pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Southwest Regional Office

September 6, 2016

Matthew Gordon, Principal Engineer
Sunoco Pipeline, L.P.
Pennsylvania Pipeline Project (Mariner East II)
535 Fritztown Road
Sinking Spring, PA 19608

Re: DEP FILE E32-508
Technical Deficiency Letter 2
Pennsylvania Pipeline Project (Mariner East II)
Burrell Township, West Wheatfield Township, and East Wheatfield Township
Indiana 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. ***Chapter 105 Dam Safety and Waterway Management regulations*** includes information that will aid you in responding to some of the deficiencies listed below. The deficiencies are based on 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 regulatory 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. evaluate whether any of the deficiencies identified in the other Chapter 105 permit application deficiency letters, beyond those deficiencies identified in this letter, necessitate revisions in this permit application.

1. The Application was signed and certified by Matthew L. Gordon as the "Principal Engineer". Per the instructions for the Pennsylvania Water Obstruction and Encroachment Permit Application, an application from a partnership shall be signed by one or more members authorized to sign on behalf of an entire partnership. Provide documentation that Mr. Gordon is authorized to sign the Application on behalf of the entire partnership or have the proper partner(s) sign the application. 25 Pa. Code §105.13(g)

2. The previous Technical Deficiency Letter requested a copy of your Preparedness Prevention Contingency (PPC) Plan to protect against potential impacts, including, but not limited to, potential impacts to public and private water supplies. 25 Pa Code § 91.33(b) Regarding these plans:

    a. The application includes separate documents covering PPC activities. Due to the scope of this project, you must consolidate these plans into one stand-alone document that can be used in the field. This plan must also be consistent in your Erosion and Sediment Control permit application. 25 Pa. Code §§ 105.13(g) and105.301(10)

    b. In a letter dated June 24, 2016, regarding the northeastern bulrush, the U.S. Fish and Wildlife Service stated, "As a means to minimize impacts should an IR occur, you provided an HDD Inadvertent Release Contingency Plan. In addition to the instructions in this Plan, please add the USFWS phone number as an agency to be contacted should an IR occur, and inform the HDD contractor about the sensitive nature of the drill at this location." Revise your Contingency Plan to incorporate this information. 25 Pa. Code §105.13(e)(1)(x)

    c. The Pennsylvania Fish and Boat Commission Law Enforcement Section should be included in the list of agencies to be contacted should an inadvertent return occur. 25 Pa. Code §105.13(e)(1)(x)

    d. While you provided a narrative discussing how impacts to private water supplies will be investigated and addressed, a formal plan has not been provided. As such, revise your PPC Plan to include the following: 25 Pa Code § 91.33(b)

        i. Measures the applicant will take to investigate for the presence of private water supplies in areas where HDD crossings are proposed. 25 Pa. Code §105.13(e)(1)(x)

        ii. Procedures that will be followed to investigate and resolve impacts to private water supplies should they occur as a result of the proposed activities. This procedure should discuss how private water supply owners will be alerted in the event of an inadvertent return. 25 Pa. Code §105.13(e)(1)(x)

    e. The application states, "SPLP plans to use the FERC standards in accepting and investigating landowner complaints of spring and well water supply impairment." Provide a copy of these FERC standards and incorporate the FERC standards into your PPC Plan for Department review. 25 Pa. Code §105.13(e)(1)(x)

    f. The Plan should address management of excess drilling mud/liquids that may be encountered at the individual bore pits. 25 Pa. Code § 105.1(e)(1)(x)

3. Regarding the proposed HDD resource crossings:

    g. The HDD Inadvertent Return Contingency Plan contains no analysis concerning the risk of an inadvertent return. Provide an analysis of 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)(4) and 105.14(b)(11)

    h. The Department recommends that a qualified, licensed geologist and applicant representative be on-site while HDD crossings are being conducted. If a geologist will be on-site, please include in your PPC Plan the minimum qualifications and experience of the individual(s), and consider revising plans to include these measures. Otherwise

provide a detailed analysis andrisk assessment regarding response time should an inadvertent return occur and associated damages that could result due to these delays. 25 Pa. Code §105.301(10), and 25 Pa Code § 91.33(b)

i. Since these pipelines are located in such close proximity to existing pipelines, thus areas which may have been previously impacted, we request that a geologic evaluation be conducted where any prior disturbance from boring or trenching occurred within the area of a proposed HDD or open trench location. Provide a narrative that discusses how your evaluation and the resulting adjustments that should be made in these specific areas (e.g. boring deeper if the proposed HDD is within an area that may have been affected, such as by the creation of fractures, from past borings). An example of particular concern is the HDD boring underneath the Youghiogheny River. The previous ME1 HDD records from all HDD borings should be evaluated and considered in determining any necessary adjustments to the proposed ME2 HDD boring plan. 25 Pa. Code §105.301(10)

j. As a recommendation, a qualified licensed geologist should be working with the HDD contractor conducting pre-boring evaluations to address the assessment of potential impacts to local public and private drinking water supplies and aquifers. This should be a stand-alone document. The geologist's qualifications and experience requirements should be included in the HDD Evaluation Plan discussed in comment 2.d, below. 25 Pa. Code §105.301(10), and 25 Pa Code § 91.33(b)

k. An HDD Evaluation Plan should be created to address the pre-boring geologic evaluation of the existence and potential to impact local public and private drinking water supplies and aquifers within a specified radius of the boring location. The plan needs to include what measures will be employed to prevent such impacts and then to verify that no supplies or aquifers have been impacted (e.g., pre- and post-boring water quality and quantity analyses). The PPC Plan should specify what notifications and remediation measures will be employed if there are impacts. 25 Pa. Code §105.301(10)

l. Provide the minimum qualifications and experience for the contractors that will be performing the HDD crossings. 25 Pa. Code §105.301(10)

m. The mitigation plan states that a telemetry guidance system will be used for HDD crossings. Revise the application to identify whether this method will require cables, wires, or other obstructions to be placed in waters of the Commonwealth. If obstructions are to be placed in waters of the Commonwealth, ensure the associated impacts are accounted for in the application, and provide plan drawings, cross sections, and a description of the length of time that these obstructions will be present in the resource. If cables or other obstructions are proposed in navigable waters, contact Thomas Burrell of the PA Fish and Boat Commission at 717-705-7838 to discuss whether an Aids-To-Navigation (ATON) plan will be required. Documentation should be provided that coordination with PFBC has been conducted regarding this ATON plan. 25 Pa. Code §§105.13(e)(1)(iii) and 105.23

n. Provide information and details regarding previous HDD activities on the Mariner East I pipeline project where inadvertent returns occurred. At a minimum, this should include: a complete list of all occurrences of inadvertent returns, topographic maps with the location, latitude and longitude of each occurrence, description of the event, the amount of discharge, whether the discharge entered waterways and wetlands, the mitigation and

clean up measures taken, and details of your investigation and conclusions as to the cause of each event. 25 Pa. Code §§105.13(e)(1)(viii), (ix) and (x)

o. Provide an analysis of potential impacts that the use of drilling fluid could have on the hydrology and quality of streams and wetlands that will be crossed using HDD. 25 Pa. Code §§ 105.13(e)(1)(viii), (ix) and (x)

p. The applicant must identify the location of all public water supplies (surface water intakes of public drinking water supplies and public supply wells) within 1 mile of the project as per §105.13.e(1)(ii) and evaluate potential impacts that HDD and other resource crossing activities could have on these water supply resources and include the evaluation in the application. 25 Pa. Code § 105.13(e)(1)(x)

4. Regarding your resource impact tables:

   a. Revise your impact tables to indicate which resources will also require temporary road crossings, and what type of crossing method (e.g. mats, pads) is proposed. This includes temporary road crossings after the pipelines are installed. A total number of temporary road crossings should also be provided. 25 Pa. Code §105.13(e)(1)(iii)

   b. Revise your impact table to specify the linear footage for both temporary and permanent stream impacts for each impact. Total impact footage should also be provided. 25 Pa. Code §105.13(e)(1)(iii)

   c. The impacts described under Section 5.0 of your "Impact Avoidance, Minimization, and Mitigation Plan" are inconsistent with the impacts provided in the "Waterbody Impact Summary" tables provided in your application. Resolve this inconsistency so that correct impact totals are reflected throughout your application. 25 Pa. Code 105.13(e)(1)(iii)

   d. Wetland N34 is located in the floodplain of a watershed (Findley Run) that is included on the PAFBC Wild Trout List. This resource should be considered EV. Revise the appropriate documents to reflect this. 25 Pa. Code § 105.13(e)(1)(iii)

   e. The Waterbody Impact Table lists "n/a" for the PAFBC Stream Designation for S-N65 and S-N66 (UNT's to Findley Run). This watershed is included on the PAFBC Wild Trout List. Revise the appropriate documents to reflect the correct stream designation for the watercourse. 25 Pa. Code §§105.13(e)(1)(A) and (iii)

5. Regarding your agency coordination:

   a. Provide PNDI clearances from the PA Game Commission and US Fish and Wildlife Service. 25 Pa. Code §§105.13(e)(1)(x) and 105.23

   b. Provide proof that you have received clearance for your project from PHMC. 25 Pa. Code §§105.13(e)(1)(x) and 105.23

6. Regarding your alternatives analysis:

   a. The alternatives analysis provided in your application only summarizes major avoidance and minimization actions. 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)

   b. Some portions of the proposed right-of-way and pipelines directly abut the maintenance corridor of the existing Mariner East I pipeline; however, in other portions the proposed right-of-way has partial or near complete overlap with the existing maintenance area and

pipeline. Increased overlap of the proposed right-of-way and the existing Mariner East I maintenance corridor could further avoid and minimize impacts. Revise the application accordingly to avoid and minimize impacts by locating the proposed right-of-way 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 right-of-way cannot further overlap. 25 Pa. Code §105.13(e)(1)(viii)

c. Impacts and secondary impacts from the temporary right-of-way and associated temporary work spaces can be avoided by locating these features 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 impacts. Document and provide evidence that other routes and designs would not further avoid or minimize impacts. 25 Pa. Code §105.13(e)(1)(viii)

d. Several waters of the Commonwealth could be crossed using trenchless installation methods that could reduce surface impacts. Provide a revised alternatives analysis that incorporates a discussion of alternative crossing techniques (e.g., conventional bore or HDD) addressing each resource crossing and explaining why trenchless installation methods are not appropriate. 25 Pa. Code §105.13(e)(1)(viii)

e. Regarding your "No-Action Alternative", your application states, "pipelines are considered to be a safer, more efficient mode of transport for many types of substances, including natural gas and NGL's." Provide evidence of pipeline safety/efficiency when compared to road/rail transport. 25 Pa. Code §105.13(e)(1)(viii)

f. Revise your alternatives analysis to discuss routing alternatives that were considered as alternatives to impacting wetlands that are considered to be Exceptional Value. 25 Pa. Code §§105.13(e)(1)(viii) and 105.18a(3)

g. The impacts described in Table 2 do not match those reported elsewhere in the application. Confirm the correct data and revise your application accordingly. 25 Pa. Code §105.13(e)(1)(viii)

h. As discussed in comment 2.g., the Mariner East 1 pipeline had several inadvertent returns during the construction process. Discuss how you have taken these historic issues into account in your design of the proposed project. 25 Pa. Code §105.13(e)(1)(viii)

i. A significant portion of the proposed activities in Indiana County do not appear to be co-located with the existing "maintenance corridor." Revise your alternatives analysis to evaluate the feasibility of utilizing the existing corridor. 25 Pa. Code §105.13(e)(1)(viii)

    i. The area that deviates from the existing "maintenance corridor" proposes to impact EV wetlands. Revise your alternatives analysis to specifically discuss the routing alternatives that were considered that would avoid impacting EV wetlands in this area. 25 Pa. Code §105.13(e)(1)(viii)

j. The HDD crossing leading up to the crossing of Wetland P1 (shown on plan 3/38) appears to end right at the resource. Evaluate extending the HDD crossing method through the resource to reduce surface impacts and disturbance to the resource. 25 Pa. Code §105.13(e)(1)(viii)

k. It appears that the proposed timber mat crossings of the following resources could be avoided by using the opposite side of the right-of-way for access 25 Pa. Code §105.13(e)(1)(viii):

ii. Wetland N69

ii. Wetland N65

iii. Wetland N55 and Stream N84

iv. Wetland N45

l. The proposed pipeline route appears to physically turn into and impacts Wetland O68. Evaluate avoiding these wetlands. 25 Pa. Code §105.13(e)(1)(viii)

m. Evaluate why the pipeline cannot remain straight to avoid impacting Wetland 055. 25 Pa. Code §105.13(e)(1)(viii)

7. Identify the proposed provisions for a shut-off in the event of a break or rupture of the pipeline. 25 Pa. Code §105.301(9)

8. Trench plugs are proposed to maintain wetland hydrology during construction. Revise your wetland crossing detail to include trench plugs within the wetland for long open-cut wetland crossings and specify the distance increments. Furthermore, the E&S plan drawings depict trench plugs which are inconsistent with the wetland crossing detail. Revise the site plans to be consistent with the detail. 25 Pa. Code §105.13(e)(1)(i)

9. Regarding your General Information Form (GIF) and Joint Permit Application:
   a. The Application and GIF have different titles for M.L. Gordon. Provide accurate and consistent titles for Mr. Gordon. 25 Pa. Code §105.13(i)
   b. List the types and amounts of emissions to satisfy question 13.0.1 of the GIF. [1300-PM-BIT0001 5/2012 Instructions]

10. Provide a description of the expected duration each temporary stream and wetland crossing will remain in place. 25 Pa. Code §105.13(e)(1)(iii)

11. 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 crossings of "intermediate" (10-30' across) waterbodies. To facilitate a 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)

12. 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:
   a. 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)
   b. 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)
   c. 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. 25 Pa. Code §105.13(e)(1)(iii)

d. 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. 25 Pa. Code §105.13(e)(1)(viii)

e. You may need to revise your fee calculation spreadsheets to account for the additional, second temporary disturbance resulting from a second, separate installation. 25 Pa. Code §105.13

f. 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. 25 Pa. Code §105.13(g)

13. Regarding your proposed water withdrawal and discharge:

a. Provide plans and cross sections indicating pipe size, type, placement, and locations for all aquatic resources where the proposed water withdrawals and discharges are proposed. Please note that placement of fill material, encroachment, or other obstructions may require this activity to be permitted. 25 Pa. Code §§105.13(e)(1)(i), (ii) and (iii)

b. Provide a summary table of all withdrawal and discharge locations. This table should describe the acreage and linear footage of impact to aquatic resources. 25 Pa. Code §105.13(e)(1)(iii)

14. Regarding your Environmental Assessment:

a. Revise the application to clarify whether the exceptional value wetland analysis included all factors listed in 25 Pa. Code §105.17(1). If necessary, update the application to analyze all factors. 25 Pa. Code §105.13(e)(1)(x)(B)

b. 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)*

c. You must identify the location of all public water supplies (surface water intakes of downstream public drinking water supplies and public supply wells) within 1 mile of the project as per 25 Pa. Code §105.13(e)(1)(ii).

i. Upon identification of public drinking water supplies, revise your responses to questions 14.0, 15.0, and 16.0 of the General Information Form accordingly. 25 Pa. Code §105.13(a)

ii. Upon identification of public drinking water supplies, revise the Environmental Assessment Form and associated enclosures to discuss the potentially affected resources and impacts from water obstructions and encroachments on the public water supplies. 25 Pa. Code §105.15(a)

iii. Upon identification of public drinking water supplies, revise the Alternatives Analysis and Mitigation Plan 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) and 105.14(b)(5)

d. 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)*

e. Enclosure C of the Environmental Assessment discusses the various sections in terms relative to the existing pipeline right-of-way, however, the proposed right-of-way does not fully overlap the existing right-of-way. Revise Enclosure C to discuss the impacts upon resources outside of the existing right-of-way. 25 Pa. Code §105.13(e)(1)(x)

f. 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)

g. Update and revise Section A.3 of Enclosure D of the Environmental Assessment to discuss any necessary avoidance and minimization measures relative to coordination with the Pennsylvania Historical and Museum Commission. 25 Pa. Code §§105.13(e)(1)(x), 105.15(a) and 105.23

h. Revise Section B.1.c. of Enclosure D of the Environmental Assessment to discuss any avoidance and minimization measures that resulted from agency coordination and the means by which you will implement those measures. 25 Pa. Code §105.15(a)

i. The previous Technical Deficiency Letter requested that you revise Enclosures C and D of your Environmental Assessment to specifically describe wetlands that are designated as "Exceptional Value", and describe the impacts your project will have on these resources. The response that you provided lacked sufficient detail. Regarding this item:

    i. Provide a functions and values assessment for each individual wetland that is described as Exceptional Value (EV). This assessment should individually describe the functions and values of each of these EV wetlands. Each of the specific functions and values (i.e. Aquatic Habitat, Water Quantity and Streamflow, Water Quality, Recreation, and all of the other functions and values listed under Enclosure C of the Departments Environmental Assessment form) should be discussed. 25 Pa. Code §105.13(e)(3)

ii. Describe the methodology that was used to assess the functions and values of these wetlands. 25 Pa. Code §105.13(e)(3)

iii. In addition, evaluate and discuss whether your project will affect the functions and values of these wetlands. 25 Pa. Code §105.18a(a)

iv. Please note that if your project will adversely affect these wetlands, you are required to consider, among other things, ways to avoid or minimize these impacts, and will be required to compensate for unavoidable impacts to these wetlands. 25 Pa. Code §§105.18a(1), (3) and (7)

j. Wetland O72 was listed as Exception Value (EV) wetlands in your initial application. This wetland is no longer identified as EV in your revised application. Explain why this change occurred. 25 Pa. Code §105.13(e)(1)(x)

k. The Environmental Assessment focuses primarily on areas where the proposed pipeline will be co-located within the existing right-of-way. Much of the pipeline in Indiana County is proposed to be installed in a new right-of-way that will be established for the project. Revise your Environmental Assessment to discuss the impacts that the creation of any and all new right-of-way areas along the entire length of the project will have on aquatic resources and other environmental factors as discussed in 25 Pa. Code §105.13(e)(1)(x)

l. Revise Section A.9 of Enclosure D of your Environmental Assessment to discuss and identify impacts to preserved farms and to farms with agriculture preservation easements or restrictions. Discuss how the minimization measures would affect preserved farms and how the farms will be affected by the project. 25 Pa. Code §105.13(e)(1)(x)

m. Provide an evaluation of the impact that open cut installation methods could have on wetlands that rely on perched water tables, confining layer, and/or fragipans to maintain hydrology. This evaluation should include a discussion of how your proposed activities, and, if applicable proposed mitigation will maintain wetland hydrology in these types of areas. 25 Pa. Code §105.13(e)(1)(x)

n. Revise Enclosure D of the Environmental Assessment to evaluate how pipe installation combined with permanent right- of-way maintenance will not result in an adverse impact to wetlands. The evaluation should specifically include a discussion of potential impacts to hydrology that could occur from open cut installation. 25 Pa. Code §105.13(e)(1)(x)

o. Revise Enclosure D of the Environmental Assessment to evaluate how pipe installation combined with permanent right-of-way maintenance will not result in an adverse impact to wetlands. The evaluation should specifically include a discussion of potential impacts to hydrology that could occur from open cut installation. This evaluation should also address any potential impacts the use of HDD drilling fluids would have on wetland hydrology. 25 Pa. Code §§105.13(e)(1)(x) and §105.18a

p. Revise Enclosures C and D to assess and discuss the condition of, and impacts to, forested and scrub shrub riparian areas. Revise the enclosures to discuss the primary and secondary impacts, as well as consideration of antidegredation forn 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) and 105.14(b)(14)

i. The Department recommends evaluating the riparian areas from the top of bank landward 100 feet. Provide justification if the area evaluated is less than 100 feet. 25 Pa. Code §§105.14 and 105.15

ii. To avoid and minimize the impacts to the watercourses, provide a plan to replace the vegetation lost in both permanent and temporary right-of-way and workspaces. Alternatively, where the vegetation cannot be replaced or protected from clearing during the proposed project's operation and maintenance activities, provide an explanation. 25 Pa. Code §§105.13(e)(1)(viii), 105.14 and 105.15

iii. Revise the application plan drawings and project description to state whether 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 alteration is not part of proposed maintenance activities. 25 Pa. Code §§105.13(e)(1)(iii), 105.14 and 105.15

q. Your application identifies "travel lanes" at numerous resource crossings, however, details on these travel lanes have not been provided. Please provide details on these travel lanes that includes but are not limited to: cross sectional views, length of time in service, potential impacts, and any other relevant details. Please note that the application did not detail any impacts, permanent or temporary, for these travel lanes even though they are shown to cross resources. As such your impact tables may need to be revised. 25 Pa. Code § 105.13(e)(1)(x)

15. For all wetlands within the project area, identify and describe the methodology you used to assess the functions and values of those wetlands. 25 Pa. Code §105.13(e)(3)

16. It is unclear on the plan drawings and in the application narrative precisely whether vegetation cutting, clearing, removal, or grubbing is part of the proposed construction, operation, and maintenance. Where HDD and bore crossings of resources are proposed, a permanent easement is identified and impacts are identified as permanent only for the pipe size. At other resource crossings a permanent right-of-way is identified and impacts are identified as permanent for the entire right-of-way. No explanation has been provided in the application for this different nomenclature. 25 Pa. Code §105.13(e)(1)(x)

a. Revise the application plan drawings and narratives, including the project description and mitigation plan, to clearly and specifically state whether vegetation clearing, cutting, removal, or other alteration is proposed as part of the proposed construction, operation, and maintenance of the project. 25 Pa. Code §105.13(e)(1)(iii)

b. Revise the plan drawings to indicate all locations where maintenance clearing, cutting, removal, or other alteration is not part of proposed maintenance activities. 25 Pa. Code §105.13(e)(1)(i)

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 and streams, the application must be revised to identify and discuss in detail the direct and secondary impacts to aquatic resources from the proposed project. The Environmental Assessment should be revised to discuss

these resources and the impacts thereto. Compensatory mitigation may be necessary and required to compensate for impacts to these resources. 25 Pa. Code §§105.13(e)(1)(ix) and 105.13(e)(1)(x)

17. The Mitigation Plan states that "No Mow" signs will be placed at PSS and PFO wetlands which will be crossed by open cut methods. Regarding these crossings:

    a. Revise the application plan drawings and application narratives, including the project description and mitigation plan, to state whether vegetation clearing, cutting, removal, or other alteration is proposed as part of the proposed project's normal construction, operation, and maintenance of the project. 25 Pa. Code §§105.13(e)(1)(i) and 105.13(e)(1)(iii)

    b. Revise the plan drawings to clearly indicate all locations where maintenance clearing, cutting, removal, or other alteration is not part of proposed maintenance activities. 25 Pa. Code §105.13(e)(1)(i)

    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 and streams, the application must be revised to identify and discuss in detail the direct and secondary impacts to aquatic resources from the proposed project. The Environmental Assessment should be revised to discuss these resources and the impacts thereto. Compensatory mitigation may be necessary and required to compensate for impacts to these resources. 25 Pa. Code §§105.13(e)(1)(ix) and 105.13(e)(1)(x)

18. Regarding the proposed conversion of wetland cover types:

    a. You have indicated that 0.025 acres of PFO wetlands will be converted to PEM wetlands as a result of your proposed activities in Indiana County. The cumulative impact for the entire project (state-wide) is represented to be 0.92 acres:

        i. Revise the Environmental Assessment to discuss the impacts to each wetland where a vegetative class change is proposed (e.g., PFO to PSS). The discussion should be specific to the wetland and its functions and values. 25 Pa. Code §105.15(a)

        ii. Provide a discussion that evaluates utilizing methods such as HDD and boring to further minimize conversion impacts to PFO wetlands. 25 Pa. Code §105.13(e)(1)(viii)

        iii. Revise the Mitigation Plan to replant the PFO wetlands in the permanent and temporary right-of-way with native trees if possible. If not, provide specific details and documentation why this is not possible. 25 Pa. Code §105.13(e)(1)(ix)

        iv. If this conversion cannot be avoided, provide a mitigation plan that compensates for this impact. 25 Pa. Code §105.13(e)(1)(ix)

    b. The Mitigation Plan and Environmental Assessment do not evaluate the cumulative conversion of wetland cover types for the entire project. Revise the application to assess the cumulative impact the proposed cover type conversion will have in Indiana County, and also across the entire length of the project. Compensatory mitigation should be provided for these cover type conversions. 25 Pa. Code §§105.13(e)(1)(ix) and (x) and 105.18a

c. You have proposed to convert PFO wetlands to PEM cover type. To provide a function that more closely matches the functions and values of the existing PFO wetlands, evaluate the possibility of replanting these PFO conversion areas with shrubs to establish PSS wetlands, rather than the PEM cover type that is proposed. 25 Pa. Code §105.13(e)(1)(ix)

d. Your application should discuss potential impacts to PSS wetlands resulting from rights-of-way maintenance activities (such as mowing) that may cause a conversion of these wetlands to PEM. If this information is in the application please indicate where it is located. 25 Pa. Code §§105.13(e)(1)(viii) and (x)

19. Regarding your proposed mitigation activities:

a. Revise your Mitigation Plan to identify the wetland seed mix that will be used to reseed wetlands that are disturbed as a result of your activities. Your plan should also include invasive species control and monitoring and reporting. 25 Pa. Code §105.13(e)(1)(ix)

b. Provide planting plans and details for the replanting of PFO areas in the permanent and temporary right-of-ways. 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, the timing of the plantings, criteria for success, and a monitoring plan to ensure reestablishment of the wetland. 25 Pa. Code §105.13 (e)(1)(ix)

c. Revise Section 2.2.2.1 of the Mitigation Plan, Construction in Wetlands with Unsaturated Soils, to include the use of mats and pads for wetland crossings. 25 Pa. Code §105.13 (e)(1)(ix)

d. Revise the HDD list at the end of the Inadvertent Return Contingency Plan in the Mitigation Plan, or the project plans, to consistently show where "Drive Through -- Travel Only" areas are proposed. 25 Pa. Code §105.13(e)(1)(iii)

e. Regarding the proposed stream bank restoration:

i. Provide a detailed stream restoration plan and identify all crossings where the stream restoration plan will be applied. This plan should specifically discuss how the streams will be restored following pipeline installation. 25 Pa. Code §105.13(e)(1)(ix)

ii. Revise the stream restoration detail drawing to clearly show that the existing bank slope, grade, and elevation are to be restored. 25 Pa. Code §105.13(e)(1)(ix)

iii. Identify the biodegradable erosion control matting that is to be used. 25 Pa. Code §105.13(e)(1)(ix)

iv. Specify which plantings and seed mix is proposed to be used in these areas. 25 Pa. Code §105.13(e)(1)(ix)

v. Address how native streambed material will be restored following open cut crossings. 25 Pa. Code §105.13(e)(1)(ix)

vi. If existing conditions are not to be restored, provide a site specific drawing showing the proposed post-restoration condition. 25 Pa. Code §105.13(e)(1)(ix)

vii. Discuss and provide details on restoration monitoring that will occur to ensure that invasive species do not occur and restoration is successful, and the documentation that will be developed and maintained for the restoration monitoring. 25 Pa. Code §105.13(e)(1)(ix)

20. The Pennsylvania Fish and Boat Commission has established seasonal restrictions for in-stream construction work. To ensure you adhere to these restrictions, the Department recommends identifying the time-of-year restrictions on the plans. The Department also recommends that these restrictions be placed on the drawings submitted as part of the E&S Permit (ESG 05 000 15 001) 25 Pa. Code §§105.14(c)(3) and 105.23

21. You have provided plans showing the Mariner East 1 "maintenance corridor". Regarding this corridor:

    a. It is unclear if this "maintenance corridor" is the same as the permanent right-of-way for Mariner East 1. Please clarify. 25 Pa. Code §105.13(e)(1)(i)

    b. Provide a full size, overall map of the Indiana County portion of your project that clearly displays the right-of-way associated with Mariner East 1, and the right-of-way associated with your proposed project. 25 Pa. Code §105.13(e)(1)(ii)

22. The impacts described under Section 2.3 of your Mitigation Plan and Table 2 of your Alternatives Analysis are inconsistent with the impacts reported in the other applications associated with your project. Please review your application for accuracy and consistency and revise accordingly. 25 Pa. Code §105.13(e)(1)(iii)

23. We have compared the Plans submitted with this application (JPA) and the Plans submitted with the E&S Permit application (ESG 05 000 15 001). Regarding the site plans and Erosion and Sediment Control Plans you have provided:

    a. Describe the difference between the "Permanent Easement" and "Permanent Right-of-Way" areas that are identified on your plans. This description should discuss maintenance activities that will be performed on these areas following construction of the pipeline, and measures that will be taken to ensure that future maintenance activities do not detrimentally impact aquatic resources (e.g. cutting PSS wetlands after restoration). 25 Pa. Code §105.13(e)(1)(iii)

    b. Provide a description of the "Travel Lanes" that are shown on your project plans. This description should include:

        i. The purpose of these features. 25 Pa. Code §105.13(e)(1)(iii)

        ii. Whether these features will be temporary or permanent. 25 Pa. Code §105.13(e)(1)(iii)

        iii. The overall impact these features will have on aquatic resources. 25 Pa. Code §105.13(e)(1)(x)

        iv. The crossing methods (e.g. mats, pads) that will be used to cross resources. 25 Pa. Code §105.13(e)(1)(iii)

    c. The plan views provided do not show a permanent right-of-way proposed over areas where HDD installation is proposed. Describe any clearing or maintenance activities that are proposed to occur over areas where your pipeline installation will utilize HDD or bore methods to install the line. 25 Pa. Code §105.13(e)(1)(iii)

24. The impacts described under Section 2.3 of your Mitigation Plan do not seem to match elsewhere in the application. Revise accordingly. 25 Pa. Code §105.13(e)(1)(iii)

25. Stormwater Consistency Letters from the following municipalities have not been provided: Burrell and East Wheatfield. 25 Pa. Code § 105.13(e)(1)(v)

26. Floodplain Management Consistency Letters have not been provided for the following municipalities: Burrell, East Wheatfield, and West Wheatfield 25 Pa. Code § 105.13(e)(1)(vi)

27. The proposed gas line open cut appears to be located directly over the existing gas line. Please clarify. (Refer to plan sheet ES-2.52). 25 Pa. Code § 105.13(f)(1)(i)

28. You have indicated the pipe line is to follow the existing Mariner East Pipeline right-of-way. The plans show the location of the existing pipeline, however, the aerial photography included in the application indicates portions of the area are heavily forested or constructed under existing structures. Was the ME1 pipeline constructed as shown on the plans? Please clarify. 25 Pa. Code §105.13(e)(1)

29. In order to ensure adherence to Threatened and Endangered species restrictions and avoidance measures that are part of any PNDI clearances, the Plans and drawings need to clearly identify these locations and provide construction notes and seasonal restrictions. Both the plans for this application (JPA) and the plans for the E&S Permit (ESG 05 000 15 001) will need to be revised to include this information. 25 Pa. Code §§105.13(e)(1)(x), 105.13(g) and 105.23

30. If any changes to the proposed route occur, revise the application to reflect these changes. 25 Pa. Code §105.21(a)(1)

31. Revise the fee calculation worksheet to reflect any alterations in the reported impacts. 25 Pa. Code §105.13(c)(2)(iii)

32. 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)(viii)-(x); 105.14(b); and 105.15-105.20a.

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 1, 2016 or DEP may consider the application to be withdrawn by the applicant.

You may request a time extension, in writing, before November 1, 2016 to respond to deficiencies beyond the sixty (60) calendar days. Requests for time extensions should include the amount of additional time requested and will be reviewed by DEP. You will be notified in writing of the Department's decision. 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.

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 pertaining to the identified deficiencies, please contact Michael Engelhardt at **412.442.4304** or mengelhard@pa.gov or Timothy R. McClelland, P.E. at **412.442.4305** or timmcclell@pa.gov. Please refer to Application No. **E32-508** Authorization No. 1083228 to discuss your concerns or to schedule a meeting. The meeting must be scheduled within the sixty (60) day period allotted for your reply, unless otherwise extended by DEP. You may also follow your application review process via *eFACTS on the Web* at: http://www.ahs2.dep.state.pa.us/eFactsWeb/default.aspx.

Sincerely,

Gregory W. Holesh, P.E.
Environmental Group Manager
Permitting & Technical Services
Waterways & Wetlands Program

cc: Brad Schaeffer, Tetra Tech, Inc.
Indiana County Conservation District
US Army Corps of Engineers
PA Fish & Boat Commission