April 27, 2018

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, Filing Room
Harrisburg, PA 17120


Dear Secretary Chiavetta:

Enclosed for filing in compliance with the Pennsylvania Public Utility Commission’s Order issued March 7, 2018, and as ratified by Order of March 15, 2018, is Sunoco Pipeline L.P.’s Petition for Lift of Ex Parte Emergency Order and Request for Expedited Treatment in the above-referenced matter. Copies of this document have been served in accordance with the attached Certificate of Service.
If you have any questions regarding this filing, please contact the undersigned.

Very truly yours,

Thomas J. Sniscak
Kevin J. McKeon
Whitney E. Snyder
Counsel for Sunoco Pipeline L.P.

cc: Gladys M. Brown, Chairman (by hand delivery)
    Andrew G. Place, Vice Chairman (by hand delivery)
    David W. Sweet, Commissioner (by hand delivery)
    John F. Coleman, Jr., Commissioner (by hand delivery)
    Norman J. Kennard, Commissioner (by hand delivery)
    Per Certificate of Service
BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION


Sunoco Pipeline L.P.'s Petition for Lift of Ex Parte Emergency Order and Request for Expedited Treatment

Pursuant to the process specified in the Pennsylvania Public Utility Commission’s (Commission) March 7, 2018 Emergency Order as ratified on March 15, 2018,¹ Sunoco Pipeline L.P. (SPLP) respectfully requests that the Commission lift said Emergency Order which prevents SPLP from providing transportation service on its Mariner East 1 pipeline (ME1) due to certain conditions in the Lisa Drive area of West Whiteland Township, Chester County, Pennsylvania, alleged by the Commission’s Bureau of Investigation and Enforcement (I&E) in its March 7, 2018 Petition for an Ex Parte Emergency Order, and allow SPLP to resume service on ME1. The Commission’s I&E does not oppose restart, so SPLP requests that it be done expeditiously and to mark this Emergency Petition docket satisfied and closed. I&E has filed, or will file, its concurrence separately.

I. Summary of Petition to Lift the Ex Parte Emergency Order.

As explained in detail below, SPLP has complied with and satisfied each requirement of the Emergency Order, including comprehensive integrity and geophysical tests, analysis of the results of these tests by SPLP’s engineering, pipeline integrity and geology experts and I&E and

I&E’s team of expert independent consultants, all of which confirm ME1 is fit for reinstatement of service. The results of these detailed tests and analysis show:

- there was no, and is no, impairment to ME1 due to the subsidence referenced in the Petition for Emergency Order;
- there are no integrity issues that prevent reinstating service on ME1; and,
- the site geological conditions provide geologic integrity and physical support for the ME1 pipeline.

In fact, extra geological measures agreed upon by SPLP and I&E and I&E’s independent consultants were implemented to enhance or protect further the integrity of the subsurface involved relative to ME1. Notably, this includes open cut construction, as opposed to horizontal directional drilling (HDD), for the remainder of the Mariner East 2 (ME2) construction in the Lisa Drive SPLP right-of-way.²

ME1 provides public utility service to the public and this Commission in granting SPLP a certificate of public convenience has found that such service is necessary or proper for the “service, accommodation, convenience, or safety of the public.” 66 Pa.C.S. §1103(a). As such, it is imperative that the Commission expedite the restart of ME1 so SPLP, its customers, and all the industries in Pennsylvania that have had to stand down operations due to ME1’s closure do not continue to experience significantly large, irreparable economic injury. Moreover, the absence of ME1 service can have an impact on prices for propane and available supply levels.

Given that all tests and analyses show that ME1 is fit for service and that I&E concurs with reinstatement of service, SPLP requests the Commission expedite SPLP’s request to resume service and immediately issue a Secretarial Letter, allowing SPLP to resume service, to be ratified

² Non-HDD installation will be used for a portion of the planned ME 20-inch line to the north of the Study Area.
at the next Commission public meeting following issuance of said Letter. In the alternative, SPLP asks that one Commissioner lift the stay subject to ratification by the Commission at the May 3, 2018 Public Meeting. In the further alternative, SPLP asks that the Commission consider this petition and lift the Emergency Order as a carry-in to its May 3, 2018 Public Meeting agenda. SPLP is authorized to represent that I&E concurs with restart of ME1 and does not oppose SPLP's request for expedited treatment of this Petition.

SPLP has been and continues to be committed to safety. SPLP appreciates that safety concerns trump economic concerns. However, here the safety allegations have been resolved and the continuing economic impact of this shut-down should neither be disregarded nor compounded by delay. The sustained discontinuance of service on ME1 is negatively impacting not only SPLP, but SPLP's shippers/customers and many industries that rely on ME1 deliveries, with severe financial and lost business opportunity consequences daily. It can also impact propane prices to users. That economic loss is irreparable and constitutes cause for expedited treatment. In short, SPLP respectfully requests that just as the Commission reacted quickly in shutting down ME1 over safety concerns it should symmetrically act with equal dispatch in restarting this important public utility facility and service when, as now, those safety concerns regarding the Lisa Drive area at issue have been addressed and resolved.

II. **Background**

A. **Procedural History**

1. On March 7, 2018, I&E filed a Petition for Issuance of an Ex Parte Emergency Order (Petition) requesting that SPLP:

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3 The Emergency Order contemplated a shutdown procedure that may take 10-14 days to conduct certain studies and presumably to permit for a prompt return to service. Obviously, it has taken considerably longer and the sentiment to resolve this matter sooner than later should continue to be pursued.
• “immediately suspend operations” of ME1;
• “not reinstate transportation service on ME1 until the completion of repairs to I&E’s satisfaction at which time Sunoco may then file with the Commission a petition for reinstatement of service;”
• “perform the necessary geo-physical tests and analyses, including but not limited to, i) Resistivity, ii) Seismic, iii) Gravity on the HDD project at the Lisa Drive site from the bore beginning to end;”
• “perform a drawdown/purge of the hazardous liquid products between the first valve upstream and downstream at the Lisa Drive site within 72 hours of the entry of the Commission’s Emergency Order;” and
• “run an in-line inspection (‘ILI’) tool at the Lisa Drive site and report the findings to PHMSA and I&E.”

2. The bases of I&E’s Petition were subsidence issues in West Whiteland Township along Lisa Drive. See, e.g., Petition at P 4.

3. On March 7, 2018, Chairman Gladys M. Brown issued the Emergency Order, which stated:

1. The BIE Petition is granted as set forth in this Emergency Order with the following relief:
   a. Within 24 hours of the entry of this Order Sunoco shall run at least one in line inspection tool through the Mariner East 1 Pipeline, inspecting the pipeline from a point at least 1 mile upstream from the Lisa Drive location to a point at least 1 mile downstream from Lisa Drive ([Study Area]).
   b. Within 12 hours of completing the inspection tool run Sunoco will suspend hazardous liquids transportation service on its Mariner East 1 pipeline for a period of time, presently estimated by BIE and Sunoco to be of 10-14 days duration (the "Study Period"), in order for Sunoco to perform the following:
i. Conduct geophysical testing and analyses (including at least the following: resistivity, seismic and gravity) in the HDD area described in the BIE Petition; and

ii. Share all findings of the inspection tool run and geophysical testing with BIE/Pipeline Safety staff; and

iii. Meet and discuss the findings with BIE/Pipeline Safety staff, such discussions shall include, but not be limited to Sunoco's addition of strain gauges to Mariner East 1 in the study area.

iv. During the Study Period, Sunoco shall maintain sufficient minimum pressure in Mariner East 1 to avoid gasification of NGLs. Such pressures are estimated to be in the range between 475 and 650 psig, however, the NGLs shall not be flowing during such period.

c. Sunoco will not reinstate hazardous liquids transportation service on Mariner East 1 until the earlier of the following:

i. Completion of (a) and (b)(i)-(iv), with any corrective actions taken, or planned to be taken, to the satisfaction of BIE/Pipeline Safety coupled with BIE/Pipeline Safety's concurrence with reinstatement of transportation service on Mariner East 1, subject to Commission review and approval.

ii. If BIE/Pipeline Safety does not concur with Sunoco's request to resume service on ME1, Sunoco may file an Answer to the BIE Petition within 3 business days following notice of BIE's nonconcurrence.

1. The Petition and Answer will be assigned for expedited hearing(s) before the Office of Administrative Law Judge;

2. Sunoco may not resume hazardous liquids transportation service on Mariner East 1 without prior Commission approval.

2. As the party against whom an emergency order has been entered, Sunoco may petition for an expedited hearing pursuant to 52 Pa. Code §3.4.

4. On March 15, 2018, the Commission ratified, without modification, the March 7, 2018 Emergency Order at public meeting.
B. Subsidence Events

5. In approximately November 2017, a subsidence occurred at the location of a horizontal directional drilling (HDD) pilot drill inadvertent return of the ME2 pipeline in West Whiteland Township to which SPLP immediately addressed and responded.

6. Subsequently, on or about March 5, 2018, two additional subsidence features developed, one to the north of the inadvertent return toward Amtrak’s property and another to the south adjacent to 491 Lisa Drive. SPLP immediately investigated and responded to these two subsidence issues by introducing flowable fill material into each, which reinforces and stabilizes the soil and is leveled to ground surface. The entire right-of-way area encompassing both the ME1 and ME2 pipelines subsequently was then professionally surveyed and tied to ground elevation controls and monitored for any changes in ground levels. The entire area at issue was also evaluated by a drone and photogrammetry data obtained to monitor for development of any additional subsidence features. Daily inspections along the entire Lisa Drive ME1 right-of-way area were implemented in addition to inspections of the filled subsidence areas.

7. The three subsidence locations were secured from access until the fill material was cured and produced a firm surface. These areas have been surveyed and tied into the site-wide monitoring of ground elevations and daily visual inspections. No additional settlement of ground surface has been measured via weekly surveying at any location and the fill stabilization locations remain intact and competent.

III. SPLP has Complied with the Emergency Order and Gone Above and Beyond Its Requirements to Confirm the Integrity of ME1 In the Subject Area.

8. SPLP did not pursue its unilateral right under 52 Pa. Code § 3.4 to request a hearing and oppose the Emergency Order, but instead immediately began compliance with the procedure the Emergency Order provided to restart ME1 by working with I&E's Pipeline Safety Division.
SPLP on the morning of March 7, 2018, voluntarily offered to I&E to install on an expedited basis “strain gauges” on the section of ME1 at issue to monitor further the integrity of ME1 and that offer was incorporated into the Emergency Order. Results from these gauges demonstrate that ME1 is stable and well below action thresholds.

9. Pursuant to Emergency Order Paragraph 1.a (“Within 24 hours of the entry of this Order Sunoco shall run at least one in line inspection tool through the Mariner East 1 Pipeline, inspecting the pipeline from a point at least 1 mile upstream from the Lisa Drive location to a point at least 1 mile downstream from Lisa Drive.”): Within 24 hours of issuance of the Order, SPLP conducted an expedited In-Line Inspection (ILI), which required the ME1 line to be active. SPLP placed this computerized inspection tool, which travels through, measures and documents the internal condition and geometry of the pipeline, into the pipeline on March 8, 2018. SPLP retrieved the tool from the pipeline on March 9, 2018. SPLP provided the data from this inspection to I&E and Pipeline Safety on March 12, 2018 pursuant to Emergency Order Paragraph 1.b.ii. SPLP provided the findings from the inspection tool to I&E and its safety experts on April 10, 2018. The tool run did not identify any issues requiring remediation and compared favorably to an integrity confirming inspection tool run conducted in 2017.

10. Pursuant to Emergency Order Paragraph 1.b (“Within 12 hours of completing the inspection tool run Sunoco will suspend hazardous liquids transportation service on its Mariner East 1 pipeline for a period of time, presently estimated by BIE and Sunoco to be of 10-14 days duration (the "Study Period"). . .”): As soon as SPLP retrieved the ILI tool from the pipeline, it immediately suspended transportation service on ME1. The tool was able to be retrieved from the ME1 pipeline on March 9, 2018. Consistent with Emergency Order Paragraph

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4 See paragraph 18.
5 In order to run the ILI tool, the pipeline had to remain pressurized. See Emergency Order at n. 1.
1.b.iv., on March 9, 2018, within 12 hours after the tool was retrieved, SPLP had decreased and stabilized pressures on the ME1 line within the Study Area, estimated to be in the range between 475 and 650 psig. SPLP maintained these pressures to avoid gasification of the liquids in the ME1 pipeline per the Emergency Order at Paragraph 1.b.iv. SPLP monitored ME1 pressures daily. SPLP maintained these pressures until it voluntarily offered to, and was given assent by, I&E to initiate a purge\(^6\) of the ME1 pipeline covering the area at issue on March 23, 2018. At the time of the submission of this Petition the line remains purged and under low pressure nitrogen charge in the area at issue. Prior to issuance of the Emergency Order, SPLP initiated integrity evaluation measures, including exposing the ME1 pipeline at intervals between the Amtrak property to the north and south toward Lynetree Drive, for visual inspection of the pipeline and installation and monitoring of strain gauges at intervals along the ME1 pipeline. SPLP shared the results of these evaluations with I&E Pipeline Safety.

11. Pursuant to Emergency Order Paragraph 1.b.i ("Conduct geophysical testing and analyses (including at least the following: resistivity, seismic and gravity) in the HDD area described in the BIE Petition"): SPLP has conducted electrical resistivity, MASW\(^7\) seismic and microgravity testing. SPLP notes that the Emergency Order indicated that I&E and SPLP would "meet and discuss whether resistivity testing is appropriate." Emergency Order at n.2. SPLP, I&E and its Pipeline Safety Division met and discussed the appropriateness of this test, and while SPLP maintained the test may be inappropriate and send false positives or erratic results due to other utility facilities in the area at issue, it conducted the resistivity test pursuant to the

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\(^6\) I&E had requested in its Petition that SPLP purge ME1, but the Commission did not in its Emergency Order require SPLP to do so.

\(^7\) See text associated with footnote 8.
instructions of I&E’s consultant. SPLP provided the data to ARM for analysis for the resistivity test on March 26, 2018.

12. **Pursuant to Emergency Order Paragraph 1.b.ii ("Share all findings of the inspection tool run and geophysical testing with BIE/Pipeline Safety staff"):** SPLP expeditiously provided the preliminary results of the Paragraph 1.a. In-Line Inspection, Paragraph 1.b.i. geophysical testing, and strain gauge monitoring with I&E Pipeline Safety and its consultant ARM, on March 20, 2018 and in a series of meetings and conference calls, discussed the final results and recommended and agreed to additional actions to further confirm the integrity of ME1 in the area at issue. Moreover, SPLP invited I&E Pipeline Safety and ARM to monitor these tests and inspections in the field, and both or either was on-site for the tests and inspections. Additionally, SPLP on its own impetus conducted during late March and early April of 2018 additional bore testing of the area at issue even though not required by the Emergency Order, and has collaborated with I&E and its consultant ARM to refine its restart plan using the information developed from these additional tests and bore testing, including bore testing requested by I&E via its consultant ARM.

13. **Pursuant to Emergency Order Paragraph 1.b.iii ("Meet and discuss the findings with BIE/Pipeline Safety staff, such discussions shall include, but not be limited to Sunoco's addition of strain gauges to Mariner East 1 in the study area."):** SPLP has met numerous times with I&E and ARM via teleconference and in-person, at least on a weekly basis since entry of the Emergency Order, to discuss the results of its inspections, geophysical testing, and strain gauge monitoring. SPLP and I&E or ARM have been in contact virtually every working day including some weekend days or holidays since the March 7, 2018 Emergency Order was issued.
14. Out of an abundance of caution and as requested by I&E, SPLP has accomplished certain additional boring tests and grouting to enhance the geological integrity of the area at issue.

15. Pursuant to Emergency Order Paragraph 1.c.i. ("Sunoco will not reinstate hazardous liquids transportation service on Mariner East 1 until the earlier of the following: Completion of (a) and (b)(i)-(iv), with any corrective actions taken, or planned to be taken, to the satisfaction of BIE/Pipeline Safety coupled with BIE/Pipeline Safety's concurrence with reinstatement of transportation service on Mariner East 1, subject to Commission review and approval."): SPLP has completed the above discussed testing and investigations, shared and discussed the results with I&E and Pipeline Safety and has implemented the measures requested by I&E to further strengthen certain portions of its right-of-way in the area at issue to protect ME1. SPLP has obtained I&E and Pipeline Safety’s concurrence with reinstatement of transportation service on ME1, and now requests the Commission approve reinstatement of service. Emergency Order at P 1.c.i.

IV. Investigation, Testing, Analysis and Results Show ME1 is Safe and Fit for Service

16. SPLP has performed all the specific tests that the Emergency Order required. SPLP also performed additional investigation, including daily visual monitoring as detailed in the following paragraphs. These comprehensive and detailed tests and investigations and associated reports provided to I&E and ARM confirm that the site geological conditions provide geologic integrity and physical support for the ME1 pipeline, and that ground surface subsidences did not create any increased risks to the geologic integrity and physical support for the ME1 pipeline. Nonetheless, out of an abundance of caution, SPLP did not oppose and implemented I&E’s and its consultant ARM’s recommendations to strengthen further certain portions of its right-of-way in the Study Area to protect ME1.
17. **In-Line Inspection.** The In-Line Inspection consists of inserting a tool within the pipeline that moves through the pipeline as the tool examines and collects data on the integrity of the pipeline, including the presence and size of any dents, deformations, or other defects. The In-Line Inspection did not detect any issues that threaten the integrity of the ME1 pipeline. The excavation discussed below confirmed the accuracy of the tool analysis.

18. **Strain Gauges.** Strain gauges were placed at intervals along the ME1 line in the Study Area to measure whether the pipeline was being strained due to lack of underlying ground support. The strain gauges register and document data at half-hour intervals and can be read remotely, and are read and monitored daily.

19. **Visual Inspection.** SPLP excavated along equivalent intervals in the Study Area to expose the ME1 pipeline and visually inspected the line for evidence of damage to integrity of the pipeline. These inspections yielded no evidence of damage to the integrity of the pipeline. The excavations show soil conditions under ME1 were tight and stable.

20. **Topographic Elevation Monitoring.** SPLP has frequently completed topographic ground elevation surveys and top of pipe elevation surveys, at equidistance marked and protected locations, to document and confirm no additional earth subsidence or pipe movement has occurred. Those locations have remained stable and consistent throughout the monitoring period.

21. **Geophysical Testing.** SPLP engaged Professional Geologist services from Groundwater & Environmental Services, Inc. (GES) to develop and analyze geophysical testing to detect potential areas of loose soils or voids beneath the ME1 line. Geophysical testing began on March 12, 2018. The tests were completed and data provided to I&E and its safety experts on March 29, 2018. By analogy, this series of tests is akin to a medical MRI to detect anomalies (microgravity survey and multi-channel analysis of surface waves survey) and then using the
results of the MRI indicating anomalies to determine where to conduct biopsies (soil borings) to see if a void or loose soil is in-fact present. These tests confirm that there are no loose soils or voids that may present future subsidence or integrity issues regarding the ME1 pipeline in the study area. The first two tests detect and delineate low-density zones that might represent solution channels or deeply weathered fracture zones beneath the ME1 pipeline that could result in subsidence issues. These tests first consisted of a microgravity survey\(^8\) and a multi-channel analysis of surface waves (MASW) survey.\(^9\) Using the results of these surveys, GES identified density anomalies or mass deficiencies that could indicate potential areas of weak or loose soils. GES then developed a scope of work to evaluate these area of potential weak or loose soils to validate whether they pose a risk for future subsidence or ground instability by conducting soil borings. The soil borings consist of auguring to collect soil samples at the location of the ME1 pipeline in the anomaly areas to determine the depth to bedrock, rock type, groundwater levels, and relative competency of the subsurface and to delineate the existing subsidence locations to determine whether additional measures are required. Findings of the additional geophysical data related to the core sampling were provided to I&E and its safety experts on April 10, 2018.

22. **Soil Borings.** Using the anomaly locations that the microgravity and MASW revealed to target locations for soil borings, 16 soil borings along the ME1 line were performed along with one additional boring requested by ARM based upon a Resistivity anomaly. That was accomplished on April 21, 2018. All borings confirm the absence of any loose zones or voids beneath the ME1 pipeline.

23. **Subsidence Resolution.** As stated earlier in this Petition, SPLP initially resolved each of the three subsidence locations. Continued inspection shows that this resolution has held

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\(^8\) This is the "gravity" test referred to in the Emergency Order.

\(^9\) This is the "seismic" test referred to in the Emergency Order.
stable and adequately resolved these locations. Each of the areas has been surveyed and tied into 
the site-wide monitoring of ground elevations and daily inspections. No additional settlement of 
ground surface has been measured and the fill stabilization locations remain intact and competent.

24. **Resistivity.** SPLP discussed performance of a resistivity test with I&E and Pipeline 
Safety and their consultant, ARM. Resistivity testing was performed at the direction of ARM and 
the testing field data was collected and provided to ARM on March 26, 2018 for interpretation and 
analysis.

25. **Additional Measures.** During investigative digs it was determined that a pre-
existing and abandoned storm water drain was close to the ME1 pipeline and may have contributed 
to subsurface water drainage towards the ME1 pipeline as it terminated at the point of the 491 Lisa 
Drive subsidence. The drain line has been removed and poses no further integrity threat to the 
ME1 pipeline. To confirm operational integrity of the ME1 line in the Study Area, strain gauges 
will remain on the Lisa Drive area at issue for 6 months after ME2 commences service.

26. As the above analysis has shown, the ME1 pipeline and the underlying geology in 
the Study Area are suitable for an expedited liftof the Emergency Order. SPLP has completed all 
the requirements of the Emergency Order and I&E and Pipeline Safety concur in SPLP’s request 
to reinstate transportation service on ME1. There are no integrity issues meriting continuing to 
enjoin operation of the ME1 pipeline, and the Commission should allow SPLP to place the ME1 
pipeline back in service as expeditiously as possible to avoid further financial harm to SPLP, its 
shippers, and the many businesses and members of the public who were idled or adversely affected 
by the shut-down. In sum, the area at issue may be the most tested and vetted property where a 
utility pipeline resides in Pennsylvania.
V. Conclusion

WHEREFORE, SPLP respectfully requests the Commission grant this Petition, mark the Emergency Petition that triggered this docket as closed and satisfied, and expeditiously lift the Emergency Order injunction and allow SPLP to resume public utility service on ME1 by any of the following means:

a. immediately issue a Secretarial Letter allowing SPLP to resume service to be ratified at the next Commission public meeting;

b. in the alternative, SPLP asks that one Commissioner lift the stay subject to ratification at the May 3, 2018 Public Meeting; or,

c. in the further alternative, SPLP asks that the Commission consider this Petition and lift the Emergency Order as a carry-in to its May 3, 2018 Public Meeting agenda.

Respectfully submitted,

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DATED: April 27, 2018

Attorneys for Sunoco Pipeline L.P.
VERIFICATION

I, Harry J. Alexander, on behalf of Sunoco Pipeline L.P., hereby state that the facts set forth in the foregoing documents are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing in this matter. This verification is made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

SUNOCO PIPELINE L.P.
By: Sunoco Logistics Partners Operations GP LLC, its general partner

________________________________________________________________________
Harry J. Alexander
Vice President

4-27-18
CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the entities, listed below, in accordance with the requirements of § 1.54 (relating to service by a party). This document has been filed electronically on the Commission’s electronic filing system.

VIA ELECTRONIC AND FIRST-CLASS MAIL

Michael L. Swindler, Esquire
Pennsylvania Public Utility Commission
Bureau of Investigation and Enforcement
P.O. Box 3265
Harrisburg, PA 17105-3265

Thomas J. Sniscak
Kevin J. McKeon
Whitney E. Snyder

DATED: April 27, 2018