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4 **BEFORE THE**
5 **PENNSYLVANIA PUBLIC UTILITY COMMISSION**
6

7 MEGHAN FLYNN :
8 ROSEMARY FULLER :
9 MICHAEL WALSH :
10 NANCY HARKINS :
11 GERALD MCMULLEN : DOCKET NOS. C-2018-3006116
12 CAROLINE HUGHES and : P-2018-3006117
13 MELISSA HAINES, :
14 Complainants :
15 v. :
16 :
17 SUNOCO PIPELINE L.P., :
18 Respondent :
19

20 **SURREBUTTAL TESTIMONY OF**
21 **TIMOTHY BOYCE**
22 **ON BEHALF OF**
23 **FLYNN COMPLAINANT**
24

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26 Michael S. Bomstein, Esq.
27 Pinnola & Bomstein
28 PA ID No. 21328
29 Email: mbomstein@gmail.com
30 Suite 2126 Land Title Building
31 100 South Broad Street
32 Philadelphia, PA 19110
33 Tel.: (215) 592-8383
34

35 Attorney for Complainants
36
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1
2 **Q. Have you had an opportunity to review the June 15, 2020 written Rebuttal**
3 **Testimony of Gregory Noll and John Zurcher on behalf of their client Sunoco Pipeline**
4 **L.P.?**

5
6 A. Yes, I have.
7

8 **Q. Are you providing your comments regarding that testimony in your professional**
9 **capacity as the Director of Delaware County's Emergency Services Department?**

10
11 A. Yes, I am.
12

13 **Q. Have you received any compensation from anyone other than Delaware County for**
14 **your work in connection with this proceeding?**

15
16 A. No, not at all.
17

18 **Q. So, let's talk about Gregory Noll's testimony. Let's start with his curriculum vitae.**
19 **Do you have any comment on that?**

20
21 A. No.
22

23 **Q. You've read what Mr. Noll has to say about the Mariner Emergency Responder**
24 **Program (MERO). Are you generally familiar with that program?**

25
26 A. Yes, I am.
27

28 **Q. Did you read Mr. Noll's description of that program?**

29
30 A. Yes, I did.
31

32 **Q. Mr. Noll says that the program was "directly targeted towards emergency**
33 **responders and planners along the pipeline right-of-way." (Noll at 6, lines 21-23). Do you**
34 **agree with that characterization?**

35
36 A. Yes, MERO is not a program aimed at the general public. It's clearly not a "public
37 awareness" event or part of a public awareness plan. The information it contains is not provided
38 to the public.
39

40 **Q. Mr. Boyce, you have been a first responder and now you have responsibilities for an**
41 **entire county. Do you see where Mr. Noll says the risk-based approach is discussed in the**
42 **MERO training and "specifically identified on slides 16-17"? (Noll at 11, lines 6-8).**

43
44 A. Yes, I read that.
45

46 **Q. Did you look at slides 16-17?**

1
2 A. Yes, I did.

3
4 **Q. Did you find that those slides actually provide instruction about specific actions**
5 **emergency responders should take?**

6
7 A. No, they do not. They frame questions, such as “Location of pipelines in response
8 area[?]”but do not describe how to answer these questions or what to do with the information if
9 obtained. (Noll Exhibit GN-2, slides 16-17). It’s possible they discuss these things during the
10 training but it’s not in the materials.

11
12 **Q. Mr. Boyce, as a former first responder and now the Director of Delaware County**
13 **Emergency Services, you already testified you are familiar with one of the most hazardous**
14 **characteristics of highly volatile liquids, that if a breach occurs in a line segment for any**
15 **reason, all of the material within the failed segment should be expected to be released even**
16 **with block valves closed.**

17
18 A. That’s correct.

19
20 **Q. In your review of the MERO training presentation, did you see any mention of that**
21 **at all?**

22
23 A. No, I did not.

24
25 **Q. Isn’t that something you would want first responders to know?**

26
27 A. Yes, it’s critically important.

28
29 **Q. In your review of the MERO training presentation, did you see any reference to the**
30 **radius to which hazardous or deadly effects may be expected in the event of a maximum**
31 **accident?**

32
33 A. No, I did not.

34
35 **Q. Isn’t that something you would want first responders to know?**

36
37 A. Yes, that’s important, too.

38
39 **Q. I will represent to you that in Slide 83 of the MERO materials (Noll Exhibit GN-2),**
40 **it says that in a densely populated area first responders must “Remove all ignition sources**
41 **from the area.” Would you say that is realistic?**

42
43 A. No, I’d say it is impossible. And ignition of a combustible vapor cloud requires only once
44 ignition source.

45
46 **Q. Do you know what a “perimeter wall” is relative to an unignited vapor cloud?**

1
2 A. Yes, I do.

3
4 **Q. In the event of an HVL leak or rupture event, would it be important for first**
5 **responders to know how to set up a perimeter wall?**

6
7 A. Yes, it's essential. The term "perimeter wall" does not appear in Noll's testimony or
8 exhibits.

9
10 **Q. I will represent to you that it is not in the MERO training materials; does that**
11 **concern you?**

12
13 A. Yes, it does.

14
15 **Q. Do you know what Noll means by an "initial isolation perimeter?" (Noll at 20).**

16
17 A. He is discussing a perimeter that emergency responders would attempt to set up outside
18 the lower flammable limit of an unignited combustible vapor cloud. Emergency responders
19 would attempt to keep anyone from crossing inside this perimeter and would not enter it
20 themselves, if they could detect it. Persons inside the perimeter would need to exit it under their
21 own power, if able, ahead of any ignition event. If emergency responders enter such a perimeter,
22 inadvertently or otherwise, they risk igniting the vapor cloud with their own equipment. Setting
23 up such a perimeter in the case of a cloud of HVL vapor is a difficult proposition because the
24 cloud will tend to move in downwind and downhill directions.

25
26 **Q. You talked in your initial direct testimony about the length of time that would be**
27 **involved between a pipeline accident and when emergency responders arrive on the scene.**
28 **You specifically went into what would happen to civilians during that period. Did you see**
29 **or hear anything in Mr. Noll's testimony or the MERO materials that discusses that time**
30 **gap?**

31
32 A. No, I did not and it seems to me that's something all first responders would need to know
33 about. More particularly, it's something that the public needs to know about because Sunoco's
34 public awareness program suggests that they must initiate immediate on-foot self-evacuation.
35 This is simply not a plausible suggestion for many Delaware County residents, especially those
36 who are very old or very young, particularly at night or during inclement weather. I am
37 concerned that an ignition event would occur well before such a perimeter could be established.
38 5 or 10 minutes is a long time in that situation. Further, the only means of detecting an invisible
39 HVL vapor cloud is with a combustible vapor detector. Many emergency responders are not
40 equipped with these, nor are members of the public.

41
42 **Q. In your initial direct testimony you talked at length about your understanding of**
43 **Sunoco's public awareness program and specifically about the pipeline awareness**
44 **brochure/flyer that Sunoco distributes to the public. Did you see anything in Mr. Noll's**
45 **testimony about that?**
46

1 A. Mr. Noll does not address the brochure or the statements made by Sunoco in the
2 brochure.

3
4 **Q. Are you familiar with the large leak of hazardous liquids that occurred in**
5 **November 2019 at Sunoco's valve site in Middletown Township, Delaware County, near the**
6 **Tunbridge Apartments?**

7
8 A. Yes, I am.

9
10 **Q. Did any of the local residents call to report the strong odor of flammable vapor?**

11
12 A. Yes, they did.

13
14 **Q. Well, did you ever find out if anyone in that incident ever implemented the guidance**
15 **in Sunoco's flyer to "leave the area immediately on foot" if they "suspect a leak"?**

16
17 A. As far as I know, no one left the area on foot. I would be surprised if they did.

18
19 **Q. Why would you be surprised?**

20
21 A. I don't believe that most members of the general public view on-foot self-evacuation in the
22 correct direction as a plausible instruction. Part of the problem may be that Sunoco's public
23 awareness program does not explain the extreme hazard associated with a combustible vapor
24 cloud, nor the distance to which hazardous or fatal consequences may be experienced suddenly
25 in the event of ignition.

26
27 **Q. Mr. Noll was asked about what a "safe distance" is. (Noll at , lines 6-13). He is**
28 **nonspecific but states "the farther away from the problem, the less the potential harm." Do**
29 **you agree?"**

30
31 A. Yes, it would be hard to disagree with that.

32
33 **Q. In reading Mr. Noll's testimony, did you see anything he said that suggested that the**
34 **public would be able to determine "safe distance" with respect to an unignited heavier-**
35 **than-air combustible vapor cloud?**

36 A. No, he said nothing like that. It's actually kind of the opposite of what he says. He places
37 that responsibility in the hands of trained professionals and I agree with him on that. The
38 problem is that he and his client Sunoco seem to want the public to self-evacuate until reaching a
39 "safe distance" which they do not have the ability to determine. Also, reaching such a distance
40 ahead of an ignition event is likely to be impossible for many dense, vulnerable, immobile
41 Delaware County populations. Delaware County Council expressly recognized this in their
42 Resolution in Support of Public Safety, adopted June 12, 2019. (County Resolution 2019-06).

43
44 **Q. Mr. Noll states that depending on circumstances sheltering in place may be an**
45 **option. (Noll at 20, lines 9-16). But the public awareness flyer says to leave the area on foot**
46 **immediately. So, who's right: Sunoco's witness or Sunoco's public awareness flyer?**

1
2 A. Mr. Noll's statement about "sheltering in place" refers to the MERO program, which
3 again is not made available to the public. My answer should not be surprising. The decision to
4 leave or stay should be left in the hands of the professionals. At the same time, the public is
5 unlikely to receive any information from emergency responders for at least ten minutes if not
6 longer. The public may therefore be forced to make decisions that everyone agrees they are
7 incapable of making. At the same time, Sunoco's one-size-fits-all public awareness program
8 flyer directs people in all cases to "leave the area on foot immediately." I explained my concerns
9 about that at length in my previous testimony.

10
11 **Q. Noll at page 22 says that members of the public can be expected to determine wind**
12 **direction. Do you agree?**

13
14 A. I don't know what data he is relying on when he says that. I have not seen any research
15 supporting his assertion. All I can say is that based on my own experience he's wrong. I don't
16 believe most people have the faintest idea which way the wind is blowing. And in an emergency
17 involving an unignited heavier-than-air combustible vapor cloud, they are unlikely to realize its
18 importance.

19
20 **Q. Let's talk about the rebuttal testimony of John Zurcher. On page 13 of his**
21 **testimony, Zurcher states: "The first thing one should do is leave the area on foot and warn**
22 **others to stay away." Do you have anything to say about?**

23 A. I do not believe that is realistic. This certainly is not a plausible plan for school children,
24 elderly people, those with physical or cognitive disabilities—or really for anyone. I discussed this in
25 my previous testimony and I stand on that testimony.

26
27 **Q: Is this a plausible plan for HVL accidents that occur at night or during inclement**
28 **weather?**

29
30 A. No, of course not and I stand on my previous direct testimony.

31 **Q. He says, "Second, you should abandon and turn off all equipment so as not to create**
32 **a spark and do not use an open flame that may ignite the released material." (Zurcher at**
33 **13). Do you have anything to say about?**

34 A. I agree that any spark could ignite released material. So could turning on or off a light
35 switch, operating a garage door opener (for example, in attempt to "leave the area immediately
36 on foot) or even operating a phone or cell phone. I've also said I do not believe that it is realistic
37 to think there will be no ignition source in densely-populated Delaware County. I stand on my
38 previous direct testimony.

39 **Q. He says, "Finally, you should call 911 when you are at a safe distance, which has to**
40 **be determined by the individual on a case-by-case basis." (Zurcher at 13). Do you have**
41 **anything to say about?**

1 A. This is pretty much the opposite of what Gregory Noll testified. I've already said I do not
2 believe that is realistic to think that members of the public can be expected to figure out what a
3 safe distance is. How would they know, e.g., what a "safe distance" is from an invisible cloud? I
4 stand on my previous direct testimony.

5 **Q. Mr. Boyce, has anything you read in the testimony of Mr. Noll or John Zurcher or**
6 **their exhibits that would cause you to change your initial, direct testimony?**

7 A. No, nothing at all. I stand on that testimony.

8 **Q. Have your opinions and conclusions as stated in your surrebuttal testimony been**
9 **given to a reasonable degree of professional and scientific certainty?**

10
11 A. Yes, they have. In the event that Sunoco or aligned intervenors provide additional
12 testimony or documents, however, I reserve the right to modify my opinion or furnish additional
13 evidence.