this nightmare have done everything in our power to warn of the dangers and the risks. We have attended public hearings. We have visited with our legislators, our townships, our councils. We have had experts give their opinions and provide factual data to highlight these risks. The facts are there to support us but they are falling on deaf ears.

This report in no way serves to reassure me that Sunoco's competence and quality control monitoring has in any way improved. In the section of this report – the Standard Test Method for Compressive Strength and Elastic Moduli of Intact Rock Core Specimens – the pictures are a classic example of Sunoco's incompetence and chaos.

Page 60 – for Sample 3. The report states that “the photographs are mislabeled as 6-3W-4”. I presume they should be 6-3W-3.

Page 61 – for Sample 4. The report states that “the photographs are mislabeled as 6-3W-1. I presume they should be 6-3W-4.

Page 62 – for Sample 5. The report states that “the photographs are mislabeled as 6-3W-3. I presume they should be 6-3W-5.

Page 63 – for Sample 6. The report states that “the photographs are mislabeled as 6-3W-5. I presume they should be 6-3W-6.

If this had been my physics assignment at school I would have got an “F”. I think we should be worried. This is a clear example of the quality of the work we should expect to receive from Sunoco. This together with the coating flaws and the “welding discrepancies” only serve to worry us even more. We ask that you, the regulator, please ensure there are no manufacturing errors, inspection errors, or reporting errors.

Again, we need answers as to why this poor caliber of work should be adequate quality for a project of this magnitude.

Another matter that needs to be addressed are the quality control and manufacturing issues that are coming to light. We know from last week that in Edgmont Township there has been an issue with coating flaws on the pipes. Newly-installed 20 ft sections of ME2 have had to be excavated and replaced/repaired. We have many questions that need to be answered before any more construction work can continue. For instance,

1. Where were pipes manufactured? I have been informed that some were manufactured in Greece but that this was removed or covered up on the pipes.
2. Where was the coating applied and who is the manufacturer of that polymer coating?
3. If any of the pipes were bent or shaped - where was that done and how (method) and what is the effect on the coating?
4. Are pipe sections being dug up HDD or trenched or both?
5. What color is the coating being inspected - and what is the difference in the light brown coating and the green coating (those are the two I have seen).
6. What is the actual issue with the polymer coating specifically, has it been recalled, and what exactly are they doing to fix this coating issue? For example, are they re-applying the coating?
7. Issues with the welds - after they weld they apply a polymer coating on top on the finished welds - how did they figure out some welds are no good? Was it the pig inspection - (can they pig a line with no product in it?). Was this an operator error - meaning one specific welder/operator (for instance was guy was found to be welding under the influence of something?).

Then there is PHMSA's statement from last week:

"The operator's quality control procedures identified discrepancies in the manner in which the welds were made in two areas. The operator notified PHMSA of this development and provided its actions to correct the discrepancies. PHMSA will review further information from the operator to confirm that the pipeline is being constructed to meet federal safety standards." (Bobby Fraser, Director of Governmental, International and Public Affairs).

Again, before any work can continue, we need answers to this statement.

To support our theory that Sunoco is incompetent, inaccurate, has the worst track record of over 1,600 pipeline construction companies and tries to cut corners, I can testify that:

1. Sunoco measured the distance from my well to the proposed HDD as 490 feet instead of 150 ft. We spotted this in tiny print in the first Reevaluation Report we received. After our last DEP Reevaluation comments this was changed by Sunoco so obviously I need to measure everything myself to make sure it is accurate.

2. Sunoco lied to me when they told me water buffalo's were installed by licensed, certified technicians. We have the documentation from Edgmont Township showing that to be untrue. The technicians who installed the water buffalo's on Shepherd Land and Meadow Lane were, in fact, unlicensed and uncertified.
3. Sunoco lied to me when they told me they would acquire the permits for the water buffalo. Edgmont Township confirmed that Sunoco did not apply for the required permits for properties in Shepherd and Meadow Lanes and were fined for that – double the permit cost which is absolutely no deterrent for Sunoco doing that again!
4. Sunoco was unable to uninstall the water buffalo and re-connect the electrical wires they had taken from the pump to use for the cover to stop the water freezing in the winter. Edgmont Township can verify that. My well company had to be called in to do the job.
5. Sunoco lied to me when they told me they would do all the post-water buffalo water tests. Edgmont Township informed me that those water tests were never received.
6. When I pointed out our concerns to our Percheron Field Agent, his reply was that he would contact his boss about a contract. We wanted a contract to protect ourselves and our well against any damage by Sunoco. The request was answered – there is no contract. Are we seriously expected to allow incompetent, unqualified, unlicensed, uncertified technicians interfere with and possibly damage our well water supply?

Then there is the matter of Sunoco's supposedly highly sophisticated leak detection equipment. We know that there have been two leaks on Valley Road over the course of the last few years which went undetected by Sunoco. Both leaks were discovered by local residents. These leaks were in ME1 and the product was gasoline. Now, however, we are talking about a totally different and much more dangerous product that is colorless and odorless – namely ethane, butane and propane HVL's. Local residents will not be able to see or smell any leaks. At his presentation to Middletown Township residents on July 23, Mr. Richard Kuprewicz, the township's Pipeline Engineering and Safety Consultant from Accufacts, Inc., made it clear that any small leak would probably not be detected by Sunoco's equipment. Until there is a resolution to this problem any construction cannot be allowed to continue.

Last but not least, the issue with the contamination and damage to private wells. We need a permanent solution before any potential damage. A lot of wells were contaminated by the leaks and spills along Valley Road. Soil remediation is now being carried out but this is just not good enough for those along Valley Road who either suffered well contamination or still have the impending HDD to look forward to. Sunoco needs to have a permanent solution to offer all residents with private wells, especially those with well water as their sole source of water supply before the

proposed HDD takes place in order to avoid any more disruption and inconvenience to families in this suburban area. This road already looks like a construction site and has for two years now. Adding a water buffalo to the front of your property not only brings the value of your home down further but also plays havoc with the internal filtration system of a private well property which impacts the internal plumbing and appliances (see previous reevaluation comments from Edgmont residents). If Sunoco want to use this easement because of its convenience to the company and the bottom line, then they should offer a permanent solution like Aqua hook-up to residents in order to mitigate any potential negative impact situation. In other words, Sunoco should take preventative methods of avoiding disruption to families, not reactionary measures such as Aqua hook-ups after the damage of wells and the total disruption to a family's water supply.

Regarding the coating flaws that were discovered in Edgmont Township last week by a resident submitting a Right to Know Request for the township's engineer's report after noticing a newly-installed 20 ft section of ME2 being excavated, these are just some of the answers we need from Sunoco:

How did this issue come to light? What effect does it have on the integrity of the pipe?

Where were the pipes manufactured?

Where was the coating applied and who is the manufacturer of that polymer coating?

If any of the pipes were bent or shaped – where was that done and how? And what effect has that had on the coating?

Are pipe sections being dug up HDD or trenched or both?

What color is the coating being inspected and what is the difference in the light brown coating and the green coating?

What is the issue with the polymer coating specifically? Has it been recalled and what is being done to rectify the coating issue? For example, is the coating being re-applied?

Issues with the welds. What were they? Was there an operator error?

We expect to receive answers from the PUC, PHMSA and Middletown Township. We received and expected none from Sunoco, despite an email request to Percheron Field Services.

We have the right to know and, for the safety of our community, we have a responsibility to find out. Before any work continues, we would like to know the answers to these questions.

Since Sunoco submitted these comments, various issues have arisen that require further explanation by Sunoco. The coating flaws discovered last week, the “weld discrepancies” mentioned by Bobby Fraser, PHMSA Director of Governmental, International and Public Affairs, and Quest Consultant’s Mariner East Quantitative Risk Analysis which came out yesterday.

Quest Consultants’ Mariner Pipeline Quantitative Risk Assessment for Chester and Delaware Counties was presented by Jeff Marx to over 200 people from Chester and Delaware Counties on August 28, 2018 proved the level of risk the populations of these areas will be exposed to by Sunoco’s Mariner East pipeline project. The risk to us, the residents, is totally unacceptable.

Here are a few of the key results of the study that Quest performed:

- Heightened risk exists in the vicinity of valve sites.
- Heightened risk exists near HDD entry and exit points.
- Two pipelines produce approximately double the risk of a single pipeline. Three pipelines approximately triple the risk, and so on.
- These pipelines (based on industry-wide failures of HVLs, and not considering Sunoco’s industry-worst leak record) are likely to average a leak every 2 or 3 years, statewide.
- Even the smallest possible leak in an HVL transmission pipeline can result in fatal fire or explosion. (Hence my point about the necessity for enhanced leak detection equipment).
- For the three specific locations studied in detail, the study shows exactly which homes and buildings are in harm’s way, and how serious their risks are.
- It shows that, for those in the immediate vicinity of these pipelines, death from a pipeline accident is about 10% as likely as death from a car accident, and about 150 times more likely than death from a lightning strike.

Accidents do happen, and when they involve NGLs, the consequences can be catastrophic. Let me just mention three of them.

- In Follansbee, West Virginia, a new ethane pipeline similar to the proposed Mariner East 2 (but in a rural area), ruptured in January, 2015. The material exploded and burned seven acres of trees, and the siding melted on a house 2,000 feet away. Fortunately, no one was killed. That pipe was less than two years old.
- In Brenham, Texas, an NGL storage facility leaked. An hour later, a vehicle drove into the vapor cloud and it exploded. Again, this was a rural area, but three people were killed, twenty-one others were injured, and every structure in the area was damaged or demolished.
- Because of our dense population, the result of an explosion here could be much like the one in San Bruno, a suburb of San Francisco, in 2010. In that case, dozens of homes were destroyed. There were 8 fatalities and many more injuries. The eventual dollar costs of the accident approached one billion

dollars. And that was on a methane, or “natural gas” pipeline, with far less explosive potential than what Sunoco is constructing here.

No other major NGL transmission pipeline in the US goes through dense suburbs like ours. So, Sunoco proposes to make us part of an experiment that has not been tried before.

Sunoco’s track record as a pipeline operator is troublesome. Its pipelines have the industry’s worst record for leaks, in terms of leaks per year per mile of pipe. The company has little experience with NGL pipelines, but the Mariner East 1 pipeline has leaked three times in a 12- month span. It appears to be just luck that none of those leaks ignited. But counting on luck is not sound public policy.

The 12-inch refined-products pipeline that Sunoco proposes to use starting this fall for NGLs, bypassing unbuilt parts of Mariner East 2, has leaked at least four times since 1987, with the most recent leak occurring in June of this year in Delaware County.

And it’s not just leaks: we recently learned that Sunoco has been obliged to dig up sections of the Mariner East 2 pipe that had bad coating and welding discrepancies. How do we know what problems continue to lurk beneath the surface? Can we count on Sunoco, cited for scores of permit violations by the Department of Environmental Protection, to identify and then fix all these problems?

Finally, this study addresses individual risk, the risk to a single person, not the so-called “societal risk”, or overall risk to local densely populated communities. Individual risk is the risk you take by being in one specific spot. If there are others standing next to you, of course they are also at risk, but the “individual risk” calculation does not take them into account. Individual risk calculations are the same whether the person at risk is a lone farmer in a field or one of several hundred students in a school, or a resident in an assisted living facility.

To take those population-related risks into account would require a study of societal risk, which was beyond the scope of this study—it would have required a far greater investment than the amount of money we could hope to raise in 6 months’ time. So, in the context of this study, all fatal accidents are counted the same, whether they involve one death or a hundred.

But we must not lose sight of the fact that in the event of a lethal accident in our area, it is likely that many people will be killed, because we spend our days close to each other. We must be clear that what we are particularly concerned with is the risk to groups of people—households, schools, businesses, churches, libraries, malls, and so on, even though the risk to groups is not quantified as part of this study.

So where does this leave us? We are still looking at a pipeline that is

- being built to carry the most explosive possible materials,

- along a route that maximizes the risk to homes and schools,
- in a rushed construction process that has featured hundreds of permit violations, sections of bad pipe, and welding anomalies,
- by an operator with the industry's worst record for leaks.

This report shows us that we can be confident that the Mariner East system will experience accidents from time to time, some small and some large. Of course, we don't know where they will be. But we do know that for us, the risk of an accident on Mariner East next to a neighborhood, a school, a senior living facility, or a daycare center is totally unacceptable. Is it also unacceptable to our public officials, our politicians, our regulatory agencies and our Governor? Given all the facts and Sunoco's inferior construction record, multiple violations, mistakes, unreported incidents and fines, I cannot understand how these permits are allowed to be issued for the continuation of construction. This must be halted immediately before someone is hurt. The facts are in. The risk is too high. (9)

Letter – [Rosemary and Gordon Fuller](#)

6. Comment

I am writing in response to Sunoco re-eval analysis for HDD drilling site Gradyville Road Crossing in Edgmont PA DEP section 105 permit SPLP HDD No. S3-0580 and HDD S3-0580-16 for August 2018. My home and private well at 1002 Birchwood Lane in Edgmont Township, is within 200 feet of the HDD Site on Valley Road. The eight homes on our own cul de sac of Birchwood Lane have 19 children, ranging in age from 8 months to 18 year old. My 90 year old mother lives with us. Our neighbors and all 19 children live less than 1000 feet of Sunoco's dangerous pipeline. We are within walking distance of the HDD site on Gradyville Road as it is the pull out point of the HDD site at Valley Road, directly across from our home.

We deeply oppose the HDD plan in our area. Please save our water supply and our lives by reviewing the following points.

- DEPs request of number 6 on re-eval that a borehole geophysical suite needs to be performed in geotechnical borings must be completed and not ignored by SPLP. The safety of the community and our private wells must be adhered to and not ignored just because it is an inconvenience for SPLP and will take them more time to complete.
- Even though clean up and remediation has occurred at this site by GES this month from the petroleum leak in April 2015, we have severe concerns that MTBE and other petrochemical residues will still be in the environment and spread contamination to all our private wells. We all know MTBE is almost impossible to eradicate from the environment once contamination occurs! Why should homeowners here have to take this risk? The soil should be continued to be monitored for any more contamination for months and even years after the cleanup just this month.

- Sunoco has stated that everyone in this area is on public water. This is false! All properties are on private water/well systems. SPLP must report all accurate information about wells within 450 feet of drill site.

Sunoco has stated there are no ponds within area. This is false. Many of my neighbors along this proposed HDD site have spring fed ponds. We know of a neighbor lost her pond and all aquatic life perished when Sunoco just completed mini HDD only several feet, drilling under Valley Road last year.

- This proposed drilling land is located along an upland ridge area and serves as a local groundwater recharge zone, thus placing our wells at increased risk for contamination and drainage.
- At least 26 wells are at same depth as boring, which will increase our chances of drilling fluids and left over MTBE and petroleum hydrocarbon residues to contaminate our wells.
- At least 3 linear fractures cross drill path at 275 feet, 1520 feet and 2740 feet increasing our risk of well contamination.
- There is no option for public water hook up in this area once our wells become contaminated. To remain on alternative water buffalo type water supply systems once our wells become contaminated for a permanent basis is not feasible. One of our neighbors accepted the installation of Sunoco's water buffalo. They ended up in the hospital twice, due to sustained chemical burns from the over chlorinated water from the company that Sunoco had selected. Others who have relied on Sunoco's water buffaloes have experienced frozen tanks, and deteriorated appliances from the stress of the over chlorinated water and the stress of going on and off the water buffaloes.
- Since Sunoco is recommending residents have "alternative water supply" in place during drilling, they are expecting contamination of our wells. We cannot take this risk
- Increased risk of damaging Mariner East 1 pipeline during drilling with destabilizing of ground support around fracture lines that run under ME 1, exposing residents to more petroleum leaks and mass explosions! The "Bedrock Lithology" of the 4 geotechnical borings from depths 13.8 and 30 feet recorded "very intensely fractured" weathered gneiss, suggesting saprolite to a depth of at least 30 feet. Saprolite is a clay like rich rock and will allow for future settlement of areas inundated with water from where the drilling is completed, presenting the risk of shifting and collapse of earth around NGL active ME1 and in future NGL active ME2 and repurposed 12 inch line. The HDD drilling should not be allowed with the rock geology in this area.

Due to the above facts, open trench should be the only option allowed here at this site. Construction on Valley Road would not be a hardship, since it runs parallel to route 352 and all traffic could be easily rerouted. Sunoco does not want this option since it will cost them more money and time. Please consider the lives of our families and our right to clean uncontaminated water.

Ultimately, we beg you to halt the Sunoco ETP Project. Please consider the real danger to our community. We live within a mile of the Hanson Aggregates Quarry and we frequently feel the seismic waves that vibrates our home. We know that the quarry blasts have damaged home foundations at extended distances. These seismic blasts will shake and potentially weaken points of both ME1 and ME2, which will easily compromise the integrity of each pipeline.

We beg you to adhere to the DEP's mission statement and please protect our environment. (10)

7. Comment

I write today to express my dismay at the significantly abbreviated response period provided to the residents of the Commonwealth relative to the above captioned proposed horizontal drilling site located in Edgmont Township, Delaware County.

Per our previous conversations, I have brought to your attention the erroneous documentation and information submitted to the PA DEP by Sunoco/ETP and their contractors regarding the Mariner East pipeline project as it pertains specifically, in the immediate case, to Edgmont Township.

There is a significant underreporting of wells located in the immediate area surrounding the intended path of the proposed pipeline and this Gradyville Road Crossing HDD (S3-0580). As you know, the list of wells located in the township is just plain incorrect as only a small fraction of the wells were ever identified by Sunoco. The depth of the wells reported by Sunoco is also fraught with untruths. Additionally, Sunoco's claims that public water is available is also false. There is no public water infrastructure in existence along the proposed path and the DEP has been informed of this fact not only by residents such as myself, but Edgmont Township, has officially informed you of this fact as well.

Residents are very concerned about contamination to their aquifers. We have requested that the DEP require Sunoco to identify the location of the area aquifers, especially those located along the path of the proposed HDD. To date, our requests have been ignored.

The previous leak at this site has gone largely ignored by Sunoco and it is only recently, due to their desire to conduct HDD at that same location, that Sunoco has done anything to attempt to mitigate the damage caused over three (3) years ago. There is great concern that lingering chemicals and MTBE from the previous spill will travel along the fractures for long distances thereby exposing many households to this toxic MTBE. MTBE is known to be much more soluble in water than most over gasoline components. Once it gets into the ground, it is known to travel fast and far through groundwater. It is very likely to contaminate aquifers and wells. Even small amounts of MTBE can make well water undrinkable. MTBE also does not break down or biodegrade easily thereby making it very hard to clean up once contamination has occurred. The EPA maintains an Integrated Risk Information

System which contains information indicating that MTBE is a human carcinogen. For this reason alone, the PA DEP should not permit HDD activities at this location as trenching is a viable option.

By Sunoco's own admission, this particular area, specifically the intended path of the HDD along Valley Road, is known for its large conductive fractures within the rock formations thus increasing the potential and probability of spills and or loss of the industrial drilling fluid and subsequent contamination of local aquifers. The lack of adequate identification of private wells along this path of the proposed HDD puts many families at risk for loss of clean water. Additionally, a random parameter of 450 feet from the construction to the location of a well does not take into consideration those homeowners whose aquifers are located within 450 feet of the construction. Hence, the need to properly identify the location of local aquifers. If those aquifers are not identified, the proposed HDD could possibly enter into and travel through an aquifer. Once penetrated, the action can not be undone and the aquifer(s) will be impacted. Sunoco has stated that water buffalos will be provided to homeowners whose water is adversely affected. Sunoco's track record with water buffalos leaves a lot to be desired.

Located in very close proximity to the proposed path of the HDD is Hanson Quarry. They blast on a regular basis. There is much concern about the impact of the continuous blasting upon the installation and operation of this pipeline.

Another example of Sunoco's erroneous reporting is their allegations that no wetlands nor ponds exist in the area along the path of the proposed HDD. There are in fact both wetlands and ponds in the area. In fact, one pond had been drained during previous drilling there by killing fish and plant life and this had been previously reported to the PA DEP and Sunoco. It might be prudent for the DEP to visit Edgmont Township and investigate for themselves how many ponds and wetlands exist as opposed to relying solely on Sunoco's opinions.

I could write a dissertation on the reasons that HDD should not be permitted at this location. I could write a book about the negative impact this Mariner East Pipeline project has had on the tiny township of Edgmont, all of Delaware County and the State of Pennsylvania but, you already know about the problems with this project. You have issued violation after violation to Sunoco/ETP. To date, Sunoco/ETP has made you look like anything but protectors of our environment. You have a chance to do the right thing and deny Sunoco's request to engage in horizontal drilling in this location. Given the path of destruction from one end of the state to the other including the contamination of private wells, public waterways and wetlands, one can hope that you open your eyes to the tragic attack on our right to clean water and refuse to permit Sunoco to do harm to yet another community. (11)