

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 – Lebanon County
APS ID# 878953, Auth ID# 1089571
DEP Application No. E38-195,
Cold Spring, East Hanover, North Annville, South Annville, South Londonderry, Swatara, North
Lebanon, and Union Townships
Lebanon 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 a 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 § 105.1 3(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, require a complete demarcation of the floodplains and regulated waters of this Commonwealth on the site. This requirement will not be waived under 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. 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 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 #5: Provide clearance or approval from the Pennsylvania Historical and Museum Commission (PHMC) for cultural, archeological, and historic resources for the proposed water obstructions and encroachments, mitigation area, and areas necessary to construct the water obstructions and encroachments. 25 Pa. Code §§ 105.13(e)(1)(x), 105.14(b)(4) and 105.14(b)(5).

November 22, 2016 technical deficiency response states that, "Transco is coordinating with PHMC and FERC to develop a Memorandum of Agreement (MOA) to address Section 106 compliance and will include procedures for assessing impacts for inaccessible properties, and protocols for handling chance finds."

Please provide the status of this MOA and any impact assessments conducted or planned for any inaccessible properties.

4. 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. 25 Pa. Code §§ 105.13(e)(1)(viii) and 105.18.

One UNT to Little Conewago Creek was under investigation for conventional boring 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.

5. Original Comment #10: Public water supplies are located within in the vicinity of the proposed pipeline. The application states that there will not be any impacts the water supplies as a result of the pipeline. Provide the supporting documentation that led to this conclusion. Additionally, we recommend that you contact any public water supplier in order to help determine if your project will impact the public water supplier and subsequently provide documentation of interactions, through correspondence, with each supplier. Ensure all public water supplies in the vicinity of the proposed pipeline are identified within the location map. Enclosed are instructions on how to utilize the Department's eMapPA to identify public water supplies in the vicinity of your project. 25 Pa. Code §§ 105.13(e)(1)(ii), 105.13(e)(1)(x) and 105.14(b)(5).

The Department's review of Attachment H-2 found that neither project location maps or site plans identified specific watercourses or watershed boundaries where instream and downstream users could be affected by proposed pipeline water obstruction and encroachment activities. To evaluate whether any proposed pipeline water obstruction and encroachment poses an impact to public water supply, the Department requests that those identified instream and downstream users reported in Attachment L, and any unidentified users, be included on revised Attachment H-2 project location maps. 25 Pa. Code §§ 105.13(e)(1)(ii) and 105.14(b)(5).

6. Original Comment #14: 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.

Confirm that the stream bank stabilization methods are found in the revised application under (Attachment L-5, Appendix L-3) (v. the November response of (Attachment L-4, Appendix L-5)). 25 Pa. Code § 105.21(a)(1).

7. 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 an Aids to Navigation plans at Lebanon County locations are forthcoming.

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

8. 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. 25 Pa. Code § 105.161.

Using impact WW-T32-6001 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 preclude use of dam and pump methods. Explain why a Flume type method was not considered. 25 Pa. Code § 105.13, §105.14.

9. Original Comment #39: ES Plan Drawing 24-1600-70-28-A/LLI 13 9 Sheet 15 of 28- It appears that the temporary construction Right-of-Way (ROW) will encroach upon the floodways of Streams WW-TI and WWT 14-5007B. Revise the Chapter 105 permit application to include this impact and explain why the impact is necessary. 25 Pa. Code § 105.21(a)(1).

According to Sheet 15 of 28 the pipeline and ROW cross stream WW-T14-5007A which would indicate that there are floodway impacts associated with this crossing. The impacts table only labels crossing WW-T14-5007 and does not label WW-T14-5007A, WW-T14-5007B. Correct the plans and impacts table to reflect correct features and impacts as found in this location. 25 Pa. Code § 105.21(a)(1).

10. In accordance with 25 Pa. Code § 105.13(e)(1)(x), and to ensure all potential impacts to regulated waters are evaluated and approved under applicable Chapter 105 Regulations criteria, the Department seeks a revised Attachment H-2 that includes primary, secondary and even tertiary pipeline installation methods (e.g., Cofferdam Stream Crossing (CD), Dam and Pump Stream Crossing (DPX), Flume Stream Crossing (FX)), temporary construction crossing methods (e.g., BEC, MAT.1, MAT.3), and streambank restorative methods (e.g., RSS, SBR).

Additionally, provide the Department with 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.

11. 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).
12. According to Attachment "C" of the re-submission, the Act 14 notification for Cold Spring Township was not included. This item is required for completeness and issuance of the permit authorization. 25 Pa. Code §§105.13 and 105.13a.
13. The Department's review of attachment O-1 found project municipal notifications had been sent to East Hanover, South Annville, South Londonderry, and Union 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).
14. 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-square mile. It seemed USGS StreamSTATS likely was used as a hydrologic method to address the Chapter 105 Regulations criteria related 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-square mile. Provide the Department with revised water obstruction designs (i.e., culverts, cofferdams, bridges, etc.) that utilized acceptable hydrologic and hydraulic methodologies, where the watercourse drainage is less than one-square mile and USGS StreamSTATS was used. 25 Pa. Code § 105.161(b).
15. 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 high side rail that will also be wrapped by the geo-textile. 25 Pa. Code § 105.13(g).
16. Attachment L-5, APP 4 provides details for Hydrostatic testing intake structures. Provide existing grade and finish grade elevations on the crossing sections Figure B-3. Additionally, provide identifiers that match the hydrotest plans to the permit impacts mapping found in attachment H-2. 25 Pa. Code § 105.13(e)(1)(i)(G).
17. Correctly identify the FEMA detailed Floodway and Floodplain Boundaries. At several locations in the Impact Maps two boundaries are labeled as FEMA Floodway Boundary as noted on Sheet 1 of 4 for impact WW-T14-5006A. 25 Pa. Code § 105.13(e)(1)(i).

18. The hydraulic calculations for the flume crossings only provides 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).
19. Plan drawings provided in Attachment H-1 need to be updated to be consistent with H-2. 25 Pa. Code § 105.13(e)(1)(i).
20. Drawing F-AS-CPLS-A-01, Sheet 83 of 332 provided in Attachment H-1 shows impact to wetland W-T13-4001 and the floodway to WW-T13-4001. In Attachment P-1, it is stated that the alignment was shifted to avoid the resources and the associated impacts were removed from the impact table. The updated H-1 drawings should demonstrate that these resources have been avoided. 25 Pa. Code § 105.13(e)(1)(i).
21. Drawings 24-1600-70-20-A/55.48-01 and 55.49-01 depict the crossing of W-T30-6001 and WW-T30-6004. The drawing shows both a ten foot (10') Limit of Disturbance (LOD) reduction and a twenty-five foot (25') reduction on opposing ends of the LOD, resulting in a fifty foot (50') LOD across the resources. Confirm that the LOD is feasible for construction when a seventy-five foot (75') minimum LOD was highlighted throughout the permit application for safety and constructability. 25 Pa. Code § 105.13(e)(1)(i).
22. 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).
23. 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).

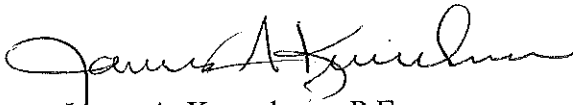
You may request a time extension, in writing, before **April 25, 2017** to respond to deficiencies beyond the sixty (60) calendar days. Requests for time extensions will be reviewed by the Department and considered. You will be notified in writing of the decision either to grant or deny, including a 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. E38-195, 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
Lebanon County Conservation District
Cold Spring Township
East Hanover Township
North Annville Township
North Lebanon Township
South Annville Township
South Londonderry Township
Swatara Township
Union Township
File

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