



July 10, 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, S3-0331 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, Eagleview Boulevard Crossing, PADEP Section 105 Permit No.: E15-862, PA-CH-0138.0000-RD (SPLP HDD No. S3-0331) 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 two Inadvertent Returns (IR) and that they were remediated. The Report does not address why the first (November 20, 2017) IR occurred almost 100 feet off the bore alignment. There is a utility shown in the area of the IR. Was the integrity of this utility examined following the IR? How were the two IRs contained / remediated? The proposed alignment is closer to the location of this IR and therefore may have a similar occurrence. Have any measures been considered to address this (such as a relief well or excavation)? The report should explain how the two IRs were remediated and whether they are expected to be continued weak points during installation of the 20-inch HDD.
- The Report indicates that the Revised Horizontal Directional Drill Design includes a Design Radius of 1,800-5,000 ft. However, the updated plan sheet (dwg PA-CH-0138.0000-RD) calls out a combined Curve R=1,694 ft.
- The Report does not address either the engineering analysis that led to the Permitted alignment, nor the ongoing 16-inch pipeline alignment. It would be beneficial to compare the assumptions that have led to the proposed design change, especially due to the substantial increase in proposed depth.
- The proposed revised alignment parallels the completed 16” pipeline bore. The report does not address the possible loss of drilling fluid to the parallel bore’s annular space

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.

- How was the depth of installation for the proposed alignment determined? The report contains no boring data to the proposed depths.
- 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.
- Where IRs are most likely, including entry and exit points and where previous IRs have occurred, 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,



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

Pc: County of Chester  
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