



July 2, 2019

Mr. David Stauffer, Project Manager
Chester County Department of Facilities & Parks
313 West Market Street, Suite 5402
P.O. Box 2748
West Chester, PA 19380-0991

Reference: County of Chester, Mariner East II

Subject: DEP Permit E15-862 – HDD Re-Evaluation Report, S3-0320 Review
Comments

Dear Mr. Stauffer:

As requested and on behalf of the County of Chester, McCormick Taylor, Inc. has reviewed the report “Horizontal Directional Drill Analysis, Herman O.W. Drive Crossing, PADEP Section 105 Permit No.: E15-862, PA-CH-0127.0000-RD (SPLP HDD No. S3-0320) and offers the following comments for consideration by the County for possible inclusion in correspondence to the Pennsylvania Department of Environmental Protection.

- The Report indicates that the initial HDD for the 16-inch pipe resulted in an Inadvertent Return (IR) and that the HDD of the 16-inch pipeline “is yet to be completed”. The report should address planned completion of the 16-inch pipeline, particularly since the proposed alignment more closely matches the approved 16-inch pipeline’s location including entry and exit points.
- The Report discusses appropriate grouting techniques but does not discuss how the previous IR was adequately addressed, or whether it is anticipated to release in this area again.
- The Report does not evaluate the anticipated drilling pressures to complete the remainder of the 16-in bore, and whether those anticipated pressures will result in additional IRs,
- The Alternatives Analysis includes repeated statements that “comparing this plan of construction to a 15-gallon IR event, results in SPLP’s opinion that HDD remains the preferred pipeline installation method.” However, as stated in the introduction, the 16-inch pipeline installation caused the 15-gallon IR event during the pilot bore and the remainder of the boring has not been completed – therefore it is not appropriate to assume that further IR events would not occur during its completion.

- The Report does not address either the engineering analysis that led to the Permitted alignment, nor the (quite different) partially completed 16-inch pipeline alignment. It would be beneficial to compare the assumptions that have led to three varied alignments being proposed for a single HDD corridor.
- The proposed revised alignment more closely parallels the partially completed 16” pipeline bore for long distances. The report does not address the possible loss of drilling fluid to the parallel bore where faults and fractures could allow flow to migrate. There is potential that this can result in unexpected IR events along the other bore’s path.
- Section 3.2 of the HDD Hydrogeologic Reevaluation Report (HRP) states that MEII HDD IRs have occurred in similar geologic settings where “bedrock is densely fractured (sometimes indicated by a fracture trace...)”, yet the summary (Section 4.2) states “All of the MEII IRs that have occurred in this region, to date are exit IRs where the overburden is relatively thin.” As shown on Attachment A, two fracture traces occur in close proximity of Shamona Creek and associated wetlands. The proposed profile indicates only 75’ depth of cover in this area, and no borings have been provided to analyze geology of this location. Additional documentation and calculations to support why the pipeline depth at this location was selected should be provided.
- The Best Management Practices included in the Conclusion of the report are generic. Project specific practices should be noted and employed - including specifying that monitoring reports including drilling pressures and return amounts be kept and filed with the Department; signing and sealing reports by qualified professionals; noting the frequency of reporting; specifying the pilot tool and drilling pipeline diameters; specifying the exact methods of monitoring for inadvertent returns and loss of fluid, and qualifying the specific Loss Control Materials that can be used.
- A site-specific IR Plan describing in detail how potential IRs will be addressed both within and beyond the project ROW, should be required. The plan should address all requirements that FERC regulated pipelines must provide, including measures to be followed in uplands, wetlands, and waterbodies for both containment and cleanup. Equipment and materials to be onsite and/or available on short notice should be provided including any subcontractors on-call. (See FERC Guidance for Horizontal Directional Drill Monitoring, Inadvertent Return Response, and Contingency Plans, Draft, October 2018)
- Where IRs are most likely, including entry and exit points and along known faults/traces, adjacent property owner right of entry should be obtained in advance of construction to facilitate efficient containment and cleanup of IR fluids.



McCormick Taylor truly appreciates the opportunity to work with Chester County on this important and impactful project. Please feel free to call me or Steve Hurt if you have any questions or require additional information regarding these comments.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Sandy Martin', written over a horizontal line.

Sandy Martin, P.E.
Vice President, Systems and Operations

Pc: County of Chester
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Kristen Mayock, Esq.
McCormick Taylor, Inc.
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