

DEP Permit # E38-194
DEP Permit HDD Reference # PA-LE-0055.0000-RD-16
DEP HDD # S3-0101
Township – West Cornwall
County - Lebanon
HDD Site Name – North Zinns Mill Road Crossing

2nd Public Comment Period

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1. Comment

On March 19, 2019, the Department requested additional information from Sunoco regarding its reevaluation (“Report”) of the horizontal directional drilling (“HDD”) indicated by drawing number HDD PA-LE-0055.0000-RD-16 (the “Site”). Sunoco responded on August 28, 2019, supplementing the Report. 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 regarding the Department’s request and Sunoco’s August 28, 2019 response (“August Response”).

1. - 3. Sunoco has failed to provide an adequate justification of its proposed profile path and a complete explanation of IRs.

As the Department pointed out in its March 19, 2019 letter to Sunoco, “SPLP failed to fully utilize information gathered during the HDD of the 20-inch bore as part of the

HDD Re- evaluation for the 16-inch pipeline.” To remedy this substantial flaw, the Department asked Sunoco to use data from its drilling of the 20-inch line to provide a comprehensive discussion of the cause of IRs at the site, a description of why the bore path for the redesigned 16-inch line was chosen, and an explanation of how the information from the drilling of the 20-inch line will be used to minimize IRs going forward. The August Response does not satisfy these requirements.

First, Sunoco claims to have “utilized all the information obtained during the completion of the 20-inch HDD in [its] internal assessment and evaluation of the 16-inch profile.” It is precisely that internal assessment that is under scrutiny as part of the reevaluation process. Yet, Sunoco has failed to provide the documents or evidence it relied on in this internal review, or to discuss the content of such sources. All of the information Sunoco relied on, including the “drilling information collected by various site personnel” needs to be included in the Report so the Department and the public can verify Sunoco’s internal analysis.

Second, Sunoco wrongly asserts “Figure 2 allowed for the correlation of the monitoring data collected during active drilling operations to the actual subsurface conditions encountered and provides both plan and cross-sectional views depicting the depth of profile in relation to the IRs that occurred during completion of the 20-inch HDD.” While Figure 2 does depict IRs, it does not, as Sunoco claims, reflect “actual subsurface conditions” encountered while drilling. A brief summary of the results of two test bores is included on the diagram but is not instructive as to the conditions over the vast majority of the profile; the bores roughly correspond to the entry and exit points and do not speak to the rest of the profile. No other data related to subsurface conditions is included in Figure 2. Thus, that figure is insufficient to substantiate Sunoco’s internal review process.

As to the cause of IRs, Sunoco provides only a generic discussion of the bore passing “through areas containing preferential pathways.” Almost by definition, an IR occurs when drilling fluid encounters a preferential pathway that reaches the land surface. Sunoco’s explanation of encountering preferential pathways related to unconsolidated overburden and fractures does little to illuminate the specifics of this site. Also missing from this discussion is “the magnitude of the inadvertent return(s) and associated loss of circulation,” which the Department specifically asked Sunoco include in the analysis. Instead, Sunoco simply asserts that it has provided those numbers before, thus indicating it has no intention of providing a complete explanation in one place now.

Finally, Sunoco has still not justified the specific path it has chosen for the 16-inch profile and it is not clear if Sunoco even possesses the data needed to do so. In its March 19, 2019 letter, the Department raises a number of questions related to Sunoco’s lack of explanation for the path it has chosen for the 16-inch profile. In the August Response, Sunoco first relies on rock quality data gathered from test bore B-2. B-2, however, does not extend as deep as the 16-inch profile is proposed to, and thus does not provide information about the depth at which Sunoco actually wants to

drill. Even if B-2 had been deeper, it is unlikely that single data point would be sufficient to inform the entire drill path. Other test bores were conducted, but as the Department noted, “the data was presented but is not discussed further.” Sunoco has ignored the Department’s request to explain where this data was incorporated into the reevaluation, merely stating that it evaluated the results, but providing no further discussion. Most of the other bores were terminated close to the surface. It is unclear how or if data from the bores that ran deeper was incorporated into the redesign. As noted above, Sunoco has also failed to explain what other information was part of its internal review.

One could speculate that the core of the reasoning for Sunoco’s proposed use of the path in question is contained in its statement that “having 40 ft or more of high strength bedrock above profile depth decreases the potential for IR occurrence for the majority of the profile length.” In other words, Sunoco deepened the profile and the analysis ended there. If that is the case, Sunoco needs to say that clearly. If it is not, Sunoco needs to make that clear. The Department should continue pushing Sunoco to provide a detailed explanation of the particular path it has chosen for the redesigned profile.

4. Sunoco has not incorporated the results of its geophysical testing into its plans.

The Department correctly pointed out that Sunoco’s initial geophysical surveys at the site did not cover the length of the proposed 16-inch profile. In the August Response, Sunoco says “SPLP will perform additional geophysical surveys along the new section of the redesigned 16-inch profile. A copy of the June 1, 2019 Geophysical Survey Report is included as an attachment.” It is unclear whether Sunoco intends to perform additional geophysical surveys, or if the June 1, 2019 surveys are the future surveys it was referring to. Regardless, to be of any value, the results of all geophysical surveys need to be incorporated into the plans for the redesigned profile.

The Department specifically asked Sunoco to “submit additional plan/profile maps with superimposed geophysical data.” Sunoco has entirely ignored that request, instead asserting it will increase monitoring. Of course, the value of increased monitoring is diminished if it is not informed by the results of the geophysical surveys. The Department was right to ask Sunoco to provide profile maps superimposed with the results of the geophysical surveys. The Department should ensure Sunoco does so.

Sunoco’s failure to provide maps superimposed with the results of the geophysical surveys is consistent with its larger flaw: Sunoco has failed to provide any detailed analysis of how the geophysical survey results informed its redesign. The anomalous areas identified in the geophysical surveys reveal substantial potential for communication with the surface. These results generally, and the anomalous zones specifically, need to be addressed in the redesign. Completing the surveys without utilizing the results amounts to nothing more than checking a box. Finally, Sunoco

wrote that it included a copy of the revised plan and profile maps with consistent stationing as an attachment to the August Response, but it did not.

5. Water Supplies

In response to the Department's request for additional information regarding three well complaints, Sunoco has provided summaries of test results for two wells where testing was conducted prior to and during drilling. Water supply testing is supposed to be conducted before, during, and after drilling. Presumably, if Sunoco had conducted post-drilling testing that revealed no contamination, it would have also shared those results as well. The public is then left to assume that Sunoco either never completed testing, or is not disclosing all results. For at least the Perlmutter's well, Sunoco acknowledged that there was post-construction sampling, wrongly claimed that was not required, and did not disclose the results. The Department should require Sunoco to provide additional information. Testing results and analysis are also needed for the third complaint.

In addition, Sunoco asserts the residents' complaints were evaluated by a Professional Geologist who ultimately determined Sunoco's construction was not to blame. The documents associated with this investigation should be redacted as necessary to protect the landowner's identity and made part of the Report. Importantly, geophysical testing has taken place since these investigations. This newly available data could change the Professional Geologist's assessment and must be taken into account. The Department should require Sunoco to evaluate the potential for communication between the drill site and all surrounding wells, specifically discussing the geophysical survey results.

Sunoco must also provide a specific plan for protecting water supplies going forward. The Department has asked Sunoco to demonstrate how its new plans will minimize impacts to water supplies. Sunoco has not done so.

Thank you for considering these comments. Please keep us apprised of your next steps on the HDD Site. (1-5)

Letter – [Clean Air Council – 9-4-19 - North Zinns Mill Road Crossing](#)