DEP Permit # E21-449 DEP Permit HDD Reference # PA-CU-0136.0003-RD-16 DEP HDD # S2-0220 Township – Middlesex

County - Cumberland HDD Site Name – I-81 Road Crossing

1st 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-00136.0003-16 (the "HDD Site").

1. The Report masks the gravity of the damage at the HDD Site from the 20-inch drill by failing to disclose that the Site was subject to a Consent Order and Agreement after ongoing IRs totaling 160,000 gallons of drilling fluids in an Exceptional Value wetland.

The Report describes the problems at the HDD Site during the drilling of the 20-inch pipe as merely "two inadvertent returns (IR) with multiple flow events" which were

"remediated after completion of the pipeline installation." That description makes it sound like a problematic but unexceptional site. This is not at all the case.

The Department found that Sunoco essentially used the Exceptional Value wetland onsite as a drill pit into which to spew drilling fluids leaking out through the karst terrain and recirculate to advance the drill during the ongoing IR. There were at least thirteen separate days of spillage, including May 6, 8, 9, 10, 11, 12, 15, 27, 30, and June 5, 6, 8, and 9, 2017. The Department took enforcement action resulting in a Consent Order and Agreement (available at http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEast II/NOV/Su nocoME2%20COA%20(NOV%2021-17-101)%206-27-2017.pdf) requiring extensive mitigation measures, drill re-evaluation, and stipulated penalties of close to \$90,000 plus further penalties for further spillage. For example, if the Department approves the 16-inch drill as revised and Sunoco spills into a Water of the Commonwealth again, Paragraph 5.b. stipulates that "Sunoco shall pay a civil penalty in the amount of \$5000.00 per day for each day or part thereof that an IR occurs. Appellants highly recommend that if the Department chooses to approve this revised 16-inch drill plan, it staffs inspectors constantly at the Site so Sunoco cannot simply fail to report new spills so it avoids these stipulated penalties.

It is important that the Department remember, nearly two years later, what a disaster it was that Sunoco caused at the HDD Site. Sunoco's plans have the potential to cause such a disaster again. The Department should do everything within its power to avoid allowing that to happen.

2. Sunoco has not adequately discussed and mitigated for the risks associated with drilling through karst geology and fractures.

The geophysical surveys that were conducted at the Site confirm the presence of karst geology, including voids and pinnacles that will undoubtedly present problems for the drillers. Sunoco proposes to drill deeper than originally planned and to follow boilerplate BMPs, but otherwise does not a have a site-specific plan for dealing with voids, preventing spills, loss or returns, and the resulting threats to water resources like adjacent exceptional value wetlands and trout stream. Generally speaking, Sunoco has concluded in HDD reevaluations that drilling deeper decreases the chance of inadvertent returns. It needs to discuss how (and whether) the specific depth it chose for this Site will serve that end here, and to support its conclusion by explaining it in the context of the surrounding geology. In regard to BMPs, Sunoco needs to explain how the BMPs it proposes to use now are different, if at all, from the BMPs that is previously implemented unsuccessfully at the Site. 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.

Similarly, Sunoco needs to discuss how its proposal accounts for the fracture that bisects the drill path and seemingly contributed to inadvertent returns on the 20-inch drill. In Attachment 1, the "Geology and Hydrogeological Evaluation Report", Sunoco's scientists point out: "It is important to note that one of the NW-SE trending fracture traces crosses the HDD near the location of the reported IRs." Sunoco never heeds this note. Its analysis of inadvertent returns is incomplete.

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. 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. Far more analysis and planning are needed before construction can proceed safely.

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 February 2018. A new round of landowner outreach needs to be conducted in conjunction with the drilling of the 16-inch line. Sunoco's initial research and outreach revealed several wells in the vicinity of the HDD, a new round of outreach might reveal more. 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. The internal design pressure for this segment of pipe is inconsistent with recently reported internal design pressures for other segments of the 16-inch line.

Attachment 2 to the Report includes profiles for the proposed HDD alignment. Both Figure 1, "Permitted 16-Inch HDD Plan and Profile with 20-Inch IR Data", and Figure 2, "Redesigned 16-Inch HDD Plan and Profile," list the internal design pressure for the 16-inch line as 1480 PSIG. This conflicts with the most recently reported internal design pressure for other segments of the same pipe, including, for example, another segment that is currently being reevaluated in Cumberland County, PA-CU-0176.0019-RD-16. See.

http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEast II/HDD R

eevaluation_Reports/Highway15Crossing/Highway%2015%20Crossing%20-%20S2-0247.pdf, at Attachment 1, "HDD Profiles and Geotechnical Boring Logs", n. 5 (listing the internal design pressure for the 16-inch line as 2100 PSIG). It is unclear what is going on here, and the Department must demand answers. A change in pressure has serious implications for the safety of the public and the environment.

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-0136.0003-RD-16.pdf. The revision history is different even where the timeline for the revisions overlaps, indicating a different drawing. Currently, Figure 1 is plainly not what its title indicates, and what it actually shows is unclear. (1-5)

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