Transcontinental Gas Pipe Line Company, LLC

Response to Technical Deficiency
Pennsylvania Department of Environmental Protection

Atlantic Sunrise Project

May 3, 2017

DEP Application No. E58-315, APS No. 878958
Lenox Township, Susquehanna County

Table 1
Transco's Responses to DEP February 24, 2017 Technical Deficiencies Letter

Technical Deficiency Number	Technical Deficiency Description	Response
1	Original Comment #4: Provide agency clearance letters and copies of correspondence from the Pennsylvania Fish and Boat Commission, Pennsylvania Game Commission, Pennsylvania Department of Conservation and Natural Resources, and U.S. Fish and Wildlife Service for the proposed pipeline, including no-access parcels, and the mitigation area, and identify any mitigation measures that are recommended or required. Please be advised that additional deficiencies may be generated pending responses from resource agencies. 25 Pa Code § 105.14(b)(4). **Provide clearance from USFWS for the Northern Long-Eared Bat and Indiana Bat. As PGC deferred comments on bat species to USFWS, clearance from USFWS will complete the clearance for PGC.** **Letters from jurisdictional agencies (PFBC, DCNR, PGC, and USFWS) were omitted from the November 2016 submission that had been included with the original 2015 submission. Include all letters from the jurisdictional agencies that identify the potential impacts to threatened/endangered species in addition to the clearance letters for each species. These letters are required in lieu of a PNDI search receipt due to the size of the project.**	**Attachment G-1** of the revised application provides an updated summary of the Project correspondence status for the Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Fish & Boat Commission, Pennsylvania Game Commission, and United States Fish and Wildlife Service. Complete copies of correspondence with the above-referenced agencies are provided in **Attachments G-2 through G-5,** respectively.

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2	Original Comment #12: Several streambank stabilization methods are proposed in the Erosion and Sedimentation Control Plans. Identify where each type of stabilization measure will be utilized. 25 Pa Code § 105.21(a)(1). **The stream bank restoration plan has been provided within Attachment L-5, Appendix L-3. The associated stream bank restoration methodology has not been identified on the E&S Control Plans. Please provide the type of stream bank restoration on the E&S Control Plans.**	Streambank stabilization method and location are provided within **Attachment L-5, Appendix L-3** of the revised application. In addition, the revised application includes updated Soil Erosion & Sediment Control Plans within **Attachment M**, which includes and streambank stabilization methods for each stream crossing. This information may be found on the E&S Detail or Detail Group band located on each of the plan views.

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3	Original Comment #31: Each of the temporary equipment stream crossings shown on the plan view drawings reference numerous typical details for various methods that the contractor may utilize to construct the crossings. The methods include 1. Bridge Equipment Crossing (BEC); 2. Flume Stream Crossing (FX); 3. Wet Minor Waterbody Crossing (MWC); 4. Temporary Stream Crossing Multiple Pipes (TSC.2); 5. Timber Matting Air Bridge (MAT.3); 6. Wet Intermediate Waterbody Crossing (IWC); and 7. Clean Water Crossing (CWC). The Stream impacts vary for each method. Please choose a single method that is both practical and has the least impact on the stream and floodway. Revise the plans and other applicable components of the application appropriately. Please show the proposed erosion and sediment control BMPs on the Erosion and Sediment Control Plans. 25 Pa Code § 105.13(g). **The application has been revised to identify the type of temporary equipment stream crossing in attachment H-2; however, the proposed crossing type is not identified on the associated Soil Erosion and Sediment Control Plan/Site Restoration Plan. Please identify the method of crossing being proposed on the Soil Erosion and Sediment Control Plan/Site Restoration Plan.**	The revised application includes updated Soil Erosion & Sediment Control Plans within **Attachment M**, which include the temporary stream crossing methods for each stream resource. This information may be found on the E&S Detail or Detail Group band located on each of the plan views. Additionally, the stream and wetland crossing methods are included within the County-Specific Resource Impact Mapping in **Attachment H-2**.

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4	Original Comment #32: Each of the temporary equipment wetland crossings shown on the plan view drawings reference numerous typical details for various methods that the contractor may utilize to construct the crossings. The methods include 1. Timber Matting in Wetlands (MAT.1); and 2. Wetland Equipment Crossing (WEC). The Wetland impacts vary for each method. Please choose a single method that is both practical and has the least impact on the wetland. Revise the plans and other applicable components of the application appropriately. 25 Pa Code § 105.13(g). **The application has been revised to identify the type of temporary equipment wetland crossing in attachment H-2; however, the proposed crossing type is not identified on the associated Soil Erosion and Sediment Control Plan/Site Restoration Plan. Please identify the method of crossing being proposed on the Soil Erosion and Sediment Control Plan/Site Restoration Plan.**	The revised application includes updated Soil Erosion & Sediment Control Plans within **Attachment M**, which include the wetland crossing method for each wetland resource. This information may be found on the E&S Detail or Detail Group band located on each of the plan views. Additionally, the wetland crossing methods are included within the County-Specific Resource Impact Mapping in **Attachment H-2**.

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5	Original Comment #33: Each of the utility crossings shown on the plan view drawings reference numerous typical details for various methods that the contractor may utilize to construct the crossings. The methods include 1. Coffer Dam Stream Crossing (CD); 2. Dam and Pump Stream Crossing (DPX); 3. Flume Stream Crossing (FX); 4. Wet Intermediate Waterbody Crossing (IWC); 5. Wet Minor Waterbody Crossing (MWC); 6. Horizontal Directional Drill (HDD); 7. Bored Waterbody Crossing (WBX.1); 8. Unsaturated Wetland Installation Procedure (WCC.1); 9. Saturated Wetland Installation Procedure (WCC.2); and 10. Inundated Wetland Installation Procedure (WCC.3). The stream impacts vary for each method. Please choose a single method that is both practical and has the least impact on the stream and floodway. Revise the plans and other applicable components of the application appropriately. 25 Pa Code § 105.13(g). **The application has been revised to identify the proposed utility crossing design in attachment H-2; however, the proposed crossing type is not identified on the Soil Erosion and Sediment Control Plan/Site Restoration Plan. Please identify the method of crossing proposed on the Soil Erosion and Sediment Control Plan/Site Restoration Plan.**	The revised application includes updated Soil Erosion & Sediment Control Plans within **Attachment M**, which includes the crossing method for each resource. This information may be found on the E&S Detail or Detail Group band located on each of the plan views. Additionally, the stream and wetland crossing methods are included within the County-Specific Resource Impact Mapping in **Attachment H-2**.

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6	The proposed temporary equipment crossing design does not include any measure to prevent sediment from falling off the sides of the equipment crossing into waters of the Commonwealth. Please modify the temporary equipment crossing design to insure that appropriate measures are proposed to address this concern. Please note that modifying the design to provide for the installation of a 1-foot high side rail that will also be wrapped with an appropriate geo-textile fabric would be an acceptable design modification. 25 Pa Code § 105.13(g).	The revised application now includes a revised Bridge Equipment Crossing (BEC) typical detail, which includes one-foot high side rails. Please refer to the BEC detail included within the Best Management Practices and Quantities Plan Set, as provided in **Attachment M**. This plan set is also provided in the back of the County Specific Impact Mapping (**Attachment H-2**).
7	It appears that USGS StreamSTATS was utilized for the hydrologic calculations to determine the peak flows for the temporary dam and pump to install the pipeline across streams within Susquehanna County. USGS Stream STATS is accurate for drainage areas that are over 1 square mile. None of the drainage areas for the streams that will be crossed within Susquehanna County are over the 1 square mile drainage area; therefore, USGS StreamSTATS cannot be used to determine the peak flows to size the proposed dam and pumping systems to dewater the construction area to install the proposed natural gas pipeline. Please provide an acceptable hydrologic method to determine the peak flows. 25 Pa Code § 105.161(b).	USGS StreamSTATS has been used only to delineate these drainage areas under one (1) square mile; however, the H&H report in **Attachment M** has been updated with calculations using HydroCAD SCS as the primary method for drainage areas less than one (1) square mile.

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8	To ensure that all potential impacts to regulated waters are evaluated and approved under applicable Chapter 105 regulatory criteria, The Department seeks a revised Attachment H-2 that includes primary, secondary and even tertiary pipeline installation methods (e.g., CD, DPX, FX, etc.), temporary construction crossing methods (e.g., BEC, MAT.1, MAT.3. etc.), and streambank restorative methods (e.g., RSS, SBR, etc.). DEP further seeks revision of each Attachment H-2 impact table to report worst case scenario regulated waters impact should the secondary or tertiary method need to be implemented. 25 Pa Code § 105.13(e)(1)(x).	The Chapter 105 Impact Mapping in **Attachment H-2** of the revised application includes changes identifying the primary and secondary crossing methods, as well as streambank stabilization methods, for each watercourse crossing. The secondary crossing method for all crossings within Susquehanna County would utilize the same workspace as the primary crossing method. There are no tertiary crossing methods proposed for the Project.