



June 4, 2021

**Via Electronic Mail** – [johohenste@pa.gov](mailto:johohenste@pa.gov) ; [rsharp@pa.gov](mailto:rsharp@pa.gov)

John Hohenstein, P.E.  
Environmental Program Manager  
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Pennsylvania Department of Environmental  
Protection  
Southeast Regional Office  
2 East Main Street  
Norristown, PA 19401

Ranjana Sharp, P.E.  
Civil Engineer Manager  
Pennsylvania Department of Environmental  
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Southeast Regional Office  
2 East Main Street  
Norristown, PA 19401

Re: HDD 290 Emergency Permit (Grouting) issued May 5, 2021  
Pennsylvania Pipeline Project (a.k.a. Mariner East 2)  
DEP Permit Nos. E15-862 and ESG0100015001  
Upper Uwchlan Township, Chester County

Dear Mr. Hohenstein and Mr. Sharp,

On May 4, 2021, Sunoco Pipeline, L.P. (“SPLP”) received a draft of an Emergency Permit from the Department relative to the grouting of the borehole for the HDD S3-0290 work location, in Upper Uwchlan Township, Chester County. This permit was signed by the Department on 5/5/21, and a fully-executed copy was returned to SPLP the same day. The Emergency Permit includes permit conditions in Section D and in Attachment 1, including several special permit conditions that require SPLP to submit additional plans and information to the Department “before commencing grouting activities under this Permit.” SPLP lists each permit condition below together with SPLP’s response.

**Section D. Permit Condition 1.** “Contact and advise the Pennsylvania Fish and Boat Commission’s Southeastern Regional Office as to when the work will begin and when the work has been completed at telephone number (717) 626-0228.”

**Response:** *Notification will be made as required.*

**Section D. Permit Condition 2.** “Contact the Chester County Conservation District at telephone number (610) 455-1360 prior to commencement of work.”

**Response:** *Notification will be made as required.*

**Section D. Permit Condition 3.** “An Erosion and Sediment Control Plan, meeting the requirements of Chapter 102, must be implemented during and after construction and available on the project site.”

**Response:** *An Erosion and Sediment Control Plan has been prepared for the grouting activity and will be implemented and maintained onsite. See Attachment A. SPLP also will implement its Erosion and Sediment Control Plans adopted as part of the ME2/2X project under the applicable Chapter 102 permit in place for the Southeast Region, ESG 01 000 15 001.*

**Section D. Permit Condition 4.** “All work will be accomplished from the stream bank. In those cases where this is *not* possible, the use of equipment in the stream channel is to be minimized.”

**Response:** *SPLP acknowledges this permit condition and confirms that work within the stream channel will be minimized and/or avoided where possible.*

**Section D. Permit Condition 5.** “All excavated material shall be disposed of beyond the limits of the floodplain.”

**Response:** *SPLP acknowledges this permit condition and confirms that all excavated material will be disposed of outside of the floodplain limits.*

**Section D. Permit Condition 6.** “Secure all other approvals that may be necessary under other Federal, State or local regulations.”

**Response:** *SPLP acknowledges this permit condition and confirms that all other necessary approvals have been obtained.*

**Section D. Permit Condition 7.** “This approval does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement, or interest, in, to, or over any land belonging to the Commonwealth of Pennsylvania; neither does it authorize any injury to private property or invasion of private rights.”

**Response:** *SPLP acknowledges this permit condition.*

**Section D. Permit Condition 8.** “Notify the affected municipality as soon as possible verbally and provide a follow-up notice in writing within forty-eight (48) hours from the issuance of this permit.”

**Response:** *Notification was made to Upper Uwchlan Township as required on 5/5/21 (both verbal and written) to Mr. Scheivert (Upper Uwchlan Township manager)*

**Section D. Permit Condition 9. SPECIAL CONDITIONS:**

“a) This EP grants approval for the grouting of the bore hole and construction of the sandbag containment structure in wetland H17 and the secondary containment downslope consisting of silt fencing. Once grouting is completed these containment structures must be removed and the wetland restored.”

**Response:** *SPLP acknowledges this permit condition.*

“b) This EP does not grant approval for the removal of IR deposits in Marsh Creek Lake. A detailed lake restoration plan is to be prepared and submitted and approved before any dredging or other removal methods are implemented.”

**Response:** *In response to the September 11, 2021 Administrative Order, SPLP submitted the “HDD S3-0290 Lake Impact Assessment and Restoration Plan” to the Department on October 1, 2020, a copy of which is provided again to the Department as **Attachment B**. DEP provided comments on that plan on 5/11/21.*

“c) This EP does not grant approval for the installation or operation of any unconventional relief well structure or any other such arrangement that would facilitate restart of the drill at HDD 290 by allowing for IRs to occur and then be contained should active drilling be allowed to resume. This EP only authorizes grouting to secure the borehole and the placement of additional sandbags and containment as an additional protective measure in case grouting to secure the borehole results in an expression of drilling fluids.”

**Response:** *SPLP acknowledges this permit condition.*

“d) Special conditions related to the Grout Plan (**Attachment E**):”

“i) Utilize an appropriate grout such as the GR1 mix that may be potentially less damaging to existing wetlands. Notify the Department of grout selection in advance of usage.”

**Response:** *SPLP hereby notifies the Department that it will utilize the GR1 grouting mix previously provided to the Department in the Grout Plan to grout the HDD S3-0290 borehole.*

“ii) In reporting to the Department note that the units for volumes should generally be consistent.”

**Response:** *SPLP will utilize standard cubic yards as the unit of measurement to report grout volumes to the Department.*

“iii) Report to the Department the planned location of each drill rig and ancillary equipment, before commencing any grouting activities under this Permit.”

**Response:** *Drill rig and ancillary equipment general locations are identified and provided in **Attachment A**.*

“iv) Confirm that the drill rod previously installed in the bore will remain during the Temporary Grouting, and that grout will be injected through the drill rod that was used to push the wash-over tool to the end of the 30” bore, before commencing any grouting activities under this Permit.”

**Response:** *SPLP does not plan to perform any ‘temporary grouting’. The previous drill rod will be removed from the borehole prior to the grouting activity commencing. As SPLP’s contractor pulls the drill rods, it will remove the drill stems as they come out of the borehole on the east side. After the first day of grouting, all of the stemming will be tripped out and cleaned to ensure the grout does not set up within the drill stem. The following day, SPLP’s contractor will trip the drill stem back into the hole to where the grouting operations ended the prior day.*

“v) Document in your grout plans what parameters will be monitored and the action levels/criteria (e.g., rotary torque on the drill rod; push/pull force on the rod; changes in grout pump piston pressure, etc.) that the driller/operator will base decisions on and provide to the Department prior to commencing grouting activities under this Permit.”

**Response:** *There is currently no down hole tooling with the ability to monitor pressure within the HDD borehole. The driller will base decisions regarding changes in the grouting operations based on the level of back pressure at the pump truck. The pumper truck operator will communicate if he is seeing any buildup of pressure, which could indicate that grout is not properly being deployed down to the hole.*

“vi) Consider any void space that likely exists between the HDD bore and the ground surface. Determine if it is likely that additional grout volumes will be required and notify the Department of your determination prior to commencing grouting activities under this Permit.”

**Response:** *As described in the reports of geophysical surveys previously provided to the Department’s consultant, ARM, on March 9, 2021, the 20-inch bore for the HDD S3-0290 site is completed in competent bedrock consisting of Precambrian-aged Graphitic felsic gneiss. The gneiss is not weathered at the depth of the bore. However, the identified fractures extend to the depth of the bore. It is expected that grout may flow into and fill fractures intercepting the HDD bore. The volume of grout which may enter fractures cannot be estimated prior to the grout activities commencing without knowing their exact number and aperture and degree of existing in-filling. SPLP will maintain*

*records of the grout volumes and amounts of grout in excess of the calculated projected volume that is anticipated to be needed to fill the borehole will be recorded and reported to the Department.*

“vii) Report to the Department your measures to prevent additional subsidence features that may occur and would result in damage to the wetlands; safety hazards to the public; and pipeline integrity concerns related to the existing pipelines, before commencing any grouting activities under this Permit.”

**Response:** *As previously reported in the March 9, 2021 Geophysical Survey Report submitted to the Department’s consultant, ARM, the surficial subsidence was the result of material raveling down open fractures in the bedrock and possibly into the open borehole. The grouting of the HDD borehole will fill the borehole and the intersecting fractures preventing further raveling of soils down from the surface. Moreover, in all prior earth feature occurrences at the HDD S3-0290 location, there were no concerns regarding public safety or the integrity of the existing pipelines in the area.*

“viii) Include a surface-based grouting plan to stabilize the shallow soils and to prevent additional subsidence features from occurring in the area of the wetlands and the fracture zones identified by the geophysical surveys (and as confirmed through the multiple inadvertent returns (IRs) and subsidence features that have occurred to date). Such a surface-based grouting plan must be designed and implemented that will minimize the potential temporary impacts to the wetlands and shall be provided to the Department before commencing any grouting activities under this Permit.”

**Response:** *Given this permit condition, the Department understands that the subsidence features are due to material raveling down fractures into the open HDD borehole. The approved plan to grout the HDD borehole using a horizontal method to seal the borehole with grout will eliminate this possibility by filling both the borehole and the intercepting fractures. The plan has the added benefit of having the least possible impact to the wetlands. Based on the extensive geophysical and geotechnical evaluations of the site, which have been previously provided to the Department and its consultant, ARM, SPLP’s professional geologists and engineers believe that the approved horizontal grouting plan will be successful and will prevent any future earth features from developing at this location. Any additional vertical grouting from the surface would have limited benefit, if any, especially relative to the unavoidable and considerable detrimental impacts to the wetlands that such a program would entail. Notwithstanding that vertical grouting for this location is unnecessary, as an accommodation to the Department, SPLP’s professional geologists have prepared the attached vertical grouting plan, which is provided as **Attachment C**.*

**General Permit Condition:** “This permit will expire in 60 days unless written permission extending that time is issued by the Department.”

**Response:** *SPLP will submit a written request for an extension on or before July 4, 2021, (60 days after the 5/5/21 permit issuance) if such an extension is needed.*

**Attachment 1 - Special Permit Conditions – Check Box 2:** “The permittee under this emergency permit must submit the appropriate permit application or registration to the DEP Regional Office to repair, replace, operate and maintain the water obstruction and or encroachment that has been authorized by this emergency permit within 60 days after completion of the project. Prior to submittal of the permit application or registration the permittee should coordinate with the Regional Office of DEP, to determine/confirm the appropriate permit and the location to file the application.”

**Response:** *As previously submitted on August 25, 2020, Chapter 102 and Chapter 105 Minor permit modifications for the repair, replacement, operation and maintenance of the water obstruction and or encroachment authorized by this emergency permit will be submitted within 60 days after completion of the project. SPLP requests confirmation from the Department that these are the appropriate permits to be filed.*

**Attachment 1 - Special Permit Conditions – Check Box 6 – Bullet 1:** - “A Restoration Plan shall be submitted within 30 days of issuance of the Permit that includes, at a minimum, the removal and replacement of flowable fill, and details for restoring wetland (WL-H17) contours, soils, vegetation, and hydrology.”

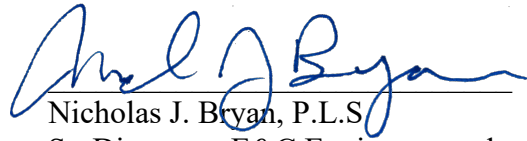
**Response:** *In response to the September 11, 2020 Administrative Order, SPLP previously submitted the “HDD S3-0290 Impact Assessment and Restoration Plan – S-H10/S-H11 and Wetland H17” to the Department on October 1, 2020. In that plan as provided in Attachment D, restoration of the earth feature is addressed. However, in response to this Emergency Permit condition, a Restoration and Monitoring Plan specific to this grouting operation was prepared and is provided as **Attachment E**.*

**Attachment 1 - Special Permit Conditions – Check Box 6 – Bullet 2:** “A Monitoring Plan must be submitted within 30 days of issuance of the Permit. The Plan shall provide for the location and installation of piezometers to monitor hydrology to ensure that hydrology is restored to Wetland WL-H17 and the contiguous area.”

**Response:** *A Restoration and Monitoring Plan specific to this grouting operation was prepared and is provided as **Attachment E**.*

If you have any questions or need additional information regarding this supplemental response and the enclosed documents, please contact me at (570) 505-3740 or via email at [Nick.Bryan@EnergyTransfer.com](mailto:Nick.Bryan@EnergyTransfer.com).

Thank you,

A handwritten signature in blue ink, appearing to read "Nick J. Bryan", written over a horizontal line.

Nicholas J. Bryan, P.L.S.  
Sr. Director – E&C Environmental  
Energy Transfer

**Attachments**

- Attachment A – Erosion and Sediment Control Plan, Drill Rig/Equipment location map
- Attachment B – HDD S3-0290 Lake Impact Assessment and Restoration Plan
- Attachment C – HDD S3-0290 Vertical Grouting Plan
- Attachment D – HDD S3-0290 Impact Assessment and Restoration Plan – S-H10/S-H11 and Wetland H17
- Attachment E – Grouting Operation Restoration and Monitoring Plan at Wetland H17