

July 29, 2016

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

Re: Technical Deficiency  
Atlantic Sunrise Pipeline-Columbia County; CPL North & CPL South  
Application No. E19-311, APS No. 878953  
Cleveland, Greenwood, Franklin, Jackson, Montour, Mt. Pleasant, Orange, Hemlock & Sugarlaof  
Townships, Columbia 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 [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 11 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. *[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. According to section 1.1 of the Hydrologic & Hydraulic Calculations for Waterbody Crossings, the pipe line will be buried with a minimum cover above the pipe of 5 feet. This section goes on to state that the cover may be decreased to a minimum of 2 feet if in Consolidated Rock. Provide alternative design in plans detailing all methods of installation for the alternative design. *[25 PA Code §105.313]*
31. According to section 1.1 of 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]*
32. Attachment H-2, Encroachment Permit Impacts detail several different drawing types. It appears that items found in one drawing type are not duplicated in another type. Standardization of the mapping would assist in not eliminating needed detail. Example: Wetland impacts associated with wetland W-T01-13001 PEM are not shown on drawing number 24-1600-70-20-A/109.16-

- 01 as permanent or temporary. Additionally, it appears that this impact could be avoided by narrowing the northwest LOD boundary. *[25 PA Code §105.13(e)(1)]*
33. HY8 calculations and plan charts don't show same pipeline crossings; H&H report appendixes B, C, and D do not match tables 3, 3A, 3B found in plan drawings for proposed 30" CPLN and proposed 42" CPLS Best Management Practices and Quantities. The tables depict waterbody crossings that are not found in the H&H report, tables don't provide any culvert sizing information to be used by the contractor or any length of crossing information. Correct tables to mimic the information provided in the H&H report. *[25 PA Code §105.161]*
34. Section B of 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]*
35. Impact table in the Joint Permit application, attachment E-2, begins impacts at the intersection of CPL North and CPL south. The table consecutively numbers impacts working to the south of the project. Plan Set, Soil Erosion and Sediment Control Plan/Site Restoration Plan CPL South Sheet 1 of 32 begins at the southern boundary of Columbia County and works north. Provide consistency between plan sets and explanation through stationing and milestone numbers. *[25 PA Code §105.13(e)(1)]*
36. The impact table for the individual permit application utilizes the resource name however does not utilize the impact numbers as found in Attachment H-2 and Plans. Additionally, attachment H-2 provides impact areas but does not detail impact dimensions as found in the Impacts Table in the Joint Permit Application Narrative. The impacts in each of these documents are not consistent with each other, correct with re-submission. *[25 PA Code §105.13(e)]*
37. Several waterbody crossings have multiple delineations for the same impact. Example Wetland Complex W-T01-12001 "A and B" and Wetland Complex W-T06-13003 "A, B and C". Boundary lines for the separations are not clear and disturbance acreage can't be confirmed. Why have these crossings been divided into multiple pipeline impacts? Provide improved Plans and Narrative that explain the divisions and/or provide appropriate data for the crossings. *[25 PA Code §105.13(e)(1)]*
38. How have avoidance and minimization of resources been achieved when pipeline changes in direction occur in sensitive resource areas such as wetlands and stream crossings? Crossings shall be designed to cross at the most direct manner and to create the least impact. Additionally, it appears that Limits of Disturbance could be narrowed to eliminate or reduce potential impacts. *[25 PA Code §105.14]*
39. 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.

40. 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)]*
41. Provide a detailed site specific pollution prevention and control plan that addresses potential inadvertent returns as well as hazardous and non-hazardous chemical releases. *[25 PA Code §105.14]*
42. 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 §105.14(b)(4)]*
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. 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 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. Access road AR-CO-94.1.1 is shown to be placed in the floodway of an Unnamed Tributary to the Susquehanna River. An impact number WW-T47-12001 is noted as the stream traverses under Legion Road. It is unclear what the impacts are and where they are shown on the plans. Additional impacts are shown on the Access Road Layout plans depicting erosion and sedimentation controls in the stream channel. These impacts do not exhibit avoidance of impacts and shall be relocated. *[25 PA Code §105.14]*
48. The drawing index sheets exhibit plan drawing numbers for which plans do not exist. Correct in re-submission. *[25 PA Code §105.13(e)]*
49. Provide PNDI clearance letters from USFWS for Indiana Bat and Northern Long-Eared Bat, and Northeastern Bulrush, PGC for Allegheny Woodrat, and DCNR for Northeastern Bulrush, and Jeweled Shooting Star. *[25 PA Code §105.16(c)(3)]*

50. 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)]*
51. 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)]*
52. Is it the intention that PFO and PSS wetlands identified with temporary impacts be allowed to naturally revert to pre-existing wetland condition? How will mowing and other maintenance be restricted to only the 10' wide corridor through PEM and PSS and 30' wide through PFO, as identified in the permit application? Once the construction corridor is cleared, it will be difficult to differentiate the area that will require routine maintenance versus the area that should be allowed to regrow into pre-existing conditions, especially if a wider corridor is maintained outside of wetland areas. *[25 PA Code §105.13(e)(1)(ix)]*
53. Permanent impacts are identified for PSS wetlands, with no mitigation proposed. Justify that the functions and values of the PSS wetlands would not be impacted by ROW maintenance or provide mitigation for PSS wetland impacts. *[25 PA Code §105.13(e)(1)(ix)]*
54. For CPL North, a 90' LOD was generally used and was narrowed to 75' through some wetland areas. For CPL South, a 100' LOD was generally used, and was narrowed to 90' or 75' in some wetland areas. Justify why the LOD was not reduced through all water resources, 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 §105.18a(b)(2)]*
55. Impact #1-7 – Data provided and confirmed during field observations on 7/2/15 and 7/14/15 is not represented by the wetland boundaries and streams identified in the application (Drawing number F-AS-CPLN-A-01 Sheet 1 and associated impact mapping). Provide updated data and mapping that accurately represents the streams and wetlands on site and update associated impacts accordingly. *[25 PA Code §105.13(e)(1)]*
56. Impact #3 – Stream WW-T91-15001 is identified as an UNT to Fishing Creek. The correct identification of the stream is an UNT to West Creek. West Creek is a Wild Trout stream. *[25 PA Code §105.13(e)(1)]*
57. Impact # 1-2, 6-7 – Wetlands W-T02-15001A and W-T02-15001C are adjacent to an UNT to West Creek, which is a tributary to a wild trout stream. Therefore, these wetlands should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
58. Impact #1-2, 6-7 – Provide impact mapping that clearly shows the boundaries between PEM and PFO wetlands and their associated impacts. *[25 PA Code §105.13(e)(1)]*
59. Impact #8 – Wetland W-T02-15002 can be avoided through a minor change to the LOD around the edge of the wetland. Adjust LOD or justify why the impact is necessary. *[25 PA Code §105.18a(b)(2)]*

60. Impacts # 17-20 – Wetlands W-T02-15004A and W-T02-15004C are adjacent to UNT to Fishing Creek, which is a tributary to a wild trout stream. Therefore, these wetlands should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
61. Impacts #17-20 - Provide impact mapping provided that clearly shows the boundaries between PEM and PFO wetlands and their associated impacts. *[25 PA Code §105.13(e)(1)]*
62. Impact #21-22 – The pipeline is shown to parallel at least 150’ of the UNT to Fishing Creek (WW-T02-15004), generally within 10’ of the stream. The current cover of the stream is primarily PFO.
  - a. Describe how construction of the pipeline will take place in close proximity to the stream as to not result in a permanent impact to the stream. This location does not fit a typical stream crossing and may require specific detail. *[25 Pa Code §105.13(e)(1)]*
  - b. As the streambanks will be maintained without its current forested vegetation, describe how stabilization of the stream will occur such that erosion is prevented. Severe erosion at this location has a higher potential to result in loss of cover of the pipeline and exposure of the pipeline. *[25 Pa Code §105.314]*
  - c. The UNT is a wild trout stream. Loss of PFO cover raises concerns of thermal impacts to the stream, especially since headwater stream are more susceptible to thermal impacts as a result of cover loss. Explain how this impact will be minimized. *[25 Pa Code §105.14(b)(4)]*
63. Impact #26-27 – The pipeline is shown to makes bends that results in increased wetland impacts. Justify the wetland impacts at this location by explaining the feasibility of locating the pipeline bends either before or after the wetland, which would reduce or avoid the wetland crossing. *[25 PA Code §105.13(e)(1)(viii)]*
64. Impacts #29-34 – Data provided and confirmed during field observations on 7/2/15 and 7/14/15 is not represented by the wetland boundaries and streams identified in the application (Drawing number F-AS-CPLN-A-01 Sheet 3 and associated impact mapping). Provide updated data and mapping that accurately represents the streams and wetlands on site and update associated impacts accordingly. *[25 PA Code §105.13(e)(1)]*
65. Impacts #29-32 - Provide impact mapping that clearly shows the boundaries between PEM and PFO wetlands and their associated impacts. *[25 PA Code §105.13(e)(1)]*
66. Impact #47-51 and 53-56 – Wetlands W-T02-15008A, W-T02-15008B, W-T02-15008C, W-T02-15009A and W-T02-15009C are adjacent to an UNT to Coles Creek, which is a tributary to a wild trout stream. Therefore, these wetlands should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
67. Impact #53-56 - Provide impact mapping that clearly shows the boundaries between PEM and PFO wetlands and their associated impacts. *[25 PA Code §105.13(e)(1)]*

68. Impact # 61-72 – Data provided and confirmed during field observations on 7/2/15 and 7/14/15 is not represented by the wetland boundaries and streams identified in the application (Drawing number F-AS-CPLN-A-01 Sheet 6 and associated impact mapping). Provide updated data and mapping that accurately represents the streams and wetlands on site and update associated impacts accordingly. *[25 PA Code §105.13(e)(1)]*
69. Impacts #67-70 - Provide impact mapping that clearly shows the boundaries between PEM and PFO wetlands and their associated impacts. *[25 PA Code §105.13(e)(1)]*
70. Impact #87-90, 97-100 - Provide impact mapping that clearly shows the boundaries between PEM and PFO wetlands and their associated impacts. *[25 PA Code §105.13(e)(1)]*
71. Impact #87-100 - Data provided and confirmed during field observations on 7/2/15 and 7/14/15 is not represented by the wetland boundaries and streams identified in the application (Drawing number F-AS-CPLN-A-01 Sheet 9 and associated impact mapping). Provide updated data and mapping that accurately represents the streams and wetlands on site and update associated impacts accordingly. *[25 PA Code §105.13(e)(1)]*
72. Impacts# 87-90, 97-100 – Wetland W-T02-15015A and W-T02-15015C, W-T02-15012A and W-T02-15012C are a part of a significant wetland complex that drain into to Coles Creek, which is a wild trout stream. Therefore, these wetlands should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
73. Impact 101-103 – Wetlands W-T02-15016A/W-T02-15016A-1 and W-T02-15016C are adjacent to UNTs to Marsh Creek which are tributaries to a wild trout stream. Therefore, these wetlands should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
74. Impact #132-133 – Mugser Run is not Class at the location of this crossing. It is, however, a wild trout stream and is trout stocked. Update permit submission accordingly. *[25 PA Code §105.13(e)(1)]*
75. Impact # 134 – Wetland W-T04-11004 is in the floodplain to Mugser Run, which is a wild trout stream. Therefore, this wetland should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
76. Impact #134 – Wetland W-T04-11004 is on the edge of the LOD. Adjust LOD to avoid this impact or justify why impact to this wetland is necessary at this location. *[25 PA Code §105.18a(b)(2)]*
77. Impact #157-177 – Data provided and confirmed during field observations on 7/2/15 and 7/14/15 is not represented by the wetland boundaries and streams identified in the application (Drawing number F-AS-CPLS-A-01 Sheet 205 and associated impact mapping). Provide updated data and mapping that accurately represents the streams and wetlands on site and update associated impacts accordingly. *[25 PA Code §105.13(e)(1)]*

78. Impact #159 – Wetland W-T04-12002A is on the edge of the LOD. Adjust LOD to avoid this impact or justify why the impact is necessary. *[25 PA Code §105.18a(b)(2)]*
79. Impact #164 – UNT to Montour Run (WW-T04-12003) runs parallel to the construction corridor. Adjust LOD to the stream bank or justify why the impact is necessary. *[25 PA Code §105.14(b)(4)]*
80. Impact #193 – Wetland W-T47-12002 is primarily on the edge of the LOD. Reduce LOD to minimize this impact or justify why the LOD cannot be reduced. *[25 PA Code §105.18a(b)(2)]*
81. Impact # 194-195 – The pipeline is shown to parallel an UNT to Frozen Run (WW-T21-CS610Di01A) for at least 400'. This stream is a headwaters stream to a wild trout stream. The current cover is forested. Justify how long-term impacts to the stream will be avoided. *[25 PA Code §105.14(b)(4)]*
82. Describe how construction of the pipeline will take place in close proximity to the stream as to not result in a permanent impact to the stream. This location does not fit a typical stream crossing and may require specific detail. *[25 PA Code §105.13(e)(1)]*
83. As the streambanks will be maintained without its current forested vegetation, describe how stabilization of the stream will occur such that erosion is prevented. Severe erosion at this location has a higher potential to result in loss of cover of the pipeline and exposure of the pipeline. *[25 PA Code §105.314]*
84. The UNT is a wild trout stream. Loss of PFO cover raises concerns of thermal impacts to the stream, especially since headwater stream are more susceptible to thermal impacts as a result of cover loss. Explain how this impact will be minimized. *[25 PA Code §105.14(b)(4)]*
85. Drawing F-AS-CPLS-A-01 Sheet 210 shows a remote sensed stream 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)]*
86. Impact #208-211 – Wetlands W-T01-12001A and W-T01-12001B are located along the floodplain of Frozen Run and are adjacent to an UNT to Frozen Run. Frozen Run is a tributary to Hemlock Creek, which is a wild trout stream. Therefore, these wetlands should be identified EV. *[25 PA Code §105.17(1)(iii)]*
87. Impact #208-211 - Provide impact mapping provided that clearly shows the boundaries between PEM and PSS wetlands and their associated impacts. *[25 PA Code §105.13(e)(1)]*
88. Impact #214-215 – Wetland W-T01-12002 is adjacent to floodplain to Frozen Run and is part of the same wetland complex as impacts #208-211. This wetland should be identified as EV. *[25 PA Code §105.17(1)(iii)]*

89. Impact # 225 – UNT to Little Fishing Creek (WW-T01-12006) is on the edge of the LOD. Revise LOD to the edge of the streambank or provide justification for why this impact cannot be avoided. *[25 PA Code §105.14(b)(4)]*
90. Drawing F-AS-CPLS-A-01 Sheet 216 of 332 identifies a remote sensed stream 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)]*
91. Drawing F-AS-CPLS-A-01 sheet 217 of 332 shows a small section of stream WW-T-21-13004 that does not extend into the pipeline corridor. This area is a valley between steep slopes paralleling Coleman Hollow Road. Aerial photography shows a channel both upstream and downstream of the crossing location. Confirm the presence or absence of a stream crossing at this location, with documentation. If a stream, as defined by 25 Pa Code §105.1 is present, then the impact should be added to the permit application. *[25 PA Code §105.13(e)(1)(i)(A)]*
92. Impacts #235-237 –Wetland W-T01-13001 is along the edge of the LOD. Reduce LOD to avoid impacts to the wetland and minimize impacts to the UNT to Little Fishing Creek (WW-T01-13004) or justify why the LOD cannot be narrowed in this location. *[25 PA Code §105.18a(b)(2)]*
93. Impacts #246-254 – Drawing number F-AS-CPLS-A-01 Sheet 222 shows ATWS CO-1415 in a wetland area. Justify the placement of the ATWS within the wetland versus in an upland area. *[25 PA Code §105.18a(b)(2)]*
94. Impacts #250-254 - Provide impact mapping that clearly shows the boundaries between PEM PSS, and PFO wetlands and their associated impacts. *[25 PA Code §105.13(e)(1)]*
95. Impact #255 – UNT to Deerlick Run (WW-T90-13001) is along the edge of the LOD and could be avoided with a minor change to the LOD. Adjust LOD to the edge of the stream bank to avoid this impact or justify why the impact cannot be avoided. *[25 PA Code §105.14(b)(4)]*
96. Drawing F-AS-CPLS-A-01 Sheet 224 of 332 identifies a remote sensed 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)]*
97. Impact #272-273 – For waterbody WB-T21-13001, impacts are indicated on the impact table but no impact mapping was provided. *[25 PA Code §105.13(e)(1)]*
98. Impact #272-273 - Drawing F-AS-CPLS-A-01 Sheet 228 depicts waterbody WB-T21-13001 completely outside of the LOD. However, aerial photography suggests the possible presence of a stream or wetland within the crossing location. Verify the presence or absence of a water resource at this location, with documentation. Update the permit application with correct impacts and mapping. *[25 PA Code §105.13(e)(1)(i)(A)]*
99. Impact #274-275, 281-282, 285-286 – Mud Run is a tributary to Green Creek, which is a wild trout stream. Therefore, Mud Run (WW-T21-13001) and its unnamed tributaries (WW-T90-

- 14003 and WW-T21-13001A) are considered wild trout streams, in accordance with 58 §57.11(b)(4): tributary linkages. *[25 PA Code §105.13(e)(1)]*
100. Impact #278-279 – The wetland W-T21-13002 is adjacent to the UNT to Mud Run, which is tributary to Green Creek, which is a wild trout stream. Therefore, the wetland should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
101. Impacts #280-282 – Wetland W-T21-13001 is located along the edge of the LOD. Reduce LOD to minimize impacts to this wetland and Mud Run or justify why the impact is necessary. *[25 PA Code §105.18a(b)(2)]*
102. Impact #280 – Wetland W-T21-13001 is in the floodplain to Mud Run, which is tributary to Green Creek, a wild trout stream. Therefore, this wetland should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
103. Impact #299 – Justify the placement of the ATWS CO-1485 and CO-1486 within wetland W-T44-14001 as opposed to an upland area. *[25 PA Code §105.18a(b)(2)]*
104. Impact #300 – Impacts to the UNT to Green Creek (WW-T16-14001) can be reduced through a reduction in LOD. Reduce LOD or justify impacts at this location. *[25 PA Code §105.14(b)(4)]*
105. Impact drawing 24-1600-70-20-A/118.06-01 does not clearly show wetland impacts. An area in the center of the image is marked with a wetland symbol, but is not included in the wetland impact area. Clarify whether the area is wetland or an upland inclusion within the surrounding wetland. *[25 PA Code §105.13(e)(1)(i)(A)]*
106. Impacts #303-306 - Provide impact mapping provided that clearly shows the boundaries between PEM and PSS wetlands and their associated impacts. *[25 PA Code §105.13(e)(1)]*
107. Impact # 348-349 – Wetland W-T02-14001 is adjacent to an UNT to York Hollow, which is a tributary to a wild trout stream. Therefore, the wetland should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
108. Impact 356-357 – Wetland W-T06-14001 is located in the floodplain to an UNT to West Creek, which is a tributary to a wild trout stream. Therefore, the wetland should be identified as EV. *[25 PA Code §105.17(1)(iii)]*
109. Provide details depicting the amount of mitigation that is anticipated at Briar Creek, the amount of mitigation that is needed in all counties that will be using the Briar Creek mitigation site, and the amount of mitigation that Briar Creek will be used to mitigate of impacts in each county. *[25 PA Code §105.13(e)(1)(ix)]*
110. Update all mitigation information to reflect corrections in EV PFO wetland identification. *[25 PA Code §105.13(e)(1)(ix)]*
111. Update mitigation plan to include PSS wetland impacts. *[25 PA Code §105.13(e)(1)(ix)]*

112. Mitigation Plan will need to be updated once field surveys are completed on all parcels where impacts are to occur. *[25 PA Code §105.13(e)(1)(ix)]*
113. The mitigation plan shows the re-establishment of 0.46 acres of PFO wetland. The plan does not indicate how hydrology is planned to be restored to the area in order for it to become wetland. In addition, the planting plan shows "upland planting" indicated in the area where wetland is indicated to be re-established. Explain how the area, located along the eastern edge of the site, is planned to be re-established as wetland. *[25 PA Code §105.13(e)(1)(ix)]*
114. Describe how the proposed mitigation at Briar Creek is appropriate to compensate for the conversion of PFO/PSS wetlands as a result of the project. Specifically, discuss the functions lost as a result of the project (vegetation clearing and maintenance in wetlands) to the functional uplift expected at the mitigation site. *[25 PA Code §105.13(e)(1)(ix)]*
115. Tree and shrub plantings in the mitigation plan for Briar Creek are not well discussed. Plans show that the majority of the site is to be planted, including upland and wetland areas. Confirm that the intention of the project is to both restore an upland forested buffer as well as establish trees and shrubs within existing PSS/PFO wetlands. Discuss the likelihood of the wetland areas converting from the existing PEM/PSS to PSS/PFO. *[25 PA Code §105.13(e)(1)(ix)]*
116. Due to the irregular boundary between the mitigation area and surrounding farmed and maintained areas, a method of demarcation of the boundary to the mitigation area should be included in the plan. *[25 PA Code §105.13(e)(1)(ix)]*

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 E19-311. 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).

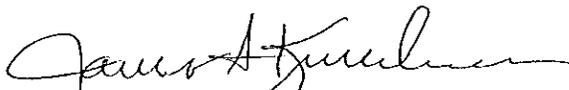
Pursuant to 25 Pa. Code §105.13a of DEP's Chapter 105 Rules and Regulations you must submit a response fully addressing each of the significant technical deficiencies set forth above. Please note that this information must be received within sixty (60) calendar days from the date of this letter, on or 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 contact George Grose at 570-988-5504, and refer to Application No. E19-311, Authorization No. 1087339 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

cc: John Zimmer, TRC Environmental  
Columbia County Conservation District  
US Army Corps of Engineers, Baltimore District  
PA Fish and Boat Commission, Division of Environmental Services  
Cleveland Township  
Greenwood Township  
Franklin Township  
Jackson Township  
Montour Township  
Mt. Pleasant Township  
Orange Township  
Hemlock Township  
Sugarloaf Township  
File

bcc: File  
JAK/LAR