

**DEP Permit # E21-449**  
**DEP Permit HDD Reference # PA-CU-0176.0019-RD-16**  
**DEP HDD # S2-0247**  
**Township – Upper Allen**  
**County - Cumberland**  
**HDD Site Name – Highway 15 Crossing**

**1<sup>st</sup> Public Comment Period**

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**1. 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-CU-00176.0019-RD- 16 (the “HDD Site”).

**1. Sunoco has not addressed threats of groundwater contamination and subsidence.**

Significant loss of drilling fluid returns was a persistent problem when drilling for the 20- inch line at this site. Because Sunoco seemingly was never able to locate the lost drilling fluid at the surface in most instances, the LORs have not been treated as inadvertent returns and they are given little consideration in the Report. This is a mistake. Just because lost drilling fluids are not found at the surface does not mean

they do not have an environmental impact. On the contrary, the drilling fluid is likely to move through groundwater and aquifers, changing the hydrology in the process. The likelihood of lost drilling fluid affecting groundwater is especially high in karst geology. Voids, of course, also make it more likely that there will be an LOR. Despite multiple LOR incidents while drilling for the 20-inch line, and geophysical surveys of the Site confirming voids and other sensitive geology associated with karst, Sunoco never makes the connection in the Report. Sunoco also never discusses groundwater impacts of LORs. The Department should require Sunoco to complete this analysis.

Pumping pressurized drilling fluids through karst geology also presents a risk of subsidence. Sunoco and the Department are well familiar with this danger as sinkholes have erupted in multiple places along the Mariner East route as a result of Sunoco's construction, destroying people's backyards, and exposing Sunoco's existing operational pipeline. In previous instances, Sunoco might not have understood the underlying geology enough to appreciate the threat. That is not the case here. Here, the geophysical surveys of the Site clearly show the sensitive, void-smattered, karst geology. There are known sinkholes in the areas. A sinkhole opening up under one of the highways that Sunoco plans to drill under could have devastating consequences. And yet, Sunoco has not addressed this danger. It has not come up with a site-specific plan for mitigating the risks of subsidence and seems to ignore the red flags raised in the geophysical surveys, determined to install its pipeline through karst regardless of risk. Far more analysis and planning is needed before construction can proceed safely.

## **2. The proposed revisions do not address the cause of the inadvertent return.**

The Report identifies the cause of the inadvertent return as a clogged annulus. Its solution to this for the 16-inch is to "require the implementation of the drilling BMP's as listed. The implementation of these drilling tool, procedures, and corrective actions significantly reduce the probability of an IR during drilling and installation of the 16-inch pipeline." Sunoco, however, nowhere states that these BMPs were not also undertaken during the installation of the 20-inch line. Without knowing whether Sunoco is trying anything different, the Department cannot conclude that this is a reasonable response to the problem.

Appellants note that this is a recurring problem. Sunoco presents implementation of these boilerplate BMPs as a solution to the problems it has been having, but never makes the claim that this is anything different than repetition of the practices that have caused the problems. The Department should not tolerate this situation.

Moreover, none of the BMPs appear site-specific to deal with the known voids and karst, as mentioned above. This copy-and-paste job ignores site-specific risks.

### **3. The Report does not discuss risks to drinking water supplies.**

Sunoco indicates it contacted landowners within 450 feet of the alignment but the Report does not disclose when this outreach took place. According to Attachment 3 to the Report, “450- Foot Well Survey,” Sunoco’s well data is from back in 2017. A new round of landowner outreach needs to be conducted in conjunction with the drilling of the 16-inch line. Even though Sunoco’s outreach two years ago did not reveal wells within 450 feet of the alignment, a new round of outreach might. There are already known wells within a half mile of the alignment. Given the karst geology and the admitted risk of drilling fluid movement, wells outside of 450 feet could be impacted by drilling at this site. All water supplies must be protected and the Report does not provide a plan for doing so.

### **4. Sunoco has reported two different internal design pressures for the 16-inch pipe.**

Attachment 2 to the Report includes profiles for the proposed HDD alignment. Those documents are internally inconsistent in regard to a critical piece of information: internal design pressure of the 16-inch line. Figure 1, “Permitted 16-Inch HDD Plan and Profile with 20-Inch IR Data”, at note 5, lists the internal design pressure of the 16-inch line as 1480 PSIG. Figure 2, “Redesigned 16-Inch HDD Plan and Profile,” at note 5, lists the internal design pressure for the 16-inch line as 2100 PSIG. This unexplained pressure increase of over 40% could have massive implications for pipeline integrity, and ultimately, the safety of the public and the environment. The Department must demand answers. At best, this is an egregious oversight that calls into question the reliability of the rest of the Report.

Lest the Department be inclined to overlook this information on the premise that it does not directly regulate pipeline pressure, the Department is now on notice that Sunoco has placed this problem squarely in the Department’s lap by providing plainly contradictory information in the Report and seeking the Department’s approval. A change in pipeline pressure necessitates a change in hydrostatic testing, which is jurisdictional to the Department among other agencies. The Department also regulates the pumping stations along the Mariner East pipelines, and a change in pressure affects emissions from the pump stations, flare efficiency, and the integrity of pumping station equipment and components such as seals.

The Department must demand more information, refer this critical situation to all proper authorities, and secure full resolution before allowing any work to proceed at this Site. Anything less on the part of the Department would make the Department complicit in what appears to be a wildly dangerous plan and any consequences that follow.

**5. Figure 1 is not the permitted plan and profile, despite saying it is.**

As with some other recent reports, there are discrepancies between the plan and profile as permitted and as represented in Figure 1 in the Report. Figure 1 bills itself as “Figure 1. Permitted 16-Inch HDD Plan and Profile.” However, a review of the actual permitted plan on the Department’s website shows significant differences. See [http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEast II/Cumberl and/07%20-%20Site%20Plans/Tab%207B%20HDDs/PA-CU-0176.0019-RD-16.pdf](http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/Cumberl%20and%2007%20-%20Site%20Plans/Tab%207B%20HDDs/PA-CU-0176.0019-RD-16.pdf). The revision history is different, indicating a different drawing. The text of the “Design and Construction” section differs as well. It appears that part of the difference between the two figures arises from post-permit modifications being included in Figure 1 of the Report. As discussed above, the history of modifications for this site and the basis for proposing them should be discussed in the Report in order to provide a complete picture of why previous analysis of the site has failed and how the new plan will be an improvement. Currently, Figure 1 is plainly not what its title indicates, and what it actually shows is unclear. (1-5)

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