

December 29, 2017

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

Re: Hydrogeological Re-Evaluation Report  
Horse Valley Road Horizontal Directional Drill Location (S2-0157)  
Application No. E50-258  
Toboyne Township, Perry County

Dear Mr. Gordon:

The Department of Environmental Protection (DEP) is requesting Sunoco Pipeline, L.P. (Sunoco) to provide information to address the following comments related to the Horizontal Directional Drill (HDD) Analysis for the Horse Valley Road Horizontal Directional Drill Location (S2-0157), E50-258, posted on the DEP Mariner East II pipeline portal webpage on December 1, 2017. This request is necessary to add critical plans and procedures to this HDD to minimize the potential for an inadvertent return, fluid flowback, or unauthorized discharge of drilling fluid to Waters of the Commonwealth to occur during completion of these two HDDs.

1. The revised Plan/Profile view drawings in Attachment 2 (Pages 96 and 98 of 98) show that the HDD entry location is west of Horse Valley Road which is at an elevation higher than the exit location. This configuration is also shown in the Plan/Profile view drawings in Attachment 1. Provide a discussion of the potential loss of and/or discharge of drilling fluid and the potential impacts associated with the potential discharge due to the difference in elevation. The discussion should include alternatives to prevent any potential discharge, an explanation for why this drilling configuration was chosen, and details regarding the procedures required to contain any potential discharge. If this is a labeling error, make the corrections to the entry and exit locations in the evaluation.
2. Two non-community public water supply wells exist near the HDD alignment. One is located approximately 800 feet north of HDD alignment, the other is approximately 1600 feet to the south. Consultation with the water supply owners is recommended. Additionally, an evaluation of the production zones for these wells needs to be fully analyzed and incorporated into the re-evaluation of this HDD.

3. Attachment #3 of the Geologic Report shows the original HDD alignment, not the revised extended configuration. Consequently, the water supply located proximal to the western end of the alignment, that was originally determined to be 539 feet from the HDD is now considerably closer, most likely within the prescribed 450-foot zone. Properly identify this water supply relative to the HDD alignment and 450' zone and incorporate the water supply's well production zone in the re-evaluation.
4. Over 80 feet of elevation difference exists between the eastern and western entry/exit points for the HDD bores. Therefore, the potential exists for discharge of encountered groundwater both during and post installation. The redesign should contain specific criteria for proper handling of a groundwater discharge during installation as well as the provisions to be employed to prevent a continuous post installation groundwater discharge. The report mentions that there was no IR during the installation of the ME-I pipeline. However, it is not clear whether the existing ME I pipeline was installed using HDD methodology as the location of the pipeline is not shown on the vertical profiles.
5. The following additional minor deficiencies were also noted in the review;
  - a. The geologic report incorrectly references the date of the Stipulated Agreement at August 9 instead of August 10.
  - b. In the geologic report, Borings B3-5E and B3-5W are incorrectly discussed as B3-2E and B3-2W.
  - c. The summary of the Horizontal Drill Design discussion in which the proposed BMPs are described mentions "upon the restart" on the HDD, but HDD activities have not yet been initiated on this site. Please correct this as necessary throughout the re-evaluation to reflect the current status of this HDD.

Based on the HDD re-evaluation report, the geologic conditions at this site, and Sunoco and DEP geologists' review, the potential to encounter significant quantities of groundwater exists in one section of the HDD. This could result in groundwater flows to the eastern HDD access location with a potential to discharge. To sufficiently monitor this situation, DEP requests that Sunoco add to this HDD re-evaluation a statement that Sunoco management and technical representatives will be present on site during this critical phase of these HDDs. Further, DEP requests that Sunoco add a required notification to the DEP Southcentral Regional Office at least three days in advance of reaching this critical stage of each HDD bore.

Additionally, DEP requests that Sunoco revise the re-evaluation to include a plan and schedule that specifies that all necessary water collection, treatment equipment and ancillary facilities will be on site and operational prior to the HDD bore. Also, grouting of the annulus space during or after pipeline installation may be necessary to prevent sustained groundwater discharge and/or continuous dewatering impacts.

Finally, given that Sunoco is proposing to capture, filter, and discharge any water and drilling fluid generated on site and proposing to change the location of the pullback area, Sunoco should revise the E&S Control Plan to identify the location and type of capture and filtering BMPs that will be utilized, identify any changes in the limit of disturbance and BMP changes to the pullback area, and submit a revised site specific E&S Control Plan for this HDD site.

If you have additional questions, please call me at 717.705.4765 or email at emuzic@pa.gov.

Sincerely,



Edward J. Muzic, P.E.  
Civil Engineer Manager, Hydraulic  
Dam Safety, Waterways & Wetlands Section

cc: Matthew T. Bruckner, P.G., RETTEW  
Douglass J. Hess, P.G., Skelly and Loy