

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

MEGHAN FLYNN,	:	
ROSEMARY FULLER,	:	
MICHAEL WALSH,	:	
NANCY HARKINS,	:	
GERALD MCMULLEN,	:	
CAROLINE HUGHES, and	:	
MELISSA HAINES	:	
	Petitioners	:
		Docket Nos. P-2018-3006117
v.		C-2018-3006116
		:
SUNOCO PIPELINE L.P.,	:	
	Respondent	:

PETITIONERS' PROPOSED FINDINGS OF FACT

Petitioners hereinbelow submit to the Administrative Law Judge their proposed Findings of Fact.

(1) Summary of Public Awareness Plan

1. Petitioners' Exhibit 2 is a color brochure prepared by Sunoco as part of its Public Awareness Plan (N.T. 21; N.T. 60).

2. All of the Petitioners either received a copy of the brochure or a copy of a similar brochure, or if they did not receive it, they were aware of its contents. (N.T. 21; N.T. 189-190; N.T. 207).

3. The material provisions of the brochure at issue in this case are on the second page and are set out under three headings: (1) How would you recognize a leak? (2) What to do in the event a leak were to occur, and (3) What *not* to do in the event a leak were to occur.

4. While the brochure clearly is referring to petroleum product pipelines, nowhere does it distinguish between natural gas (methane) and hazardous highly volatile liquids (HVLs) such as

propane, butane and ethane.

5. The brochure speaks of sight, sound, and smell as means to recognize a leak. As regards sight, it identifies indicators “around a pipeline area” that might be indicia of a leak. As regards sound, the brochure states that volume can range from a quiet hissing to a loud roar. As regards smell, it states that *sometimes* there will be an unusual smell, petroleum odor or gaseous odor. In contrast, Sunoco’s MERO training manual, Ex. SPLP 7, describes Ethane, Propane and Butane as “[c]olorless, tasteless and odorless.”

6. HVL lines are not odorized. (N.T. 387). Their only scent is a petroleum odor (N.T. 387) that may be noticed very close to a leak or puncture but will otherwise not be discernible. (N.T. 23; N.T. 85). Nothing will be visible except possibly at the site of leak or rupture, and possibly a vapor cloud. (N.T. 264; N.T. 274). When there is a vapor cloud, the visible part is the condensation but, as explained by Mr. Noll, the visual cues do not represent the entire problem. There may be vapors that may not be seen. (N.T. 510-511).

7. The brochure sensibly admonishes the public not to light a match if a leak occurs. (Ex. P - 2). Duffer’s Tavern has a smoking area for its customers that is adjacent to an HVL pipeline valve. (N.T. 211-212).

8. If a leak or puncture were to occur at the Duffer’s valve site there is every reason to believe that it would not be noticed by patrons who were smoking. This would have been perfectly obvious to Sunoco pipeline planners.

9. The brochure advises to turn off equipment to eliminate ignition sources and not to drive into a leak or rupture cloud while leaving the area. (Ex. P-2). It fails to address what happens if you are driving a car or if you a child in a school bus on Route 352 immediately next to a leaky or ruptured pipeline. The Lively, Texas accident showed that can happen. (N.T. 265-

266). This possibility also would have been perfectly obvious to Sunoco pipeline planners.

10. “Leave the area by foot immediately” is another of the brochure’s warnings (Ex. P-2). This warning is problematic in several respects. There is, of course, no quarrel with the general proposition that if one is aware of danger one should try to get as far away as possible as quickly as possible.

11. The first concern is whether or not a leak or puncture is always noticeable. Unlike the “tree in the forest” conundrum, if a pipeline leaks in a forest and no one notices, it is still leaking. Witnesses identified several circumstances under which an HVL leak or rupture would not be noticed, including families sleeping at home in the middle of the night in Westtown (N.T. 23-24); young children playing near a pipe on a school ground in Downingtown (N.T. 104); kids playing baseball just above a pipe in East Goshen (N.T. 184); and patrons in a restaurant next to a valve site. (N.T. 211-212). Mr. Zurcher acknowledged there could be ordinary circumstances in which people would simply not notice a leak or rupture (N.T. 386). Moreover, the very notion that in such circumstances people would see or be expected to see bubbles on the ground or an oil sheen or discolored vegetation is beyond credulity.

12. The second concern is whether the public even has the ability to proceed on foot. Nancy Harkins’s neighbor in an electric wheelchair plainly does not. Some of Caroline Hughes’ patients clearly do not. Entire groups of children described by Mr. Hubbard do not. Senior citizens at the Wellington senior living center may not. Persons who are homebound may not. Sunoco’s witness Mr. Zurcher recognized this. (N.T. 392-393; N.T. 444).

13. The brochure says, “From a safe location, call 911...” How to know what location will be “safe” is not explained. Mr. Zurcher refused to explain even what “safe” means (N.T. 413-415) or what exactly a “safe location” is, other than one has to determine that oneself. (N.T.

391). If Mr. Zurcher cannot say what a safe location is, an ordinary citizen reading the brochure also would not know.

14. Sunoco's witnesses seem to contend that it is really emergency responders who decide what a safe location is. If that is the case, it necessarily follows that civilians are not so equipped. Yet, it could be 20 minutes until responders arrive on a scene. (N.T. 97). Mr. Noll explained that it is first responders who have the ability to establish hot zones, warm zones and cool zones.

15. Sunoco's contention means that in the time period until responders arrive and establish a hot zone, civilians will not really know how far away from the leak site is safe. Hence, they will not want to call 911 and probably should not call 911. If they knock on neighbors' doors to alert them, they may lose valuable time and be in danger. Further, if civilians will not know if they are safe until evacuated by first responders, by that time there will be no point in calling 911.

(2) Location of Mariner pipelines relative to homes, businesses and public places

16. Mr. Zurcher allowed that he would not know how anyone could allow an HVL pipeline through a schoolyard. (N.T. 434). Yet, Sunoco has built a pipeline in a shallow trench directly underneath a Little League field (N.T. 184) and directly across from Ms. Hughes' child's school. (N.T. 193).

17. Mr. Zurcher refused to answer if it was a good idea to place a valve station next to a restaurant, such as Duffer's. (N.T. 435-436). He also refused to answer whether he would want HVL lines to go through Harrisburg. (N.T. 445). He does assume that Glenwood Elementary School did not ask for an HVL pipeline to be run nearby. (N.T. 444).

18. HVL explosions have been documented to cause moderate damage as far as 12 miles

away and serious damage to homes two miles away from the site of a rupture. (N.T. 265-266). Fatalities have been documented in a range of 512 – 1112 feet (Ex. P-6). Emergency responders have extended evacuation areas to at least one mile from a rupture site. (Ex. P-6).

19. Mr. Zurcher refused to answer whether an HVL event could happen anywhere and at anytime (N.T. 427-434), although he acknowledged he was familiar with a number of HVL events on Sunoco pipelines. (N.T. 431). He was not aware of 305 Sunoco leaks with \$72 million in property damage that occurred from 2006-2018. (N.T. 432).

20. Accepting Mr. Noll's testimony, (a) The farther away from the problem, the lower the probability of harm (N.T. 500); (b) Where a safe area is varies from event to event (N.T. 501); and (c) What area is safe is determined by emergency responders. (N.T. 483 and 501-502).

21. The following persons and places are within 1112 feet of HVL lines from which a puncture or rupture could cause an explosion leading to death:

- (a) Nancy Harkins's home (N.T. 21);
- (b) the home of Nancy Harkins's neighbor (N.T. 42);
- (c) Nancy Harkins as she drives up and down Route 352 (N.T. 21);
- (d) Caroline Hughes's workplace (N.T. 174);
- (e) Caroline Hughes's son's school (N.T. 193);
- (f) Caroline Hughes's son's baseball field (N.T. 184);
- (g) Mike Walsh's house in Andover (N.T. 206);
- (h) Duffer's Tavern (N.T. 207);
- (i) six schools in the Downingtown Area School District (DASD) (N.T. 81);
- (j) one school playing field across from valve station in the DASD (N.T. 81);
- (k) Wellington Senior Living Center (N.T. 279); and

(l) Exton County Library (N.T. 279).

22. In addition, Caroline Hughes's home is within two miles of HVL lines from which a puncture or rupture could cause an explosion leading to significant property destruction. (N.T. 174).

23. Delaware and Chester Counties both are densely populated. (N.T. 187; N.T. 277).

24. Densely populated areas are referred to as "high consequence areas." (N.T. 277; N.T. 379). A population density of 1,000 people per square mile is "high consequence." 49 CFR 195.450.

25. If the Carmichael explosion had occurred in Andover, five times as many people could have perished as did in Carmichael.

26. The Franklin County, Missouri explosion was equivalent to 100,000 pounds of TNT, or equivalent in explosive force to 200 of the 500-pound bombs dropped by American B-17 bombers on Germany during World War II.

<https://www.smithsonianmag.com/history/seventy-years-world-war-two-thousands-tons-unexploded-bombs-germany-180957680/>

27. If the Franklin County, Missouri explosion had occurred next to one of the Downington schools, many lives would have been taken.

28. Petitioners have established that a significant HVL event could happen in Chester or Delaware Counties at any location and at any time.

29. Petitioners have established that, in the event of a leak, puncture or rupture on a Mariner HVL line, there is a significant probability of injury to people and/or property.

Respectfully submitted,

s/ Michael S. Bomstein

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