

July 29, 2016

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

Re: Completeness Notification
Atlantic Sunrise Pipeline-Columbia County; CPL North & CPL South
Application No. E49-336, APS No. 878980
East Cameron, Coal and Ralpho Township, Northumberland County

Dear Ms. Zwier:

The Department of Environmental Protection (DEP) has reviewed the above referenced application package and has identified the following significant technical deficiencies. *Chapter 105 Dam Safety and Waterway Management regulations* includes 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 DEP's preferred means of satisfying the applicable regulatory requirements.

As you are aware, Department staff in three different regional offices is reviewing seven other 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 Williams 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 duplicate deficiencies although every attempt was made to eliminate duplications.

Technical Deficiencies

1. Upon further evaluation by the Department and in accordance with the [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. [25 Pa. Code §105.13(e)(1)(i)(A)] requires 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 remote 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)]

2. Several flume crossings are shown in the ES Plan Sheets along the length of the pipeline. Clarify, with the drawings, if the flume crossing is proposed in a regulated waterway. If the crossings are located within a regulated waterway, provide a detailed impact table for the resource crossing identifying all the impacts associated with this crossing. Revise all other application documents to reflect any additional impacts. [25 PA Code §105.13(e)(1)(x)]
3. Provide adequate provisions for shut-off in the event of break or rupture. Provide locations and description of how this action will be completed in the event rupture occurs. [25 PA Code §105.301(9)]
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)]
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) & §105.14(b)(5)]
6. Provide plans or a detail for the restoration of stream beds at open cut stream crossings. This should include replacement of native stream bed material. This should include replacement of native stream bed material and assurance that no significant changes in bed grade occur. [25 PA Code §105.13(e)(1)(i)(G) & §105.13(e)(1)(ix) & §105.1, Mitigation & §105.13(e)(1)(x) & §105.15(a)(1) & §105.14(b)(4) & §105.16(d)] §105.13(e)(1)(i)(G) & §105.242(c)]
7. Explain how the final "restored" wetland elevations will be determined. [25 PA Code §105.13(e)(1)(ix)]
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, 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) & 105.18a]
9. The following deficiencies relate to the proposed HDD [25 PA Code §105.3(a)(4) & §105.11(a) & §105.13(e)(1)(i) & §105.13(e)(1)(iii) & §105.13(e)(1)(x) & §105.14(b)(4) & §105.301(1) & §105.301(7) & §105.301(5) & §105.301(3) & §105.151(1) and (3) & § 105.161(a)(3) and (4)]:
 - a. Provide plans and cross sections indicating pipe size, placement, and locations for all wetlands, streams, floodways and floodplains where the testing discharges are proposed. The cross sections should depict, at a minimum, the proposed structures, resource boundaries, stream bed and banks, water surface elevation.
 - b. Provide a description and plans of how the water will be discharged, the methods to be utilized, what equipment and structures are proposed to be placed and utilized in waters of the Commonwealth, the length of time which obstructions will remain in place.

- c. Provide cross sections, profiles, and hydraulic analysis for piping placed in existing stream culverts and along and within stream channels.
 - d. Identify on the plans the location of the proposed HDD electric guide wire, and provide an analysis to show that the wire will not present a hazard to river users.
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 DEP'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) & 105.14(b)(5)]*
 11. The application states that topsoil will be segregated. Provide a revised f Enclosure D of the Environmental Assessment that explains how the topsoil depth will be determined in the field. *[25 PA Code §§105.15(a) §105.15(b) & Environmental Assessment Form Instructions]*
 12. Revise the application to provide a planting plan to re-establish woody vegetation within the temporary construction ROWs in riparian and wetland areas that are currently forested or dominated by woody species, as was previously proposed and implemented by Williams Transco on a similar project. *[25 PA Code §§105.13(e)(1)(ix) & 105.16(d)]*
 13. The functions and values provided by shrub species more closely match those provided by forested areas than are provided by emergent areas. Revise the plans to incorporate the replanting of woody species in forested/ scrub shrub areas in the permanent ROW. *[25 PA Code §105.13(e)(1)(ix)]*
 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(a)(1)]*
 15. Revise the alternatives analysis to show the 600-foot survey corridor and demonstrate that impacts to waters of the Commonwealth within the corridor have been minimized to the maximum extent practicable. The demonstration should address each crossing individually. *[25 PA Code §§105.13(e)(1)(viii) & 105.18a]*
 16. The application incorrectly identifies watercourses as "waterbodies". Watercourses and bodies of water are defined differently under chapter 105. Provide revised copies of all applicable documents. *[25 PA Code §105.21(a)(1)]*
 17. The application states that blasting may be required to install the proposed pipeline. Clarify if blasting will be necessary in or along waters of the Commonwealth, and identify where it will be proposed. Please be advised that blasting permit from the Pennsylvania Fish and Boat Commission may be needed. *[25 PA Code §105.21(a)(1)]*

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(b)(2)]*
19. The Joint Permit Application Plans shall be the final plans for construction. Remove the reference to "Preliminary/Draft" from all plan sheets. *[25 PA Code §105.13(e)(1)(i)(C)]*
20. Installation of trench plugs as depicted in the profile view on the E&S Control Plans is likely to result in adverse impacts to the hydrology of waters of the Commonwealth. Provide a revised detail showing the trench plug continuing to the bottom of the trench instead of the top of the bedding material. *[25 PA Code §105.18a]*
21. The application states in numerous locations that the criteria used during routing surveys included "minimizing effects at any single wetland crossing to 1 acre or less whenever practicable". The Department is unable to determine why the 1 acre threshold was utilized when Chapter 105 regulations require minimizing impacts to wetlands to the maximum extent practicable. Revise the application to demonstrate that the routings avoid and minimize wetland impacts to the maximum extent practicable. Transco should assess the applicability of this deficiency to the other counties that are part of this project. *[25 PA Code §§105.13(e)(1)(vii) & 105.18a]*
22. According to the Hydrologic & 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]*
23. The H&H report, Peak Flow Calculations depict culvert pipe diameter and number of culvert pipes for some crossings but not all. Some crossings state "Cross When No Storm Forecasted" in the Flume Diameter and Number of Pipes columns. Provide crossing types and sizing data for these crossings. *[25 PA Code §105.161]*
24. In reviewing the plans, trench plugs are indicated to be installed at wetland/upland interfaces. Additional trench plugs may be necessary along the length of the crossing due to length and/or slope to maintain hydrology throughout the wetland. Please review and revise accordingly. Some additional guidance is available within the PA E&S Control BMP Manual. *[25 PA Code §105.13(e)]*
25. Attachment D-1; Summary of PHMC Coordination; Table D-1 details 2 entries that have a potential eligibility for PHMC review. Attachment D-2 details that coordination with PHMC has begun but yet there are no clearance letters stating that PHMC requirements have been met and are satisfied. Provide documentation that 100% of the pipeline corridor has been surveyed and cleared by PHMC. *[25 PA Code §105.13(e)]*
26. Attachment G provides information on Transco's efforts to determine if endangered species exist along the pipeline corridor and provide information from responding agencies concerning the

- inquiries. All responding agencies detailed that there were potential impacts to endangered or protected species within the corridor. To date no clearance letters have been provided detailing no impacts to endangered or protected species or special procedures to avoid impacts to the species. Provide clearance letters for 100% of the pipeline corridor. *[25 PA Code §105.13(e)]*
27. Since 100% of the corridor has not been assessed and evaluated for environmental impacts and those areas have used remote sensing to evaluate environmental impacts, the re-submission shall have 100% evaluation of environmental impacts from ground survey. *[25 PA Code §105.13(e)]*
28. Any and all changes developed and implemented after initial submission that will impact this Water Obstruction and Encroachment permit shall be incorporated and addressed in the re-submission. Clearly explain what led to these changes for each location where increased or lessened impacts are now proposed or eliminated and clearly explain why these changes are necessary. The re-submission shall be a complete standalone submission that will be used for authorization under E49-336. *[25 PA Code §105.2 & §105.11]*
29. Reductions of Limits of Disturbance in sensitive areas could result in reduced impacts. It is recommended that the sensitive areas of the project be re-evaluated and construction limits be reduced where applicable to eliminated or reduce project impacts. Provide those developed changes within the re-submission. *[25 PA Code §105.14]*
30. Attachment H-2 show waterbody crossings buried with a minimum cover above the pipe of 5 feet. Provide alternative design in plans detailing all methods of installation for areas that may have consolidated rock installations. *[25 PA Code §105.313]*
31. According to CPLS Peak Flow Calculations table submitted in appendix "B" of the Hydrologic and Hydraulic (H&H) report for permit application E19-311, H&H calculations were completed for this permit application. Submit H&H data for waterbody crossings. *[25 PA Code §105.161]*
32. CPLS Peak Flow Calculations table submitted in appendix "B" of the (H&H) report for permit application E19-311 depicts culvert pipe diameter and number of culvert pipes for some crossings but not all. Some crossings state "Cross When No Storm Forecasted" in the Flume Diameter and Number of Pipes columns. Provide crossing types and sizing data for these crossings. *[25 PA Code §105.161]*
33. Crossing WW-T04-10001, Shamokin Creek is shown to be crossed by a dam and pump method. Excessive Peak Flows of greater than 400,000 gallons per minute are shown on the table CPLS Peak Flow Calculations located in appendix "B" of the (H&H) report for permit application E19-311. Detail how this crossing will be stable and how the waterbody 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]*
34. Tables don't provide any temporary culvert sizing information to be used by the contractor or any length of crossing information. Correct tables to mimic the information. *[25 PA Code §105.161]*

35. The impact table for the individual permit application found in E-2 incorrectly labels resource names of waterbody crossings. Mahoney Creek should be Mahanoy Creek. Evaluate all other resource identifications and correct. [25 PA Code §105.13(e)(1)]
36. The impact table for the individual permit application found in E-2, utilizes the resource name however does not utilize the impact numbers as found in Attachment H-2 and Plans. Additionally, the impacts table in the Joint Permit Application Narrative and attachment H-2 provides impact areas but do not correspond to each other nor does attachment H-2 depict all of the crossings found in the impacts table. The impacts in each of these documents are not consistent with each other, correct with re-submission. [25 PA Code §105.13(e)]
37. Floodway impact shown in Attachment H-2 on dwg number 24-1600-70-09-A/83.42-02 do not match the impacts shown on dwg number 24-1600-70-28-A/LL113_9. Correct drawings to match. [25 PA Code §105.13(e)(1)]
38. Impacts associated with impact number WW-T45-11001 are not listed in the impacts table nor are there details shown in Attachment H-2. [25 PA Code §105.13(e)(1)]
39. Crossing WB-T44-11003 does not have any details attachment H-2. The impact is shown on Dwg number 24-1600-70-28-A/LL113_9 but is not listed in the impacts table nor are there Impact Maps for it. [25 PA Code §105.13(e)(1)]
40. Impacts associated with impact numbers WB-RS-10002, W-RS-10005, W-RS-10007 are not listed in the impacts table nor are there details shown in Attachment H-2. Since WB-RS-10002 is a waterbody or pond how will this be maintained during construction and sustainable. [25 PA Code §105.13(e)(1)]
41. Chapter 105 regulations require that adequate provisions for shut-off in the event of break or rupture are provided in [25 PA Code §105.301(9)]. Provide locations and description of how this action will be completed in the event rupture occurs.
42. Provide plans or a detail for the restoration of stream beds at stream crossings. This should include replacement of native stream bed material and assurance that no significant changes in bed grade occur. [25 PA Code §105.13(e)(1)(i)(G) & §105.242(c)]
43. Provide a description and plans of how the water will be withdrawn, the methods to be utilized, what equipment and structures are proposed to be placed and utilized in waters of the commonwealth, the length of time which obstructions will remain in place, and other details. Provide a cross sections, profiles, and hydraulic analysis for piping placed in existing stream culverts and along and within stream channels. [25 PA Code §105.13]
44. Revise the application to provide a planting plan to re-establish woody vegetation in 25 foot riparian area and wetland areas that are currently forested or dominated by woody species. [25 PA Code §105.13(e)(1)(ix)]

45. Clarify if blasting will be necessary in or along Waters of the Commonwealth, and identify where it will likely be required. Please be advised that blasting permit from the Pennsylvania Fish and Boat Commission may be needed. [25 PA Code §105.21(a)(1)]
46. An Aids to Navigation (ATON) plan may be required for this project. Contact Pennsylvania Fish and Boat Commission at 717.705.7800 regarding ATON requirements. [25 PA Code §105.14(b)(2)]
47. Provide PNDI clearance letters from USFWS for Indiana Bat and Northern Long-Eared Bat, PGC for Allegheny Woodrat and Eastern small-footed bat, and PFBC for timber rattlesnake. [25 PA Code §105.16(c)(3)]
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. [25 PA Code §105.13(e)(1)]
49. E&S drawings are at too high of a scale to discern E&S BMPs around water resources. Provide detailed mapping of water resources showing E&S BMPs to be used to protect water quality during construction. [25 PA Code §105.18a(b)(4)]
50. Provide justification for use of open trench methods of all water resource crossings, as opposed to conventional bore or HDD. [25 PA Code §105.18a(b)(2)]
51. Justify 100' LOD for water resource crossings, as a reduced LOD would provide for a minimization of impacts. The LOD should be reduced to the maximum extent feasible through all water resources. [25 PA Code §105.14(b)(4)]
52. Drawing F-AS-CPLS-A-01 Sheet 175 of 332 identifies a remote sensed body of water and wetlands. On-the-ground survey data will be required for this stream and wetland in order to conduct a complete review of the application. [25 PA Code §105.13(e)(1)(i)(A)]
53. Drawing F-AS-CPLS-A-01 Sheet 177 of 332 identifies a remote sensed water body and wetland. On-the-ground survey data will be required for this stream and wetland in order to conduct a complete review of the application. [25 PA Code §105.13(e)(1)(i)(A)]
54. Impact #22 – South Branch Roaring Creek is a wild trout stream. Therefore, the UNT to South Branch Roaring creek is wild trout, in accordance with 58 [25 Pa Code §57.11(b)(4)]: tributary linkages. [25 PA Code §105.13(e)(1)]
55. It appears that Wetland W-T18-10001 and Stream WW-T18-10003 have impacts not accounted for in Attachment H-2 or in the DEP Impacts Table. Provide clarification of these impacts. [25 PA Code §105.13(e)(1)]

You must submit a response for each of the above deficiencies. The re-submission shall be a complete standalone submission that will be used for authorization under E49-336. You may request a time

extension, in writing, before **September 27, 2016** to respond to deficiencies beyond the sixty (60) calendar days. Requests for time extensions will be reviewed by DEP 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 DEP's Chapter 105 Rules and 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 **September 27, 2016** or DEP may consider the application to be withdrawn by the applicant. If you believe that any of the stated deficiencies is not significant, instead of submitting a response to that deficiency, you have the option of asking DEP 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 call George Grose, by e-mail at ggrose@pa.gov or telephone at 570.988.5504 and refer to Application No. E49-336, Atlantic Sunrise 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 DEP. 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

Enclosures

cc: John Zimmer, TRC Environmental
Northumberland County Conservation District
US Army Corps of Engineers, Baltimore District
PA Fish and Boat Commission, Division of Environmental Services
East Cameron Township
Coal Township
Ralpho Township
File

Transcontinental Gas Pipe
Line Company, LLC

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July 29, 2016

bcc: File
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