



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 E63-674
Technical Deficiency Letter 2
Pennsylvania Pipeline Project (Mariner East II)
Chartiers Township, North Strabane, Nottingham Township, Union Township
Washington 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) and 105.301(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 individual bore pits. 25 Pa. Code §105.13(e)(1)(x)
3. Regarding the proposed HDD resource crossings:
- a. 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)
 - b. 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 your plans to include these

measures. Otherwise provide a detailed analysis and risk 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)

- c. Since these pipelines are located in such close proximity to existing pipelines, thus areas which may have been previously impacted, we request that an 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 in Westmoreland County. 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)
- d. 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)
- e. 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), and 25 Pa Code § 91.33(b)
- f. Provide the minimum qualifications and experience requirements you will impose for the contractors that will be performing the HDD crossings. 25 Pa. Code §105.301(10)
- g. 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

- h. 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)
 - i. 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)
 - j. You 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)
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. 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)
 - g. 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)
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 the further understanding of your project, revise your application to discuss the estimated time installation will take for 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)
 - 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. 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)
- j. 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)
- k. 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
- l. 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 antidegradation 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) 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
 - m. Revise your Environmental Assessment to discuss the impact your project will have on Arnold Park, in Chartiers Township. 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. 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 Washington 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

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 mixes are 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 conditions. 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. 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 Washington 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)
21. 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)
22. The Pennsylvania Fish and Boat Commission has established seasonal restrictions for in-stream construction work. To ensure that 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
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. 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)

- c. It is recommended that changes to either the JPA or the E&S application be reflected in the other application. Failure to ensure consistency between the two applications will delay any permit decision for this project. 25 Pa. Code §105.13(e)
 - d. It appears that utilizing the other side of the right-of-way in the area of Wetland W204 could avoid the need to place timber mats in the area. Evaluate the feasibility of avoiding this impact. 25 Pa. Code §105.13(e)(1)(viii)
 - e. The E&S Plans show a feature labeled as “temporary bridge”. This appears to be the same as a timber mat. Describe the difference between the two features, and provide a specific drawing of each. 25 Pa. Code §105.13(e)(1)(i)
 - f. ES-1.24 does not show timber matting of Wetland SZ2 and SZ1. Discuss how these resources are proposed to be crossed. Revise the appropriate documents if necessary. 25 Pa. Code §105.13(e)(1)(i)
 - g. The proposed crossing of UNT to Little Chartiers Creek (Stream S124) appears to run directly in, or close to the channel in a parallel manner. Discuss what necessitates crossing in this manner. Additionally, provide a detailed plan view and representative cross sections that clearly shows the proposed pipeline and ordinary high water mark of the watercourse at this location. 25 Pa. Code §105.13(e)(1)(viii)
 - h. The crossing of Wetland W43 is shown as a bore on the E&S plans, while the JPA plans and impact tables say this is proposed to be an open cut crossing. Explain which of these is correct, and revise the documents accordingly. 25 Pa. Code §105.13(e)(1)(iii)
 - i. ES-1.56 shows a PFO wetland to the east of Patterson Rd. This wetland is not shown elsewhere in the application. Revise your application to identify this resource, and provide all other necessary information related to this wetland and the proposed crossing. Additionally, the proposed HDD in this area appears to end in this wetland. Consider avoiding/minimizing your impacts to this wetland by reconfiguring the proposed HDD crossing. 25 Pa. Code §105.13(e)(1)(x)
24. Stormwater Consistency Letters from the following municipalities have not been provided: Chartiers and North Strabane. 25 Pa. Code §105.13(e)(1)(v)
 25. Floodplain Management Consistency Letters have not been provided for the following municipalities: Chartiers and North Strabane. 25 Pa. Code §105.13(e)(1)(vi)
 26. If any changes to the proposed route occur, revise the application to reflect these changes. 25 Pa. Code §105.21(a)(1)
 27. Revise the fee calculation worksheet to reflect any alterations in the reported impacts. 25 Pa. Code §105.13(c)(2)(iii)
 28. 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. Antidegradation 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. **E63-674** Authorization No. 1082170 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.
Washington County Conservation District
US Army Corps of Engineers
PA Fish & Boat Commission