

March 19, 2019

Mr. Matthew Gordon  
Sunoco Pipeline, L.P.  
535 Fritztown Road  
Sinking Spring, PA 19608

Re: Hydrogeological HDD Re-Evaluation Report  
Snitz Cr./N. Zinns Mill Rd. Crossing 16" Horizontal Directional Drill Location (S3-0101-16)  
Permit No. E38-194  
West Cornwall Township, Lebanon County

Dear Mr. Gordon:

The Pennsylvania Department of Environmental Protection (DEP) is requesting more information from Sunoco Pipeline, L.P. (SPLP) related to the HDD Re-Evaluation for the Snitz Cr./N. Zinns Mill Rd. site, HDD# S3-0101-16 and permitted under Permit E38-194, posted on the DEP Mariner East II pipeline portal webpage on February 5, 2019.

1. As required by Paragraph 4 and 5 of the Environmental Hearing Board's August 10, 2017 Corrected Stipulated Order, 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. Many small inadvertent returns occurred during the HDD activities for the 20-inch bore. Please gather geologic and drilling information collected by various site personnel during the 20-inch bore which can be used to synthesize a comprehensive history of each or groupings of events. The HDD re-evaluation report should discuss the operational or geologic cause of each inadvertent return, the magnitude of the inadvertent return(s) and associated loss of circulation, the best management practice used to contain and minimize the inadvertent return, and the drilling procedure or technique used to progress the boring.

This information should then be used to describe why the chosen bore path for the 16-inch pipeline was determined and how such information has been used to minimize the potential for IR's to occur and as part of the discussion of construction alternatives, including why HDD activity is still the preferred and chosen methodology for pipeline construction at this location.

2. Relating to the Analysis of geologic strength at profile depth:
  - a. There is no analysis in the re-evaluation report specifically tying the revised drill path to any specific zones noted on the core boring logs as having high RQDs, or why the revised 16-inch path was chosen. Please provide a discussion addressing the use of this data in designing the bore path.



- b. These comments also pertain to the item “Supplemental drilling and sampling of earth materials” that was provided in the re-evaluation report.
3. Relating to the overall Geologic Report produced by Skelly and Loy:
  - a. There is no evaluation of the data and it gives no data-based rationale for why the revised pathway was chosen. Please provide a discussion of how the data presented was used in designing this HDD bore path and profile.
  - b. Please include information on bedrock strike and dip and use in the re-evaluation accordingly.
  - c. Section 4.0 Fracture Trace Analysis states that no fracture traces could be found on the numerous sets of photos that were reviewed. Two PA Geological Survey geologic reports were also reviewed for fracture trace information, with none mentioned or mapped. However, the section Seismic MASW and Refraction Survey in the geophysical report states that “the seismic survey was conducted along three sections of the HDD center line where fractures had been mapped by others . . . “. Please revise Section 4.0 Fracture Trace Analysis accordingly.
  - d. Section 5.0 Geotechnical Evaluation presents a synopsis of the four core borings. The section ends with the statement “Skelly and Loy and RETTEW relied on these reports and incorporated their data into the general geologic and hydrogeologic framework of the analysis of the proposed 16-inch drill at HDD S3-0101 for this report.” Please specify where this data was incorporated into the re-evaluation; the data was presented but is not discussed further.
4. Relating to the Geophysics discussion:
  - a. Please provide revised plan/profile maps that use the pipeline station numbers, not site-specific station numbers. As presented, there is a mix use of both numbering systems, making it difficult to interpret whether the same location is being evaluated.
  - b. Why was the geophysical survey not run across the entire HDD length and to the proposed HDD profile depth? Can any of the geophysical techniques be employed in the area between N. Cornwall Road and Quentin Road or between Quentin Road and the revised entry to the east?
  - c. If additional geophysical data can be obtained, please submit additional plan/profile maps with superimposed geophysical data.
5. Relating to the Analysis of well production zones and use of information obtained during construction of the 20-inch pipeline;

The re-evaluation fails to include mention of the three water supply complaints that were submitted to SPLP or the information and data gained during investigation of those complaints. Any private or public water supply data obtained within 450 feet or otherwise obtained in the



vicinity of the 20-inch or proposed 16-inch HDD should be used and discussed as part of this HDD re-evaluation. This data should include but not be limited to: any applicable water supply sampling data and any water supply complaints that SPLP may have obtained and received for water supplies within 450 of the HDD or within the general vicinity during construction of the 20-inch pipeline. The results of the SPLP's water supply sampling program, investigation, disposition of the complaint, and any correlation or non-correlation to SPLP's construction activities should be evaluated and discussed in the HDD re-evaluation report and used to demonstrate that the proposed 16-inch HDD activity will minimize the potential for IR's and impacts to water supplies. Please revise the re-evaluation report to include this information.

6. Related to Pipe Stress Radius: Provide further explanation of how the following statement applies to this HDD re-evaluation: "Pipe stress allowances are an integral part of the design calculations performed for each HDD."

Upon receipt, DEP will post SPLP's response to this letter on the DEP pipeline portal webpage for public comment. The public will have 5 additional business days from the date of posting on the website to provide DEP any additional comment.

If you have any questions or would like to discuss this letter, please contact me at [scwilliams@pa.gov](mailto:scwilliams@pa.gov) or 717.705.4799.

Sincerely,



Scott R. Williamson  
Program Manager  
Waterways & Wetlands Program

cc: Larry Gremminger, Energy Transfer Partners/Sunoco Pipeline, L.P. (pdf copy)  
Monica Styles, Sunoco Pipeline, L.P. (pdf copy)  
Doug Hess, P.G., Skelly and Loy  
Karl Kerchner, Lebanon County Conservation District (pdf copy)

