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August 29, 2018

Via Electronic Mail

Mr. John Hohenstein, P.E.
Chief, Dams and Waterway Section
Pennsylvania Department of Environmental Protection
2 East Main Street Norristown, PA 19401

**Re: Our response to SPLP's Response to Comments
Hydrogeological Reevaluation Report
Gradyville Road Crossing HDD (S3-0580)
DEP Permit Nos. E23-524
Edgemont Township; Delaware County, Pennsylvania**

Dear Mr. Hohenstein,

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/repared. 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 the 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.

Sincerely,
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