

DEP Permit # E15-862
DEP Permit HDD Reference # PA-CH-0256.0000-RR
DEP HDD # S3-0400
Township – West Whiteland
County - Chester
HDD Site Name – Exton Bypass Crossing

1st Public Comment Period

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1. Comment

I strongly object to Sunoco's new plan for segment #S3-0400 of the Mariner East pipeline system that runs by Lisa Drive, in Exton, where there have been ongoing sinkhole problems.

First of all, the direct-bore approach is too big a risk to the other pipelines in this easement. It is far riskier because it uses no pilot hole and is massive in size.

Sunoco needs to take seriously the requirement for examining alternative routes. Why didn't the company even consider its own nearby route of the so-called 12-inch "bypass" pipeline? This doesn't speak well for the level of care that went into Sunoco's document.

Pushing this massive drill through the earth at Lisa Drive will have the potential for triggering another sinkhole as well. We came close to a disaster with the previous sinkholes at that site, why risk the neighborhood again?

You may ask, since I am a Delaware resident, why do I care about this at all. I care very much, because the endpoint of the Mariner East 1 pipeline which is already in use, has an endpoint at Marcus Hook Pennsylvania, which is just 5 miles from my house. Any HVL pipes that Sunoco operates which end there are of great concern to me, since - should there be an explosion - then my house, and in fact my entire community of Arden, Delaware, is in the "evacuation zone".

Sunoco has a grossly miserable track record so far with the history of this pipeline, and should be shut down on the entire project as soon as possible.

Thank you for considering my views. (1)

2. Comment

What is it going to take for the powers that be, to realize that this is the worst thing that could be done!? Under the train??? Under route 30?? How many people getting injured, dying, getting sick from contaminated water and soil, displaced from their homes, will it take for you people to wake up???? How is it that this much time, effort, money, lives, health is worth creating this pipeline for plastic (!?!?!?) can be had, but no irrigation systems of this caliber can be created to stop drought and wildfires in the west? Does no one care about human life anymore? What kind of

palms are being greased to blatantly ignore this issue? And how is the pipeline still going on?!?!?! Sinkholes, leaks into our water, but it's still ok to go forth. Imagine this happening to your family. Seriously, really imagine this happening to you and your loved ones...what would you do? I hope this kind of injustice never happens to you. I'm embarrassed to be an American and a Pennsylvanian at that. We're known for nothing but fat, greedy, bags of flesh with little to no intelligence and I fear that our reputations are starting to be based in truth. We are the Dispicable. (2)

3. Comment

I am a concerned Exton, PA resident opposed to the new plan for the Dragonpipe that runs near the infamous Lisa Drive.

1. Sunoco plans to place utilize the "direct bore" technology for a stretch of 816 feet plus an open trench. The direct bore segment will go under the Route 30 bypass, Amtrak lines and wetlands.

The direct bore approach is considered safe as it protects the surrounding ground from collapsing into the borehole but it is far riskier because it uses no pilot hole and can drift or be deflected by local variations in rock hardness. And this drill will have to be around 48" in diameter to accommodate a 42-inch pipe.

Additionally, at least part of this segment, the drill will be in close proximity to two active NGL. This is risky enough but Sunoco's track record doesn't lead one to believe they will put safety first.

This is way to big a risk!!! Sunoco needs to take seriously the requirement for examining alternative routes.

2. Sunoco claims that the direct-bore approach "represents no risk for an inadvertent return or grace-out because of the use of a casing but trade journal reports offer advice about minimizing frac-outs, so clearly they are obviously a problem.

Logic tells one that pushing this massive drill through the earth at Lisa Drive, which has been riddled with sinkholes already, has the potential for triggering another sinkhole. That could be a total disaster and it should not be risked again.

3. This plan has the potential to damage active pipelines and open new sinkholes and Sunoco has only paid lip service to obvious alternative routes.

Sunoco should be required to do better.

Do right by the people of West Whiteland! Do your job!!! (3)

4. Comment

I live in the Chester county area - and a frequent Amtrak traveler. I am shocked to hear Sunoco plans to drill a 4 ft hole under the tracks - Sunoco - or their contractor

has not been diligent or cautious with anything they do. They cause a problem and then quietly try to clean it up. This is crazy - why does this a pipeline of this size have to go through such a density populated, tax paying district. It seems there must be a better way - albeit more expensive but really why should that concern any of us, the point is to minimize the impact and the potential disaster.

I feel no one in Harrisburg is living through this, it is nerve wracking, home value wrecking, loud, dirty and nobody cares. In fact our Gov wants more - which is nuts - no way.

Please respect our homes and lives and force Sunoco to find another way. (4)

5. Comment

I am writing to plead that Sunoco be ordered to consider a much more logical, safer, less destructive path for the 20" Mariner East 2 line (ME2X). This topic has been raised with Sunoco for over three years with no response. It is now time to force their hand.

The much safer and less destructive route for the ME2X 20" pipe would be to follow the path of the already installed 12" pipe, which does not cut through residential neighborhoods at Lisa Drive, Exton Station, and Stonegate Court/Ship Rd. The 12" pipe follows the train tracks east and then follows Ship Rd all the way down.

It seems illogical that the current proposed route is even being considered or permitted. (5)

6. Comment

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"), please accept these comments on Sunoco Pipeline L.P.'s ("Sunoco") re-evaluation report ("Report") for the horizontal directional drilling ("HDD") indicated by drawing number PA-CH-00256.0000-RD- 16 (the "HDD Site").

1. The use of the direct pipe installation method may be proper at the Site, but Sunoco has not done the analysis needed to ensure it would be safe.

Sunoco proposes to use the "direct pipe" installation method instead of HDD. See <https://www.trenchlesspedia.com/the-direct-pipe-method-combining-the-benefits-of-hdd-and-microtunneling/2/4153>. Appellants are not opposed to the use of direct pipe at this location necessarily, but Appellants oppose its use without first investigating whether it would be safe at the Site. The Report does not contain the information needed to make that determination.

- A. The soil at the Site may be too soft for the installation to succeed or for the installed pipe to be stable.

According to a FERC Environmental Assessment for the Rivervale South to Market Project, installing pipe by the direct pipe method requires a dense microtunnel machine at the tip which has a tendency to sink in soft or loose soils. See Section 3.3 of Section C (Alternatives) available at <https://www.ferc.gov/industries/gas/enviro/eis/2018/CP17-490-EA.pdf>. As explained more fully,

For a Direct Pipe installation, the soils beneath the microtunnel machine must be able to bear the weight of the machine (bearing capacity) or the machine would tend to sink under its own weight. Based on the limited geotechnical study performed in the wetland area, the bearing capacity of the soils are likely not sufficient to support the microtunnel machine. Additionally, pipes installed by the Direct Pipe method can have buoyancy or floating issues in soft soils such as those in the wetland area, which could increase the stresses acting on the installed pipe. These buoyancy issues can also result in a need for the pipeline to be reburied at some future time.

This could be a problem for the use of direct pipe at the Site. The geology of the Site is well explored at this point. Almost all of the direct pipe path is planned for between 20 and 40 feet bgs. Borings at the Site showed that rock at those depths was saprolitic and weathered or completely weathered. Some of the saprolite was characterized as soft. SB-01 and SB-02 were done at roughly the ends of the planned direct bore. SB-01 found sand, silt, and gravel all the way down the 30 feet it went. The same was the case with SB-02 all the way down to 74.4 feet bgs. This is cause for analysis of the safety of use of microtunneling here.

The Department should determine whether the ground at the Site is stable and strong enough to support the microtunnel machine for the direct pipe installation, and whether there would be any buoyancy issues after installation that might stress the pipe. This information was not presented in the Report and is highly relevant to the propriety of the proposed installation method.

B. Sunoco's work at the Site has changed the geology significantly and in ways that have not been explored in the Report.

The massive geologic disruption the installation of the 16-inch pipe caused at the Site should lead Sunoco to be more cautious about the stability of the ground it plans to install the next pipe in. You would not know this from the Report, which scarcely mentions anything happening at the Site after 2017. In fact, Sunoco has been actively working at the Site through 2018 and into 2019. After the sinkholes at the Site deepened, Sunoco began a "grouting" campaign that involved pouring at least 10-11 truckloads of a cement-like "grout" into the ground at the Site. This is a quantity of material that would likely be geologically significant for drilling at the Site. Is it relevant to Sunoco's new plans? Sunoco never spelled that out because it did not

even mention the grouting. Nor has it mentioned that it bought most or all of the houses on the west side of Lisa Drive now due to the havoc it has caused the neighbors. Nor has it mentioned that the Site was subject to a Public Utility Commission shut-down order because of the geologic risk the original drilling created for Sunoco's existing operational pipelines there.

Again, this information is needed to determine the propriety of using direct bore at the Site.

- C. Direct pipe should only be used if the casing is sized to allow sufficient clearance and for a properly functioning cathodic protection system.

Another unexplored problem with the plans for direct pipe at the Site has to do with the size of the casing. The Report contradicts itself of the casing diameter. The plan / profile notes indicated that the casing would have a 48-inch outer diameter, but Section 4.1 of the HRR says that “[f]or the direct pipe installation, SPLP will install a 42-inch casing.” A 48-inch casing would be sufficient for a 20-inch pipe, assuming the carrier pipe were centered inside the casing.

While Section 4.1 of the HRR says that “Spacers will used to prevent the pipe from contacting the inside of the external casing during installation,” it is not clear if those spaces would remain after installation.

A 42-inch casing would not leave enough clearance. It is a matter of safety. The Pipeline and Hazardous Materials Safety Administration (PHMSA) requires at least 12 inches of clearance:

§ 195.250 Clearance between pipe and underground structures.

Any pipe installed underground must have at least 12 inches (305 millimeters) of clearance between the outside of the pipe and the extremity of any other underground structure, except that for drainage tile the minimum clearance may be less than 12 inches (305 millimeters) but not less than 2 inches (51 millimeters). However, where 12 inches (305 millimeters) of clearance is impracticable, the clearance may be reduced if adequate provisions are made for corrosion control.

49 CFR § 195.250 (available at <https://www.law.cornell.edu/cfr/text/49/195.250>).

As noted in the regulatory section, it is due to corrosion concern related to the adequacy of cathodic protection. The carrier pipes within the casing pipe also tend to be more prone to condensation or water infiltration, causing corrosion. See, e.g., Materials Performance, “Challenges of Installing a New Pipeline,” March 29, 2018, available at <http://www.materialsperformance.com/articles/cathodic->

protection/2018/04/challenges-of-installing-a-new-pipeline. This does not mean that casings are always to be avoided, but the Department should ensure that Sunoco is installing a casing of adequate diameter.

Not only does the direct pipe proposal have the potential to be in violation of federal safety law, but it also may contradict the permit applications. The Department relied on Sunoco's commitment to abide by 49 CFR § 195.250 on pages 14 to 15 and page 20 of the Project Description. See

<http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/Delaware/09%20-%20Project%20Descr/PPP->

[Project%20Description_for_105%20APP%20120216%20FINAL.pdf](#). This needs to be investigated before the Department makes a decision on the proposal in the Report.

2. Sunoco does not address risks that it downplays.

Sunoco vacillates on whether there are risks of subsidence and groundwater return at the Site. It does not address those risks.

In one paragraph of the HRR, it says an advantage of the new proposal is “eliminating IR risk, and greatly reducing groundwater discharge and subsidence risk,” and in the next it says it is “eliminating IR risk, eliminating groundwater discharge risk, and eliminating the risk of creating subsurface voids and surface subsidence along that section of the alignment.” See Section 1.0. Section 4.1 of the HRR says that “Lastly, there is a very small risk for ground subsidence ...” It is reasonable to assume that where Sunoco in one place claims a risk is nil and in another that it is small, it is probably non-zero.

Section 2.3.3 of the HRR actually indicates that the potential for groundwater discharge from the direct bore is high, but the volume should be lower than that for the HDD due to the smaller annulus. Nonetheless, Sunoco should have a mitigation plan for the groundwater discharge, but there is no indication in the Report that it does. Section 4.2 of the HRR says “Contractors should plan to manage such a groundwater discharge, if one occurs.”

There has been very significant subsidence and groundwater return of unclear significance. Sunoco should at least address how it is preparing for these possibilities in its new plans.

3. Sunoco proposes to take excessive additional temporary workspace.

The additional temporary workspace Sunoco wants to take at both ends of the direct pipe installation is excessive. Its location expands the right-of-way significantly. Sunoco does not explain why that much space is needed. On the eastern end, one may presume that Sunoco wants to claim that extra space simply because it can. It now owns those properties, and does not need to respond to push-back from the

landowners. However much Sunoco has that ability, the Department should not authorize earthmoving on an excessive expanse of land.

4. It is unclear how, if at all, Sunoco used the geophysical surveying results in planning the direct pipe bore.

Sunoco did geophysics at the Site in October 2017, but the results do not appear to be factored into the proposal in the Report except as follows: “SPLP has completed additional geotechnical and geophysical investigations of the drilling area to assess if the HDD could be redesigned to pass through better bedrock conditions; however, the data revealed inconsistencies in rock quality and other problematic geologic factors at depths through and below the HDD design limitations.” Sunoco should explain how, if at all, the geophysics was used for the new direct pipe plans.

5. The Report contains additional irregularities.

There are some discrepancies in the plan view and profile view for PA-CH-0249.0000-RR contained in the Report. First of all, the location is elsewhere identified as PA-CH-0256.0000- RR. Clarity is needed here. Next, the direct pipe drill entry pit is drawn such that it would excavate the as-installed 16-inch pipeline. This obviously should not be.

Section 2.3.5 of the HRR seems to contain a mistaken sentence: “Aqua America operates a municipal surface water intake on Chester Creek 170 ft southwest of the ROW, 216 feet upstream from where tributary S-I4 discharges to Chester Creek.” Chester Creek is in Delaware County, not Chester County, and is far from the Site. This may have displaced an intended sentence that is now missing--it is unclear.

Thank you for considering these comments. Please keep us apprised of your next steps on the HDD Site. (6-10)

Letter – [Clean Air Council – 6-13-19 – Exton Bypass Crossing](#)

7. Comment

This is a comment concerning the plan Sunoco has filed with the DEP (ID number S3-0400) for construction of the Mariner East 20-inch pipeline under the Route 30 bypass and through the Lisa Drive area that has been subject to previous sinkholes.

Sunoco admits in its plan that subsidence could occur again, posing grave danger to the area. They also admit that flow-back to the drill location is likely, which means that aquifers are probably being contaminated and (if the volume of water is large) surface waters could be polluted.

I am disturbed that Sunoco did not consider using its own existing right-of-way containing the 12-inch pipeline that is currently being used as part of Sunoco's cobbled-together "ME2". This avoids the sinkhole-prone area of Lisa Drive and instead follows Ship Road south of the Amtrak rail lines. This route would avoid

more homes and might well cause less environmental damage than the proposed route. And yet, although it already contains Sunoco's own pipeline transporting exactly the same material as proposed for the 20-inch pipeline, it is not even mentioned as an option in the plan.

I urge the DEP not to accept Sunoco's plan until this route has been examined and Sunoco has presented actual evidence indicating why this is not preferable. (11)

8. Comment

Please do not issue new permits for the Lisa Dr section of Mariner East. It is clear that location can not safely support the installation of new pipelines. Five residents have been forced out of family homes, leaving behind an additional 14 homes where residents are traumatized and now live with the unknown.

Multiple experts have commented on the unstable sinkhole geology in that area. Please do your job and protect our environment. Sinkholes and drilling through our land is not protecting. Say no to this re-eval. (12)

9. Comment

I am writing to express my concern with any DEP approval to allow a different methodology of drilling to install this section of Mariner pipeline. I believe the risks associated with a large diameter drill bore could negatively affect underground streams in this area and risk damage to nearby structures including historic buildings.

Thank you for your time and consideration. (13)

10. Comment

To whom it may concern: I am writing once again to ask why this project is allowed to continue despite numerous safety violations, injunctions and even criminal investigations. Now there is yet another issue regarding Lisa Drive where already homeowners were forced to flee due to safety issues and sinkholes. Why aren't alternative routes being used? What needs to happen before someone takes action to stop this dangerous project from continuing? I already have a formal complaint filed and request for an emergency injunction, why haven't I heard back on the investigation?

The project is clearly in violation of PA School Code since a detailed emergency plan has not been filed and approved by impacted school districts. That is only one part. Now this latest, why isn't Sunoco being required to look at alternate routes? Given the danger of sinkholes already known on Lisa Drive? All activity needs to stop until these questions and others are answered. (14)

11. Comment

Please make ETP review alternative options that would be safe for the Lisa Drive Community along with considering all nearby pipelines. There needs to be better oversight over this entire ETP/Sunoco project. All of these piecemeal comment

sections is not serving any purpose for anyone involved. ETP/Sunoco continues to do what is only best, convenient and cheaper for them rather than considering the impact on lifelong residents.

Enough is enough you need to stand up and do your job and protect your constituents and not the big business bully in our neighborhood. This entire project needs to be reviewed step by step and thoroughly not piecemeal. Lisa Drive has been exposed to enough do we really think new proposal won't have any negative effects of the various topography in Exton? Stop this madness and review this entire project risks, benefits (none noted here for PA residents) and the long term results. An emergency plan should be required by any company utilizing our land for their benefit. The time is now for you to stop this chaos and be leaders you are assigned to be. Review any of their proposals and see if they pass your common sense checklist and then think about how you'd feel if you lived along the pipeline. Many of us were conned into thinking this is progress this is by no way progress in fact it is destroying PA one drill frack out at a time.

Change can be hard but when it's helping others and more importantly residents it is worth the effort. This project has been mishandled from the start and should be reviewed and assessed before we have a ground zero due to ETP/Sunoco shortcomings and inadequacies. It should be considered with the record rainfall that perhaps some of the old studies don't reflect what is truly going on. (15)

12. Comment

I am writing with grave concerns over Sunoco's proposal for section ID# S3-0400. This section is proposed to take the same route as ME1 and the 16" pipeline recently installed behind Lisa Dr. The 18 month issue of sinkholes which resulted in Sunoco purchasing all 5 houses on Lisa Drive Easement because they were no longer safe. The use of Direct Bore is not any better than the HDD at this site there is an active 8" line and it has already been exposed in Jan 2019. They need to find another route. Sunoco hasn't considered the alternative route that the 12" bypass line takes. I urge you to reject Sunoco's request and make them consider a route that avoids the Lisa Drive area so as not to cause more sinkholes and harm that could jeopardize more homes, the Amtrak line and the Active 8" ME1 line. (16)

13. Comment

Please accept the following comments in response to the reanalysis of the HDD installation of a 20-inch pipeline under the Exton Bypass submitted by Sunoco Pipeline, L.P. for DEP Permit number EI 5-862, HDD Reference number PA-CH-0256.0000-RR filed on May 30, 2019.

Following my review of this report, I have a number of significant concerns related to the stated environmental, safety and quality of life impacts for citizens in West Whiteland Township (Chester County). In this report, Sunoco is seeking to modify the approved permit plan that utilizes Horizontal Directional Drilling (HDD) techniques and implements a combination of open cut trench crossing and the use of

Direct Pipe Bore. The justification for this change was based on information provided by Groundwater & Environmental Services, Inc. (GES) in their May 29, 2019 HDD Hydrogeological Reevaluation Report. While past activity has demonstrated significant impacts caused by HDD construction due to the karst formation in this region, I struggle to understand how this qualifies as new information that can support a plan change without significant public involvement. Open cut construction techniques will result in significant impacts to personal property, commercial opportunity, and environmental conditions throughout the Exton region and I must once again strongly request that public meetings be held prior to consideration of this modification.

This region of Chester County has experienced significant harm directly due to Sunoco's lack of due diligence. Construction activity that resulted in sinkholes rendered a community unlivable and forced the relocation of individuals who have lived in their family homes for generations. Sunoco points to the presence of the Marctic Thrust Fault zone as a direct contributor to the formation of these sinkholes. I agree that the existence of this fault, exacerbated by poor planning on behalf of Sunoco, led to the development of significant subsidence and the eviction of Chester County citizens from their homes. With this in mind, I am baffled by Sunoco's claim that alternative routes are impractical and strongly insist that the Department require sincere consideration of abandoning this region from further construction disturbance.

I was extremely concerned at the request to utilize the use of Direct Pipe Bore as a new method of pipeline installation. I must point out that this is the third method of construction attempted by Sunoco; both HDD and FlexBor construction techniques resulted in complete failure. This project has been provided ample opportunity to install their pipe and realized disastrous outcomes during each attempt. The Direct Pipe Bore method of construction raises a number of significant safety concerns in and of itself. The 50-inch borehole required for installation will undoubtedly create disturbance in an already extremely fragile area. Factoring in that two active pipelines, both transporting highly volatile natural gas liquids under extreme pressure, are in direct proximity raises tremendous safety concerns for the larger community. Any geologic disturbance caused by this intrusive construction technique could create a catastrophic release of product, impacting hundreds of Chester County residents, and thousands of motorists utilizing the Route 30 bypass as well as commuters on the SEPTA and Amtrak Keystone Line. Once again, this latest proposal represents Sunoco's ongoing strategy of hoping for the best while refusing to plan for the worst. Our citizens deserve a Department that recognizes these concerns and operates within its capacity to minimize further environmental failures that could directly create catastrophic conditions. Specifically, I must demand that the Department require additional provisions be in place to ensure construction activity does not exacerbate geologic conditions, with primary focus on Karst regions and the Marctic Thrust Fault. In my opinion, allowing Sunoco to simply utilize a new drilling method after failing time and again, is not only inappropriate, it is negligent.

Finally, while Sunoco claims that the proposed change will eliminate any risk of impact to private or public wells, I must take this opportunity to remind the Department that in the original permit application, Sunoco stated they would not impact wells using HDD techniques. While the Department did call attention to this incorrect statement in the Technical Deficiency notice dated September 6, 2016, the data provided by Sunoco related to private wells was ultimately inadequate and resulted in private wells being rendered unusable. In light of the destruction of private Chester County wells during construction, I was shocked to discover that Sunoco continues to rely on the Pennsylvania Groundwater Information System (PaGWIS), a voluntary database that contains incomplete information regarding the location of private wells. While GES indicates in section 2.3.5 of their May 29, 2019 report that an October 2017 survey of landowner parcels was performed, the information from this survey, referenced as Figure 5, was not included. As such, I must insist that Sunoco utilize data publicly available through the Chester County Department of Health to identify any and all private wells along the drill site.

While Sunoco has gone through the motions of reevaluation, it is clear that the information provided is insufficient. It is my strong recommendation that the Department reject this report as incomplete, require Sunoco to perform complete impact evaluations to ensure construction activities do not cause permanent and irreparable harm to the environment and safety of citizens in West Whiteland Township, and conduct a full public comment process. (17)

Letter – [Senator Andrew Dinniman – 6-13-19 – Exton Bypass Crossing](#)