



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

December 12, 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 Creek/N. Zinns Mill Rd. site, HDD# S3-0101-16 and permitted under Permit E38-194. The SPLP HDD re-evaluation was posted on the DEP Mariner East II pipeline portal webpage on February 5, 2019 and the supplemental HDD analysis submitted to DEP on August 29, 2019.

1. As required by Paragraph 4. and 5. of the Environmental Hearing Board's August 10, 2017 Corrected Stipulated Order ("Order"), SPLP failed to fully utilize the information gathered, or respond to DEP's March 19, 2019 request for more information, during the HDD of the 20-inch bore as part of the HDD Re-evaluation for the 16-inch pipeline. What "*monitoring data collected during active drilling*" was used? Please present all of the data, including the "*monitoring data collected during active drilling*" of the 20-inch HDD, and explain how the location of the revised 16-inch HDD profile was determined.

Additionally, SPLP did not collect any new geological data, including geo-physical data, for the area where most of the inadvertent returns occurred during the construction of the 20-inch pipeline. Boring B-2 is approximately 125 feet from Snitz Creek and even farther away from the nearest IR. Bedrock strike and dip is not defined, discussed, or field verified within the analysis based on any data collected from the site. SPLP reports that there is bedrock outcrop in Snitz Creek. Could local strike/dip measurements not be taken at that location?

Further, Section 8.0 Conceptual Hydrogeologic Model in the first 16-inch HDD re-evaluation's geologic report stated that "*some site-specific evaluation of the bedrock has been completed in the area proximate to the geotechnical borings completed along this HDD profile and at bedrock outcrops identified along the stream bank proximate to the IR locations identified on the redesigned 16-inch HDD . . .*". What are the results of the site-specific evaluation of the bedrock outcrops? Please provide and incorporate into the HDD re-evaluation.

DEP requests that SPLP conduct additional geo-technical investigation of the portion of the HDD profile and area where most of IRs occurred on the 20-inch bore. SPLP should incorporate the results of such additional geo-technical investigation into the HDD re-evaluation. Alternatively, if additional geo-technical investigation is not feasible, SPLP should provide an adequate justification of why collecting such additional data is not feasible. In accordance with Paragraph 5. of the Order, SPLP should collectively use and present all of the available data compiled from the construction of the 20-inch line and any new geo-technical data to explain in detail how the 16-inch profile was chosen in order to minimize IRs during construction of the 16-inch pipeline.

2. Relating to the Analysis of geologic strength at profile depth:

- a. The SPLP August 29, 2019 response does not adequately address the previous DEP comments. The comments identified in Comment No. 1 above apply here as well. A correlation of the high RQD zones discussed in the SPLP re-evaluation across the HDD profile cannot be made without knowing bedrock dip. Without some field verified data, "*high-strength bedrock above profile depth*" as a barrier to IRs in a zone where not field data was collected cannot be relied upon as a basis for the 16-inch design and minimization of IRs. Without additional geo-technical investigation, it cannot be known whether that "*high-strength bedrock above profile depth*" is intact in the profile area beneath Snitz Creek, or whether the bedrock is highly-fractured.

3. Relating to the overall Geologic Report produced by Skelly and Loy:

- a. The Corrected Stipulated Order states in Section 5(i) "the report shall document, in detail, the information considered for the re-evaluation of the design of the HDD at that site." DEP requests that SPLP provide a detailed account of and the inclusion of the "*monitoring data collected during active drilling*" in the re-evaluation. SPLP should include the actual content of daily drilling reports and daily HDD inspection reports, along with how that data was used to determine the location of the revised 16-inch profile.
- b. DEP requests that SPLP further explain how they determined the "*lack of interconnected fractures*" discussed in the re-evaluation report and how does SPLP know that there is a lack of interconnected fractures, given the lack of geophysical data to support this statement. It does not seem appropriate that the existing core borings be used to extrapolate across the profile length without bedrock dip measurements.
- c. Please include site specific information on bedrock strike and dip and use in the re-evaluation accordingly. (see comment No. 1, above)

4. Relating to the Geophysics discussion:

- a. Why was the geophysical survey not run across the HDD length and to the proposed HDD profile depth where most IRs occurred in the past? (See comment No. 1, above)
- b. 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 only includes two of three water supply complaints that were submitted to SPLP and is missing any of the information and data gained during investigation of the third complaint. In addition, given the substantial change to the proposed drilling profile at this site and the number of private water supplies within 450 feet of the HDD, SPLP should evaluate and discuss how the proposed 16-inch bore path and profile will minimize impacts to these private water supplies.

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 analysis and information.

The DEP's review of the geologic aspects of this HDD re-evaluation and the geologic related comments represented above were completed by a Licensed Professional Geologist.

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 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
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Karl Kerchner, Lebanon County Conservation District (pdf copy)