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> REPLY TO: Center City

August 13, 2020

Electronic Filing

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

Re: Flynn, et al. v. Sunoco Pipeline L.P.,
Docket Nos. C-2018-3006116, P-2018-3006117
DiBernardino, Docket No. C-2018-3005025 (consolidated)
Britton, Docket No. C-2019-3006898 (consolidated)
Obenski, Docket No. C-2019-3006905 (consolidated)
Andover, Docket No. C-2018-3003605

FLYNN COMPLAINANTS' ANSWER TO SUNOCO'S MOTION FOR PARTIAL SUMMARY JUDGMENT ON INTEGRITY MANAGEMENT, CORROSION CONTROL AND CATHODIC PROTECTION

Dear Secretary Chiavetta:

Attached for electronic filing with the Commission is Flynn Complainants' Response to Sunoco's Motion for Partial Summary Judgment on Integrity Management, Corrosion Control and Cathodic Protection.

If you have any questions regarding this filing, please contact the undersigned.

very many yours

MICHAEL'S BOMSTEIN, ESQ.

MSB:mik

cc: Per Certificate of Service

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

MEGHAN FLYNN :

ROSEMARY FULLER : MICHAEL WALSH :

NANCY HARKINS :

GERALD MCMULLEN : DOCKET NO. C-2018-3006116

CAROLINE HUGHES and : DOCKET NO. P-2018-3006117 MELISSA HAINES : DOCKET NO. C-2018-3005025

Complainants : DOCKET NO. C-2019-3006898

v. : DOCKET NO. C-2019-3006905

: DOCKET NO. C-2018-3003605

SUNOCO PIPELINE L.P.,

Respondent

FLYNN COMPLAINANTS' RESPONSE TO SUNOCO'S MOTION FOR PARTIAL SUMMARY JUDGMENT REGARDING INTEGRITY MANAGEMENT, CORROSION CONTROL AND CATHODIC PROTECTION

I. INTRODUCTION

Sunoco moves for partial summary judgment based on the supposed inadequacy of Dr. Zee's testimony. Respondent claims the Flynn Complainants have failed to provide substantial evidence of the allegations in their Complaint.

Flynn Complainants agree that their Complaint is the obvious metric by which their ability to prove their allegations must be judged. Unfortunately, the allegations in the Second Complaint at issue are not set out in the motion and so the question of whether they have been proved is not really before the ALJ.

The focus of Dr. Zee's direct and surrebuttal testimony is Complainants' allegation that good reason exists to appoint an independent consultant to investigate the condition of the ancient 8-inch and 12-inch Mariner East pipelines. For Sunoco's motion to be granted, it would have to show that Flynn Complainants have not adduced sufficient evidence to warrant a ruling that good reason exists to appoint an independent consultant.

Dr. Zee's direct testimony was based upon a thorough examination of records furnished by Sunoco. In his conclusions he reserved the right to give further testimony should additional evidence become available.

Additional evidence became available when Sunoco, on June 15, 2020, for the first time brought to light the DNV laboratory report on the Morgantown incident as well as additional documents previously not disclosed during discovery. Sunoco put the Morgantown incident front and center through the testimony of Messers Field and Garrity, although that has not stopped the company from arguing that a prior ruling precludes Complainants from addressing it. Nonsense!¹

Sunoco's motion contends that Dr. Zee's use of the terms "may" and "possibly" at various places in his testimony somehow vitiates the testimony and causes it to be "equivocal," notwithstanding other language that very clearly articulates views that more than meet the requirements of expert testimony. As shown below, that claim also has no basis in fact.

- 1. Denied. Flynn Complainants deny they have failed to meet their burden of proof.
- 2. Denied as stated. Denied that Dr. Zee's testimony is "long" on questions and accusations. It also is long on facts and factually-based opinions relative to the material allegations of the Complaint.
- 3. Denied. It is denied that Zee's testimony is equivocal, uncertain or speculative.

 Admitted that the text quoted from his testimony is accurately quoted. In the context of a

 Complaint that seeks appointment of an investigator, it is odd that Sunoco asserts Zee's seeking

 more information strikes the Respondent as insufficient.

¹ Sunoco objected vehemently and repeatedly for over a year that Flynn Complainants improperly sought to include the Morgantown incident in their case. Starting with Preliminary Objections to Count IV of Complainants' Amended Complaint and later in other filings, Sunoco argued Flynn Complainants lacked standing, were raising irrelevant matters, and were seeking to litigate issues at the heart of BI&E's suit against the company. Now that it suits the company's interest, the leak in Morgantown has suddenly become relevant.

- 4. Denied. This is a complete mischaracterization of the surrebuttal testimony. Once again, it is strange that a comment about a lack of real data is seen as unworthy of an expert's comment or opinion. Sunoco, of course, has totally left out the context. In this case, it is part of an overview that says Sunoco's records are woefully incomplete and in violation of the law as well as professional engineering standards. As noted more particularly below, PHMSA is of the same opinion.
- 5. Denied. The allegation as to Morgantown might have held water prior to Sunoco's experts making it the centerpiece of their rebuttal reports but, at this time, it is certainly reasonable and proper for Complainants' experts to comment on what Garrity and Field present in their testimony.
- 6. Denied. For the reasons set forth above, it is obvious there are materials facts in dispute and Sunoco, therefore, is not entitled to judgment as a matter of law.

II. ARGUMENT

A. Legal Standards

7. Denied. As shown below, Dr. Zee's direct and surrebuttal testimony sets forth many facts that are material to the allegations in Flynn Complainants' Complaint. It would appear that Sunoco has accepted all of those facts as true; first, because the entire motion omits any statement of undisputed facts and, second, because no facts are identified anywhere in the motion as having any bearing on the motion or the case. The entire motion fails to state even what facts are material to Complainants' claims. The Second Amended Complaint, for example, contains 114 factual averments. Sunoco has identified none of them and, further, it has not identified Complainants' legal theories or their specific requests for relief. In short, the motion is based solely on the allegedly equivocal character of Dr. Zee's testimony.

- 8. Admitted.
- 9. Admitted.
- 10. Admitted.
- 11. Admitted.
- 12. Admitted.
- 13. Admitted.
- 14. Admitted.
- 15. Admitted.
- 16. Admitted.
- 17. Denied as stated. This case has nothing to do with managerial discretion. Further, allegations relative to failure to comply with integrity management standards do not rest solely upon § 1501.
- 18. Denied as stated. The case of *Pye v. Com. Ins. Dep't*, 372 A. 2d 33 (Pa. Cmwlth. 1977) does *not* say or imply that injunctive relief must be narrowly tailored to abate the harm complained of. *Pye* merely says that an injunction will not be granted where there is an adequate remedy at law.
 - B. Complainants have not failed to meet their burden of proof and Sunoco is not entitled to judgment as a matter of law.
- 19. Denied. This averment is merely a sweeping set of conclusions of law that repeat earlier sweeping conclusions of law.
- 20. Denied as stated. The averment is accurate but incomplete in that it fails to identify other material allegations and fails to put facts in the context of the relief requested.
- 21. Denied as stated. In Count IV of the Second Amended Complaint Flynn

 Complainants seek to shut down the older pipelines only after an investigation has concluded

that they cannot be safely operated or that Sunoco is not likely to operate them safely.

- 22. Denied. This averment repeats earlier averments and Complainants incorporate their responses as set forth above.
- 23. Denied as stated. Complainants do not seek to introduce evidence beyond the scope of their own testimony or respondent's rebuttal testimony.
- 24. Denied. This averment repeats earlier averments and Complainants incorporate their responses as set forth above.
- 25. Denied. This averment repeats earlier averments and Complainants incorporate their responses as set forth above.
- 26. Denied. This is an almost verbatim repeat of ¶ 3 of Sunoco's motion. Once again, Complainants incorporate their responses as set forth above.
- 27. Denied as stated. Quotations are accurate but the characterizations of Dr. Zee's testimony are inaccurate and out of context.
- 28. Denied as stated. Sunoco's characterization of previous orders is admitted. Sunoco, however, through witnesses Field and Garrity, have made the Morgantown incident almost the centerpiece of their rebuttal testimony. Hence, Sunoco's suggestion that the incident may not be the subject of Dr. Zee's surrebuttal testimony is nothing less than astonishing.

Messers Field and Garrity in their rebuttal have not limited themselves to the scope of Dr. Zee's direct testimony. They have opened up a whole new area of inquiry by giving testimony on the Morgantown incident and investigation. Indeed, this was as much as admitted in a recent email exchange between counsel. In that exchange, Flynn attorney Bomstein explicitly asked Sunoco attorneys Silva and Snyder about new materials that had never previously been disclosed. Relevant excerpts from that exchange:

Bomstein to Snyder and Silva on June 27, 2020:

So, before I do a major search I thought I would ask you if you know:

- (1) Have you produced JF-3 previously to us?
- (2) Same question for JF-4.
- (3) Same question for JF-5.

My recollection for JF-5 in particular, which could well be wrong, is that you previously were successful in keeping us from discovering lab reports from the Morgantown investigation.

Is JF-4 among the docs you have just produced for us? I don't recall seeing it.

Please respond to this at your earliest. Thanks.
MSB

Snyder to Bomstein on June 29, 2020:

Here is the information you requested.

Exhibit JF-1 Energy Transfer Integrity Management Plan; Extremely Sensitive Materials; previously made available for review

Exhibit JF-2 Sunoco Pipeline L.P. Integrity Management Plan; Extremely Sensitive Materials; previously made available for review

Exhibit JF-3 Engineering Standard and SOPs; Highly Confidential, Confidential Security Information; some of this information may have been previously produced.

Exhibit JF-4 Table of Inspection Dates; Public; some of the information underlying the document may have been previously produced.

Exhibit JF-5 Morgantown Metallurgical Analysis; Highly Confidential; not previously produced.

Best.

Whitney E. Snyder | Partner

Exhibit JF-3 was a set of SOPs and an engineering standard formulated specifically in response to the failures found in the Morgantown investigation. (Field Rebuttal at 5). Exhibit JF-4 likewise related to the Morgantown investigation.

Exhibit JF-5, not previously produced, was the report on the metallurgical analysis for the Morgantown incident. This exhibit is 71 pages long and includes photos of the 8-foot segment removed from the pipeline as well as an explanation of how the leak site was contaminated by Sunoco field techs.

These exhibits were referred to in Field's and Garrity's testimony. Mr. Garrity explicitly stated that he reviewed and relied upon the DNV Metallurgical Analysis. (Garrity Rebuttal at 5). Several pages of Garrity's testimony relate to Morgantown and Conclusion No. 4 addresses Morgantown directly.

In light of all of the new Morgantown documents and Morgantown testimony, not to allow Zee's surrebuttal testimony on the Morgantown incident would be a wholesale denial of due process and a travesty.

- 29. Denied as stated. Admitted only that the quotes are accurate. The conclusion that Zee's testimony, however, does not meet the required standards is categorically denied.
- 30. Denied as stated. Sunoco has failed to identify specific portions of lay testimony that is sought to be excluded.
- 31. Denied as stated. Complainants through Dr. Zee's testimony have established the need of the Commission to exercise its plenary authority to order an independent investigation of the ancient Mariner East pipelines. By way of further answer, see Complainants' Findings of Fact and Argument below.

III. UNDISPUTED FINDINGS OF FACT

Authority of the Commission

- 1. 66 Pa.C.S.A. § 501 confers plenary authority in the Commission regarding public utilities' facilities. "In addition to any powers expressly enumerated in this part, the commission shall have full power and authority, and it shall be its duty to enforce, execute and carry out, by its regulations, orders, or otherwise, all and singular, the provisions of this part, and the full intent thereof; and shall have the power to rescind or modify any such regulations or orders."
- 2. Pursuant to 52 Pa. Code § 59.33, Sunoco as a public utility has had the duty at all times to "times use every reasonable effort to properly warn and protect the public from danger, and shall exercise reasonable care to reduce the hazards to which employees, customers and others may be subjected to by reason of its equipment and facilities."

Flynn Complainants' Pipeline Integrity Allegations

- 5. The Second Amended Complaint alleges inter alia that:
- (a) The ME1 and the workaround pipeline have leaked multiple times in the past and are likely to leak again (¶ 117);
- (b) Sunoco's pipeline safety expert, John Zurcher, testified in the Dinniman hearing on May 10, 2018 (N.T. 545-546) that Sunoco's Integrity Management program is adequate and conforms to industry standards as well as regulations. (¶ 63)
 - (c) In the present case Mr. Zurcher also testified on November 29, 2018 that:

The Sunoco pipeline that goes through this part of the country is a high consequence area, is in high consequence areas. They are required by regulation, therefore, to have integrity management programs, which includes the running of smart pigs and other activities to determine the condition of the pipeline to be able to predict when and where and why a pipeline event may occur and then to remediate that pipeline before the event occurred. (¶ 64)

- (d) On April 1, 2017, an HVL leak occurred on ME1 in Morgantown that was the subject of an investigation. BI&E found numerous violations including failure to implement integrity management procedures and failure to document its implementation of integrity management procedures. (\P 63 93). These averments were stricken by Judge Barnes prior to Sunoco's reintroduction of the Morgantown incident through the rebuttal testimony of Messers Field and Garrity.
- (e) Only four months after Zurcher's May 10, 2018 pipeline integrity testimony in the Dinniman case and fifteen months after Martin's pipeline integrity testimony in the Lebanon County case, an explosion rocked residents of Center Township in Beaver County. A 24 inch HVL pipeline owned by ETP had ruptured around 5 a.m., destroying one home about 500 feet from the pipe as well as two garages, a barn, and several vehicles. Three people escaped from the house before the fire destroyed the property. The fire shot up 150 feet in the air and destroyed electrical transmission lines and the steel towers that carried them. (¶ 94)
- (f) Mr. Zurcher in the present case, after testifying as to the strength of Sunoco's integrity management program and its ability to prevent accidents, amazingly was not familiar with the Beaver County or Berks County incidents and admitted he was not aware that PHMSA records show that Sunoco had 305 leak incidents involving \$72 million in property damage from 2006-2018. (N.T. 432-433). (¶ 98)
- (g) Despite Sunoco's claim that through its integrity management program it is able to find cracks and corrosion in the pipeline, its actual detection rate is only 5%. In order for a leak to be detected by their monitoring technique (drop in pressure), a leak must be greater than than 1.5-2% of the total daily flow in the pipeline. For these reasons, the public becomes a primary detection source for leaks. (¶ 99)

- (h) 52 Pa. Code §59.33(a) requires that Sunoco "at all times use every reasonable effort to properly warn *and protect* the public from danger and shall take reasonable care to reduce the hazards to which employees, customers and others may be subjected by reason of its equipment and facilities." (Italics added). (¶ 138)
- (i) Respondent has failed and continues to fail (a) to use every reasonable effort to properly protect the public from danger and take reasonable care to reduce the hazards to which employees, customers and others may be subjected by reason of its equipment and facilities; (b) to develop a written integrity management program that addresses the risks on each segment of pipeline, and which includes a baseline assessment plan (49 CFR § 195.452(c)); and (c) to take measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area, such as the area where all Complainants reside. (¶ 143)
- (j) In light of the foregoing history, ME 1 as well as the 12 inch segment of the ME 2 and ME 2X workaround pipeline must be evaluated more closely but [sic] do not believe that the company can be entrusted with the responsibility to evaluate its own pipelines. Only an independent contractor can possibly be expected to conduct a remaining life study of this 1930s pipeline. (¶ 144).
- 6. The relief requested in the Second Amended Complaint related to pipeline integrity (Count IV) is very specific:

WHEREFORE, Complainants seek an order directing that an *independent contractor* (a) conduct a "remaining life study" of ME 1 and the 12 inch sections of the workaround pipeline in Chester and Delaware Counties to determine the forecasted retirement age of ME 1, which study should consider the forecasted retirement age by coating type and age of the pipeline; (b) evaluate whether the frequency of leak incidents involving the ME 1 and the 12 inch sections of

the workaround pipeline is causally connected either to the design or implementation of Sunoco's Integrity Management Program; and (c) be compensated by Sunoco directly for all fees and costs associated with compliance with said order. Complainants also seek such other and further relief as may be appropriate.

Dr. Zee's Direct Pipeline Integrity Testimony

- 7. Dr. Zee in his direct testimony was asked if he would be able to testify to a reasonable professional certainty as to certain questions and he answered in the affirmative. (Zee Direct at 5, 1. 31 to 6, 1. 11). At the end he was asked if he had an opinion to a reasonable professional certainty. (Zee Direct at 42, 1l. 34 36). He then stated five opinions. (Zee Direct at 42, 1l. 38 43 at 1. 9).
- 8. Definitive statements made by Dr. Zee in Direct Testimony are set forth in $\P 9 34$ below:
- 9. Purpose of testimony was (a) review certain public and highly confidential documents, and (b) review the condition of the 8-inch Mariner East 1 (ME1) and the 12-inch portion of the Mariner East 2 (ME2) workaround pipelines. Both of these pipelines date back to the 1930's. Finally, recommendations were sought concerning their future maintenance and/or operation from corrosion point of view. (Zee Direct at 6, Il. 19 23).
- 10. In general, aging underground pipelines are at risk of corrosion failure due to coating degradation, external corrosion and stress corrosion cracking. (Zee Direct at 7, 1l. 6-7).
- 11. Integrity assessment must be in place for aging pipelines. It is necessary that there be (a) External corrosion direct assessment (ECDA); (b) Internal corrosion direct assessment (ICDA); and (c) Stress Corrosion Cracking Direct assessment (SCCDA). (Zee Direct at 7, 11. 38 41).

- 12. Tables prepared by Zee based on Sunoco records show historic corrosion on both the 8-inch and 12-inch pipelines. (Zee Direct at 9, 1. 38 to 11, 1. 14). For the 12-inch pipe, bare pipe showed the greatest corrosion. (Zee Direct at 12, 11.1-5). For the 8-inch pipe, coal tar wrapped pipe showed the greatest corrosion. (Zee Direct at 11, table).
- 13. The Sunoco repair records do not clearly identify the cathodic protection ("CP") criteria that Sunoco used on the ME1 pipeline. Sunoco admitted not meeting the minimum 850mV NACE SP0169 CP criterion. (Zee Direct at 11, ll. 18 26).
- 14. The Joint Settlement Motion in the BI&E Morgantown case in Appendix C shows that at station 2459 ± -00 (1030 feet from the leak) CP readings were $-628 \,\mathrm{mV}$ in 2016 and $-739 \,\mathrm{mV}$ in 2015. In addition, OFF potentials are not mentioned. This is not adequate cathodic protection. (Zee Direct at 13, ll. 1-18).
- 19. Sunoco's records also failed to provide information regarding stray current surveys because stray currents are a major concern for accelerated corrosion. (Zee Direct at 16, Il. 21 24).
- 20. The 12-inch line leaked in Delaware County on February 21, 2002. (Zee Direct at 19, l. 18 to 20 at l. 5).
- 21. There was a pipe failure accident in Westmoreland County on November 25, 2008 due to improper plug installation. (Zee Direct at 20, 11.8 15).
- 22. A leak in Delaware county on April 10, 2015 involved 12-inch line that leaked due to external corrosion with the most likely mechanism being coating failure that "shielded" CP. (Zee Direct T 20, ll. 18 36).
- 23. Sunoco reported that the Morgantown leak accident took place on April 1, 2017. External corrosion was identified as the cause. The report stated that microbiologically

influenced corrosion ("MIC") may have contributed. (Zee Direct at 21, ll. 14 – 40).

- 24. Concurring with Richard B. Kuprewicz, Dr. Zee agrees that there are certain anomalies or imperfections in pipelines, including corrosion threats, that ILI assessments cannot reliably determine." (Zee Direct at 26, 1l. 29 31).
- 25. 215 pipeline inspection and repair-maintenance records were supplied in the Bates range SPLP00008166 to SPLP0030663 ("Dig Reports"). The Dig Reports show that in many cases a coating was absent from the pipe and, where a coating was present, it was a coal tar epoxy coating. Aging, degraded and disbonded coal tar epoxy coatings are known to be cathodic protection shielding, and so cathodic protection may not be effective along such a coated pipeline section. (Zee Direct at 26, 1. 42 to 27, 1. 7).
- 26. Sunoco's Integrity Management ("IM") manual (SPLP00032079) states specifically that "The goal is to have pipe-to-soil ON potential of greater than -0.85V". (Emphasis added). (Zee Direct at 30, ll. 43 44)
- 27. Observed potential readings, however, indicate that the pipeline section is not receiving adequate cathodic protection and the locations are highlighted in Exhibit 10. From the low potential reads it is evident that the goal mentioned in IM is not achieved. This means the pipe can be at high risk for corrosion. (Zee Direct at 30, 1. 44 to 31 at 1. 3).
- 28. Dr. Zee described in great detail the proper scope of pipeline evaluation and assessment relative to the Mariner East 8-inch ME1 and 12-inch bypass pipelines. (Zee Direct at 31, 1. 18 38 at 1. 6).
- 29. Sunoco's actual IM practices have not followed good engineering standards or its own IM plan. For example, even though the Plan specifies the undertaking and completion of root cause analyses ("RCAs") for any and all pipeline failures, we have not seen satisfactory

documented evidence for these analyses. The close interval surveys ("CISs") that Sunoco recently furnished do not meet the IM plan standards. We also have documented instances of failure to maintain the pipe-to-soil ON potential of greater than -850 mV, again falling below Sunoco's own written standards. (Zee Direct at 39, 1. 37 to 40 at 1. 2).

- 30. Zee's review of over two thousand Sunoco technical documents shows a pipeline integrity system that lacks a centralized source sufficient to document corrosion incidents, factual corrosion data, corrosion risk assessments/aspects of the aging pipeline and corrosion mitigation. (Zee Direct at 41, 11. 10 13).
- 31. Based on the PUC formal complaint dated December 13th 2018 (Appendix C) and the fact that (a) the 8-inch line and the 12-inch line date back to the 1930s, (b) the records supplied reflect coatings that shield (interfere with) cathodic protection and corrosive soils and (c) past incidents/accidents, it is more likely than not that accelerated corrosion is taking place that will cause serious damage to people and property in high consequence areas. (Zee Direct at 41, ll. 19 24).
- 32. A remaining life study can only be performed by acquiring solid data regarding corrosion risks and corrosion performance parameters of the pipeline under review. These data should include internal and external corrosion data, AC/DC interference, evaluation of CP performance, evaluation of coating type and adhesion condition, soil corrosivity mapping and DA condition assessment particularly in areas that the protective coating is degrading and shield cathodic protection or corrosion protection is not adequate. (Zee Direct at 41, 11.26 32).
- 33. In closing, for an expert to be able to form an opinion as to the present, likely condition of the 12-inch and 8-inch lines, a good deal more information would be required than has been supplied to Matergenics to date. The information needed has been set out in detail

above in Part III. The materials furnished, however, raise serious questions as to the condition of these aging pipelines as well as the fitness of Sunoco to operate them. (Zee Direct at 41, 1. 44 to 42 at 1. 4).

- 34. To a reasonable professional certainty Dr. Zee's opinion:
 - (1) Based upon the materials we have been permitted to review, Sunoco may be operating an inadequate integrity management program for the 8-inch pipeline and the 12-inch pipeline considering the leak incidents, age of pipeline and coatings that, if disbonded, shield cathodic protection.
 - (2) Based upon the materials we have been permitted to review, important information relative to corrosion data, corrosion risk and corrosion mitigation is lacking.
 - (3) Sunoco's operation of the 8-inch pipeline and the 12-inch pipeline should be reviewed for corrosion risk both externally and internally;
 - (4) Sunoco's operation of the subject 8-inch pipeline and the 12-inch pipeline should be reviewed for safety considerations from a corrosion risk point of view; and
 - (5) The question of whether or not Sunoco should be permitted to continue operating these pipelines cannot properly be decided without a thorough investigation by an independent expert. (Zee Direct at 42, ll. 6−27).

Dr. Zee's Surrebuttal Testimony

- 35. Definitive statements made by Dr. Zee in Surrebuttal Testimony are set forth in $\P\P$ 36 51 below:
- 36. It is not Zee's contention that the information gleaned from the Morgantown investigation is sufficient to draw the conclusion that there is a system-wide failure of integrity

management. What he is saying is that data provided by BI&E and by DNV and by Sunoco itself suggest that there may be a system-wide failure and that steps need to be taken to investigate further. (Zee Surrebuttal at 14, 1. 37 to 35 at 1. 3).

- 37. Sunoco Rebuttal Exhibits JF-3 and JF-5 were not provided to Complainants until submission of the Field and Garrity testimony on June 15, 2020; obviously, Dr. Zee did not have it available when he submitted his testimony six months earlier.
- 38. Exhibit JF-3 was a set of SOPs and an engineering standard formulated specifically in response to the failures found in the Morgantown investigation. (Field Rebuttal at 5). Exhibit JF-4 likewise related to the Morgantown investigation.
- 39. Exhibit JF-5, not previously produced, was the report on the metallurgical analysis for the Morgantown incident ("DNV Analysis"). This exhibit is 71 pages long and includes photos of the 8-foot segment removed from the pipeline as well as an explanation of how the leak site was contaminated by Sunoco field techs.
- 40. These exhibits were referred to in Field's and Garrity's testimony. Mr. Garrity explicitly stated that he reviewed and relied upon the DNV Metallurgical Analysis. (Garrity Rebuttal at 5). Several pages of Garrity's testimony relate to Morgantown and Conclusion No. 4 addresses Morgantown directly.
- 41. BI&E asserted in its complaint against Sunoco that the Close Interval Surveys ("CISs") performed on ME1 prior to April 1, 2017 did not align with footages and test station points. If that were true, Sunoco could not be sure that its assessment of ME1 cathodic protection was accurate and reliable. (Zee Surrebuttal at 16, II. 17 22)
- 42. Based on the data summarized from the 216 Inspection and Repair Maintenance Record reports in the two tables on page 11 of the Zee report, Zee suggests that the 12-inch

pipeline is probably in worse condition than the 8-inch pipeline. But this is speculation and one must rely on facts. One could really only tell if there were a proper investigation, as Zee has recommended. (Zee Rebuttal at 16, 11.25-31).

- 43. In reference to the DNV Analysis, the major issue here is that corrosion products and bacteria colonies on pitted areas/soil were not analyzed, photographed or considered. This is a serious shortcoming in corrosion risk assessment and quantification of risks for a pipeline that exhibits perforation due to corrosion. (Zee Surebuttal at 20, 11.23-25).
- 45. As regards the missing 75 feet from the Morgantown investigation, Sunoco disposed of it and so the question of whether it also was corroded cannot be answered. (Zee Surrebuttal at 21, 11. 21 26).
- 46. With respect to Ex. Zee-3 (PHMSA Notice), inspections were performed on the ME1 pipeline system at Honeybrook in Chester County during the period from March 19, 2018 to March 23, 2018. Sunoco is alleged by PHMSA to have failed to provide cathodic protection that complies with NACE criteria. PHMSA also says that they did not "find records in sufficient detail to demonstrate the adequacy of its corrosion control measures." PHMSA states "The inline inspection technique, however, may not be capable of detecting all types of external corrosion damage, has limitations in its accuracy, and may report as anomalies items that are not external corrosion." (Zee Surrebuttal at 23, 1. 33 to 24 at 1. 22).
- 46. PHMSA reviewed records for the period 2015 2017. (Zee Surrebuttal at 25, ll. 2 4).
- 47. The Honeybrook inspectors *did not confine their investigation to just one location on the MEI pipeline*. PHMSA identified nine (9) distinct locations at which they took readings. (Zee Surrebuttal at 24, ll. 15 17)

- 48. The PHMSA violation notice states that the -850 mv criterion has not been met and the alternative earth current technique criteria have not been demonstrated either. Specifically, they wrote, "no IR free readings were provided when utilizing the -850 mV SP 0169 criterion...Additionally, Sunoco did not provide a valid explanation for how IR drop was being considered when evaluating the adequacy of the readings that were taken." (Zee Surrebuttal at 24, Il. 27 30 and 25 at Il. 4 7).
- 49. IR free readings are those reads that consider IR (voltage) drop in soil. Their absence introduces extensive errors in the data and corrosion risk assessment. (Zee Surrebuttal at 25, 11.9 11).
- 50. The program of laboratory sample testing he is recommending would cost less than 2,000. (Zee Surrebuttal at 25, 11. 26 33).
- 51. All of his opinions and conclusions stated in his surrebuttal testimony has been given to a reasonable degree of professional and scientific certainty. (Zee Surrebuttal at 27, 1l. 16 20).

IV. ARGUMENT

Introduction

- 1. Count IV of the Complaint concerns pipeline integrity and it asks the Commission to appoint an independent consultant to investigate the condition of the 8-inch and 12-inch pipelines.
- 2. The relief requested is unusual, if not novel, and Sunoco questions the authority of the Commission to grant such relief.
- 3. Because the requested relief is unusual, an important question that needs to be addressed is what quantum of evidence would be sufficient to warrant such relief.

- 4. It appears to be Sunoco's position that, irrespective of the answers to these two fundamental questions, Dr. Zee's testimony is equivocal and, therefore, it must be disregarded.
 - 5. Below, Flynn Complainants address all three questions.

The Commission's Authority

- 6. Complainants' Findings of Fact ("FOFs") in FOFs 1 and 3 identify the statutory and regulatory basis that support their contention that the Commission does have the authority to grant the relief they have requested. The Commission has the authority to enact and enforce higher safety standards than the federal government's standards, notwithstanding Sunoco's claims to the contrary. With plenary authority, the Commission may take all steps reasonably required to ensure public utilities such as Sunoco comply with their obligations under § 59.33.
- 7. In *Mattu v. West Penn Power Co.*, C-2016-2547322 (2018), complainant had vegetation on his property that West Penn periodically removed by mechanical means. West Penn proposed to change that arrangement by using herbicides instead. Mattu claimed that this could permanently damage two private wells that were the only source of water on his property. The Commission found that West Penn's actions were consistent with its management plan and did not violate the Code, a regulation or a Commission order, but that it would be *inequitable* to allow the company to proceed with its plan on Mr. Mattu's property.
- 8. Sunoco's conduct is not only constrained by its obligations under 66 Pa.C.S.A. § 1502 but by 52 Pa. Code § 59.33, which requires public utilities to exercise reasonable care to reduce the hazards to which employees, customers and others may be subjected by reason of its equipment and facilities.

- 9. The appointment of an investigator in this case would not exceed the Commission's plenary authority nor is the fact that it would not fit neatly into existing federal regulations be a bar to the Commission's exercise of authority.
- 10. The investigator appointed by the Commission ultimately will facilitate Sunoco's exercise of reasonable care as mandated by §59.33.

The Evidence in Support of Flynn Complainants' Claims

- 11. As shown more in detail in FOF 5, the bases for relief as alleged in the Complaint are
 (a) a history of leaks with a promise of more to come; (b) erroneous testimony by Mr. Zurcher
 that Sunoco's IM program is proper; (c) the Morgantown leak investigation that disclosed
 numerous violations; (d) the Beaver County explosion; (e) PHMSA records showing 305 Sunoco
 leak incidents from 2006-2018; (f) a low rate of detection of cracks and pipeline corrosion; and
 (g) failure of Sunoco to use every reasonable effort to reduce hazards associated with the HVL
 pipelines.
- 12. Since the filing of the Complaint, discovery has taken place. Dr. Zee's review of tens of thousands of Sunoco documents has disclosed a history of leaks, failures in the company's IM practices, failures to follow federal regulations, failure to follow its own IM plan, and dangerous conditions in the 8-inch and 12-inch pipes.
- 13. For aging pipelines, three types of integrity assessment are needed because these pipes are at risk of corrosion failure due to coating degradation, external corrosion and stress corrosion cracking. (FOFs 10 and 11)
- 14. Tables prepared by Zee based on Sunoco records show historic corrosion in both the 8-inch and 12-inch pipelines, with bare pipe showing the greatest corrosion in one and coal tar wrapped pipe showing the most corrosion in the other. (FOF 12).

- 15. 26. Sunoco's IM manual (SPLP00032079) states specifically that "[t]he goal is to have pipe-to-soil ON potential of greater than -0.85V".(Emphasis added) (FOF 26). Sunoco admitted not meeting the minimum -850mV NACE SP0169 CP criterion but claimed it afforded CP by an alternative means.
- 16. Despite Sunoco's claims, its repair records do not clearly identify the cathodic protection ("CP") criteria that Sunoco used on the ME1 pipeline. (FOF 13).
- 17. The 2018 PHMSA inspections on ME1 in Chester County covered the period 2015-2017 and contained readings taken *at nine (9) distinct locations*. (FOF 47).
- 18. PHMSA found Sunoco (a) failed to provide cathodic protection that complies with NACE criteria; (b) failed to maintain "records in sufficient detail to demonstrate the adequacy of its corrosion control measures;" (c) failed to meet the -850 mv criterion; (d) failed to demonstrate it used the alternative earth current technique criteria; (e) "did not provide a valid explanation for how IR drop was being considered when evaluating the adequacy of the readings that were taken;" and (f) noted that "[t]he in-line inspection technique, however, may not be capable of detecting all types of external corrosion damage, has limitations in its accuracy, and may report as anomalies items that are not external corrosion." These deficiencies introduce extensive errors in the data and corrosion risk assessment. (FOFs 46 49; see also FOF 24).
- 19. Sunoco did not produce its Rebuttal Exhibits JF-3, JF-4 and JF-5 until June 15, 2020 six months after Dr. Zee submitted his direct testimony. JF-3 was a set of SOPs and an engineering standard formulated specifically in response to the failures found in the Morgantown investigation. (FOFs 37 and 38).
 - 20. JF-5 is DNV's 71 page metallurgical analysis for the April 1, 2017 Morgantown

incident. It includes photos of the 8-foot segment removed from the pipeline as well as an explanation of how the leak site was contaminated by Sunoco field techs. (FOF 39).

- 21. These exhibits were referred to in Field's and Garrity's testimony. Mr. Garrity reviewed and relied upon the DNV Metallurgical Analysis. Several pages of Garrity's testimony and one of his conclusions relate to Morgantown directly. (FOF 40).
- 22. The DNV analysis identified external corrosion as the cause of the Morgantown leak.

 The report stated, that MIC may have contributed to the corrosion. (FOF 23).
- 23. CP readings taken in two different years at 1030 feet from the Morgantown leak site showed readings that clearly demonstrated inadequate cathodic protection. (FOF 14). Sunoco's records also failed to provide information regarding stray current surveys even though stray currents are a major concern for accelerated corrosion. (FOF 19).
- 24. BI&E asserted in its complaint against Sunoco that the CISs performed on ME1 prior to April 1, 2017 did not align with footages and test station points. If that were true, Sunoco could not be sure that its assessment of ME1 cathodic protection was accurate and reliable. (FOF 41).
- 25. As regards the missing 75 feet from the Morgantown investigation, Snnoco disposed of it and so the question of whether it also was corroded cannot be answered. (FOF 45).
- 26. The major problem with the DNV metallurgical analysis is that corrosion products and bacteria colonies on pitted areas/soil were not analyzed, photographed or considered. This is a serious shortcoming in corrosion risk assessment and quantification of risks for a pipeline that exhibits perforation due to corrosion. (FOF 43). The Morgantown data provided by BI&E, by DNV and by Sunoco itself suggest that there may be a system-wide failure and that steps need to be taken to investigate further. (FOF 36).

- 27. Additional Sunoco pipeline accidents in Pennsylvania include a Delaware County leak in February, 2002, a pipe failure in Westmoreland County in November, 2008, and another in Delaware Count in April, 2015 due to corrosion, most likely caused by a coating failure. (FOFs 20, 21 and 22).
- 28. Dr. Zee's review of 215 Dig Reports showed many cases of missing coating which reduce the effectiveness of cathodic protection. (FOF 25). The Exhibit 10 Summary highlights locations along the pipelines not receiving adequate cathodic protection, making the pipe a high risk for corrosion. (FOF 27).
- 29. Dr. Zee described in great detail the proper scope of pipeline evaluation and assessment relative to the Mariner East 8-inch ME1 and 12-inch bypass pipelines. (FOF 28).
- 30. He stated definitively that Sunoco's actual IM practices have not followed good engineering standards or its own IM plan. For example, even though the Plan specifies the undertaking and completion of root cause analyses (RCAs) for any and all pipeline failures, satisfactory documented evidence for these analyses is not to be found. The close interval surveys that Sunoco recently furnished do not meet the IM plan standards. There also are documented instances of failure to maintain the pipe-to-soil ON potential of greater than -850 mV, again falling below Sunoco's own written standards. (FOF 28).
- 31. Review of over two thousand Sunoco technical documents shows a pipeline integrity system that lacks a centralized source sufficient to document corrosion incidents, factual corrosion data, corrosion risk assessments/aspects of the aging pipeline and corrosion mitigation. (FOF 30).
- 32. Based on (a) the PUC formal complaint dated December 13th 2018 (Appendix C), (b) the records supplied by Sunoco, (c) the fact that the 8-inch line and the 12-inch line date back to

- the 1930s, (d) findings of coatings that shield (interfere with) cathodic protection and corrosive soils and (d) past incidents/accidents, it is more likely than not that accelerated corrosion is taking place that will cause serious damage to people and property in high consequence areas. (FOF 31).
- 33. Data summarized from the 215 Inspection and Repair Maintenance Record reports suggest that the 12-inch pipeline is probably in worse condition than the 8-inch pipeline. One could really only tell if there were a proper investigation, as recommended. (FOF 42).
- 34. A remaining life study can only be performed by acquiring solid data regarding corrosion risks and corrosion performance parameters of the pipeline under review. These data should include internal and external corrosion data, AC/DC interference, evaluation of CP performance, evaluation of coating type and adhesion condition, soil corrosivity mapping and DA condition assessment particularly in areas that the protective coating is degrading and shield cathodic protection or corrosion protection is not adequate. (FOF 32).

Dr. Zee's Testimony is Sufficiently Definitive.

- 35. For an expert to be able to form an opinion as to the present, likely condition of the 12-inch and 8-inch lines, a good deal more information would be required than has been supplied to Matergenics to date. The materials furnished, however, raise serious questions as to the condition of these aging pipelines as well as the fitness of Sunoco to operate them. (FOF 33).
- 36. Dr. Zee in his direct testimony was asked if he would be able to testify to a reasonable professional certainty as to certain questions and he answered in the affirmative. At the end he was asked if he had an opinion to a reasonable professional certainty. He then stated five opinions. (FOF 7).
 - 37. To a reasonable professional certainty Dr. Zee's opinion:

- (1) Based upon the materials we have been permitted to review, Sunoco may be operating an inadequate integrity management program for the 8-inch pipeline and the 12-inch pipeline considering the leak incidents, age of pipeline and coatings that, if disbonded, shield cathodic protection.
- (2) Based upon the materials we have been permitted to review, important information relative to corrosion data, corrosion risk and corrosion mitigation is lacking.
- (3) Sunoco's operation of the 8-inch pipeline and the 12-inch pipeline should be reviewed for corrosion risk both externally and internally;
- (4) Sunoco's operation of the subject 8-inch pipeline and the 12-inch pipeline should be reviewed for safety considerations from a corrosion risk point of view; and
- (5) The question of whether or not Sunoco should be permitted to continue operating these pipelines cannot properly be decided without a thorough investigation by an independent expert. (FOF 34).

Complainants' evidence is more than enough to justify an investigation.

- 38. The evidence adduced by Dr. Zee in his testimony is more extensive and more damning than the evidence compiled in BI&E's December, 2018 Complaint against Sunoco.
- 39. The fact that an expert points out that some evidence he has reviewed is unclear or equivocal does not make his testimony equivocal. While this may seem obvious, Sunoco's motion clearly conflates the two notions.
- 40. In light of all of the new Morgantown documents and Morgantown testimony, not to allow Zee's surrebuttal testimony on the Morgantown incident would be a wholesale denial of due process and a travesty.

- 41. The PUC has authority to grant the relief requested by Flynn Complainants.
- 42. The fact that some of Dr. Zee's statements in his testimony do not rise to the level of definitive testimony does not mean that *overall* his testimony is equivocal. Sunoco's cases regarding this issue are singularly inapposite.²
- 43. Sunoco quotes from *Vertis Group, Inc. v. Duquesne Light Co.*, 2003 WL 1605744, Docket no. C-00003642 (subseq. history omitted) in support of the claim that expert testimony may not be equivocal. (SJM II at 3). What Sunoco left out, however, is the preceding sentence: "Rather, expert testimony must be viewed in its entirety to assess whether it expresses the requisite degree of certainty."
- 44. The case that *Vertis Group* relies upon is *McCann v. Amy Joy Donut Shops*, 472 A. 2 1149 (Pa. Super. 1984). In the case, plaintiff's expert never used the term to a reasonable certainty and the strongest view he held was that something was "apparent" and it "could have been." The instant case is not even remotely like *McCann*. Zee's testimony is not equivocal.
- 43. ¶¶ 1-39 above make clear that Zee's testimony overall is definitive and that it support his conclusions.
- 44. Dr. Zee was asked whether an investigation was warranted. His definitive answer is in the affirmative. His opinions, therefore, do not go beyond that answer.
- 45. Both the quantity and the quality of the evidence discussed in Dr. Zee's direct and surrebuttal testimony warrant the investigation requested in the Flynn Complaint.

² Sunoco's cases do not even barely support the propositions asserted. For example, *Norfolk and West Ry. Co. v. Pa. Pub. Util. Comm'n*, 413 A. 2d (Pa. 1980) uses the term "substantial evidence" relative to an appeal but nowhere does it explain what the term means and it most decidedly does not say or imply that [s]ubstantial evidence requires more than a trace of evidence or a suspicion of the existence of a fact sought to be established." (MSJ II at 2). *Erie Resistor Co. v. Unempl. Comp. Bd. of Review*, 166 A 2d 96 (Pa. 1960) does say what Sunoco claims but, as with *Norfolk and Western Ry.*, *supra*, the case simply articulate the standard of review on appeal from an agency decision. Neither case touches upon whether an expert's report or testimony is sufficient to warrant a verdict or a finding in favor of a complainant in a PUC case.

V. CONCLUSION

WHEREFORE, Flynn Complainants request Your Honor deny Sunoco's motion.

Respectfully submitted,

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Dated: August 13, 2020

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the within Response to Summary Judgment Motion upon the persons listed below as per the requirements of \S 1.54 (relating to service by a party).

See attached service list.

/s/ Michael S. Bomstein
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Dated: August 13, 2020

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