pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

September 6, 2016

Matthew L. Gordon
Sunoco Pipeline, L.P.
535 Fritztown Road
Sinking Spring, PA 19608

Re: Technical Deficiency
Pennsylvania Pipeline Project (aka Mariner East II)
Application No. E07-459
APS No. 879354
Allegheny, Blair, Frankstown, Juniata, and Woodbury Townships, Blair County

Dear Mr. Gordon:

The Department of Environmental Protection (DEP) has reviewed the above referenced application package and has identified the following significant technical deficiencies. The Chapter 105 Dam Safety and Waterway Management regulations include information that will aid you in responding to some of the deficiencies listed below. The deficiencies are based on the requirements of Article I, Section 27 of the Pennsylvania Constitution, applicable laws and regulations, and the guidance that sets forth DEP's recommended means of satisfying the applicable requirements.

As you are aware, Department staff in three different regional offices are reviewing sixteen 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 Sunoco Pipeline, L.P. evaluates 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.

Technical Deficiencies

Common Technical Deficiencies

1. Comprehensive Environmental Evaluation - The following technical deficiencies are related to the overall project comprised by the 17 Chapter 105 Water Obstruction and Encroachment permit applications associated with this pipeline. Please provide the Department with a Comprehensive Environmental Evaluation of the Entire Pipeline Project as a Whole ("Comprehensive Environmental Evaluation") which at a minimum includes the following:

    a. Use the Environmental Assessment Form (3150-PM- BWEW0017, 2/2013) as a guide and provide a detailed narrative and other appropriate documentation that comprehensively evaluates the project as a whole under each of the categories therein

(Part 1 – Resource Identification; Part 2 – Project Description – including all the analyses listed in the form, as well as in 25 Pa. Code §§ 105.13(e)(1)(vii-x), (2), (3), (g), and (j); and 25 Pa. Code § 105.15.

b. The Comprehensive Environmental Evaluation should also provide a detailed narrative and other appropriate documentation that comprehensively evaluates the project as a whole for compliance with the requirements associated with the Department's review of the application listed in 25 Pa. Code § 105.14 in its entirety, with particular emphasis on:

i. Antidegration Analysis - Prepare and submit an analysis and information that addresses consistency with State antidegradation requirements contained in Chapters 93, 95 and 102 (relating to water quality standards; wastewater treatment requirements; and erosion and sediment control) and the Clean Water Act (33 U.S.C.A. § § 1251—1376) for this entire project and other potential or existing projects. 25 Pa. Code § 105.14(b)(11).

ii. Secondary Impact Analysis – Prepare and submit an analysis and information that addresses secondary impacts associated with but not the direct result of the construction or substantial modification of the water obstruction or encroachment in the areas of the entire project and in areas adjacent thereto and future impacts associated with water obstructions or encroachments, the construction of which would result in the need for additional dams, water obstructions or encroachments to fulfill the project purpose. 25 Pa. Code § 105.14(b)(12).

iii. Project Wide Cumulative Impacts Analysis. Prepare and submit an analysis and information that addresses the cumulative impact for this entire project and other potential or existing projects. As part of this analysis please evaluate whether numerous piecemeal changes associated with all the chapter 105 applications related to this pipeline project may result in a major impairment of the wetland resources. The analysis must be undertaken for each alternative prepared for the proposed pipelines and facilities of Mariner East II, on a statewide basis and must be completed for the entire project, as a whole referencing each of the applications for the entire project. 25 Pa. Code §§ 105.14(b)(14); and 105.15.

iv. Comprehensive Evaluation of Compliance with 25 Pa. Code § 105.18a. Prepare and submit an analysis and information that evaluates the project as a whole with all the requirements found in 25 Pa. Code § 105.18a for each wetland or wetland complex in or along the project area as a whole. 25 Pa. Code § 105.18a.

v. Comprehensive Alternatives Analysis, Avoidance and Minimization and Mitigation. The applicant needs to demonstrate, that the alternative/s chosen for the entire project will avoid cumulative impacts to the maximum extent

practicable, and where such impacts are not avoidable, describe in detail with appropriate supporting documentation, how such impacts will be minimized and mitigated to the satisfaction of the Department. *[25 Pa Code §§ 105.1, 105.13(e)(1)(viii)-(x); 105.14(b); and 105.15-105.20a.]*

2. The HDD Inadvertent Return Contingency Plan includes profiles identifying Geotechnical profiles; however, no analysis has been provided on the risk of an inadvertent return occurring. Provide an analysis on the risk of an inadvertent return occurring for all proposed HDD crossings. Include in-depth detail, discussion, and data in the analysis of the risk of a return occurring. *[25 Pa. Code §§105.14(b)(7), 105.18a(b)(3), 105.18a(b)(4), 105.18a(b)(5), 105.14(b)(4), 105.14(b)(11)]*

   a. Provide information/details on previous HDD activities on the prior Mariner East pipeline project where IRs occurred. At a minimum this should include, a topographic map with locations and latitude/longitude of each occurrence, description of event, amount of discharge, whether the discharge entered waterways and/or wetlands, mitigation/clean-up measures taken, etc.

   b. A stand-alone attachment should be created to address the pre-boring geologic evaluation of the existence and potential to impact local drinking water supplies or aquifers around the boring location. The plan needs to include what measures will be employed to verify that no supplies or aquifer are impacted (i.e. pre and post water quality and quantity analysis). The plan should specify what notifications and remediation measures will be employed if there are impacts.

3. EV wetlands are defined as EV waters by Chapter 93. Therefore, explain the measures the applicant will implement to comply with the antidegradation requirements of the Department's water quality standards program.*[25 Pa Code §93.4c(b); §93.4c(b)(2); §93.1 (defn. of surface water of exceptional ecological significance); §105.14(b)(11); §105.18a(a)(4); 24 Pa.B. 922 (February 12, 1994)(Incorporation of the Department's Existing Wetlands Protection Program into Water Quality Standards Program)].*

4. The application states that the second pipeline will be 16 inches in diameter, while other applications related to this project state that the second pipeline could be up to 20 inches in diameter. Which is correct? *[25 Pa. Code §105.13(e)(1)(iii)(A)]*

5. List the types and amounts of emissions to satisfy question 13.0.1 of the General Information Form. *[1300-PM-BIT0001 5/2012 Instructions]*

6. The Application and GIF have different titles for M.L. Gordon. An application shall be signed by the owners of the dam or reservoir, water obstruction or encroachment, or the persons exercising primary responsibility for the dam or reservoir, water obstruction or encroachment. In the case of a partnership, one or more members of the partnership

authorized to sign on behalf of the entire partnership shall sign the application. In the case of a corporation, it shall be signed by the president, vice president or other responsible official empowered to sign for the corporation. Provide consistent titles for Mr. Gordon and demonstrate that he is authorized to sign the Application. *[25 Pa. Code §§105.13(i) and 25 Pa. Code §§106.12(f)]*

7. Provide a PNDI search clearance letter from the Pennsylvania Game Commission for threatened and endangered species under their jurisdiction. *[25 Pa. Code §§105.15(a), 105.14(b)(4), 105.16(c)(3)]*

8. 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 and areas necessary to construct the water obstructions and encroachments. *[25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(5), 105.15(a), 105.14(b)(4)]*

9. The project description provided in the Cultural Resource Notice states that the second pipeline is to be installed within 5 years of the first pipeline. The project description provided in the application does not discuss this timeframe. Regarding this item: Revise the application to discuss if the pipelines will be installed at the same time, or on different schedules. *[25 Pa. Code §§105.13(e)(1)(iii)(A), 105.13(e)(1)(iii)(B), 105.301(7), 105.15(a), 105.14(b)(4), 105.18a, 105.21(a)(1), 105.13(e)(1)(ix)]*

    a. If the pipelines are proposed to be installed at separate times, revise the application to clearly indicate this, and to identify the permanent and temporary impacts from the second pipeline installation. Please be advised that if issued the permit may expire before construction is completed on any second line.

    b. If the pipelines are proposed to be installed at separate times, revise your alternatives analysis to evaluate the feasibility of installing the two pipelines concurrently with one another to avoid and minimize impacts.

    c. You may need to revise you fee calculation spreadsheets to account for the additional, temporary disturbance resulting from a second, separate installation.

    d. Your Erosion and Sedimentation Control Permit Application (ESG 05 000 15 001) should also reflect the two construction sequences if two separate construction periods are proposed.

10. Provide a detail that shows how flumes or other in-stream supports are used for temporary stream crossings as mentioned in the Temporary Stream Crossing detail and identify where each method will be used. *[25 Pa. Code §§105.13(g)]*

11. Provide site plans that depict proposed work for each ATWS within a floodway or floodplain. These plans should include at a minimum the duration of proposed activities, the expected layout, E&S controls, and size or quantity of materials or structures proposed. *[25 Pa. Code §105.13(e)(1)(i)(C)]*

12. A number of drawings in the package, for example the auger bore drawings, state that the plans are for permitting purposes only. The plans, specifications and reports in the application are part of a permit once a permit is issued and must be followed. Remove this language from the plans and provide final plans. *[25 Pa. Code §§105.13(e), 105.44(a)]*

13. The auger bore drawings reference cathodic protection being installed. Provide plans and/or details for any proposed cathodic protection and identify on the plans where and which type of cathodic protection is proposed to be installed. *[25 Pa. Code §§105.3(4), 105.11(a), 105.13(e)(1)(i)(C)]*

14. Where cathodic protection is proposed to be installed in wetlands or other areas where vegetation is proposed to be undisturbed or replanted, identify how this cathodic protection will be maintained and replaced without vegetative disturbance. *[25 Pa. Code §§105.15(a), 105.13(e)(1)(ix), 105.18a]*

15. For all Bore and HDD locations, identify where all pipe pull back, or assembly, or other areas where the pipe will be laid out, and where all construction and staging areas are located. Identify any temporary crossings or impacts for these areas to streams, wetlands, and floodways. Revise the application accordingly to include these impacts, including site-specific plans depicting the impacts and proposed temporary matting. *[25 Pa. Code §§105.13(e)(1)(i), 105.13(e)(1)(iii)]*

16. The site plan sheets and E&S plan sheets identify the floodway which appears to be measured from the centerline of the stream as opposed to measuring from the top of bank for the 50-feet assumed floodway boundary. Provide floodway boundaries on all plan drawings that adhere to the definitions in Chapter 105 by providing the FEMA mapped floodway boundary, in areas absent a FEMA mapped floodway, the floodway boundary measured 50 feet landward from the top of bank, or in areas absent a FEMA mapped floodway a floodway boundary with evidence provided that the assumed 50 feet floodway is not accurate. *[25 Pa. Code §§105.13(e)(1)(i)(A), 105.1]*

17. The Typical Wetland Crossing detail on the E&S plans indicates soil will be stockpiled in the wetland along the trench. Revise the detail to include a means of separating the stockpiled soil from the wetlands, such as geo-fabric and matting, to ensure that stockpiled soil will be completely removed and impacts will be minimized. *[25 Pa. Code §§105.423, 105.18a(a), 105.18a(b), 105.15(a), 105.14(b)(4), 105.14(b)(11), 105.14(b)(13)]*

18. The typical wetland crossing details shown on the E&S plans indicates trench breakers are to be installed in the trench in the wetlands; however it is not clear what trench breakers are or whether trench plugs are intended. Revise this detail to identify whether Trench Plugs are intended by this term or provide a detail for trench breakers. In addition, if trench plugs are proposed to maintain wetland hydrology, revise the detail to include trench plugs within the wetland for long wetland crossings and specify the distance increments. Furthermore, the E&S plan drawings depict trench plugs which are inconsistent with the detail. Revise the site plans to be consistent with the detail. *[25 Pa Code §105.18a(a)(1) & §105.18a(a)(3) & §105.18a(a)(4) & §105.18a(a)(5) & §105.18a(b)(2) & §105.18a(b)(3) & §105.18a(b)(4) & §105.18a(b)(5) & §105.15(a)(1) & §105.14(b)(4) & §105.14(b)(11) & §105.14(b)(13) & §105.13(e)(1)(i)]*

19. Installation of the trench plugs as depicted in the Trench Plug Detail 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 ending at the top of the bedding material. *[25 Pa. Code §§105.18a, 105.15(a)]*

20. The Typical Wetland Crossing detail on the E&S plans states that the detail does not apply to active cultivated or rotated cropland. Revise the detail to apply to all wetland crossings or provide a separate detail for wetland crossings in active cropland. *[25 Pa. Code §§105.18a, 105.15(a)]*

21. Provide a description of the expected duration each temporary stream crossing will remain in place. If the temporary stream crossing will be in place for greater than one year, then a risk analysis will be necessary. *[25 Pa. Code §§105.13(1)(iii)(A), 105.14(b)(1), 105.14(b)(3)]*

22. Identify the proposed provisions for shut-off in the event of break or rupture for each crossing. Provide locations and description of how this action will be completed in the event a break or rupture occurs. *[25 Pa. Code § 105.301(9)]*

General Application

23. Provide the letters of approval from Altoona Water Authority and Huntingdon Area Water and Sewage Authority and update Question 16.0.2 of the GIF. *[1300-PM-BIT0001 5/2012 Instructions]*

General Plan and Impact Table

24. A water obstruction and encroachment permit may be required for the proposed water withdraws and discharges. *[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), 105.14(b)(6), 105.301(1), 105.301(7),*

105.301(5), 105.301(3), 105.151(1), 105.151(3), 105.161(a)(3), 105.161(4)]

a. Provide plans and cross sections indicating pipe size, placement, and locations for all wetlands, streams, floodways and floodplains where the proposed water withdrawal and discharge piping is to be installed.

b. Revise the impact tables to include these impacts.

c. Provide a description and plans of how the water will be discharged or withdrawn, the discharge capacity, the withdraw rate, 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 obstructions will remain in place.

d. Provide cross sections, profiles, and hydraulic analysis for all piping placed in existing stream culverts and along and within stream channels.

e. Revise the Environmental Assessment to discuss the impact of the water obstructions and water withdraws from the obstructions on the resources. Where approval is being obtained from the Susquehanna River Basin Commission (SRBC), provide approval from the SRBC for the water withdraws if available.

f. Provide documentation of submission of proposed water obstructions and encroachments for these activities to each jurisdictional (PHMC, USFWS, PAFBC, PGC, DCNR) agency and provide clearance from these agencies.

25. The E&S and Impact/Subtraction plans depict the Blair/Cambria county boundary west of wetland L70 while the Impact and Aquatic Resource Delineation plans depict the county boundary within wetland L70. The E&S plan drawings identify that a temporary impact to wetland Q51 will occur in Blair County. However, all other plan sheets depict this wetland to be in Cambria County. Revise and clarify the plan drawings, impact tables, impact calculations, etc. to accurately reflect the county boundary and the impacts to wetlands L70 and Q51within Blair County. In addition, it is recommended that the Cambria County application be evaluated and revised for consistency as necessary. *[25 Pa. Code §§105.13(e)(1)(i)(B, 105.15(a), 105.21(a)(1)]*

26. The E&S and Impact plan drawings depict additional wetlands North of Stream S-L94 which are not depicted on the Aquatic Resource Delineation plan drawings. Revise the aquatic resource delineation to delineate and provide data sheets for this wetland. *[25 Pa. Code §§105.13(e)(1)(i)(B), 105.15(a), 105:21(a)(1), 105.13(e)(1)(x)(A), 105.451]*

27. Provide a plan for the "stream restoration" referenced in the site specific drawings. In addition, clarify whether this plan will be utilized at additional stream crossings and identify each crossing where the plan will be utilized. *[25 Pa. Code §§105.13(e)(1)(i)(G),*

105.13(e)(1)(i)(C), 105.311(2), 105.15(a), 105.14(b)(4)]

28. Stream S-Q58 is identified as perennial and flowing into S-L83 which is identified as ephemeral. This appears to be inconsistent. Please clarify if S-L83 is perennial or intermittent. *[25 Pa. Code §§105.21(a)(1), 105.15(a), 105.14(b)(4)]*

29. Stream S-Q59 starts and ends within the Aquatic Resource Survey area. The plan maps, photographs and narrative do not give justification or appear to depict why they start/end. Revise the application to delineate the stream S-Q59, at a minimum, within the entire Survey Area, and ensure that the floodways and proposed floodway impacts are fully identified and depicted. Provide color photographs which depict the resource and surrounding area sufficiently, including photographs of start/end locations. *[25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(iv)]*

30. Table 3 identified the Centerline Crossing of the Stream at HDD/Bore for streams which are proposed for open cut/dry crossing. Revise the impact table to be accurate and consistent for the following streams: S-M35, S-M67, S-M72, S-M73, S-M74, S-M75, S-M76, S-M77, S-M78, S-M80, S-Q59. *[25 Pa. Code §§105.21(a)(1), 105.15(a)]*

31. Revise E&S Plan Drawing ES-3.21 to accurately depict the wetland M-49 boundary, consistent with the delineation and other plan drawings. *[25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C), 105.21(a)(1)]*

32. Three streams are depicted around stream S-BB49; however, the western most stream does not have a stream identifier number. In addition, stream S-BB49 and S-KP1 are identified with swapped identifiers on the plan drawings. Revise the impact plans and impact table to accurately identify the stream with the appropriate identifiers and include stream identifiers for all proposed streams to be impacted. *[25 Pa. Code §§105.13(e)(1)(i)(A), 105.21(a)(1)]*

33. Wetland W-L59 is identified on the impact plan drawings and impact table as having a temporary crossing impact with temporary matting. However, the E&S plan sheet ES-3.34 does not depict impacts to this wetland. Revise the application documents to be consistent and avoid and minimize impacts to the extent practicable. *[25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1), 105.13(e)(1)(viii)]*

34. The E&S plan drawing ES-3.34 labels streams S-L80 and S-L79 differently than the rest of the application and does not identify how any of these streams will be crossed. It is unclear whether an existing culvert is present. Revise the application to identify these streams accurately and consistently and identify the stream crossing method. Alternatively, if an existing culvert or obstruction is to be utilized, revise the application to clearly identify this and provide supporting color photographs. *[25 Pa. Code §§105.13(e)(1)(i)(C), 105.21(a)(1), 105.13(e)(1)(iv)]*

35. Wetlands W-BB107 & W-BB108 are proposed to be temporarily impacted with timber matting; however, the E&S plan sheet ES-3.42 does not depict temporary matting to be used. Revise the E&S plan drawing to depict the temporary matting for the proposed temporary impacts. *[25 Pa. Code §§105.13(e)(1)(i)(C), 105.21(a)(1), 105.422]*

36. Stream S-M65 is identified on plan drawing sheet 28 and the impact table as having floodway impacts proposed. However, these impacts are not depicted on the plan drawings. Revise the application to be consistent and accurate and remove the identifiers of proposed impacts if none are proposed. *[25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C), 105.21(a)(1), 105.15(a)]*

37. For wetland BB124, the impact plan sheet 28 is inconsistent with the E&S plan drawing ES-3.44 and the site specific drawing. Revise the impact plan sheet to accurately delineate the ATWS for the pipe pull back area and to depict the proposed temporary workspace in the wetland along the proposed right of way (ROW). In addition, revise the impact table to accurately reflect the proposed impacts as needed. *[25 Pa. Code §§105.13(e)(1)(i)(C), 105.21(a)(1), 105.13(e)(1)(i)(B), 105.15(a), 105.13(c)(2)]*

38. For wetland BB124, the E&S plan sheet ES-3.44 is not consistent with the site specific drawing for this area. The timber mat placement along the ROW is inconsistent and the timber mat placement in the ATWS for the pipe pull back area is inconsistent. Revise the plan sheets to be accurate and consistent. Include the extent and nature of the proposed permanent and temporary impacts. In addition, revise the impact table to accurately reflect the proposed impacts as needed. *[25 Pa. Code §§105.13(e)(1)(i)(C), 105.21(a)(1), 105.13(e)(1)(i)(B), 105.15(a), 105.422]*

39. Stream S-L75 on Sheet 30 of 50 does not identify permanent stream impacts; however, there are two stream crossings proposed in addition to the floodway crossings. Revise the Table 3 and any plan sheets that incorrectly list the impacts to Stream S-L75. *[25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1), 105.15(a)]*

40. The August 2015 Aquatic Resource Delineation delineates wetland W-L54 as being open ended to the west where the pipeline route is now proposed. The March 2016 Aquatic Resource Report Addendum delineates the same boundaries of wetland W-L54 except that is the wetland is not identified as open ended. While the March 2016 Addendum identifies the Addendum's study area next to this wetland, no data sheets or photographs are provided to document that this area is not a wetland. Aerial photographs indicate saturated and inundated conditions in the area of the proposed pipelines. Provide wetland determination data sheets and color photographs for this area and revise the wetland delineation accordingly as needed if the wetland(s) continue. In addition, if additional area of wetland is delineated, revise all components of the application to accurately reflect the changes. *[25 Pa. Code §§105.13(e)(1)(i), 105.13(e)(1)(x)(A), 105.451,*

105.21(a)(1), 105.13(e)(1)(iv), 105.15(a)]

41. Revise the application to clarify how trench plugs are to be installed along the bore path for stream S-L75as depicted on E&S plan ES-3.46. *[25 Pa. Code §§105.14(b)(4), 105.13(e)(1)(i)(C), 105.301(10), 105.15(a)]*

42. Revise Impact Table 3 to identify the "Length of Centerline Stream Crossing at HDD/Bore" and "Stream Permanent Impact" for stream S-L75. *[25 Pa. Code §§105.15(a), 105.21(a)(1)]*

43. The site specific plan drawing, S-L72-S-BB96-C-101, is not consistent with the proposed impacts on the E&S Plan drawings, sheets ES-3.46 & ES-3.47. Revise these plan drawings to be consistent and accurate in depicting the proposed impacts. *[25 Pa. Code §§105.13(e)(1)(i), 105.301(3), 105.21(a)(1)]*

44. Revise Impact Table 3 to identify the proposed temporary stream crossing of stream S-M32 as identified on the E&S plan sheet ES-3.51. *[25 Pa. Code §§105.15(a)]*

45. The Submerged Lands License Agreement for Frankstown Branch Juniata River (S-L77, S-M31, and S-BB48 Sheets 28, 33, and 20 of Tab 7A respectively) identifies a 50-foot permanent right-of-way; however, the three plan sheets only depict Permanent Easements. Correct the plan sheets, impacts tables, and fees calculation worksheet to reflect the right-of-way licensed by the SLLA. *[25 Pa. Code §§105.13(e)(1)(i)(C)]*

46. The Submerged Lands License Agreement for Frankstown Branch Juniata River (S-L77, S-M31, and S-BB48 Sheets 28, 33, and 20 of Tab 7A respectively) indicates the crossings will be two parallel 20-inch lines; however, the project description and permit submission indicate one 20-inch line and one 16-inch line. Correct the submission to reflect the pipelines licensed by the SLLA. *[25 Pa. Code §§105.13(e)(1)(iii)(A)]*

47. The water withdrawal for Stream S-L77 on Sheet 28 of Tab 7A is not located within the approved SLLA area and therefore requires a separate SLLA. Provide information for the SLLA. *[25 Pa. Code §§105.31(b)(3), 105.31(c)(2)]*

48. Revise E&S plan sheet ES-3.51 to identify the floodway boundary of stream S-M31. *[25 Pa. Code §§105.13(e)(1)(i)(A)]*

49. Table 3 identifies the bank to bank width for stream S-M31 as 150 feet; however, it also identifies the Length of Centerline Stream Crossing at HDD/Bore as 141. These are inconsistent as the length of the pipeline crossing cannot be less than the bank to bank width. Revise and clarify the impact table to be consistent and accurate with the plans. *[25 Pa. Code §§105.15(a), §105.21(a)(1]*

50. Revise the impact table to separately identify the impact from the proposed travel lane on wetlands K67 and K68 and streams S-K90, S-K9, and S-K93. It is unclear if the proposed impacts are permanent or temporary. Clarify if the proposed impacts are permanent or temporary and identify the purpose of the travel lane. *[25 Pa. Code §§105.13(e)(1)(i), 105.13(e)(1)(iii), 105.15(a)]*

51. It appears the road adjacent to wetland L40 is proposed to be bored. Clarify if the road is proposed to be bored, and identify the bore pits on the plan drawings. *[25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]*

52. It appears impacts to wetland L40 could be further minimized by incorporating it into the bore. Revise the application to include boring under wetland L40 and if this is not practicable, revise the alternatives analysis to provide detailed documentation and evidence as to why this is not a practicable alternative to further avoid and minimize impacts. *[25 Pa. Code §§105.14(b)(7), 105.18a(b)(3)]*

53. Plan sheet 34 depicts stream S-M38 as being crossed by HDD and open cut in the floodway. Table 3 and E&S plan drawing ES-3.53 depict the floodway being entirely crossed by HDD. Revise the application to be consistent and accurate. *[25 Pa/ Code §§105.13(e)(1)(i)(C), 105.21(a)(1), 105.301(3)]*

54. The E&S plan drawings, plan sheets ES-3.74 through ES-3.76, indicate no improvements are proposed to the road for the resource crossings. However the impact plan drawings and impact tables indicate temporary crossings and bridges are proposed. Revise the application accordingly to be accurate. If temporary crossings are proposed, revise the E&S plan drawings to depict the impacts. If an existing road with existing obstructions crossing streams and wetlands is proposed to be utilized with no improvements proposed to the road, then provide color photographs of the resources and existing road crossings. Note: the provided photographs do not depict or clearly depict these crossings. *[25 Pa. Code §§105.13(e)(1)(i)(C), 105.13(e)(1)(iii)(A), 105.13(e)(1)(iv), 105.15(a), 105.21(a)(1)]*

55. The proposed temporary access road depicted on plan sheets 34 through 39 deviates from the visible gravel road on the aerial photography, and appears to differ from the path on the E&S plan drawings. Revise the application materials to be consistent and accurate. *[25 Pa. Code §§105.13(e)(1)(i)(C), 105.21(a)(1)]*

56. Streams S-STV2 and S-BB71 appear to flow into each other, yet one is identified on Table 3 as UNT to Robinson Run and the other as UNT to Frankstown Branch of the Juniata River. Revise and clarify this information to be accurate and consistent. *[25 Pa. Code §§105.13(e)(1)(i)(A), 105.21(a)(1), 105.15(a)]*

57. Stream S-M34 is identified on Table 2 as a permanent floodway impact but plan sheet 40

depicts temporary floodway impacts. Revise and clarify the application to be accurate and consistent. *[25 Pa. Code §§105.13(e)(1)(i)(C), 105.13(e)(1)(iii)(A), 105.21(a)(1), 105.15(a)]*

58. Streams S-BB44 and S-L58 both propose dry crossings, which are described as using bypass pumps to maintain water flow. These streams are substantially larger than the other streams using the dry crossing method. Provide specifications that demonstrate how successful the bypass methods will be (ie. what type of coffer dam will be used, how many and what size pumps will be used, what is the duration of the pumping, what effect the pumping will have on aquatic life, etc.) *[25 Pa. Code §§105.13(e)(1)(i), 105.15(a), 105.14(b)(4)]*

59. The Preface and Section 5 of the PPC plan state that spill prevention or notification is not required; however, spill prevention is described in Section 3.0 of the PPC plan. Furthermore, Section 5.3 of the PPC plan does not require notification of downstream users. Provide information that supports the statements that spill prevention and downstream user notification are not required. *[25 Pa. Code §§105.21(a)(1), 105.13(g), §91.33(b)]*

60. The stream designations should not be described as "drains to." The following streams are inaccurately identified according to Chapter 93:

    a. The unnamed tributaries to Dry Run are either listed as draining to TSF or draining to WWF; however, Dry Run is designated WWF, MF by Chapter 93. Identify why these streams are designated in such a way. *[25 Pa Code §§105.15(a), 105.21(a)(1)]*

    b. Streams S-L96, S-L97, and S-L98 are listed as an unnamed tributaries to Blair Run which is not listed in Chapter 93; however, the identified streams are tributary to Blair Gap Run via the stream locally known as Blair Run. Clarify the stream names. *[25 Pa Code §§105.15(a), 105.21(a)(1)]*

61. In accordance with the definition of Wild Trout Streams in Chapter 105 and PAFBC regulations, streams which drain to stream reaches on the list of streams which support natural trout reproduction are also wild trout. Therefore, revise Table 3 to identify all streams which flow into streams on this PAFBC list as wild trout, or Trout Natural Reproduction. Please note that the Frankstown Branch of the Juniata River and the Little Juniata River are on this list. *[25 Pa. Code §§105.1, 105.15(a), 105.21(a)(1); 58 Pa Code §57.11(b)(4)]*

62. Provide site specific cross sections for the streams and wetlands which depict the existing and proposed conditions of the streams and wetlands, proposed pipes and depths, the existing stream bed and banks dimensions. *[25 Pa. Code §§105.13(e)(1)(i)(G), 105.14(b)(4), 105.301(3), 105.301(4), 105.301(5)]*

63. The Mitigation Plan states that the excavated stream banks will be reseeded; however the E&S detail for bank restoration does not indicate this. Revise the Bank Restoration Detail to be consistent and include the native seeding mixture to be utilized. *[25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.21(a)(1)]*

64. The E&S plan details for temporary stream crossings and plan drawings state timber mats or temporary equipment bridge may be utilized but only depicts a timber mat bridge. Provide details for the proposed temporary equipment bridge(s) which depict the size, shape, and span of the structure. Provide separate details depicting the timber mat and other bridge structure crossing's cross sections. In addition, revise the E&S plan and/or other plan drawings to identify the method of each temporary stream crossing proposed at each location. *[25 Pa. Code §§105.13(e)(1)(C), 105.13(e)(1)(i)(G), 105.13(e)(1)(iii)(A), 105.151(1), 105.21(a)(1)]*

65. The Typical Wetland Crossing detail on the E&S plans indicates trench breakers are to be installed in the trench in the wetlands; however it is not clear what trench breakers are or if trench plugs are what is intended by this term. Revise this detail to identify if trench plugs are intended by this term or provide a detail for trench breakers. *[25 Pa. Code §§105.13(e)(1)(i), 105.301, 105.21(a)(1)]*

66. Trench plugs are proposed to be located at wetland/upland interfaces. Additional trench plugs may be necessary along the length of the crossing due to the length and/or slope to maintain hydrology throughout the wetland. Review and revise the application and plans accordingly. Some additional guidance is available in the PA E&S Control BMP Manual. *[25 Pa. Code §§105.13(e), 105.18a]*

67. The site specific Bore Plan for wetland M35 depicts temporary workspaces inside the wetland. However, the site plan drawing and E&S plan drawing do not depict any workspaces in the wetland. Revise the Bore Plan drawing to be consistent with the rest of the plans, and depict the proposed bore pits, trench plugs, and other proposed work. *[25 Pa. Code §§105.13(e)(1)(i)(C), 105.13(e)(1)(i)(G), 105.301(2), 105.301(5), 105.21(a)(1)]*

68. There are plan sheets in Tab 7A with streams that do not show enough information beyond the temporary right-of-way (ie. Floodway delineation, stream orientation, and hydrologic connections) to properly evaluate the proposed impacts. Provide a better depiction of the streams outside of the proposed temporary rights of way. *[25 Pa. Code §§105.13(e)(1)(i)(A)]*

69. The ATWS area in the floodways of Streams S-L75 and S-L76 on Sheets 29 and 30 of Tab 7A is designated for spoil; however a plan depicting the location of the spoil in conjunction with E&S controls could not be found. Provide plans that demonstrate proper measures to minimize the potential for discharge of fill material to the stream. *[25*

Pa. Code §§105.13(g)]

70. The ATWS area in the floodway of Stream S-M32 Sheet 33 of Tab 7A is designated for spoil; however a plan depicting the location of the spoil in conjunction with E&S controls could not be found. Provide plans that demonstrate proper measures to minimize the potential for discharge of fill material to the stream. *[25 Pa. Code §§105.13(g)]*

71. It appears that the temporary road will run in and along Stream S-BB70 on Sheet 37 of Tab 7A instead of across or parallel to it. Whenever possible, the temporary crossing should cross the stream in a perpendicular fashion. Correct the plan to avoid the increased impact. *[25 Pa. Code §§105.13(e)(1)(viii)]*

72. Temporary road stream crossing details utilizing culverts are provided on E&S plans ES-0.09 and ES-0.11; however, the E&S plans and impact plans do not identify that any of these crossings are to be used. Revise the E&S plans to remove these proposed crossing methods if not proposed to be utilized, or identify where the proposed crossing methods will be utilized. *[25 Pa. Code §§105.13(e)(1)(i)(C), 105.151(1), 105.21(a)(1), 105.13(e)(1)(iii)(A)]*

73. Revise the stream Bank Restoration Detail to clearly indicate that the existing bank slope and grade and elevation are to be restored, to identify a biodegradable erosion control blanket to be utilized, and to specify the native plantings to be used. In addition, some stream banks are likely to be a-typical, like vertical banks, or very low banks, or eroding banks. Provide plans and details for how banks of a-typical conditions will be restored. *[25 Pa. Code §§105.13(e)(1)(i)(G), 105.13(e)(1)(ix), 105.1, 105.13(e)(1)(x), 105.15(a)(1), 105.14(b)(4), 105.16(d)]*

74. 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 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, 105.13(e)(1)(x), 105.15(a)(1), 105.14(b)(4), 105.16(d)]*

75. Provide a description of the expected duration each temporary stream crossing will remain in place. *[25 Pa. Code §§105.13(1)(iii)(A)]*

76. The length of Centerline crossing for wetland L54 does not appear to be correct. The HDD crossing of PPP 1 scales closer to 780 feet rather than 724 feet. Clarify this discrepancy and make any necessary corrections to reported impacts. *[25 Pa. Code §§105.21(a)(1)]*

77. Revise the application plans to include all avoidance and minimization measures for identified species of concern associated with water obstructions and encroachments from the Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission,

Pennsylvania Department of Conservation and Natural Resources, and the U.S. Fish and Wildlife Service. Ensure any seed mixtures, matting, or other specified items are included in the plans and/or E&S plans. In addition, revise the Environmental Assessment to discuss the avoidance and minimization measures and clearances received. *[25 Pa. Code §§105.15(a), 105.14(b)(4), 105.16(c)(3)]*

78. Stream S-M35 does not directly cross the proposed ROW and pipelines and flows in and along the proposed ROW and pipelines for some distance and is not consistent with the typical details. Provide site specific plan drawings, cross sections and profiles which depict the existing, proposed, and restoration conditions. Note: if stream relocation is proposed, the requirements of 25 Pa. Code Chapter 105 Subchapter E. must be provided and met. *[25 Pa. Code §§105.13(e)(1)(i), 105.301(1), 105.301(4), 105.301(5), 105.301(8)]*

79. Multiple streams which begin within the proposed ROW or immediately adjacent to it are proposed to be crossed by the proposed pipelines. Revise the application to discuss and provide plans outlining how source(s) of the streams will be protected and maintained. Revise the Environmental Assessment and Mitigation Plan to discuss the impacts to the streams both within the ROW and the downstream affects to the resources and properties. Provide compensatory mitigation for streams in which flow will be adversely affected. Provide this information for the following streams, at a minimum: S-M77, S-M71, S-M68, S-M67, S-BB42, S-BB96, S-L69, and S-L67. *[25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(12), 105.14(b)(3), 105.15(a)(1), 105.16(d)]*

80. The following items pertain to inconsistencies with stream resource identification. *[25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(A)]*

    a. The Aquatic Resources report on page 3-31 and page 4 of Table 1 indicate that S-BB44 is 35 feet bank to bank; however, Table 3 of Section 11 indicates the width is 40 feet. Clarify this discrepancy.

    b. The Aquatic Resources report on page 3-30 and page 4 of Table 1 indicate that S-BB42 is 6 feet bank to bank; however, Table 3 of Section 11 indicates the width is 8 feet. Clarify this discrepancy.

    c. The Aquatic Resources report on page 3-30 and page 4 of Table 1 indicate that S-BB49 is 4.5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 6 feet. Clarify this discrepancy.

    d. The Aquatic Resources report on page 3-30 and page 4 of Table 1 indicate that S-BB48 is 80 feet bank to bank; however, Table 3 of Section 11 indicates the width is 85 feet. Clarify this discrepancy.

e. The Aquatic Resources report on page 3-30 and page 4 of Table 1 indicate that S-BB47 is 3.5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 4 feet. Clarify this discrepancy.

f. The Aquatic Resources report on page 3-31 and page 4 of Table 1 indicate that S-BB43 is 2 feet bank to bank; however, Table 3 of Section 11 indicates the width is 3 feet. Clarify this discrepancy.

g. The Aquatic Resources report on page 3-31 and page 4 of Table 1 indicate that S-BB88 is 4 feet bank to bank; however, Table 3 of Section 11 indicates the width is 5 feet. Clarify this discrepancy.

h. The Aquatic Resources report on page 3-31 and page 4 of Table 1 indicate that S-BB89 is 2.5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 3 feet. Clarify this discrepancy.

i. The Aquatic Resources report on page 3-31 and page 4 of Table 1 indicate that S-BB80 is 6.5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 8 feet. Clarify this discrepancy.

j. The Aquatic Resources report on page 3-31 and page 4 of Table 1 indicate that S-BB79 is 3 feet bank to bank; however, Table 3 of Section 11 indicates the width is 4 feet. Clarify this discrepancy.

k. The Aquatic Resources report on page 3-32 and page 4 of Table 1 indicate that S-BB91 is 5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 7 feet. Clarify this discrepancy.

l. The Aquatic Resources report on page 3-32 and page 4 of Table 1 indicate that S-BB92 is 6.5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 8 feet. Clarify this discrepancy.

m. The Aquatic Resources report on page 3-32 and page 4 of Table 1 indicate that S-BB95 is 2 feet bank to bank; however, Table 3 of Section 11 indicates the width is 3 feet. Clarify this discrepancy.

n. The Aquatic Resources report on page 3-33 and page 4 of Table 1 indicate that S-L68 is 2 feet bank to bank; however, Table 3 of Section 11 indicates the width is 3 feet. Clarify this discrepancy.

o. The Aquatic Resources report on page 3-34 and page 5 of Table 1 indicate that S-M31is 143 feet bank to bank; however, Table 3 of Section 11 indicates the width is 150 feet. Clarify this discrepancy.

p. The Aquatic Resources report on page 3-35 and page 5 of Table 1 indicate that S-BB78 is 5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 7 feet. Clarify this discrepancy.

q. The Aquatic Resources report on page 3-35 and page 5 of Table 1 indicate that S-BB77 is 4.5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 6 feet. Clarify this discrepancy.

r. The Aquatic Resources report on page 3-35 and page 5 of Table 1 indicate that S-BB76 is 3 feet bank to bank; however, Table 3 of Section 11 indicates the width is 4 feet. Clarify this discrepancy.

s. The Aquatic Resources report on page 3-35 and page 5 of Table 1 indicate that S-BB75 is 3 feet bank to bank; however, Table 3 of Section 11 indicates the width is 4 feet. Clarify this discrepancy.

t. The Aquatic Resources report on page 3-35 and page 5 of Table 1 indicate that S-BB74 is 6 feet bank to bank; however, Table 3 of Section 11 indicates the width is 8 feet. Clarify this discrepancy.

u. The Aquatic Resources report on page 3-36 and page 5 of Table 1 indicate that S-BB73 is 3.5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 5 feet. Clarify this discrepancy.

v. The Aquatic Resources report on page 3-36 and page 5 of Table 1 indicate that S-BB72 is 6 feet bank to bank; however, Table 3 of Section 11 indicates the width is 2 feet. Clarify this discrepancy.

w. The Aquatic Resources report on page 3-36 and page 5 of Table 1 indicate that S-BB70 is 3.5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 5 feet. Clarify this discrepancy.

x. The Aquatic Resources report on page 3-36 and page 5 of Table 1 indicate that S-BB71 is 2 feet bank to bank; however, Table 3 of Section 11 indicates the width is 3 feet. Clarify this discrepancy.

y. The Aquatic Resources report on page 3-37 and page 5 of Table 1 indicate that S-BB69 is 5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 8 feet. Clarify this discrepancy.

z. The Aquatic Resources report on page 3-37 and page 5 of Table 1 indicate that S-BB68 is 2.55 feet bank to bank; however, Table 3 of Section 11 indicates the width is

3 feet. Clarify this discrepancy.

aa. The Aquatic Resources report on page 3-37 and page 5 of Table 1 indicate that S-BB67 is 6 feet bank to bank; however, Table 3 of Section 11 indicates the width is 8 feet. Clarify this discrepancy.

bb. The Aquatic Resources report on page 3-37 and page 5 of Table 1 indicate that S-BB66 is 5 feet bank to bank; however, Table 3 of Section 11 indicates the width is 6 feet. Clarify this discrepancy.

81. Provide site-specific plans and cross sections depicting the size and height for the proposed "Block Valve Settings", their limits of disturbance, permanent access roads, and all other permanent grading and structures located in waters of the Commonwealth and floodplains. This should include plans depicting the size and height of structures located in the floodway and floodplain. The original revision submitted November 25, 2015 removed the block valve setting on Sheet 34 from the floodplain; however, the March 25, 2016 and subsequent May 31, 2016 submissions both depict the area within the floodplain. *[25 Pa. Code §§105.13(1)(i), 25 Pa. Code §§106.12(d)(2)]*

g. For buildings subject to § 106.31(c) (relating to hydraulic capacity), an evacuation plan which fully explains the manner in which the site will be safely evacuated before or during a flood event. *[25 Pa. Code §§106.12(d)(5)]*

h. Provide a Floodplain management analysis and a consistency letter from the appropriate municipalities for all proposed access roads, structures, and grading in floodplains. *[25 Pa. Code §§106.12(d)(1)]*

82. Revise the application to clarify if the exceptional value wetland analysis included all factors listed in 25 Pa Code §105.17(1). If the analysis did not consider all factors, revise it to analyze all factors and update the application. *[25 Pa. Code §§105.13(e)(1)(x)(B), 105.17(1)]*

83. The Department has identified that at least the following wetlands which are exceptional value and which have not been identified as such in the application: L61, M57, M56, Q52, M55, BB120, M79, M49, BB58, BB51, BB56, BB108, BB124, Q60, and BB101. Also, wetland BB52 appears likely to be EV based on a review of aerial mapping and what appears to be stream and wetland presence outside of the survey area. This wetland should be evaluated to determine if it continues and is in or along the reach of a wild trout stream or tributary thereto. Revise the application accordingly to identify Exceptional Value wetlands. *[25 Pa. Code §§105.13(e)(1)(x)(B), 105.17(1)]*

84. The Mitigation Plan states that for HDD crossings, a telemetry guidance system will be used.

a. Revise the application to identify what type of telemetry guidance system will be utilized; specifically if it will utilize cables, wires, or other obstructions placed or strung across waters of the Commonwealth. *[25 Pa. Code §§105.13(e)(1)(iii), 105.13(e)(1)(i), 105.301(7)]*

b. If cables, wires, or other obstructions will be utilized across waters of the Commonwealth revise the application to identify these temporary impacts, include them in the impact tables. Provide plan drawings and cross sections depicting the obstructions, and provide information on the purpose, function, and length of time they will be installed. *[25 Pa. Code §§105.13(e)(1)(i), 105.301(3), 105.301(5), 105.15(a), 105.13(e)(1)(iii)]*

c. If cables or other obstructions are proposed over streams, an Aids-To-Navigation (ATON) Plan may be required by the PA Fish and Boat Commission; therefore, if cables or other obstructions are proposed, provide approved ATON plans along with approvals and/or documentation from the PA Fish and Boat Commission documenting where ATON plans are not applicable. Contact Thomas Burrell with the Pennsylvania Fish and Boat Commission at 717.705.7838 regarding ATON requirements. *[25 Pa. Code §§105.14(b)(6), 105.21(a)(2), 105.14(b)(2)]*

85. The impacts described under Section 5.0 of the Mitigation Plan are inconsistent with the impacts provided in the impact tables in the Environmental Assessment. Revise this inconsistency to state the correct impact totals throughout the application. *[25 Pa. Code §§105.15(a), 105.21(a)(1), 105.13(e)(1)(i)(ix)]*

86. Provide information about the pump size, flow rate, and duration of use for those open cut crossings (dry crossings) that will use the typical bypass pump-around method. Provide justification for why larger streams do not utilize the proposed flume option. How will aquatic life be able to pass throughout the stream safely? *[25 Pa. Code § 105.401(4), 105.13(g)]*

87. The application states that the period of instream work to install the proposed pipeline(s) will be less than 24 hours in minor waterbodies and 48 hours for crossing of "intermediate" (10-30' across) waterbodies. Describe how these timeframes coincide with the hydrostatic testing procedures outlined in the project description. Do the trenches remain open during testing? To facilitate the further understanding of your project, revise your application to discuss the estimated time installation will take in crossings of wetlands and larger watercourses. *[25 Pa. Code § 105.13(e)(1)(iii)]*

Environmental Assessment

88. 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. Locate the public drinking water supplies in the vicinity of the proposed pipeline. 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)]*

a. Upon identification of public drinking water supplies, revise questions 14.0, 15.0, and 16.0 of the General Information Form accordingly. *[General Information Form Instructions]*

b. Upon identification of public drinking water supplies, revise the Environmental Assessment Form and associated enclosures accordingly to discuss the resources and impacts from water obstructions and encroachments on the public water supplies. *[25 Pa. Code §§105.15(a), Environmental Assessment Form Instructions]*

c. Upon identification of public drinking water supplies, revise the Alternatives Analysis and Mitigation Plan accordingly to avoid and minimize impacts to public water supplies and provide a detailed discussion on alternative routes, designs and methods documenting that there is no practicable alternative to further avoid and minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.13(e)(1)(ix), 105.14(b)(5)]*

89. The application does not identify if the resources proposed to be affected are part of or located along a private water supply, including surface and groundwater sources. Revise the application and the Environmental Assessment to identify if any of the proposed resources are part of or located along a private water supply. *[25 Pa. Code §§105.15(a), Environmental Assessment Form Instructions]*

a. If private water supplies are identified, revise Enclosures C and D of the Environmental Assessment to identify them and discuss the impacts on them from the proposed water obstructions and encroachments.

b. Provide procedures that will be followed to investigate and resolve impacts to private water supplies should they occur as a result of the proposed activities. These procedures should discuss, at a minimum, how private water supply owners will be alerted in the event of an inadvertent return and how impacts will be resolved and/or mitigation.

90. Section F, Attachment 11, EA Form, Page 2, item 7 states, "Is the water resource part of or located along a private or public water supply?" The Applicant checked "No". However, no documentation validating this statement is provided in the application. The Department is concerned that private and perhaps public water supply wells are located along crossed stream and wetland water resources and/or along the length of the HDD operations. The applicant needs to propose measures to protect all water uses, both surface intakes and groundwater sources, located along and/or downstream of the proposed work areas. Special attention needs to be applied to the potential unplanned impacts that HDD and inadvertent releases (IR) may have on groundwater sources. In addition, where a structure or activity is in a wetland, the applicant must demonstrate that this project will not cause or contribute to the pollution of groundwater or surface water resources or diminution of resources sufficient to interfere with their uses, including use as a public or private water supply. Your assessment needs to include identification, notification and consultations with water suppliers and/or well owners. A notification contact list needs to be included in your PPC Plan and Inadvertent Release Plan. *[25 Pa Code §105.13; §105.14(b)(4); §105.14(b)(5); §105.18a(5); §105.18a(b)(5); §91.33(b)].*

91. Based on the information in the application, it appears that wetland functions and values are present in multiple wetlands which have not been identified in the functions and values assessments and descriptions table (ex. wildlife habitat, groundwater discharge/recharge, flood flow alteration, and nutrient removal). Based on the information provided, the functions and values have been applied inconsistently across the wetlands. Re-evaluate and revise the functions and values assessments and descriptions for all wetlands. *[25 Pa. Code §§105.13(e)(2), 105.13(e)(3), 105.14(b)(13), 105.15(a), 105.18a(a)(1), 105.18a(b)(1), 105.14(b)(4)]*

92. Revise the description of wetland functions and values to not only include the principle functions and values, but all the functions and values the wetlands provide. *[25 Pa. Code §§105.13(e)(2), 105.14(b)(13), 105.15(a)]*

93. Provide an assessment of the functions and values of any additional Exceptional Value wetlands and wetland with impacts over 1 acre. *[25 Pa. Code §§105.13(e)(3), 105.15(a)]*

94. Enclosure C of the Environmental Assessment discusses the various sections in terms relative to the existing pipeline ROW; however, the proposed ROW does not fully overlap the existing ROW but abuts/parallels the existing ROW. Revise Enclosure C to discuss the functions, habitat, and other factors in Enclosure C outside of the existing ROW and in areas of proposed impact and the overall resources. *[25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(4)]*

95. Revise Enclosures C & D to discuss the watercourses and wetlands proposed to be impacted and the impacts on them, and not discuss the impacts in general terms of the overall project or general type of impacts. *[25 Pa. Code §§105.13(e)(1)(x), §105.15(a)]*

96. Sections D.4 D.1, B.1, and B.1, D.1, D.4, and D.5 of Enclosure C of the Environmental Assessment identifies trails, State Game Lands, watersheds, and observation and habitat areas which are not located in Blair County. Revise the Environmental Assessment to identify areas in Blair County in the vicinity of the proposed project. *[25 Pa. Code §§105.21(a)(1), §105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(5)]*

97. The application states that topsoil will be segregated. Provide a revised 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), and Environmental Assessment Instructions]*

98. Update and revise section A.3 of Enclosure D of the Environmental Assessment to discuss any avoidance and minimization measures relative to clearance for the Pennsylvania Historical and Museum Commission. *[25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5), Environmental Assessment Form Instructions]*

99. Revise section A.7 of Enclosure D of the Environmental Assessment to discuss the impacts on the Game Lands crossed in Blair County by the water obstructions and encroachments, and provide documentation of coordination and approval from the Pennsylvania Game Commission. As Necessary, provide any supporting documentation and/or coordination materials for the approval from the Game Commission. *[25 Pa. Code §§105.21(a)(1), §105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(5)]*

100. Section A.3 of Enclosure D of the Environmental Assessment identifies the Allegheny Portage Railroad of the Pennsylvania Canal in Cumberland County, when it is located in Blair County. Revise this section to be accurate. *[25 Pa. Code §§105.21(a)(1), §105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(5)]*

101. Revise Enclosure D of the Environmental Assessment to explain, on an individual crossing and cumulative basis, why open cut pipe installation combined with permanent ROW maintenance will not result in an adverse impact to exceptional value wetlands or a significant adverse impact to other wetlands. The analysis should include a discussion of potential temporary or permanent impacts to hydrology as a result of the open cut, as well as a loss of woody species in forested/scrub shrub areas. Provide a plan to minimize the risk of permanent impacts to wetland hydrology for each wetland where an impact may occur. *[25 PA Code §§105.13(e)(1)(ix) & 105.18a]*

102. Section B.2.a of Enclosure D of the Environmental Assessment states the natural drainage patterns of the wetlands and small or headwater streams will be maintained. However, no information has been provided including detailed contours or cross sections depicting the drainage patterns, cross section, or what the drainage patterns are in the wetlands in their existing conditions. Explain how the final "restored" wetland elevations and natural drainage patterns of wetlands and streams will be determined. *[25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.15(a), 105.18a(a), 105.18a(b)]*

103. Revise Section B.1.c. of Enclosure D of the Environmental Assessment to discuss any avoidance and minimization measures, including commitments to implementing the measures. It currently states that clearances are being worked on. *[25 Pa. Code §§105.15(a), 105.14(b)(4), 105.21(a)(1)]*

104. Revise section B.4 d. of Enclosure D of the Environmental Assessment to discuss specific hiking trails which will be temporarily closed and identify their locations within the project boundary. If hiking trails within the project boundary are associated with proposed water obstructions or encroachments, provide a discussion on the impact to the trail, the length of time it is proposed to be closed, plans for signage and detours, and correspondence from any agencies or trail organizations regarding coordination of the closure. *[25 Pa. Code §§105.21(a)(1), §105.15(a), 105.13(e)(1)(x), 105.14(b)(5)]*

105. Revise section A.9 of Enclosure D of the Environmental Assessment to discuss and identify impacts to preserved farms and/or farms with agriculture preservation easements or restrictions. Discuss how the minimization measures would affect preserved farms and how they will be affected, such as not being able to replant an orchard or vineyard. *[25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5), 105.14(b)(4), Environmental Assessment Form Instructions]*

106. Revise the Environmental Assessment to discuss the impacts to each wetland where a vegetative class change is proposed (ex. PFO to PSS). The discussion should be specific to the wetland and its functions and values. *[25 Pa. Code §§105.14(b)(4), 105.14(b)(13), 105.14(b)(11), §105.15(a), 105.18a(b), 105.18a(a)]*

107. Section A.4.a. of Enclosure C of the Environmental Assessment mentions that the project crosses the Tussey Mountain Important Bird Area (IBA), but Enclosure D does not discuss the impacts that water obstructions or encroachments may have on this area. The project also intersects the Allegheny Front IBA in Blair County. Revise enclosure D of the environmental assessment to discuss the impacts the proposed water obstructions and encroachments will have on these areas. In addition, identify if/how the recommendations in the USFWS letter dated 6/24/16 are being addressed. *[25 Pa. Code §§105.21(a)(1), §105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(5)]*

108. A wetland function and evaluation form is provided for wetland W-BB101; however, this wetland is not identified as an impact in this application. Revise and clarify the application to be accurate and consistent. *[25 Pa. Code §§105.13(e)(3), 105.14(b)(13), 105.14(b)(4), 105.15(a), 105.18a(a)(1), 105.21(a)(1)]*

109. Wetlands are located in mapped soils with shallow bedrock and restrictive soil layers (i.e. fragipans), and the application's data sheets and functions and values assessment identifies shallow rock layers, shallow bedrock, and/or restrictive soil layers are present. Also, based on the functions and values descriptions wetlands may contain groundwater discharges, such as springs or may be concave and not connected to groundwater.

    a. For each wetland to be impacted, identify the locations of restrictive layers which contribute to and/or maintain the wetlands' hydrology. *[25 Pa. Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]*

    b. Identify and provide a discussion on any potential permanent impacts to wetland hydrology from excavation or alteration from construction of the proposed project. Provide a plan, plan sheets, cross sections, and other details which demonstrate that impacts to the wetlands' hydrology from alteration of restrictive layers have been avoided and minimized. *[25 Pa. Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]*

    c. The Soil Survey mapping indicates that a confining layer and/or fragipan may be present within wetland W-BB124. In addition, the wetland functions and values assessments identify that wetlands W-BB60 and W-BB51contain fragipans. Revise the application do identify the location and depth of any confining/limiting layers and/or fragipans for these wetlands and include the data in the application. Provide detailed site specific plans, specifications, cross sections, construction sequencing, and restoration plans to ensure that the hydrology of the wetland(s) is/are maintained in the wetlands. *[25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(13), 105.15(a), 105.18a(a)(1), 105.18a(a)(3), 105.18a(a)(4), 105.301(4), 105.301(5)]*

    d. Wetland W-L70 is a forest pool based on the information provided in the application. Provide site specific information on the hydrology and soils and data on why the wetland maintains standing water. Provide site specific construction plans, cross sections, and restoration details to ensure that the hydrology and functions and values of the wetland is not altered and continues to maintain inundation and seasonal hydrology. *[25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(13), 105.15(a), 105.18a(a)(1), 105.18a(a)(3), 105.18a(a)(4), 105.301(4), 105.301(5)]*

110. Revise Enclosures C&D to assess the condition and discuss the condition of and impacts to forested and scrub shrub riparian areas. Revise the enclosures to discuss the primary impacts and secondary impacts, as well as consideration of antidegradation on

watercourses for each watercourse crossing from the riparian vegetation impacts. *[25 Pa. Code §§105.15(a), 105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.14(b)(12), 105.14(b)(14)]*

a. In general, the Department recommends evaluating the riparian areas from the top of bank landward 100ft, and if the area utilized is less than 100ft justification should be given as to why. *[25 Pa. Code §§105.15(a), 105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.14(b)(12), 105.14(b)(14), Riparian Forest Buffer Guidance, Document # 394-5600-001]*

b. To avoid and minimize the impacts to the watercourses, provide a plan to replace the vegetation lost in both permanent and temporary ROW and workspaces. Alternatively, where it cannot be replaced and provided protection from clearing during the proposed project's operation and maintenance, provide an explanation as to why it cannot be replaced. *[25 Pa. Code §§105.15(a), 105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.14(b)(12), 105.14(b)(14), 105.1, 105.14(b)(7)]*

c. Revise the application plan drawings and project description, to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is proposed as part of the proposed projects' construction, operation, and maintenance. Revise the plan drawings to clearly indicate all locations where maintenance clearing, cutting, removal, or other alternation is not part of proposed maintenance activities. *[25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]*

111. To aid in evaluating the condition of and change in condition to watercourses and wetlands as discussed in other comments, the Department recommends utilizing the Draft Pennsylvania Riverine Condition Level 2 Rapid Assessment Protocol and the Draft Pennsylvania Wetland Condition Level 2 Rapid Assessment Protocol. These protocols are not for identifying the functions and values of the resources, but rather are utilized to assess the current and proposed conditions of the resources. *[25 Pa. Code §§105.14(a), 105.14(b)(4), 105.14(b)(13), 105.14(b)(12), 105.15(a), 105.13(e)(1)(x)]*

Mitigation Plan/Environmental Assessment

112. The Mitigation Plan appears to indicate that streams and wetlands which will be crossed by HDD are not proposed to have vegetative impacts either during construction or during operation and maintenance of the proposed pipelines. However, it is unclear on the plan drawings and in the application narrative precisely if vegetation cutting, clearing, removal, or grubbing is or is not part of the proposed construction, operation, and maintenance. Where Horizontal Directional Drill (HDD) and Bore crossings of resources are proposed a Permanent Easement is identified and impacts are identified as permanent only for the pipe size itself, and at other resource crossings a permanent ROW is

identified and impacts are identified as permanent for the entire ROW. No explanation has been provided in the application for this different nomenclature.

a. Revise the application plan drawings and application narratives, including but not limited to the project description and mitigation plan, to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is or is not proposed as part of the proposed projects' normal construction, operation, and maintenance. *[25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]*

b. Revise the plan drawings to clearly indicate all locations where maintenance clearing, cutting, removal, or other alternation is not part of proposed maintenance activities.*[25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(i), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]*

c. If construction, normal operation, or normal maintenance activities will require the clearing, cutting, removal, or other alteration of the vegetation in or adjacent to the wetland and streams the application must be revised to identify and discuss in detail the primary impacts and secondary impacts to these resources from the proposed project. The applications Environmental Assessment should be revised to discuss the resources and the impacts thereto. Compensatory mitigation may be necessary and required to compensate for impacts to these resources. *[25 Pa. Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.14(b)(11), 105.13(e)(1)(ix), 105.15(a), 105.18a(a), 105.18a(b)]*

113. The Mitigation Plan implies through mention of "No Mow" signs that PSS and PFO wetlands which will be crossed by open cut methods are not proposed to have vegetative impacts after they are re-vegetated following construction during the operation and maintenance of the proposed pipelines. However, it is unclear on the plan drawings and in the application narrative precisely if vegetation cutting, clearing, removal, or grubbing is or is not part of the proposed operation, and maintenance of the proposed pipelines.

a. Revise the application plan drawings and application narratives, including but not limited to the project description and mitigation plan, to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is or is not proposed as part of the proposed projects' normal construction, operation, and maintenance. *[25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]*

b. Revise the plan drawings to clearly indicate all locations where maintenance clearing, cutting, removal, or other alternation is not part of proposed maintenance activities.*[25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(i), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]*

c. If construction, normal operation, or normal maintenance activities will require the clearing, cutting, removal, or other alteration of the vegetation in or adjacent to the wetlands the application must be revised to identify and discuss in detail the primary impacts and secondary impacts to these resources from the proposed project. The applications Environmental Assessment should be revised to discuss the resources and the impacts thereto. Compensatory mitigation may be necessary and required to compensate for impacts to these resources from these impacts. *[25 Pa. Code §§105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.15(a), 105.11(d), 105.13(e)(1)(ix), 105.18a(a), 105.18a(b)]*

114. The Mitigation Plan and Environmental Assessment state that conversion of Palustrine Forested Wetlands (PFO) is proposed to occur, that there will be a functional loss, but the loss is de minimus.

a. Revise the Mitigation plan to replant the PFO wetlands in the permanent and temporary ROW with native trees if possible, and if not possible provide specific details and documentation on why this is not possible. *[25 Pa. Code §§105.13(e)(1)(viii), 105.1, 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]*

b. Based on the Mitigation Plan, PSS wetlands are acceptable in the permanent ROW. Therefore, if replanting of PFO wetlands in the permanent or temporary ROW is not possible, revise the mitigation plan to replant converted PFO wetlands in the ROW with shrubs. *[25 Pa. Code §§105.13(e)(1)(viii), 105.1, 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]*

c. The application does not evaluate the cumulative conversion of PFO wetlands for the entire project. The applications for Blair, Huntingdon, Juniata, Perry, Cumberland, York, Dauphin, Lebanon, Lancaster, and Berks Counties within the Department's Southcentral Region propose a conversion on approximately 0.528 acre of PFO wetlands. Based on the Department's review of the impacts for PFO wetlands, compensatory mitigation is required to offset the identified PFO functional impacts of conversion to PSS. Revise the application to assess the impact to the effected forested wetlands, evaluate the cumulative effect on all counties of the proposed project, and provide compensatory replacement for the lost functions and values. *[25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(viii), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.15(a), 105.18a(a), 105.18a(b), 105.20a(a)(2)]*

115. The application states that temporarily impacted Palustrine Scrub Shrub (PSS) and PFO wetlands will be replanted with native trees and shrubs, PSS wetlands in the permanent ROW will be planted with wetland shrubs, and PFO wetlands in the permanent ROW will be allowed to revert to PSS/PEM wetlands. Provide planting plans and details for these areas and for the replanting of PFO areas in the permanent and temporary ROWs.

The planting plans must identify the locations of the plantings and wetlands, the species to be planted, the planting density, the proposed size of the plantings, planting timing, goals and objectives for success, and a monitoring plan to ensure re-establishment. *[25 Pa. Code §§105.13(e)(1)(ix), 105.18a(a),105.18a(b), 105.20a]*

116. Section 2.2.2.1 of the Mitigation Plan, Construction in Wetlands with Unsaturated Soils, conflicts with the rest of the application, which identifies that all wetland crossings will be crossed with mats or pads. Crossing unsaturated wetlands without timber mats would contribute to soil compaction, rutting, and disturbance of the cut vegetation's roots. Therefore, revise the Mitigation Plan to identify that all wetland crossings shall use mats or pads. *[25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(ix), 105.15(a), 105.18a(a), 105.18a(b), 105.422]*

117. Section 2.2.2.1 of the Mitigation Plan identifies that wetlands will be reseeded with a native wetland seed mixture; however, the mixture is not specified nor is it proposed on the plans. Revise the application to identify the seed mixture to be used and revise the E&S plans to indicate its use for wetland restoration in the Typical Wetland Restoration detail. *[25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(13)]*

118. The HDD list at the end of the Inadvertent Return Contingency Plan in the Mitigation Plan identifies HDD crossings with notes as "Drive Through – Travel Only" which are not identified on the plan drawings or applications as being "Drive Through – Travel Only". Revise this information to be accurate and consistent with the rest of the application. *[25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(i), 105.13(e)(1)(iii)]*

119. The application contains HDD Inadvertent Return Contingency Plans in multiple sections of the application, such as the Mitigation Plan and different species conservation plans. However, the Contingency Plans are not all consistent in terms of agency notifications, and the PAFBC Law Enforcement is not identified as being notified as required in the PAFBC PNDI clearance letter. Also, the HDD table is not included in all versions of the Contingency Plan. Revise the HDD Inadvertent Return Contingency Plans to all be consistent, include the appropriate jurisdictional agencies, and provide documentation that revised plans have been sent to all jurisdictional agencies. *[25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(ix), 105.14(b)(4)]*

Alternatives Analysis

120. The Alternatives Analysis states that the Alternatives Analysis is meant to be a summary of major actions taken to avoid/minimize impacts. The Alternatives Analysis must be a detailed analysis of alternatives, including alternative locations, routings, or designs to avoid or minimize adverse impacts and document and provide evidence that there is no practicable alternative which would not involve a wetland or that would have less adverse impact on a wetland. In addition, for the project to be water dependent as stated in the

Alternatives Analysis, it must be based on the demonstrated unavailability of any alternative route location, or design or use of location, route or design to avoid or minimize adverse impacts. Revise the Alternatives Analysis to provide a detailed analysis of alternative routings, locations, and designs to avoid and minimize impacts and provide detailed documentation and evidence that there are not practicable alternatives which would further avoid and minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)(2), 105.18a(a)(3), 105.18a(b)(2), 105.18a(b)(3)]*

In addition, address the following specific comments regarding the Alternatives Analysis:

a. The Alternatives Analysis states that the Cresson-Altoona Southern Bypass route avoids environmental impacts and cultural/historic resources. No information on what environmental impacts were avoided is provided. Based on the provided information it appears that the route could also avoid the Allegheny Portage Railroad to the North of the existing ROW. Provide a detailed alternatives analysis which contains evidence and documentation on potential and avoided impacts for the existing alignment, proposed alignment, and other alignments which documents that impacts cannot be further avoided and minimized. Other alignments discussed and evaluated should include, but not be limited to, north of the Allegheny Portage Railroad site, other alignments generally along the new route, generally following the existing Sunoco pipeline, and alternate routed around large wetland complexes. Particular attention should be paid to High Quality and Exceptional value streams and wetlands along the routed. Provide details, maps, documentation and other evidence to support the analysis. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)(2), 105.18a(a)(3), 105.18a(b)(2), 105.18a(b)(3), 105.14(b)(5)]*

b. Revise the Alternatives Analysis to discuss, evaluate, and provide a detailed analysis on alternative routes to avoid and minimize impacts to High Quality Streams and watersheds.*[25 Pa. Code §§105.14(b)(7), 105.13(e)(1)(viii)]*

c. Revise your alternatives analysis to discuss routing alternatives that were considered as alternatives to impacts Exceptional Value wetlands. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]*

d. Some portions of the proposed ROW and pipelines directly abuts the maintenance corridor of the existing Sunoco pipeline; however, in other portions the proposed ROW has partial or near complete overlap with the existing maintenance area and pipeline. No discussion on this is provided in the alternatives analysis, and it appears that more overlap of the proposed ROW and the existing Sunoco Maintenance corridor is practicable and would further avoid and minimize impacts. Revise the application accordingly to avoid and minimize impacts by locating the proposed ROW with overlap of the existing maintenance corridor, or provide a detailed analysis and discussion with specific details explaining why this overlap is present in

some areas and not others, and why the proposed ROW cannot further overlap. *[25 Pa. Code §§105.14(b)(7), 105.13(e)(1)(viii), 105.18a(a), 105.18a(b)]*

e. It appears that primary impacts and secondary impacts from the Temporary ROW and ATWS's can be avoided by locating them outside the floodway of streams. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]*

f. t appears, but is not described in the application, that HDD was assumed by the applicant to be the crossing method presenting the least potential impact to water resources and aquatic species. Revise the alternatives analysis to provide justification for the selection of which water resource (streams and wetlands) crossings will be made by HDD. *[25 Pa. Code §§105.14(b)(7), 105.18a(b)(3), 105.18a(a)(3), 105.13(e)(1)(viii)]*

g. 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 and explaining why trenchless installation methods are not appropriate. *[25 Pa. Code §§105.14(b)(7), 105.18a(b)(3), 105.18a(a)(3), 105.13(e)(1)(viii)]*

h. It appears impacts can be avoided for wetland L70 through routing the pipelines to the North or South. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetland L70 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

i. It appears impacts can be avoided for wetlands M57 and Q52 through routing the pipelines to the South through wetland M58. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetland M57 which documents that other routes and designs would not further avoid or minimize impacts. . *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

j. It appears impacts can be avoided for wetlands M56 and M55 and stream S-M77 through routing the pipelines to the North. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetlands M56 and M55 and stream S-M77which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

k. It appears impacts can be avoided for stream S-Q59 through routing the pipelines to the Northwest. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to stream S-Q59 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]*

l. It appears impacts can be avoided for wetland M50 through routing the pipelines to the North. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetland M50 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

m. It appears impacts can be avoided for wetlands M79 and M49 through routing the pipelines to the South or outside of the survey area to the South. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetlands M79 and M49 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

n. It appears impacts can be avoided for wetlands Q54 and Q56 through routing the pipelines to the North Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetlands Q54 and Q56 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

o. It appears impacts can be avoided for wetland BB56 through routing the pipelines to the North. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetland BB56 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

p. It appears impacts can be avoided for wetland BB52 through routing the pipelines to the North or South. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetland BB52 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

q. It appears impacts can be avoided for wetland Q58 through routing the pipelines to the East. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetland Q58 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

r. It appears impacts can be avoided for wetlands L43 and L42 through routing the pipelines' deviation and re-alignment with the 8-inch line further Northwest and/or Southeast. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetlands L43 and L42 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

s. It appears impacts can be avoided for wetland L40 through routing the pipelines to the West. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to wetland L40 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

t. The Alternatives Analysis' discussion on alternatives to avoid and minimize impacts for wetlands M24 and M29 states that the existing pipeline alignment was not utilized because of an existing easement and that an alignment further South than proposed would increase undisturbed habitat. The analysis also states that shifting the pipelines North or South would cause more forest clearing; however, the proposed route will require clearing of forested lands. It appears that a slight alignment shift in the HDD entry/Exit location west of wetland M24 could further minimize impacts to wetlands. Revise the alternatives analysis to identify the location(s) of the easements in reference, include specific details and quantification provide a detailed analysis of alternative routes, designs and methods to avoid and, potential and avoided impacts minimize impacts to wetlands M24 and M29 and stream S-M38 which documents that other routes and designs would not further avoid or minimize impacts*[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

u. It appears impacts can be avoided for stream S-M35 through routing the pipelines to the East and or South/East. Provide a detailed analysis of alternative routes, designs and methods to avoid and minimize impacts to stream S-M35 which documents that other routes and designs would not further avoid or minimize impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]*

v. Revise the Alternatives Analysis' discussion of alternatives considered to avoid wetlands BB60 and Q57 to identify SPLP's Existing ROW, and identify the First Energy Easement Boundaries which is stated to be avoided. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

w. It appears relocating the pipelines north or south of wetland M24 may further avoid and minimize impacts. The analysis states that relocating the pipeline to the north or south would create additional disturbance to undisturbed habitat; however, it does not identify the area of undisturbed streams and wetlands proposed to be disturbed in the existing alignment or alternative alignments. Revise the Alternatives Analysis to

discuss with specific details and provide documentation that alternative routes north or south would not result in avoiding or minimizing impacts. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

x. The Alternatives Analysis does not provide sufficient detail, documentation, or explanation to document that there is not practicable alternative to further avoid and minimize impacts wetlands BB124, Q60, BB125, L56, L55, L54, L46, and L48 and streams S-BB96, S-L69, S-L75, S-L74, S-L76, S-BB95, S-L77, and S-BB92. The Alternatives Analysis states that the existing 8-inch line crosses this complex, however, this is not accurate as depicted on the plans. Provide a detailed analysis, discussion, and evidence that alternative routes through and around this area, minor deviations, and construction methods would not further avoid and minimize impacts. This should include but not be limited do alternate route alignments outside of the delineation area, the use of additional HDD and conventional bore crossings, minor route adjustments and include plans, impact amounts and other evidence to support the analysis. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

y. Revise the Alternatives Analysis to provide a detailed analysis, discussion, and evidence on alternative crossing methods, including HDD and conventional bore, for the crossing of stream S-L58 (Clover Creek HQ-CWF, Class A Wild Trout) and wetland L35 and M23. This discussion should include why a boring method for this crossing is no longer proposed from the original application submission. If this is practicable, revise the application accordingly include this cross construction method. *[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]*

Stormwater and Floodplain Consistency

121. The following comments pertain to the plans provided to the townships in Blair County.

a. The HDD lengths shown on Sheet 13 of Tab 7A are different than those shown on sheet 13 of 321 provided to Blair Township. Provide consistent and up-to-date plans to the Department and Blair Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi)]*

b. The HDD lengths shown on Sheet 14 of Tab 7A are different than those shown on Sheet 14 of 321 provided to Blair Township. Provide consistent and up-to-date plans to the Department and Blair Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi)]*

c. There is a temporary access road depicted on Sheet 14 of Tab 7A that is no shown on Sheet 14 of 321 provided to Blair Township. Provide consistent and up-to-date plans to the Department and Blair Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi)]*

d. There are a proposed block valve and permanent access road depicted on Sheets 15 and 16 of 321 that are not shown on Sheet 15 or 16 of Tab 7A. Provide consistent and up-to-date plans to the Department and Blair Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi)]*

e. There are temporary access roads depicted on Sheet 18 of Tab 7A that are not shown on Sheet 18 of 321 provided to Blair Township. Provide consistent and up-to-date plans to the Department and Blair Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi)]*

f. The HDD lengths shown on Sheet 20 of Tab 7A are different than those shown on Sheet 20 of 321 provided to Blair Township. Provide consistent and up-to-date plans to the Department and Blair Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi)]*

g. There is a temporary access road crossing Stream S-L80 and Wetland L59 on Sheet 21 of Tab 7A that is not identified on Sheets 20 or 21 of 321 provided to Blair Township. Provide consistent and up-to-date plans to the Department and Blair Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A)]*

h. Sheet 26 of 321 provided to Frankstown Township depicts a proposed Block valve that is not shown on Sheet 27 of Tab 7A. And Sheet 27 of Tab 7A depicts a permanent access road that is not identified on Sheet 26 of 321. Provide consistent and up-to-date plans to the Department and Frankstown Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]*

i. The HDD location shown on Sheet 27 of 321 provided to Frankstown Township is outside of the proposed permanent right-of-way; however, the same HDD is shown within the proposed right-of-way on Sheet 28 of Tab 7A. Provide consistent and up-to-date plans to the Department and Frankstown Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi)]*

j. The bore lengths under stream S-L75 of Sheets 29 and 30 of Tab 7A are different than those shown on Sheet 28 of 321 provided to Frankstown Township. Provide consistent and up-to-date plans to the Department and Frankstown Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi)]*

k. The HDD shown on Sheet 28 of 321 provided to Frankstown Township is in a different location than those shown on Sheet 29 of Tab 7A. Furthermore, the overall lengths of the proposed pipe, as well as the displayed resource impacts are markedly different. Provide consistent and up-to-date plans to the Departmtent and Frankstown

Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A) and (C)]*

l. There are sections of temporary right-of-way that are omitted on Sheet 30 of Tab 7A which are not on Sheet 29 of 321 provided to Frankstown Township. Provide consistent and up-to-date plans to the Department and Frankstown Township. *[25 Pa. Code § 105.21(a)(1)]*

m. The block valve setting on Sheet 32 and 33 of Tab 7A is considerably larger than the one shown on Sheets 31 and 32 of 321 provided to Frankstown Township. Provide consistent and up-to-date plans to the Department and Frankstown Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A) and (C)]*

n. The HDD lengths on Sheets 33 and 34 of Tab 7A are different than those shown on Sheets 32 and 33 of 321 provided to Frankstown Township. Provide consistent and up-to-date plans to the Department and Frankstown Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A)]*

o. The bore lengths shown on Sheet 6 of Tab 7A are different than those shown on Sheet 6 of 321 provided to Juniata Township. Provide consistent and up-to-date plans to the Department and Juniata Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A)]*

p. The HDD lengths on Sheets 10 and 11 of Tab 7A are different than those shown on Sheets 10 and 11 of 321 provided to Juniata Township. Provide consistent and up-to-date plans to the Department and Juniata Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A)]*

q. The temporary access road shown on Sheets 11 of Tab 7A and 11 of 321 provided to Juniata Township are in different locations. Provide consistent and up-to-date plans to the Department and Juniata Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A)]*

r. The HDD lengths on Sheet 41 of Tab 7A are different than those shown on Sheet 40 of 321 provided to Woodbury Township. Provide consistent and up-to-date plans to the Department and Woodbury Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A)]*

s. There is a bore crossing depicted on Sheet 44 of Tab 7A that is not shown on Sheet 43 of 321 provided to Woodbury Township. Provide consistent and up-to-date plans to the Department and Woodbury Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A)]*

t. Sheet 47 of Tab 7A shows an open cut of Stream S-L58 and wetland M23 with an associated permanent right-of-way; however, Sheet 46 of 321 provided to Woodbury Township shows that these two resources are being bored. Provide consistent and up-to-date plans to the Department and Woodbury Township. *[25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A) and (C)]*

122. Provide comment letters from Blair, Frankstown, Juniata, and Woodbury Townships.

123. The following items pertain to the provided stream data sheets and Table 3 of Section 11.

a. Information for Stream S-L94 could not be found in Table 3 of Section 11. Update the table to include the missing information. *[25 Pa. Code §§105.13(e)(1)]*

b. Provide justification for why Stream S-BB96 uses the average width of the stream. What is the width of the stream at the proposed crossing? *[25 Pa. Code §§105.13(e)(1)(A)]*

c. Information for Stream S-L66 could not be found in Table 3 of Section 11. Update the table to include the missing information. *[25 Pa. Code §§105.13(e)(1)]*

d. The bank to bank width for Stream S-M31 on Table 3 of Tab 11 indicates 150 feet; however, the listed width does not correspond to any values presented on the Stream Data Sheet. Clarify this discrepancy. *[25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(A)]*

e. The bank to bank width for Stream S-BB72 on Table 3 of Tab 11 indicates 2 feet; however, the listed width only corresponds to the water width on the Stream Data Sheet. Why is the water width used when other streams use the Bank Width value from Stream Data Sheet? Clarify this discrepancy. *[25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(A)]*

f. Provide justification for why Stream S-STV3 uses the average width of the stream. What is the width of the stream at the proposed crossing? *[25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(A)]*

g. Provide justification for why Stream S-STV1 uses the average width of the stream. What is the width of the stream at the proposed crossing? *[25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(A)]*

h. Stream S-L78 on Sheet 23 of Tab 7A has a floodway and a floodplain that are in different locations. Clarify this discrepancy. *[25 Pa. Code §§105.21(a)(1)]*

i. Stream Data Sheets could not be located for Streams S-KP1, S-STV2, S-KP2, S-M65, S-M67, and S-L78. Provide any missing data sheets. *[25 Pa. Code*

§§105.13(1)(i)(A)]

Other

124. If any changes to the proposed route occur, revise all parts, components of the application to reflect these changes. This includes provided copies of the submission to and clearance from the PHMC, USFWS, PFBC, DCNR, and PGC. *[25 Pa Code §§105.13(e)(1), 105.21(a)(1)]*

125. Please respond to and address the comments from the Pennsylvania Fish and Boat Commission found on the attached sheet. Due to the number of crossings and time-of-year restrictions, the Department recommends identifying the time-of-year restrictions on the plans. *[25 Pa. Code §§105.14(b)(4), 105.14(b)(6)]*

126. Revise the fee calculation worksheet to reflect any alterations in the reported impacts. *[25 Pa. Code §§105.13(c)(2)(iii)(A)]*

You must submit a response for each of the above deficiencies. You may request a time extension, in writing, before November 7, 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).

DEP has developed a standardized review process and processing times for all permits or other authorizations that it issues or grants. Pursuant to its Permit Review Process and Permit Decision Guarantee Policy (021-2100-001), DEP guarantees to provide permit decisions within the published time frames, provided applicants submit complete, technically adequate applications/registrations that address all applicable regulatory and statutory requirements, in the first submission. Since you did not submit a complete and/or technically adequate application, DEP's Permit Decision Guarantee is no longer applicable to your application.

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 November 7, 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 Herman Jackson at 717.705.4814 and Andrew McDonald at 717.705.4776 and refer to Application No. E07-459 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,

Edward J. Muzic, P.E.
Civil Engineer Manager, Hydraulic
Dam Safety, Waterways & Wetlands Section

ENCLOSURE (Attach: copy of PAFBC comments, and eMapPa Instructions)

cc: Brad Schaeffer, Tetra Tech, Inc.
U.S. Army Corps of Engineers, Baltimore District – Debby Nizer
Pennsylvania Fish and Boat Commission, Division of Environmental Services
Pennsylvania DEP, Southwest Regional Office, Waterways and Wetlands Program
Pennsylvania DEP, Southeast Regional Office, Waterways and Wetlands Program
Blair County Conservation District
Blair County Planning Commission
Juniata Township
Blair Township
Frankstown Township
Allegheny Township
Woodbury Township