

June 2, 2022

Transcontinental Gas Pipe Line Company, LLC
c/o Mr. Joseph Dean
2800 Post Oak Blvd
Level 11
Houston, TX 77056

Re: Technical Deficiency Letter #2
Erosion and Sediment Control (E&S) Permit
Regional Energy Access Expansion Project
DEP Application No. ESG830021002-00
APS No. 1036787; AUTH ID No. 1350583
Buck Township, Bear Creek Township, Plains Township, Jenkins Township, Kingston
Township, Dallas Township, Wyoming Borough, West Wyoming Borough, Laflin
Borough, Luzerne County
Ross Township, Chestnuthill Township, Tunkhannock Township, Monroe County
Lower Mount Bethel Township, Northampton County
Lower Makefield Township, Bucks County
East Whiteland Township, Chester County

Dear Mr. Dean:

The Department of Environmental Protection (DEP) has reviewed the above referenced E&S application and has identified the technical deficiencies listed below. The *Pennsylvania Erosion and Sediment Pollution Control Program Manual* (E&S Manual) and the *Pennsylvania Stormwater Best Management Practices Manual* (BMP Manual) include information that may aid you in responding to some of the deficiencies listed below. The deficiencies are based on applicable laws and regulations, and the guidance sets forth DEP's established means of satisfying the applicable regulatory and statutory requirements.

Technical Deficiencies

E&S Plan

The following comments are within the Monroe County portion of the project:

1. The following comments apply to the sequence of construction for the MLV-505LD86 site: [25 Pa Code §102.4(b)(5)(vii)]
 - a. Steps 11-20 (development of the site during construction) do not appear to maintain flows to the proposed sediment traps during construction. In addition, the compost socks along the access road are not placed along grade

which will not treat sediment prior to discharge from the site. In addition, sediment trap 1 is treating undisturbed areas. It appears the site could be controlled in a simplified manner using diversion socks and proper sequencing of the work. Please contact the reviewer to discuss the sequence of construction.

- b. Step 22 (installation of PCSM BMPs) should refer back to the BMP Installation Sequence on the MLV-505LD86 PCSM Plans, Sheet 6. Please refer to the comments below on the installation sequence regarding soil testing during the installation of the PCSM BMPs.
2. The swale dimensions shown on the HydroCAD printouts for the channels on the MLV-505LD86 site do not match the dimensions provided on the Drawings, Sheet 45 of 52. Please revise the calculations/details for consistency. [25 Pa Code §102.4(b)(5)(viii)]
 3. Drawing 42, Culvert Inlet Protection Stone (Rock Filter) Detail: Please specify that the “D” dimension in the detail should match the height of the adjacent compost socks. [25 Pa Code §102.4(b)(5)(ix)]
 4. The swale depths for swales DC-EL-1 and DC-EL6 should be 2.0 feet and 1.75 feet, respectfully, to match the calculations. Please revise. [25 Pa Code §102.4(b)(5)(ix)]
 5. The values for the Pipe Size and “Aiw” dimension for Apron 6 do not match the calculations. Please revise for consistency. [25 Pa Code §102.4(b)(5)(ix)]
 6. Please provide the installation thickness values for R-4 and R-5 rock on the CWC-OB detail on Sheet 45 of 52. [25 P Code §102.4(b)(5)(ix)]
 7. The culvert sizing calculations for Culvert #3 appear to indicate that this cross pipe will be in a surcharge condition for the larger storms (25 year and above). This culvert is critical to convey flows to Infiltration Basin 1 for Rate control management. Please size this culvert and Rock Apron 4 so that the 100 year flow will not bypass this culvert. [25 Pa Code §102.8(f)(8)]
 8. The discharge pipes for infiltration beds 1 and 2 should be connected together and extended to the outlet rock apron for Culvert 7. [25 Pa Code §102.8(f)(9)]
 9. Culvert 6 should be extended to the Apron 7 location. [25 Pa Code §102.8(f)(9)]
 10. Please add the following information to the details for Infiltration Beds 1 and 2 (Sheet 7) [25 Pa Code §102.8(f)(9)]:
 - a. Please specify the required length of the storage pipes and spacing of the storage pipes.

- b. Please label the minimum top of stone elevation.
 - c. Please specify the minimum bed area required for each system.
 - d. Please add a note that infiltration testing should be performed prior to and after the installation of the soil amendments. Infiltration testing results shall be submitted to MCCD.
11. Infiltration Berm Detail, Sheet 7: Please add a note that infiltration testing should be performed prior to and after installation of the soil amendments. Infiltration testing results shall be submitted to MCCD. [25 Pa Code §102.8(f)(9)]
12. Infiltration Basin Detail, Sheet 8: Please add a note that infiltration testing should be performed prior to and after the installation of the soil amendments. Infiltration testing results shall be submitted to MCCD. [25 Pa Code §102.8(f)(9)]
13. Infiltration Basin Emergency Spillway Detail, Sheet 8: Please specify the staple pattern for the SC250BN matting. [25 Pa Code §102.8(f)(9)]
14. Stabilized Overflow Spillway Detail, Sheet 8: Please specify the number of spillways, lining requirements, and the associated staple patterns for the Infiltration Berms. [25 Pa Code §102.8(f)(9)]
15. Soil Amendment Detail, Sheet 8: The compost mixture specifies a 2:1 Soil/compost mixture. Our experience indicates that mixtures with a high compost percentage may inhibit or block infiltration from occurring. The designer should consider a lower compost percentage in the mix and/or specify the placement and testing of a test area to determine the infiltration ability of the amendment mix. [25 Pa Code §102.8(f)(9)]
16. Please revise the BMP Installation sequence (MLV Plans, Sheet 6) for the Infiltration Berms, Infiltration Basin, and Subsurface Infiltration Beds to require infiltration testing prior to and after the installation of soil amendments. Test results should be submitted to MCCD. [25 Pa Code §102.8(f)(7)]
17. The following comments apply to the PCSM Spreadsheet [25 Pa Code §102.8(g)(2)]:
 - a. General Tab: The amount of existing impervious area on the project should be 0.09 acres in order to match the Rate Control analysis.
 - b. Volume Tab: In the preconstruction condition, the “Impervious area” should be 0.07 acres, in order to match the predevelopment impervious cover and the 20% considered meadow in good condition.

- c. Volume Tab: There are numerous revisions needed to the Infiltration period, vegetated column, media depth, and storage volumes on the Structural BMP Volume Credits table. Please contact the reviewer for a detailed discussion of the changes.

18. The fee for service for the next submittal is \$5,883.00, payable to “Monroe County Conservation District”. [25 Pa Code §102.6(b)(3)]

The following comment is from the Luzerne County Conservation District:

19. The plan map(s) show OP1 discharging to an area that is not identified as a surface water. If this is a non-surface water discharge, provide a discharge analysis according to Ch. 102 Off-Site Discharges of SW to Non-Surface Waters FAQ. [25 Pa Code §102.4(b)(5)(iv)]

Geological Hazard Assessment and Mitigation Plan

20. Original Comment #84a: The Geological Hazard Assessment and Mitigation Plan did not include any geologic field investigation, drilling, or test pitting, to confirm the findings of the desktop review. Following the desktop reference review, the field geohazard assessment consisted of walking the ROW and immediately adjacent areas to observe the existing ground surface conditions and to document evidence of past landslide events. The Geological Hazard Assessment should, at a minimum, include the geotechnical investigations that were conducted at resource crossings. [25 Pa Code §102.4(b)(5)(xiii)]

The response indicated that geotechnical information was included within Attachments B-9 through B-13 of the revised Geological Hazard Assessment and Mitigation Plan. No Attachment B-13 was provided. Please clarify if a geotechnical report is missing or if the provided response was a typo.

21. Original Comment #84b: The Geological Hazard Assessment and Mitigation Plan indicates that Acid Producing Rock (APR) will likely be encountered. According to the Plan, the Marcellus Shale is expected to be encountered from MP 45.55-46.7, previously strip-mined areas are present from MP 16.6-16.32, and soils pertaining to strip mining and mine spoils are shown between MPs: 9.61 - 9.75, 9.84 - 9.89, 11.06 - 11.34, 11.47 - 11.60, 11.70 - 11.77, 11.96 -12.38, 12.50 - 12.80, 12.90 - 13.14, 13.32 -13.47, 15.30 - 15.70, 15.83 - 15.93, and 16.16 -16.32. Section 3.4 of the plan states "If coal or other acid producing rock is encountered in sufficient concentrations it can be mitigated in accordance with PADEP guidelines". APR is not mentioned on the E&S Plans. Please indicate what concentration of APR will trigger mitigation actions and what qualified professional will be onsite to determine that APR is present. [25 Pa Code § 102.4(b)(5)(xii)]

The DEP appreciates the clarification within the revised Geological Hazard Assessment and Mitigation Plan. Please include, in addition, that “the

representative of the professional geotechnical engineer” will receive training in order to “visually identify soil or rock that is suspected to be APR”.

Preparedness, Prevention, and Contingency (PPC) Plan

22. Original Comment #85e: Section 7.6 of the Inadvertent Return Response and Contingency Plan states no wells or public water supplies were located within 1,000 ft of the proposed DP crossing. Please confirm that this includes all water supplies. The definition of water supply can be found in 25 Pa. Code § 78a.1. The section of regulations dealing with the "Protection of Water Supplies" can be found in 25 Pa. Code § 78a.51 and 25 Pa. Code §§ 91.31 - 91.34. Project proponents utilizing trenchless technology need to incorporate a plan for locating private water supplies, in addition to public water supplies and should evaluate all information sources to locate and identify all private water supplies. DEP recommends using the following guidelines to locate and identify private water supplies: Locate all private wells within a minimum of 450-feet of the centerline of the pipeline in non-karst terrain, and a minimum of 1000-feet in karst terrain or areas that include limestone and dolomite bedrock. The project proponent should compile mailing lists for all properties at a minimum of 450-feet (1,000-feet in karst) from the pipeline, or utility line, centerline to inquire as to whether a private well or other water supply (e.g. spring) is present on the property. [25 Pa Code §102.5(1)]

The DEP understands that no private or public water supplies were identified by Transco within 1,000 of the proposed DP crossing. Please update Section 7.3 of the Direct Pipe Plan to detail the process undertaken to identify private water supplies. That is, Section 2 of the Public Water Supply Report, included within the Chapter 105 application package, details the methodology for identifying public water supplies, please provide a similar summary for private water supplies.

Application Form

23. Provide final reports and final PNDI clearances from applicable agencies and revise the application accordingly. [25 Pa. Code §§ 102.6(a)(2)]
24. Provide final reports and clearances from the Pennsylvania Historical and Museum Commission (PHMC) and update the application accordingly. [25 Pa. Code §§ 102.6(a)(2)]

PCSM Report

25. Original Comment #95: Please provide the maximum loading ratio of 5:1 (impervious area to infiltration area), and the maximum loading ratio of 8:1 (total area to infiltration area) for the infiltration berms. [25 Pa Code §102.8(f)(8)]

The calculations for the maximum impervious loading ratio and the maximum loading ratio could not be found for the infiltration berms. Please provide the loading ratio calculations.

26. Original Comment #102: Please provide the maximum impervious loading ratio of 5:1 (impervious area to infiltration bed area) and the maximum total loading ratio of 8:1 for the Carverton Tie-In infiltration bed. [25 Pa Code §102.8(f)(8)]

The calculations for the maximum impervious loading ratio and the maximum loading ratio could not be found for the infiltration berms at the Carverton Tie-In. Please provide the loading ratio calculations.

27. Original Comment #105: Please provide the maximum impervious loading ratio of 5:1 (impervious area to infiltration bed area) and the maximum loading ratio of 8:1 for MLV-505LD86 infiltration berms. [25 Pa Code §102.8(f)(8)]

The calculations for the maximum impervious loading ratio and the maximum loading ratio could not be found for the infiltration berms at MLV-505LD86. Please provide the loading ratio calculations.

28. Original Comment #106: Compressor Station 200 is located in an area that has several surface depressions located near the project site, the maximum impervious loading ratio of 3:1 (impervious area to infiltration bed area) is recommended for the infiltration berm, which is being proposed as the only infiltrating PCSM BMP. Should the loading ratio not be met, please include additional PCSM BMPs within the project area to accommodate the volume mitigation requirement. [25 Pa Code §102.8(f)(8)]

The calculations for the maximum impervious loading ratio of 3:1 could not be found for the infiltration berm at Compressor Station 200. Please provide the loading ratio calculations.

29. Original Comment #129: The maximum loading ratio of 3:1 for impervious area to infiltration area in Karst areas has been exceeded for the proposed infiltration BMP. (Protocol 2 in Appendix C of the Stormwater BMP Manual). [25 Pa Code §102.11(a)(2)] Please make all necessary corrections.

The calculations for the maximum impervious loading ratio of 3:1 could not be found for the infiltration berm at Compressor Station 200. Please provide the loading ratio calculations.

30. Original Comment #137: Please justify the Infiltration Period for the PCSM BMPs in the PCSM Spreadsheet. Per the Spreadsheet Instructions, the actual computed dewatering time should be entered here. Please provide dewatering calculations. [25 Pa Code §102.8(f)(15)]

This comment was not adequately addressed, as the infiltration time was not adjusted and dewatering calculations could not be located. Please make all necessary revisions and include page numbers in the next response letter where revisions can be found.

Pursuant to 25 Pa. Code § 102.6(c) of DEP's rules and regulations, you must submit a response fully addressing each of the 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 **August 1, 2022**, or DEP may consider the application to be withdrawn by the applicant.

You may request a time extension in writing before **August 1, 2022** to respond to deficiencies beyond the sixty (60) calendar days. Requests for time extensions will be received 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 § 102.6(c).

Please submit the appropriate number of copies of the revised E&S plans and the revised PCSM plan to each District and an electronic copy of all revised information to the DEP.

If you believe that any of the stated deficiencies are not significant, instead of submitting a response to that deficiency, you have the option of requesting that DEP to make a permit decision based on the information you have already provided regarding the subject matter of that deficiency. 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 will be considered withdrawn.

If you have any questions about your application, please contact Michael Luciani by phone at 570-826-2597 or by email at mluciani@pa.gov and refer to Application No. ESG830021002-00, to discuss your concerns or to schedule a meeting. Please attempt to request a meeting within 15 days of the date of the letter to better ensure a meeting can be scheduled, held, and allow time for you to provide a response within the response time allotted for your reply.

Sincerely,



Rebecca M. Albert, P.G.
Environmental Group Manager
Regional Permit Coordination Office

cc: Kevin C. Clark, P.E., BAI Group, LLC (by email)
Luzerne Conservation District (by email)
Monroe County Conservation District (by email)
Northampton County Conservation District (by email)
Bucks County Conservation District (by email)

Chester County Conservation District (by email)
York County Conservation District (by email)
Buck Township (by email)
Bear Creek Township (by email)
Plains Township (by email)
Jenkins Township (by email)
Laflin Borough (by email)
Wyoming Borough (by email)
West Wyoming Borough (by email)
Kingston Township (by email)
Dallas Township (by email)
Ross Township (by email)
Chestnuthill Township (by email)
Tunkhannock Township (by email)
Lower Mount Bethel Township (by email)
Lower Makefield Township (by email)
East Whiteland Township (by email)
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