

**Summary of Actions and Outcomes required by DEP’s Administrative Order**

On January 3, 2018, the Department of Environment Protection (DEP) issued an Administrative Order (Order) to Sunoco Pipeline L.P. (SPLP) for permit violations associated with the PA Pipeline Project - Mariner East 2. Below is a table listing the items DEP required SPLP to address, organized by Order paragraph number, together with the outcomes associated with SPLP’s responses. The “Item” column below includes a bolded summary statement of the Order requirements, by paragraph (which also includes the specific Order language for reference). The “Outcome” column includes a short statement of how SPLP addressed the item along with any pertinent hyperlinks to additional information.

	<b>Item</b>	<b>Outcome</b>
<b>Para. 1</b>	<b>Immediately shut down all pipeline installation activities.</b> Except as specified herein, Sunoco shall immediately suspend all work authorized by the permits ..., until the Department provides written authorization to resume work. In no event shall Sunoco undertake any pipeline installation activities unless expressly authorized by the Department in writing.	<b>SPLP adequately demonstrated compliance with this item.</b> (See <a href="#">Request for Relief &amp; DEP Response</a> )
<b>Para. 2</b>	<b>Description of non-HDD, non (dry) conventional auger bore trenchless construction techniques</b> - Within 30 days of the effective date of this Order, Sunoco shall submit a detailed description of any method of trenchless pipeline construction techniques that have been used or will be proposed for use in the completion of PPP-ME2, other than (dry) conventional auger bore and HDD, as those methods are defined in the <i>'Trenchless Construction Feasibility Analysis'</i> , dated December 2016, that was approved as part of the Chapter 105 Permits.	<b>Adequately addressed by SPLP.</b> (See <a href="#">Exhibit A</a> )
<b>Para. 3</b>	<b>Documentation of WTS Crossings</b> - Within 30 days of the effective date of this Order, Sunoco shall submit to the Department full documentation of each crossing of a wild trout stream, stocked and wild trout fishery, stocked trout fishery and Class A trout fishery. The documentation shall include the date(s) of the installation of the pipeline, which pipeline was installed (20 inch, 16 inch, or both), the municipality and county, the stream number, latitude and longitude, and photographic documentation of the crossing including all before, during and after photographs of the installation. Sunoco shall submit this documentation to the Department on the forms attached hereto as Exhibit 1.	<b>Adequately addressed by SPLP.</b> (See <a href="#">Exhibit 1</a> )

<p style="text-align: center;">Para. 4</p>	<p><b>Report on Unpermitted Changes to Pipeline Installation</b> - Within 30 days of the effective date of this Order, Sunoco shall submit a report to the Department documenting any other unpermitted changes made to the method for installation of the pipeline. Permitted methods of pipeline construction are limited to open trench/open cut, and two trenchless installation methods, (dry) conventional auger bore and HDD, as those methods are defined in the <i>'Trenchless Construction Feasibility Analysis'</i> dated December 2016 and approved as part of the Chapter 105 Permits. Such changes include, but are not limited to, a change from conventional auger bore to HDD (including, but not limited to, "flex bore"), a change from open cut to conventional auger bore or HDD (including, but not limited to, "flex bore")", and a change from HDD (including, but not limited to, "flex bore") or conventional auger bore to an open cut. The report shall document all steps taken by Sunoco to determine if unpermitted changes have occurred. The information regarding the altered crossing methodology shall be provided on the forms attached hereto as Exhibit 2.</p>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Exhibit 2</a> &amp; <a href="#">Exhibit 3</a>)</p>
<p style="text-align: center;">Para. 5</p>	<p><b>List of Drilling Contractors and Subcontractors</b> - Within 30 days of the effective date of this Order, Sunoco shall submit a list to the Department that documents the legal name of all drilling contractors and subcontractors who have worked, or will be working, on the PPP-ME2. The list shall include the contact information for each contractor and subcontractor including the name of the business contact person, contact telephone numbers and email addresses, the HDD number for each HDD that the contractor or subcontractor has worked on, or will be working on, the municipality and county for each HDD, and the latitudes and longitudes for each location.</p>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Exhibit B</a>)</p>
<p style="text-align: center;">Para. 6</p>	<p><b>Report Explaining Failures Leading to Violations and Steps That Will be Taken So They Do Not Re-Occur</b> - Within 30 days of the effective date of this Order, Sunoco shall submit a report to the Department that fully explains the failures that led to the violations described in this Order and the steps Sunoco proposes to implement to ensure that those violations will not re-occur.</p>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Exhibit C</a>)</p>
<p style="text-align: center;">Para. 7</p>	<p><b>Private Water Supply Impacts in Cumberland Co.</b> - The permittee shall address all alleged impacts to private water wells in Silver Spring Township, Cumberland County, as described in Paragraph XX. to the satisfaction of the private well owners, to include replacement or restoration of the water supply and reimbursement of any costs of displacement during the period when the water supply is adversely impacted.</p>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Submission</a>)</p>

<p style="text-align: center;"><b>Para. 8</b></p>	<p><b>List of 102 and 105 Activities That Have Yet to Be Completed or Commenced</b> - In order to demonstrate the ability and intention to comply with the Chapter 102 Permits and Chapter 105 Permits, within 30 days of the date of this Order, the permittee shall submit a comprehensive list of all pending earth disturbance and water obstruction and encroachment related activities currently authorized by the Chapter 102 Permits and Chapter 105 Permits that have yet to be completed or commenced. This list shall include for each project activity identified:</p> <ul style="list-style-type: none"> <li>• the specific Chapter 105 Permit and/or Chapter 102 Permit under which each of these activities are authorized;</li> <li>• the location (county, municipality, latitude and longitude) where each activity will occur;</li> <li>• the pipe installation methodology authorized by the Chapter 105 Permit and/or Chapter 102 Permit (i.e., HDD, open cut, conventional auger bore) at each location;</li> <li>• if the activity is an HDD, the associated drill identification number;</li> <li>• the specific name and contact information for the on-site contractor representative who is responsible for permit and regulatory compliance at each location;</li> <li>• the specific name and contact information for the corporate representative from Sunoco who is responsible for permit and regulatory compliance at each location;</li> <li>• the specific name and contact information for the corporate representative from Sunoco who is responsible for supervision and direction of contractors at each location; the specific name and contact information for the corporate Executive Officer from Sunoco who is responsible for environmental compliance in the Commonwealth of Pennsylvania and for the installation of the Mariner II project, if such Executive Officers are different.</li> </ul>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Exhibit D</a>)</p>
<p style="text-align: center;"><b>Para. 9</b></p>	<p><b>Detailed Operations Plan</b> - Within 30 days of the date of this Order, the permittee shall submit a detailed Operations Plan setting forth the additional measures and controls which the permittee and its contractors shall implement to ensure that all permit conditions will be followed at all times. The Department shall review the Operations Plan and will approve it only when it deems it to be sufficient and satisfactory. The Operations Plan shall also include the additional measures and controls which the permittee and its contractors shall implement to minimize inadvertent return incidents and water supply impacts to the maximum extent possible.</p>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Exhibit E</a>)</p>

<p style="text-align: center;"><b>Para. 10</b></p>	<p><b>Backfill All Areas of Trench Excavation</b> - Within 10 days of the effective date of this Order, Sunoco shall backfill all areas of trench excavation, unless sufficient justification for an extension of time is provided to and approved by the Department in writing.</p>	<p style="text-align: center;"><b>Adequately addressed by SPLP</b> (See <a href="#">Exhibit F</a> &amp; <a href="#">Exhibit G</a>)</p>
<p style="text-align: center;"><b>Para. 11</b></p>	<p><b>Removal of Drill Bits, Reamers and Strings for Unpermitted HDD Activities</b> - Within 10 days of the effective date of this Order, Sunoco shall remove the drill bits, reamers, and/or strings for any unpermitted HDD activities, unless Sunoco provides the Department with justification and receives Department approval in writing to leave the bit, reamer, and/or string in place for a specific PPP-ME2 HDD site.</p>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Submission</a>)</p>
<p style="text-align: center;"><b>Para. 12</b></p>	<p><b>Abandonment of Pilot Holes Created by Unpermitted HDD Activities</b> - Within 10 days of the effective date of this Order, Sunoco shall properly abandon all pilot holes created by the activities in Paragraph 11, unless Sunoco provides the Department with justification and receives Department approval in writing to leave a pilot hole open.</p>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Submission</a>)</p>
<p style="text-align: center;"><b>Para. 14</b></p>	<p><b>Specific Activities at Huntingdon County Site</b> - Within 10 days of the effective date of the Order, Sunoco shall pull the drill bit and string from the 16-inch line at the Huntingdon HDD Site and properly abandon the pilot hole. (Para. 13) Prior to conducting any further HDD activity at the Huntingdon HDD Site, Sunoco shall submit a reevaluation of the 16-inch line as required by Paragraph 3 Stipulated Order and receive Department approval of that re-evaluation.</p>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Submission</a>)</p>

<b>Para. 15</b>	<p><b>As-Builts and H&amp;H for Perry County Site</b> - Within 30 days of the effective date of this Order, Sunoco shall submit as-built drawings, sealed by a Professional Engineer, and a Hydrologic and Hydraulic ("H&amp;H") analysis using the Hydrologic Engineering Center's River Analysis System ("HEC-RAS"), sealed by the licensed Professional Engineer who prepared the analysis, for the air bridge at the Perry Bridge Site. The H&amp;H analysis shall show the calculations performed to determine the design and 100- year frequency flood discharges at the Perry Bridge Site. The H&amp;H analysis must clearly demonstrate the difference in hydraulic capacity, stability and flood water surface elevations prior to the placement of the air bridge and with the air bridge in place and include a backwater analysis of both conditions.</p> <ul style="list-style-type: none"> <li>• If the H&amp;H analysis demonstrates that the air bridge fails to adequately protect the health; safety, welfare and property of the people, natural resources and the environment, then within ten (10) days of receipt of such a determination by the Department in writing, Sunoco shall either remove the air bridge, or submit an application to the Department for issuance of an Emergency Permit for modification of the obstruction/air bridge to immediately address the inadequacies determined through the Department's review of the H&amp;H analysis.</li> <li>• If Sunoco elects to submit an application for issuance of an Emergency Permit, within 15 days of the Department's issuance of the Emergency Permit, Sunoco shall complete all modifications to the air bridge in a manner consistent. with the proposal contained in its application for the Emergency Permit.</li> </ul>	<p><b>Adequately addressed by SPLP.</b>  <b>(See <a href="#">Exhibit H</a> and <a href="#">Exhibit I</a>)</b></p>
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<p style="text-align: center;">Para. 16</p>	<p><b>Complete 105 Application for Perry County Site</b> - Within 60 days of the effective date of this Order, Sunoco shall submit a complete Water Obstruction and Encroachment Permit application that complies with the requirements of the Dam Safety and Encroachment Act, the Clean Streams Law, 25 Pa. Code, Chapter 105 and all other applicable statutory and regulatory requirements for the air bridge at the Perry Bridge Site.</p> <ul style="list-style-type: none"> <li>• Sunoco shall submit the complete Water Obstruction and Encroachment Permit application in the name of and on behalf of Toboyne Township, Perry County, who is the owner of the bridge</li> <li>• Sunoco shall provide the necessary information, including any bridge design changes determined to be necessary by the Department to meet the applicable requirements, on behalf of Toboyne Township.</li> <li>• If any design changes to the air bridge occur during the permitting process that result in required field work or other modifications including but not limited to the air bridge, approaches, or scour protection, Sunoco shall implement any work or other modifications required by the Water Obstruction and Encroachment Permit within thirty (30) days of the Department approving or acknowledging the use of a Water Obstruction and Encroachment permit for the air bridge at Perry Bridge Site.</li> </ul>	<p style="text-align: center;"><b>Adequately addressed by SPLP.</b> (See <a href="#">Exhibit J</a>)</p>
<p style="text-align: center;">Para. 17</p>	<p><b>DEP Request for Additional information, Revisions, Modifications or Amendments</b> - In the event the Department determines that additional information, revisions, modifications or amendments are necessary to any permit, plan, any other submission, or restoration work required by this Order, then within ten (10) days after receipt of written notice from the Department, Sunoco shall submit to the Department such information, revisions, amendments or modifications, and/or complete the modified work, unless an alternative timeframe is approved by the Department in writing.</p>	<p style="text-align: center;"><b>SPLP adequately demonstrated compliance with this item.</b></p>
<p style="text-align: center;">Para. 18</p>	<p><b>No restart allowed until DEP approves in writing all submissions required by Paras. 2 through 13, 15 and 15a.</b> Upon the Department’s written approval of all submissions, the suspension imposed by this Order shall be terminated and Sunoco may resume the work authorized by the permits, unless otherwise restricted due to other Department enforcement actions or the Stipulated Order.</p>	<p style="text-align: center;"><b>SPLP adequately demonstrated compliance with the paragraphs referenced in this item before DEP lifted the suspension.</b></p>

<p style="text-align: center;">Para. 19</p>	<p><b>Stabilization and ongoing operation and maintenance to ensure BMPs continue to perform as designed.</b> Effective immediately, Sunoco shall temporarily stabilize all disturbed areas in accordance with the approved E&amp;S Plans and in compliance with 25 Pa. Code § 102.22(b). During the period of the permit suspension, Sunoco shall continue to complete installation of permitted best management practices (BMPs) for PPP-ME2, including perimeter BMPs, in accordance with approved plans and the permit in areas where Sunoco or its contractors have commenced earth disturbance activities. Sunoco shall continue routine monitoring of the installed BMPs and shall perform all necessary ongoing operation and maintenance activities to ensure the BMPs continue to perform as designed, in accordance with the approved E&amp;S Plans and permits.</p>	<p><b>SPLP adequately demonstrated compliance with this item.</b></p>
<p style="text-align: center;">Para. 20</p>	<p><b>Periodic Rotation and Movement of the Drill.</b> With regard to any in-process and permitted HDD operation (as the HDD installation method is defined in the ‘Trenchless Construction Feasibility Analysis’ dated December 2016 and approved as part of the Chapter 105 Permits), the permittee shall be permitted to periodically rotate the downhole drill bits or reamers and move them back and forth within the drill holes without advancing the drill hole or conducting additional drilling, to safeguard the integrity of the downhole equipment.</p>	<p><b>SPLP adequately demonstrated compliance with this item.</b></p>
<p style="text-align: center;">Para. 21</p>	<p><b>HDD Inadvertent Return PPC Plan.</b> Sunoco shall immediately begin implementing the December 15, 2017 revisions to the ‘HDD Inadvertent Return Assessment, Preparedness, Prevention and Contingency Plan’, attached to this Order as Exhibit 3.</p>	<p><b>Adequately addressed by SPLP. (See updated <a href="#">IR PPC Plan</a>)</b></p>