

February 24, 2017

Ms. Roberta Zwier
Transcontinental Gas Pipe Line Company, LLC
2800 Post Oak Boulevard, Level 6
Houston, Texas 77056

Re: Technical Deficiency #2
Atlantic Sunrise Pipeline - Northumberland County
APS ID# 878980, AUTH ID# 1087388
DEP Application No. E49-336,
East Cameron, Coal and Ralpho Township
Northumberland County

Dear Ms. Zwier:

On July 29, 2016 the Department of Environmental Protection (Department) sent to Transcontinental Gas Pipe Line Company, LLC (Transco) a technical deficiency letter for the above referenced Project. The Department received response to that technical deficiency letter on November 21, 2016, and determined that the application, including the resubmission, continues to be technically deficient. The Pennsylvania *Dam Safety and Waterway Management Regulations*, 25 Pa. Code § 105.1 *et seq.*, (Chapter 105 Regulations) include information that will aid you in responding to some of the deficiencies listed below. The deficiencies are based on applicable laws and regulations, and the guidance sets forth the Department's preferred means of satisfying the applicable regulatory requirements.

As you are aware, Department staff in two different regional offices are reviewing a combined total of eight (8) Chapter 105 permit applications associated with this project. While the regional offices have coordinated the review of the applications and the identification of deficiencies, it is possible that deficiencies raised in the Department's other deficiency letters may be applicable to this permit, even though not stated herein. The Department recommends that Transco evaluate whether any of the deficiencies identified in the other Chapter 105 permit application deficiency letters, beyond those deficiencies identified in this letter, necessitate revisions in this permit application.

Note: Due to multiple reviewers and the size of the document there may be some duplication of deficiencies.

Technical Deficiencies

1. Original Comment # 1: Upon further evaluation by the Department and in accordance with 25 Pa. Code § 105.13(e), complete delineation of impacts to wetlands, streams and floodways needs to be provided for the Department to perform the required environmental review of the application and make a proper permit decision. The impacts to wetlands, streams and flood ways

cannot be based on remote sensing. The Chapter 105 Regulations, 25 Pa. Code § 105.13(e)(1)(i)(A), require a complete demarcation of the floodplains and regulated waters of this Commonwealth on the site. This requirement will not be waived under the Chapter 105 Regulations, 25 Pa. Code § 105.13(k) as remote sensing or national wetland inventory data alone may not identify all wetlands, streams and floodways present, nor does it adequately identify any unique characteristics of the wetlands, or the functions that they provide. As such, the remotely sensed impacts will require in-field verification, and all relevant portions of the application will need to be revised prior to making a permit decision. 25 Pa. Code § 105.13(e).

The Department's review of proposed project water obstruction and encroachment activities in regulated waters of this Commonwealth (e.g., floodways, watercourses and wetlands) were based on remote sensing, which failed to allow for an evaluation of individual and cumulative adverse effects. Identification by remote sensing neither provided a concise demarcation of regulated waters nor identification of unique regulated waters characteristics or functions for the Department to evaluate whether any impact posed a potential adverse effect on life, health, safety, welfare, property or the environment. Deficiency Response 1 states that 100% of Northumberland County has been field-verified and Deficiency Response 27 States that 96 percent of Northumberland County has been Field-Verified. Provide information that clarifies this discrepancy. 25 Pa. Code § 105.13(e) (1) (A through G).

2. Original Comment #4: Provide agency clearance letters and copies of correspondence from the Pennsylvania Fish and Boat Commission (PFBC), Pennsylvania Game Commission (PGC), Pennsylvania Department of Conservation and Natural Resources (PDCNR), and U.S. Fish and Wildlife Service (USFWS) 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 final clearance letters for all agencies for the associated areas with the Swatara Creek PRM site. Provide clearance letters or PNDI receipts for all other agencies besides USFWS. 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 these species to USFWS, clearance from USFWS will complete the clearance for PGC. 25 Pa. Code § 105.14(b)(4).

Letters from jurisdictional agencies (PFBC, DCNR, PGC, and USFWS) that had been included with the original 2015 submission were omitted from the November 2016 submission. Please 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. 25 Pa. Code § 105.14(b)(4).

3. Original Comment #8: It appears that several waters of the Commonwealth could be crossed using trenchless installation methods. Provide a revised alternatives analysis that incorporates a discussion of alternative crossing techniques (conventional bore, Horizontal Directional Drilling (HDD), micro-tunneling, etc.) addressing each resource crossing individually and explaining why trenchless installation methods are not appropriate

Final determination and crossing method is required prior to permit approval for the South Branch of Roaring Creek Crossing, WW-T47-11002. 25 Pa. Code § 105.13(e)

The crossing of South Branch Roaring Creek was still under investigation for HDD at the time of the comment response. Provide information concerning the outcome of the investigation and justification for the feasibility of the crossing. 25 Pa. Code §§ 105.13(e)(1)(viii) and 105.18a.

4. Original Comment #18: An Aids to Navigation (ATON) plan may be required for this project. Contact Thomas Burrell with the Pennsylvania Fish and Boat Commission at 717.705.7838 regarding ATON requirements, and provide a copy of the ATON approval to DEP. 25 Pa. Code § 105.14.

The Department's review for evaluating impact to navigable public waterways found PFBC approvals of Aids to Navigation (ATON) plans at Northumberland County locations are forthcoming.

Please provide the PFBC Aids to Navigation (ATON) plan and approval for inclusion with your Joint Permit application materials. 25 Pa. Code § 105.14(b)(2).

5. Original Comment # 22: According to the Hydrologic and Hydraulic Calculations for Waterbody Crossings (H&H) several waterbody crossings are to be crossed by a dam and pump method. Many of these crossings have excessive Peak Flows that could not be managed by pumping. Detail how these crossings will be stable and how the waterbodies will be successfully passed through or around the work area. Provide tables in the plan drawings depicting pump sizing and rate information to be used by contractors.

Using impact WW-T47-11002 as an example, if a Dam and Pump method is chosen, provide supporting data that shows that this be will be a feasible method of crossing. Many of the crossings are in watersheds that have excessive flows during normal or low flow conditions, which may precede use of dam and pump methods. Explain why a Flume type method was not considered. 25 Pa. Code §§105.13and 105.14.

6. Original Comment # 48: Access roads AR-NO-075, AR-NO-078, and AR-NO-083 are shown to cross streams. Confirm that there are existing structures at the stream crossings and that the structures will not need to be replaced. Provide details and impacts for any crossings that will need new structures or replacement of existing structures

Temporary bridges as noted in the response document for this comment will need authorization through the Chapter 105 Regulations authorization. 25 Pa. Code § 105.13(a).

7. In accordance with 25 Pa. Code § 105.13(e)(1)(x), and to ensure that all potential impacts to regulated waters are evaluated and approved under applicable Chapter 105 Regulations criteria, provide a revised Attachment H-2 that includes primary, secondary and even tertiary pipeline installation methods (e.g., Cofferd Dam Stream Crossing (CD), Dam and Pump Stream Crossing(DPX), Flume Stream Crossing (FX), etc.), temporary construction crossing methods (e.g., BEC, MAT.1, MAT.3. etc.), and streambank restorative methods (e.g., RSS, SBR, etc.). Additionally, provide to the Department a 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
8. The Soil Erosion and Sedimentation Control Plan/Site Restoration Plan drawings do not have labels noting the method of crossing and site restoration for each watercourse, wetland or waterbody crossing. Provide updated plans to avoid any potential conflicts during construction. 25 Pa. Code § 105.13(e).
9. The Department's review of Attachment O-1 found project municipal notifications had been sent to East Cameron, Coal and Ralpho Townships. Where project water obstruction and encroachment activities are being proposed in floodway areas delineated on FEMA maps (i.e., National Flood Insurance Program maps), provide the Department with revisions that include return correspondence from those affected municipalities commenting on their evaluation of a provided floodplain management analysis and whether that analysis is consistent with their respective floodplain management codes or ordinances. 25 Pa. Code § 105.13(e)(1)(vii).
10. The Department's review of Attachment M, Hydrologic and Hydraulic Calculations for Waterbody found a few watercourses where water obstructions (i.e., culverts, cofferdams, bridges, etc.) were being proposed where the drainage area was less than one (1)-square mile. It seemed USGS StreamSTATS likely was used as a hydrologic method to address the Chapter 105 Regulations criteria related to hydrologic and hydrologic analysis. USGS StreamSTATS is only an accepted hydrologic method to use for water obstruction design in drainage areas that are over one (1)-square mile. Provide the Department with revised water obstruction designs (i.e., culverts, cofferdams, bridges, etc.) that utilize acceptable hydrologic and hydraulic methodologies, where the watercourse drainage is less than one (1)-square mile and USGS StreamSTATS was used. 25 Pa. Code § 105.161(b).
11. The proposed temporary equipment crossing does not have any measures to prevent sediment from falling off the sides of the equipment crossing into the stream. Please provide a one-foot (1') high side rail that will also be wrapped by the geo-textile. 25 Pa. Code § 105.13(g).
12. Correctly identify the FEMA detailed Floodway and Floodplain Boundaries. Several locations in the Impact Maps two boundaries are labeled as FEMA Floodway Boundary (v. FEMA Floodway and Floodplain boundaries). 25 Pa. Code § 105.13(e)(1)(i).

13. Section O-1 in the Joint Permit Application contains floodplain analysis and consistency letters sent out to Coal Township, East Cameron Township, and Ralpho Township. There are no response letters found in this section. Provide response letters for all municipalities affected. 25 Pa. Code § 105.13(e)(vi).
14. Impact WW-T58-11001A details roughly twelve (12) cubic yards of temporary fill in the inlet of a Penn DOT Stream Crossing Structure and an additional 3,000 cubic yards of associated fill in the floodway of the same stream. Provide concurrence from Penn DOT that this fill will not threaten the hydraulic capacity and safety of the structure. Also detail the need for the fill provided that the current DOT structure has guide rail limiting the use of the structure. 25 Pa. Code § 105.151.
15. The hydraulic calculations for the flume crossings only provide the Water Surface Profile Plot for Culvert. Please provide the HY-8 Report providing the water surface elevations for the existing and proposed conditions, overtopping characteristics, etc. 25 Pa. Code § 105.161(d).
16. The plans found in Attachment H-2 for impact WW-T47-11002 detail a "Dam and Pump" method of crossing. The narrative details that this crossing is being considered for a HDD method of crossing and Peak Flow Calculations table found in the H&H report does not provide a method of crossing. Given the discrepancies within the submitted documents provide detailed information that explains the method of crossing. 25 Pa. Code § 105.13.
17. Plan drawings provided in H-1 need to be updated to be consistent with H-2. 25 Pa. Code § 105.13(e)(1)(i)
18. Please reference the Department's "Design Criteria for Wetlands Replacement" regarding mitigation area monitoring, frequency, and inspection report content. Wetland replacement areas must be monitored for a period of not less than five years with inspections conducted at a minimum of twice per year for the first three years and once per year thereafter. Please revise your application materials as needed to ensure all mitigation areas associated with your project, including wetland and riparian replanting, wetland enhancement, and wetland restoration areas meet these criteria. 25 Pa. Code § 105.20a(b).
19. There are inconsistencies in Enclosure D of the Environmental Assessment in Attachment L. Page 32 of 62 states that there are no time of year restrictions for wild trout in Northumberland County. In addition, page 38 of 62 states that there are no wild trout streams in Northumberland County. These statements are incorrect, as South Branch Roaring Creek is a Class A wild trout stream. In-stream work restrictions apply for South Branch Roaring Creek and its Unnamed Tributaries from December 1 through April 1. The impact table correctly identifies South Branch Roaring Creek as Class A wild trout. 25 Pa. Code § 105.13(e)(x).
20. Activities proposed as mitigation for environmental impacts will be a permit requirement if included as part of your Joint Application submittal. Please remove all references to voluntary mitigation efforts as found in Attachment L and any other areas throughout your application. 25 Pa. Code § 105.13(e)(1)(ix).

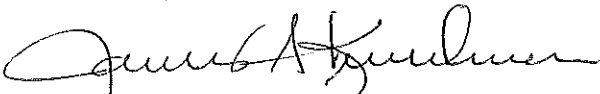
You may request a time extension, in writing, before **April 25, 2017** to respond to deficiencies beyond the sixty (60) calendar days. Requests for time extensions will be reviewed by the Department and considered. You will be notified in writing of the decision either to grant or deny, including a specific due date to respond if the extension is granted. Time extensions shall be in accordance with 25 Pa. Code § 105.13a(b).

Pursuant to 25 Pa. Code § 105.13a of the Chapter 105 Regulations you must submit a response fully addressing each of the significant technical deficiencies set forth above. Please note that this information must be received within sixty (60) calendar days from the date of this letter, on or before **April 25, 2017** or the Department may consider the application to be withdrawn by the applicant.

If you believe that any of the stated deficiencies are not significant, instead of submitting a response to that deficiency, you have the option of asking the Department to make a decision based on the information with regard to the subject matter of that deficiency that you have already made available. If you choose this option with regard to any deficiency, you should explain and justify how your current submission satisfies that deficiency. Please keep in mind that if you fail to respond, your application may be withdrawn or denied.

Should you have any questions regarding the identified deficiencies, please contact George Grose at 570-988-5504, and refer to Application No. E49-336, to discuss your concerns or to schedule a meeting. The meeting must be scheduled within the 60-day period allotted for your reply, unless otherwise extended by the Department. You may also follow your application through the review process via *eFACTS on the Web* at: <http://www.ahs2.dep.state.pa.us/eFactsWeb/default.aspx>.

Sincerely,



James A. Kuncelman, P.E.
Chief, Permits Section
Waterways and Wetlands Program

cc: Mr. Michael Dombroskie/US Army Corps of Engineers, Baltimore District
Ms. Jamie Davis/US Environmental Protection Agency
Mr. John Zimmer, TRC Environmental
Mr. Aaron Blair/Transcontinental Pipe Line Company, LLC
PA Fish and Boat Commission, Division of Environmental Services
Northumberland County Conservation District East Cameron Township
East Cameron Township
Coal Township
Ralpho Township
File
JAK/GG/LAR