

COMMONWEALTH OF PENNSYLVANIA

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PUBLIC UTILITY COMMISSION

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 :
Meghan Flynn, Rosemary Fuller, Michael
Walsh, Nancy Harkins, Gerald McMullen,
Caroline Hughes, and Melissa Haines v.
Sunoco Pipeline, L.P.
 Petition for Interim Emergency Relief

: Docket No.
 : C-2018-3006116,
 : (P-2018-3006117)

Further Hearing
 :
 :
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Pages 358 through 613

Hearing Room 2
 Commonwealth Keystone Building
 Harrisburg, Pennsylvania

Friday, November 30, 2018

Met, pursuant to adjournment, at 9:00 a.m.

BEFORE:

ELIZABETH H. BARNES, Administrative Law Judge

APPEARANCES:

MICHAEL BOMSTEIN, Esquire
 Pinnola and Bomstein
 Land Title Building, Suite 2126
 Philadelphia, Pennsylvania 19110
 (For Meghan Flynn, et al.)

RICH RAIDERS, Esquire
 606 North Fifth Street
 Reading, Pennsylvania 19601
 (For Andover Homeowners Association)

THOMAS J. SNISCAK, Esquire
 BRYCE R. BEARD, Esquire
 WHITNEY E. SNYDER, Esquire
 Hawke, McKeon & Sniscak, LLP
 100 North Tenth Street
 Harrisburg, Pennsylvania 17101
 (For Sunoco Pipeline L.P.)

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Commonwealth Reporting Company, Inc.

700 Lisburn Road
 Camp Hill, Pennsylvania 17011

(717) 761-7150

1-800-334-1063

APPEARANCES (Continued):

ROBERT D. FOX, Esquire
NEIL S. WITKES, Esquire
DIANA A. SILVA, Esquire
Manko Gold Katcher Fox
401 City Avenue, Suite 901
Bala Cynwyd, Pennsylvania 19004
(For Sunoco Pipeline, L.P.)

CURTIS STAMBAUGH, Esquire
Sunoco Pipeline L.P.
212 North Third Street, Suite 201
Harrisburg, Pennsylvania 17101
(For Sunoco Pipeline L.P.)

ANTHONY D. KANAGY, Esquire
Post & Schell
17 North Second Street
Harrisburg, Pennsylvania 17102
(For Range Resources Appalachia)

ERIN McDOWELL, Esquire
3000 Town Center Boulevard
Canonsburg, Pennsylvania 17037
(For Range Resources Appalachia)

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P R O C E E D I N G S

ADMINISTRATIVE LAW JUDGE ELIZABETH H. BARNES:

It is 9:00 a.m. on November 30, 2018. This is the time and place for the second day of hearings in the case entitled Flynn, et al. versus Sunoco Pipeline, LP specifically regarding a Petition for Interim Emergency Relief filed at Docket No. P-2018-3006117. Present today -- I'll just allow counsel to introduce themselves again.

MR. FOX: For Sunoco, Rob Fox.

MR. WITKES: Good morning, Your Honor. Neil Witkes.

MS. SILVA: Good morning, Your Honor. Diana Silva.

JUDGE BARNES: There's someone behind you. Whitney Snyder.

MR. WITKES: Yes. With us today but not present in the hearing room right now, Thomas Sniscak, and Whitney Snyder as well.

JUDGE BARNES: Good morning.

Mr. Stambaugh.

MR. STAMBAUGH: Good morning, Your Honor. Curt Stambaugh.

JUDGE BARNES: Mr. Kanagy.

MR. KANAGY: Good morning, Your Honor. Anthony Kanagy on behalf of Range Resources.

1 MS. McDOWELL: Erin McDowell on behalf of
2 Range Resources.

3 JUDGE BARNES: Did you sign the paper? Yes.

4 Mr. Bomstein.

5 MR. BOMSTEIN: Good morning, Your Honor. Mike
6 Bomstein for Petitioners.

7 MR. RAIDERS: Good morning, Your Honor. Rich
8 Raiders for Andover Homeowners Association.

9 JUDGE BARNES: Good morning. That's everyone.

10 We are ready to proceed with the Respondent's
11 case, unless there's something to be discussed before we
12 begin with testimony.

13 MR. FOX: No, and rather than do an opening
14 statement, I'll be very brief to say at the end of the day
15 yesterday we narrowed the issues, and so we're going to be
16 presenting witnesses -- I'll just tell you who the witnesses
17 are. We have Mr. Zurcher, we have Mr. Noll and Mr. Perez,
18 who will be talking about public awareness and other related
19 issues to that, and then we have three witnesses that will
20 be talking about public impact. We have Anthony Gallagher,
21 who is a union representative, we have Rich Billman from
22 Sunoco, who will talk about the impacts, and then I believe
23 Range has a witness that they will be putting on.

24 MR. KANAGY: Yes, Your Honor, we have Alan
25 Engberg, and I would like to know if he can go very early in

1 the afternoon. He has a flight to catch, and so we need to
2 make sure we finalize that.

3 MR. FOX: We'll accommodate that. That's the
4 witnesses that we intend to put on on the remaining issues
5 in the matter.

6 JUDGE BARNES: All right. You may call your
7 first witness.

8 MR. WITKES: Thank you, Your Honor. John
9 Zurcher.

10 JUDGE BARNES: Mr. Zurcher, please stand to my
11 right and raise your right hand.
12 Whereupon,

13 JOHN ZURCHER,
14 having been duly sworn, testified as follows:

15 JUDGE BARNES: Thank you. Please be seated.
16 Please state your name and spell it for the record.

17 THE WITNESS: My name is John Zurcher,
18 Z-U-R-C-H-E-R.

19 JUDGE BARNES: Go ahead, Mr. Fox.

20 MR. WITKES: Your Honor, I will be doing the
21 examination of Mr. Zurcher.

22 DIRECT EXAMINATION

23 BY MR. WITKES:

24 Q. Good morning, Mr. Zurcher.

25 A. Mr. Witkes.

1 Q. Thanks for coming in again today. I want to start
2 off, I had opened up -- we have exhibit binders, and I
3 believe I opened up one of the binders. All the exhibits
4 that I'm going to be using will be in the binder I put in
5 front of you, the smaller of the two. I believe I just
6 opened it up, to get us underway, to Exhibit 17. Can you
7 take a look at that and just identify what it is for Judge
8 Barnes, please?

9 A. Yes, Your Honor, my résumé is attached in Exhibit
10 No. 17. I have a representation of my background and my
11 education and some of my experiences.

12 MR. WITKES: I move for the admission of
13 Exhibit 17.

14 JUDGE BARNES: Any objection?

15 MR. BOMSTEIN: No objection.

16 JUDGE BARNES: Exhibit SPLP 17 is admitted.

17 (Whereupon, the document was marked as SPLP Exhibit No.
18 17 for identification, and was received in evidence.)

19 BY MR. WITKES:

20 Q. Mr. Zurcher, -- and feel free to refer to Exhibit
21 17, which is now in evidence. I know for some of it you
22 may, but much of it you obviously won't -- describe for
23 Judge Barnes just what your relevant educational background
24 is, sir.

25 A. Yes. Your Honor, I have a degree in electrical

1 engineering from the University of Colorado, and then a
2 Master's of Business Administration from the University of
3 Northern Colorado. I also spent four years in the submarine
4 service of the United States Navy in the engineering
5 department on board that submarine.

6 Q. Describe for Judge Barnes your relevant employment
7 experience, please.

8 A. Yes. Your Honor, I was first employed in 1977 in
9 Amarillo, Texas as a field engineer. I worked two years
10 construction and then on maintenance of pipeline systems
11 there. I was moved to Colorado Springs, Colorado, the
12 company headquarters, and worked in telecommunications, and
13 that's where I first started doing pipeline safety
14 compliance work, was for that company in 1980.

15 I was moved to Houston, Texas in 1985, and then
16 subsequently left that company in 1987 for another position
17 with a company called Panhandle Eastern in Kansas City,
18 Missouri. I was there one month to the day and they
19 announced they were moving to Houston, so I ended back in
20 Houston again and worked for Panhandle Eastern for a little
21 over six years.

22 I took another position after that with a company called
23 Tenneco Energy, Tennessee Gas Pipeline, and I worked there
24 for a little over four years where I ran the pipeline
25 department for that company.

1 The company was bought out by another company and I took
2 a position with Columbia Gas Transmission headquartered in
3 Charleston, West Virginia, and worked an awful lot in the
4 Commonwealth here as well as West Virginia and Ohio.

5 After 25 years of that work, I decided to go into the
6 consulting side and I went to work for a subsidiary of AIG.
7 I think you remember them back in the day, AIG. We were
8 there about a year-and-a-half and AIG decided to get into
9 the pipeline business, so our consulting service was a
10 conflict of interest for them and they allowed us to spin
11 off from them at that time.

12 So I have been consulting since 2001 to the energy
13 pipeline business, both gas transmission, liquid
14 transmission, natural gas gathering, liquid gathering and
15 distribution companies for natural gas as well.

16 Q. Can you give Judge Barnes a feel for some of the
17 types of assignments or work that you've done in your
18 consulting business?

19 A. Yes. Your Honor, we're a small boutique company.
20 We specialize in energy product transport, whether it's
21 natural gas or hazardous liquids. We have worked for
22 approximately 140 different companies and we provide
23 consulting services for the whole life cycle of a pipeline,
24 if you will, from design of the pipeline to material
25 selection to construction of the pipelines, ongoing

1 operation and maintenance, pressure testing of pipelines,
2 integrity management of pipelines and so forth and so on, so
3 our client base is rather large.

4 We have worked on several high profile incidents.
5 Companies will bring us in at a board of directors level to
6 do comprehensive reviews of their programs to look for ways
7 to improve. I think you're probably aware of the Carlsbad,
8 New Mexico accident. We were brought in and worked on that,
9 so that is something that we do. Also, boards of directors
10 tend to hire us to come in and give them a check-up
11 periodically. We just finished one for National Grid in New
12 York, we've done one for PECO Energy in the Pittsburgh area
13 and other companies, so we do a tremendous amount of coming
14 into companies, looking at their programs and helping to
15 decide ways to improve on their programs.

16 Q. Do you have any experience in Pennsylvania?

17 A. I'm sorry, sir?

18 Q. Do you have any experience in Pennsylvania?

19 A. In Pennsylvania, yes. It was interesting, I saw
20 the map that was provided as one of the exhibits I believe
21 yesterday, and all the companies on there, I've worked for
22 every one of them except one. I've spent a lot of time
23 here. I've done work for Buckeye Partners, Williams Gas.
24 As I said, I've worked for Columbia and I've worked for
25 Texas Eastern, and I've worked for Tenneco. They all have

1 pipelines here in the state, so all but one of the companies
2 I've done work for.

3 Q. Obviously, because of the nature of the work that
4 you do, a lot of your work is for pipeline companies or
5 brought in as sort of auditors to look at their procedures,
6 but have you done any sort of independent audit kind of
7 work? I know you have, so I just want you to explain that
8 to Judge Barnes.

9 A. Yes. In addition to pipeline companies, I do want
10 to point out we've actually been hired by the Department of
11 Energy before. We did an audit of the strategic petroleum
12 reserve to look at issues that they might have in their
13 operation of that asset. We've been hired by other
14 countries. We wrote the pipeline safety regulations for the
15 country Israel for both their transmission and then a year
16 later for their distribution assets, and we've done the same
17 in India to help them, so we do work internationally
18 sometimes.

19 Q. And I know you did something after 911. Could you
20 explain that to Judge Barnes as well?

21 A. Yes. Your Honor, after that tragic event, the
22 pipeline industry was viewed as a very high value target.
23 The federal government, through the TSA, asked the pipeline
24 companies to develop response plans and prevention plans in
25 the event of terrorism, and I was the primary author of the

1 pipeline industry's response plan to terrorist threats.

2 Q. Again, I know that you had involvement in a rather
3 controversial matter out west where you had an engagement by
4 the court. Can you explain that to Judge Barnes as well?

5 A. Yes. Your Honor, sometimes we have worked directly
6 for the court and we've worked directly for commissions at
7 the state level. The Dakota Access Pipeline, there was a
8 lot of litigation that was going on around that pipeline
9 asset. We were jointly hired by the pipeline company, with
10 approval from the Sioux Nation as well as the Army Corps of
11 Engineers, and we were selected by them and then approved by
12 the court. And I do tell the story, and I hope I'm not out
13 of line here, but it was the first time in my life I've ever
14 had a judge call me directly and say, "If you are not
15 getting the information you need from anybody, or if they
16 are not giving you answers to your questions, I want you to
17 call me directly." That was kind of a -- that was
18 interesting for me.

19 Q. And did you get the information you needed and able
20 to submit your report to the court?

21 A. The Judge told the parties that she had told me
22 that, and we received everything we ever wanted.

23 Q. Can you describe to Judge Barnes some of your
24 experience with the adequacy or in reviewing public
25 awareness plans and what I refer to as really hazard

1 warnings, but that whole public awareness plan process?

2 A. Yes. Your Honor, I was involved and on the
3 original committee that wrote the pipeline industry's
4 standard for public awareness. It was a time in the
5 industry that the regulator and the pipeline companies
6 wanted to get together to improve that process. That
7 happened in the mid 2000s, approximately, but I was on the
8 team that originally wrote that.

9 Since that time, as a person who worked for pipeline
10 companies and actually developed those programs for pipeline
11 companies, I've also consulted and looked at programs for
12 several hundred different companies, looking at their
13 literature and looking at their programs and actually
14 auditing the entire process that these companies have.

15 Q. And have you looked at the kinds of brochures that
16 were discussed yesterday here?

17 A. Yes. I've looked at all the brochures for all the
18 pipeline companies within the state, and I've looked at
19 several hundred brochures of other companies. They are all
20 remarkably similar. The same information is typical across
21 the spectrum of the companies that we're talking about, and
22 that is in part due to the regulations, the pipeline safety
23 regulations that require these programs, but also it's done
24 for the purposes of consistency, the messages are consistent
25 to the audiences from all the pipeline companies. We

1 wanted, as an industry, we wanted to have a rather
2 consistent message so there was no confusion, and that's why
3 we will see a standardized, if you will, standardized
4 approach to the development of the documents as well as
5 standardized languages.

6 Q. I believe you also had I don't know if the right
7 term is an appointment for the Secretary of State or for the
8 State Department. Can you explain that to Judge Barnes as
9 well?

10 A. Yes. Your Honor, there was some discussion
11 yesterday about the pipeline safety information, the
12 database that PHMSA has, and Your Honor has probably had an
13 opportunity to look at that rather complex thing, but I just
14 wanted to relay that that's a benchmark to the international
15 community as well. We have more pipelines in the U.S. than
16 anybody else does, and other countries actually rely on that
17 data.

18 A few years ago, I was appointed by the Secretary of
19 State to represent the United States in an international
20 conference in Oslo, Norway and present statistics and so
21 forth and answer questions by I think it was 50 -- subject
22 to check, but approximately 50 countries were at that
23 conference.

24 Q. Have you been recognized by PHMSA as an independent
25 auditor?

1 A. Yes, I have. First, I'd like to state that I was
2 also appointed by the Secretary of Transportation to serve
3 two terms on the advisory committees for the development of
4 the pipeline safety regulations, but in addition to that, we
5 are not hired -- although we have been hired and done work
6 directly for PHMSA, we are auditors of companies' programs
7 and PHMSA will, from time to time, require a company to
8 perform a series of actions or take certain actions with
9 their programs and plans, and then we are an approved
10 auditor by PHMSA when we perform those audits.

11 Q. Obviously, you're in court testifying today and
12 we'll be proffering you as an expert, as I think you know,
13 but what percentage of the work that you do in your
14 consulting practice is for litigation, what percentage is
15 consulting, actually in the field working on improvements
16 and compliance and that sort of thing?

17 A. With the exception of this year, I spent about 10
18 percent of my time working on litigation matters. This year
19 I think it's probably been closer to 20 percent, but it's
20 been an unusual year for us.

21 Q. And you have been accepted as an expert in
22 litigation matters?

23 A. Yes, I have.

24 Q. Have you ever been rejected as an expert?

25 A. No, I have not.

1 MR. WITKES: Your Honor, I proffer John
2 Zurcher as an expert in the adequacy of public awareness,
3 hazard warnings, and pipeline safety regulation.

4 JUDGE BARNES: Any objection?

5 MR. BOMSTEIN: No objections.

6 JUDGE BARNES: John Zurcher is accepted as an
7 expert in public awareness, hazard warnings, and pipeline
8 safety.

9 You may proceed with your questions.

10 BY MR. WITKES:

11 Q. Mr. Zurcher, there's been discussion in this
12 hearing room about pipelines, and I think in the community
13 there may not be a complete understanding of the different
14 kinds of pipelines that there are, so I would just like you
15 to explain to Judge Barnes what different types of pipelines
16 there are.

17 A. I'll start out in the production field. There are
18 production lines and they take the gas or liquid from the
19 individual wells to kind of a central location where that
20 gas or liquid is then gathered, and then we have gathering
21 lines that move that to processing or to transmission.

22 Transmission is typically large diameter high pressure
23 pipelines that move the product long distances. After it's
24 moved for long distances, on the gas side, the natural gas
25 side, it then enters the distribution realm and that gas is

1 distributed to homeowners and to businesses and power plants
2 and so forth across the country.

3 Q. And the Mariner East pipelines that we've been
4 talking about, what type of pipeline is that?

5 A. The Mariner East pipeline is a transmission
6 pipeline carrying hazardous liquids.

7 Q. Do you have an estimate or a number of miles of
8 transmission pipelines there are in the United States?

9 A. Based on the PHMSA data that I've looked at
10 recently, there are approximately 210,000 miles of hazardous
11 liquid pipelines in the U.S., and those would be
12 transmission pipelines, there are approximately 300,000
13 miles of natural gas transmission pipelines, there's
14 approximately 1.4 million miles of distribution gas
15 pipelines, and then there is some number, probably in the
16 range of five to six hundred thousand miles of gathering and
17 production lines in the United States. The total number
18 approaches something on the order of 2.4 million miles of
19 pipeline in the United States for natural gas and hazardous
20 liquid.

21 Q. When we put up those maps yesterday -- I know
22 you're familiar with them -- that show the transmission
23 lines in Chester and Delaware Counties, if we added to those
24 maps the distribution lines, what would those maps look
25 like?

1 A. You would not be able to see anything but the lines
2 represented on those maps; the pipelines are everywhere.

3 Q. So distribution lines are what take, as I
4 understand the testimony, take the gas into people's homes
5 and businesses; correct?

6 A. That's correct. The gas would come from the
7 transmission line to the local distribution company, they're
8 going to accept that gas, and then they're going to
9 distribute it throughout the community to the homes and
10 businesses in the community.

11 Q. And I know you had occasion, I don't know if you
12 did it again when you've been here the past couple days, but
13 I know when you were in town last, you sort of walked
14 around. Just give the Court some understanding of what you
15 saw in terms of evidence of lines in Harrisburg.

16 A. I believe Your Honor remembers maybe, but when I
17 had an opportunity last time I was here to just walk around
18 the neighborhood a little bit, there are natural gas
19 pipelines everywhere. They're in the streets all around
20 this building. Natural gas comes into this building. Down
21 at the river, there's a 12-inch high pressure natural gas
22 line that runs right down the river on the other side of the
23 path. It's just -- there are pipelines everywhere.

24 Q. What percentage of the United States population
25 lives near a pipeline?

1 A. Approximately 90 percent of the total population in
2 the United States lives near one of the pipelines I've
3 described.

4 Q. There was some talk yesterday about having HVL
5 lines in high concentration areas. What's the number of
6 miles of those types of pipelines that are in high
7 concentration areas?

8 A. Specifically for the highly volatile liquid
9 pipelines, the high consequence area, approximately half of
10 the HVL pipelines are in high consequence areas.

11 Q. Which is how many miles, approximately?

12 A. Approximately thirty-five to forty thousand miles
13 of the total of approximately 80,000 miles are in high
14 consequence areas.

15 Q. And high consequence, I think I used the wrong
16 term, I said high concentration, but high consequence areas,
17 I think that's a term of art. Can you just describe what
18 that means?

19 A. Yes. Within both the -- I'm sorry; we're talking
20 about hazardous liquids. In the hazardous liquid
21 regulations, high consequence areas are defined as high
22 population areas, as provided by U.S. Census information,
23 and in areas that are environmentally sensitive where the
24 release of a product could affect the environment or people.

25 Q. So it's not unexpected to have an HVL transmission

1 line in a high consequence area; true?

2 A. It's very common for them to be in a high
3 consequence area, about half of them.

4 Q. I want to move on to the hazard warnings. If you
5 could turn to Exhibit 18 in the binder. It was referenced
6 yesterday; it's not been offered into evidence, and I think
7 we'll have someone a little later today that will identify
8 it and put it in evidence, but you're familiar with this;
9 correct?

10 A. Yes, I am.

11 Q. And explain to Judge Barnes what this is and what
12 it does.

13 A. Exhibit 18, the first few pages are Energy
14 Transfer. It is a description of their public awareness
15 program. I believe this one is specific to the affected
16 public. They also have similar types of brochures for other
17 audiences. That would include emergency responders, there's
18 public officials, there are excavators, and the companies,
19 including Sunoco, would have pamphlets or brochures
20 available for those different audiences.

21 On all of them that I see, and I'm very proud of the
22 industry for this, but all of them that I see, they also
23 include information about damage prevention, calling 811
24 before you dig to plant a tree at your house or for any type
25 of construction, so they will have that.

1 These also have in here how to identify the location of
2 the pipelines. That identification is often through
3 pipeline markers, it's through the cleared right-of-way that
4 might be going through the woods, or other more or less
5 visible, tangible views of the right-of-way. They also
6 include where to obtain other information about pipelines,
7 and they will refer you to such things as, in the case of
8 this first document, the National Pipeline Mapping System.

9 All companies are required by regulation that if you're
10 a transmission operator, you have to provide the location-
11 specific information of your pipeline to PHMSA annually.
12 PHMSA then publishes that data on the website so that you
13 can see where there are pipelines in your community. It
14 also refers you to the pipeline safety regulations, if you
15 like, talks about special protective measures, what to do
16 about the right-of-way or how to recognize the right-of-way
17 and so forth.

18 These brochures, including the one we're looking at,
19 also tell you about the products that may be in the
20 pipelines, including natural gas, natural gas liquids,
21 petroleum, hydrogen sulfide and so forth, and they'll also
22 give you information about what to do and what not to do in
23 the event of a pipeline release. Again, it's very
24 standardized information, consistent message between all of
25 these that you may look at in this exhibit and others.

1 One other requirement that is there is it has to be in
2 English as well as any other language that a significant
3 portion of the population may speak. You'll see this first
4 one is in both English and Spanish.

5 Q. I know this is mailed to people in the community,
6 and there will be testimony about that later, but is it also
7 available to anyone?

8 A. Yes. Every company that I know of and all the
9 companies in Pennsylvania I'm aware of publish this
10 information on their website. It's usually one of the first
11 tabs; when you go to a company's website, it's usually one
12 of the first tabs on that first page. It will say "public
13 awareness," and if you click on that tab, it will take you
14 to these brochures.

15 Q. And I know you explained this at the Dinniman
16 hearing, but is this Exhibit 18 available on the Sunoco
17 Pipeline Energy Transfer website?

18 A. Yes, it is.

19 Q. If we just look at this a little bit, on the first
20 page I just see it says, "Know, recognize and respond." Can
21 you explain what that is? It seems to be sort of three
22 components or three goals of the packet.

23 A. The pipeline companies will encourage you, first of
24 all, to know the location of the pipeline. Whether it's
25 near your residence, your place of worship, or where your

1 children go to school, knowing the location of the pipeline
2 is very important. The second idea there is to be able to
3 recognize, if there's some type of event such as a leak on
4 the pipeline, to be able to recognize that there is a leak.
5 And then responding, what do I do to get away from the leak
6 or to call emergency response officials, those types of
7 things. So it's those three things: know where the
8 pipeline is, I'm going to give you information on being able
9 to recognize a leak or some other type of pipeline event,
10 and finally, how to respond to that event.

11 Q. You were in the hearing room all day yesterday,
12 correct, sir?

13 A. Yes, I was.

14 Q. And you heard testimony from three of the seven
15 petitioners in this case they all know where the pipeline
16 is. You heard that?

17 A. It's my understanding they do know where the
18 pipeline is.

19 Q. And there's been a lot of publicity in the
20 community about this project, some of it not flattering but
21 nevertheless publicity. Has that helped to serve the
22 purpose for people to know where the pipeline is?

23 A. Yes.

24 Q. Do you have an opinion about whether this brochure
25 and the information available and the way the pipeline is

1 marked satisfies the standard for informing the public about
2 knowing where the pipeline is?

3 A. It is my opinion that this information is
4 sufficient, first of all. Secondly, it is required by the
5 regulations. Companies, in my experience, including the
6 companies I worked for, spend a tremendous amount of time
7 and effort getting this message out not only through
8 mailings but through other outreach programs, and I know
9 some of those will be discussed later today, but it's part
10 and parcel with the community. Pipeline companies are part
11 of the community. We want people to know, I'm saying we as
12 pipeline operators want people to know where the pipelines
13 are, how to recognize a leak, and most importantly, how to
14 respond.

15 Q. Are these pipelines also marked?

16 A. Yes.

17 Q. How are they marked?

18 A. Pipelines are marked. Regulations require and
19 companies administer marking. They will put a marker
20 similar to the one shown on page 3 of that exhibit, and it's
21 going to say "Warning" or "Danger," it's going to say
22 "Pipeline." It will typically say whether it's natural gas
23 or a petroleum product, and then it will give you not only
24 the emergency number for the pipeline company but they'll
25 also put that 811 sticker that you see there. So a lot of

1 times you're trying to warn people before they do excavation
2 near the pipeline to call the 811 number, have the pipeline
3 marked so that it's not accidentally dug up.

4 But before I let you ask the next question, one of the
5 things that I've noticed, too, is the regulations require
6 that these markers -- they actually dictate how large the
7 lettering has to be; it's in that kind of detail. But
8 pipeline companies also put these markers at what is
9 referred to as a "line of sight," so that if I'm standing at
10 one marker and I look that way (indicating), I can see the
11 other marker, and if I look that way (indicating) I can see
12 the other marker. That way it's very clear, it clearly
13 indicates the direction that that pipeline is moving across
14 the country.

15 Q. The next of the three goals as listed on the first
16 page is "recognize." Does this brochure, in your opinion to
17 a reasonable degree of certainty, do an appropriate job of
18 informing the public how to recognize if a release has
19 occurred?

20 A. Excuse me one second, I'm having trouble getting
21 through the Spanish portion.

22 (Pause.)

23 A. It's a couple pages back, three or four pages back.
24 There's a nice little color coded table there shown in
25 various shades of green. On that table it lists the

1 product, natural gas, natural gas liquids, petroleum,
2 hydrogen sulfide, across the top, and across the left side
3 the column is by sight, by sound and by smell.

4 Q. So the one we're focusing on is the natural gas
5 liquid column; correct?

6 A. It would be that second -- yeah, natural gas
7 liquids for an HVL pipeline, yes.

8 Q. We all have that in front of us. Do you have an
9 opinion within a reasonable degree of certainty about
10 whether that does an appropriate job of informing the public
11 about how to recognize whether a breach of the pipeline has
12 occurred?

13 A. In my opinion, it does. You will see it talks in
14 detail about sight, sound and by smell.

15 Q. You heard some testimony from Mr. Walsh, one of the
16 three petitioners, and he had a reaction about smell. I
17 think it got angry. I think he used the terminology -- I
18 think he said it pissed him off. Was that a rational
19 reaction to this or should he have maybe been a little more
20 open-minded and listened to what he's being told?

21 MR. BOMSTEIN: Objection; relevance.

22 MR. WITKES: Well, this is clearly relevant
23 because they're claiming that the information given about
24 how to recognize a release is --

25 JUDGE BARNES: I don't like the question, is

1 it rational. Maybe you could just say from an objective,
2 reasonable man standard, is it --

3 BY MR. WITKES:

4 Q. Objectively, is smell an appropriate way to
5 recognize a possible breach?

6 A. Yes, it is.

7 Q. Explain why that is.

8 A. Thank you. We know that for natural gas
9 distribution pipelines, the gas is -- there's an odor put
10 into that. When the natural gas gets to the point of
11 getting to your community, there's oftentimes not much odor
12 left in that; it's been so processed as it's moved along
13 through the country, there's not much odor left in there.
14 Companies are required by the regulations then to inject an
15 odor. The most common one used is called Mercaptan, and
16 we've all heard it has that rotten egg smell to it. It's a
17 nasty material to deal with, but distribution companies do
18 do that.

19 The main reason distribution companies look to smell is
20 because a leak in a distribution company may be so small you
21 would not hear it or you would not see it, so they have gone
22 more to the smell concept. Smell is a confusing thing, like
23 Mercaptan. Smell will not wake you up at night. People
24 don't realize that, but smell will not wake you up, it's not
25 one of those senses. So if you're sleeping and your house

1 is leaking natural gas, you won't know about it even though
2 that nasty Mercaptan is in there.

3 In addition to that, when we're talking about gas
4 transmission lines, those 300,000 miles of gas transmission
5 lines, those are not odorized, there is no odor injected
6 into those pipelines. However, when you do have a leak from
7 a gas transmission pipeline, you will smell that petroleum
8 product. It's very similar to gasoline or fuel oil or
9 anything else. Likewise, for hazardous liquid pipelines,
10 including HVL pipelines, you will still have that petroleum
11 smell associated with those pipelines.

12 Q. So propane, butane and ethane all have that
13 petroleum smell?

14 A. Yes, they do.

15 Q. So that would be an appropriate way to recognize a
16 release, if you have that petroleum smell like you do if
17 your car's leaking oil in the garage?

18 A. Yes, it would be the same thing, you would be able
19 to smell it.

20 Q. Another way is by sound. Can you explain that and
21 whether it's your opinion that this is objectively an
22 appropriate way to recognize a breach?

23 A. Yes. The transmission lines often run at very high
24 pressures. When there is a release of the product either
25 through a small, as small as a pinhole up to a large breach

1 of a pipeline, there is a tremendous amount of noise. If
2 it's a full rupture, it sounds like an explosion. Even if
3 it's a small leak, like yesterday I believe some of the
4 testimony was a quarter-inch leak, when there's a thousand
5 pounds of pressure in a pipeline and you're leaking through
6 a quarter inch, it's very loud, you're going to hear it.

7 I've got an air compressor in my garage and I pressure
8 it up to 50 pounds to fill my tires, and when I open the
9 valve to bleed that just 50 pounds down and I open the valve
10 to bleed my tank off, it's very loud, my wife usually comes
11 out and hollers at me, but it's very loud, so the higher the
12 pressure, the louder it is when you have a leak.

13 Q. And the third way is by sight, and you can explain
14 that to Judge Barnes.

15 A. Yes. Sight is rather important as well for natural
16 gas or hazardous liquids. We heard yesterday about the
17 hazardous liquids are liquid for HVLs during the
18 transportation, but they become gaseous when they're
19 released to the atmosphere. You're going to see vapor
20 clouds, you're going to see dust blowing, you're going to
21 see perhaps some other debris blowing, but sight becomes one
22 of those indicators of a gas leak or HVL leak.

23 Q. And so if you look at the box in the brochure,
24 there are some other indications by sight that there may be
25 a leak. Can you explain those to Judge Barnes?

1 A. Yes. If you look at the column for natural gas
2 liquids under sight, we talk about dust blowing. If there
3 was a breach that was large enough to blow debris, you may
4 see a hole in the ground. You're typically not close enough
5 to see it, but you may. If it's underwater, you're going to
6 see the bubbling. In swamps and wetland areas and so forth,
7 you will see the bubbling up of the product and you'll be
8 able to tell.

9 Another one is the dead or discolored vegetation. If
10 there's a leak in a natural gas pipeline, we know that the
11 natural gas rises, but it will still kill all of the grass
12 in the immediate area. For an HVL pipeline, because it may
13 tend to stay lower to the ground, it's going to kill more
14 vegetation, and so we look at vegetation.

15 Ice around the leak. If it's a propane leak, when that
16 releases, you heard yesterday about the Joule-Thomson
17 effect. When the propane leaks out of the pipeline, it gets
18 very cold. It will form large pieces of ice and you will
19 see them on the right-of-way sometimes.

20 This one also discusses the vapor cloud or mist that is
21 normally present in a release of an HVL line or methane.

22 Q. Do you have an opinion within a reasonable degree
23 of certainty whether this brochure does an appropriate job
24 of informing the public about how to recognize by sight if a
25 release from a pipeline has occurred?

1 A. It's very typical to other ones and it's supported
2 by the industry through experience.

3 Q. The third goal of the brochure is respond. How
4 does one respond to a pipeline leak? I think it's the next
5 page.

6 A. The next page. Thank you. I'm sorry. The Spanish
7 ones are in between and I keep getting lost. I apologize.

8 Q. What should I do if I suspect a leak; do you see
9 that?

10 A. On the right-hand column, you'll see there, it does
11 list several things to do. What should I do if I suspect a
12 leak? The first one that we heard a lot about yesterday as
13 well is leave the area immediately on foot and warn others
14 to stay away. The idea there is I've got to get away from
15 it. I have a pipeline that's leaking. I want to get away
16 from it and I'm going to do it on foot so that I'm not
17 energizing any equipment that may cause an ignition source
18 for the leak.

19 The second one says to abandon any equipment and go on
20 foot, basically. For instance, I had an incident that I
21 investigated just a short while ago, but it was a bulldozer
22 that hit a pipeline and the natural gas was venting.
23 Luckily, that bulldozer driver had enough common sense to
24 turn it off before he ran and it never sparked, never caught
25 on fire, which was very lucky for everybody. But that's one

1 of the things we want to do. If you're on equipment, leave
2 it and go on foot. You don't want to attempt to drive away
3 if you're in your vehicle.

4 The next one is to obviously avoid any open flames.
5 Don't stand out there and light up a cigarette because the
6 gas is blowing. You don't want to do that.

7 The next one is to call 911. Every pipeline operator is
8 going to encourage you to use your emergency services. Call
9 911. They are the professionals and they are the ones that
10 are dedicated to that emergency response. So call 911, but
11 it also says to make that call from a safe location, that
12 safe location being something that you will need to
13 determine, but you're going to get away and then call in.

14 Then it also goes on to -- it asks you to notify the
15 pipeline company immediately if you have that number. When
16 you call 911, by the way, 911 will immediately notify the
17 company as well. It's within their process that they will
18 call any pipeline companies in the area automatically.

19 Then we have the idea of do not attempt to extinguish
20 the fire. It's not safe for you. Let the professionals
21 come in and deal with that.

22 Secondly, it's don't operate a pipeline valve. We ask
23 the public not to go in there and try to shut off that
24 source of fuel. They may accidentally open a valve and make
25 it worse. Besides that, they may be walking into a cloud of

1 vapor with the goal in mind of shutting a valve to stop the
2 flow.

3 So all those things are covered in there what to do.

4 Q. Do you have an opinion within a reasonable degree
5 of certainty whether the brochure does an appropriate job of
6 advising the public about what to do or not to do in the
7 event of a leak?

8 A. I believe, first of all, it's in compliance with
9 the pipeline safety regulations. It's in compliance with
10 industry practice, and I believe it also appropriately
11 covers the topics.

12 Q. You heard a lot of testimony yesterday about the
13 advice to go by foot and that that may be difficult for
14 certain people, young children, infants, older people,
15 infirm people, people with different kinds of abilities.

16 What do you say about that? Would you tell those people
17 not to go by foot or to jump in a car or get on a piece of
18 electric -- you know, create a spark and get away?

19 A. It's very serious, and I understand we're not to
20 talk about risk today, which is a consequence and
21 likelihood, but one of the things we just have to understand
22 is you have to get away. The goal is to get away. If
23 you're impaired in some way, all I can do is just hope that
24 you can try to get away or your neighbors will come help you
25 or your family members will help you get away, but you have

1 to get away. There's just nothing else that you can do.
2 Whether you're mobile or not, you've got to attempt to get
3 away.

4 Q. Is it the responsibility under the regulations for
5 the pipeline operators to tell people how to get away if
6 they're infirm?

7 A. It's not in the regulations, and from a practical
8 standpoint, I can't even begin to imagine how to accomplish
9 such a goal. Pipeline operators are not going to know if
10 someone is infirm or not. The pipeline operator is not
11 going to know if someone is about to undergo surgery or if
12 someone is on drugs or hung over or something. They're not
13 going to know that.

14 I don't know how you would advise the people, and then I
15 also wonder why would the message be different. You have to
16 try to get away no matter what.

17 Q. Is that where the role of community and emergency
18 responders and planners takes over?

19 A. In my opinion, yes. Your neighbors are going to
20 help you first. Your family is going to help you, but the
21 emergency responders are trained for that, and I do
22 understand in most of the communities that I've worked in
23 this area on, people with special needs can register with
24 the county or the city or the state so that the emergency
25 responders know that you're a special needs person when it

1 comes to mobility.

2 Q. There was also some testimony yesterday, although I
3 think some of these people now have an idea at least from
4 what Mr. Marx has told them, they don't know how far to go.
5 What's your response to that?

6 A. I say go till you can't run any further. I don't
7 mean to smile or laugh at that, but you're going to have to
8 make a judgment. If you want to ask me, I'll be happy to
9 give you my advice. Just don't take me to court when it's
10 not appropriate.

11 I don't believe a company can begin to tell anybody what
12 to do. Every situation is going to be different. I don't
13 know how bad the leak is. I don't know how far to go. I
14 don't know how to model it. You could ask one modeler to
15 come in and give you that information. That would give you
16 a number. You could ask three modelers to come in and give
17 you information and I'll guarantee you they're going to give
18 you three different numbers.

19 I don't know how to do it. It's a very dynamic
20 situation. You're just going to have to make that decision
21 on your own. But beyond that, we have these emergency
22 responders. These people are trained. They are experts.
23 They know what to do. They're going to tell you how far to
24 get away.

25 There was a house fire in my neighborhood three years

1 ago, and the first thing that happened was the emergency
2 responders knocked on the door and they told us we had to go
3 three blocks away, and we did that.

4 I'm in a string of bad luck, Your Honor. Last November,
5 I had a flood in Houston and got a knock on the door and had
6 to evacuate. Then last summer, I was up in Colorado for
7 vacation and they had a fire there, and I had to evacuate
8 because of that fire.

9 The emergency responders are the ones that are I think
10 going to give you the most appropriate advice based on that
11 individual situation.

12 Q. And if there is no emergency responder present, is
13 that when sort of your senses take over?

14 A. The emergency responders will take over.

15 Q. But if they're not. Let's say we're at night or
16 you're in an area where there wasn't an emergency responder.
17 We did have some information about use your sense of sight,
18 smell to recognize things. Is that where those senses would
19 take over to give you a feel of how far was far enough away?

20 A. Yes, I believe it would. I have my three senses
21 working for me. If I smell it, it could be close. I'm
22 going to go till I can't smell it. Or if I see the vapor
23 cloud, I'm going to get away from that vapor cloud. Of if I
24 can still hear it, I may want to go further. But yes, you
25 would absolutely use your senses to kind of give you some

1 indication of how far to go and then go a little further.

2 Q. I was just going to say, I take it if in doubt,
3 just keep walking away?

4 A. Keep walking, yes.

5 Q. Now, yesterday, there was put into evidence
6 brochures from other pipeline companies that have pipelines
7 in Chester and Delaware Counties. They're at Exhibits 20,
8 22, 23, 24 and 25, I think there are brochures, and then
9 information on websites. I know you've looked at that.

10 Can you just talk about those and describe just
11 generally what they say and their consistency with what
12 Sunoco Pipeline Energy Transfer says?

13 A. Yes. I've looked at them in detail. They all have
14 the same messages; and, again, it's standardized and it's
15 standardized on purpose of what the information is, but
16 they're all going to address what to do if there's a
17 pipeline leak. They're all going to say how to recognize a
18 pipeline leak. They may give you what not to do, what to
19 do. They may break it down just a little differently, but
20 the message content is similar or the same.

21 So, again, they're remarkably similar and that is on
22 purpose.

23 Q. I take it one of the reasons, and you've talked
24 about this at length, about the desire for consistency and
25 simplicity and in particularly in areas where there are

1 multiple pipelines, if you get notice or hear or see or
2 smell a leak, you may not know which pipeline it is; true?

3 A. Yeah, that is correct, especially where there are
4 multiple pipelines in a common corridor. You don't know
5 whose pipeline it is. One of the reasons -- the natural gas
6 companies will usually tell you about natural gas, but if
7 there are other pipelines there, I need to be aware that
8 different commodities may have different impacts.

9 Q. You testified earlier that you looked at I think
10 hundreds of other brochures of this type, the ones that I
11 described and particularly Exhibit 18, the ETP brochure.
12 Are they consistent with those?

13 MR. BOMSTEIN: Objection; asked and answered.
14 We know the answer. He gave it previously.

15 JUDGE BARNES: He can answer it.

16 THE WITNESS: Yes. All the other ones that
17 I've looked at are consistent with, like I say, remarkably
18 similar to these that are presented in the exhibits.

19 BY MR. WITKES:

20 Q. There's something called the public awareness plan?

21 A. I'm sorry, sir.

22 Q. The public awareness plan that a company has.

23 A. Yes, yes.

24 Q. If you could turn in the binder to Exhibit 31.

25 (Whereupon, the document was marked as SPLP Exhibit No.

31 for identification.)

BY MR. WITKES:

Q. You're familiar with that; you've looked at that?

A. Yes. I have looked at this procedure.

Q. And just describe briefly what that is.

A. This is the company's answer to the regulatory requirement, and it goes into great detail about their public awareness program, and it will identify the audiences that the company will want to address. It will talk about the message content to each of those audiences, and then it gets into specific information like how frequently I'm going to send this message out, what method I'm going to use to send it out.

Companies do mailings. Companies do outreach to businesses. Companies do special outreach to excavators. I've seen companies hang signs on excavation equipment just to remind them not to excavate near their pipelines, but depending on the audience, the message is sent and then the companies develop a plan for the distribution of the information.

Q. And there will be talk about what the company has done to implement that plan, but do you have an opinion within a reasonable degree of certainty as to the adequacy of that plan?

A. I believe this plan is very well written. It's

1 very similar to other plans that I've looked at for several
2 hundred companies. Again, there's a consistency here that
3 the industry has worked very hard to achieve and that's for
4 the purpose of that consistent message and not to be
5 confusing to the audiences.

6 Q. And is it compliant with the applicable PHMSA
7 regulation and guidance and standard?

8 A. I believe it complies with the regulation, with the
9 PHMSA guidance and with the industry standards.

10 Q. And do you hold that opinion within a reasonable
11 degree of certainty?

12 A. Yes, I do.

13 Q. Can you take a look at Exhibit 26? I'm sorry for
14 flipping a little bit back and forth in the binder.
15 Sometimes these pages are hard to flip in these big binders.

16 (Whereupon, the document was marked as SPLP Exhibit No.
17 26 for identification.)

18 BY MR. WITKES:

19 Q. What is that?

20 A. This is a PHMSA advisory. On the top left-hand
21 portion of the page, you'll see the latest date of
22 publication. This tells you that it's current. This is as
23 advisory by PHMSA to pipeline operators on the exact things
24 we've been talking about, how to recognize the emergency,
25 what to do and what not to do and so forth, the same

1 information.

2 MR. WITKES: Move for the admission of Exhibit
3 26, SPLP 26.

4 MR. BOMSTEIN: No objection.

5 JUDGE BARNES: Exhibit 26 is admitted.

6 (Whereupon, the document marked as SPLP Exhibit No. 26
7 was received in evidence.)

8 BY MR. WITKES:

9 Q. Mr. Zurcher, you heard some testimony yesterday
10 from Mr. Hubbard about his, I'm going to call it speculating
11 about the length of time he thought it might take to
12 identify the source of the leak that might require him to
13 implement an evacuation plan in one of the schools that he's
14 responsible for.

15 MR. BOMSTEIN: Objection to the
16 characterization of the testimony. He didn't say the word
17 "speculate."

18 JUDGE BARNES: Sustained.

19 BY MR. WITKES:

20 Q. You heard testimony from Mr. Hubbard about what he
21 believed or what he testified, the length of time he thought
22 it might take to identify the source of a leak that might
23 require him to implement an evacuation plan. Do you recall
24 that testimony?

25 A. Yes, I do.

1 Q. Do you have an opinion whether that is a legitimate
2 concern?

3 A. In my experience, the emergency plans that would be
4 implemented deal with a number of scenarios, but response
5 being, of course, one of them. First responders are going
6 to be the first ones there typically, but in my experience,
7 if an incident is significant enough, it's not just the
8 first responders that are getting the information. Anybody
9 that's in the area is going to call 911 and report it.

10 When I listen to the dispatch tapes after these
11 accidents, sometimes you'll see 10 or 12 or 20 calls coming
12 into 911 at the same time on the same event. Again, all
13 that information is channelled into the appropriate
14 agencies. I understand that.

15 Q. Do you recall what he said, that people may have to
16 walk the pipeline to identify the source of a leak before he
17 would know where and when to evacuate?

18 A. In my experience, if the leak is significant, it's
19 going to be reported and the location is going to be
20 reported. If I can't determine that and I have to actually
21 walk the pipeline, that leak must be so small that it may be
22 almost insignificant.

23 Q. You heard Mrs. Hughes talk about risks, and I think
24 Mr. Marx may have said this as well about risks that are
25 voluntarily undertaken and risks that aren't. Can you speak

1 to that?

2 A. I am so sorry. I didn't quite understand.

3 Q. I apologize. You heard some testimony yesterday I
4 think it was from two witnesses about risk that one
5 voluntarily assumes and risks that are thrust upon someone.
6 Can you speak to that?

7 A. Yes, I can. It's an uncomfortable topic. I will
8 tell you that first of all. There is nothing that we do in
9 life -- we can assume a risk, but everything else that we
10 do, we are also imposing a risk on someone else.

11 I was interested in the lady's talk yesterday that said
12 she had fuel oil for her home heating. She said, I believe,
13 at least I understood her to say that she accepted the risk
14 in her own home for having the fuel oil, and I appreciate
15 that very much, but then she said but she not accept the
16 fact that someone else was imposing a risk on her by having
17 a pipeline in her neighborhood.

18 As I was thinking about that, we are all guilty of
19 imposing a risk on someone else, and I would have asked her
20 if I could have how did that fuel oil get to your home, and
21 she would have probably told me, well, it's trucked in. Do
22 you recognize that a truck that's transporting fuel oil is
23 70 times more likely to have an accident that involves a
24 fatality than a pipeline? And she may or may not be aware
25 of that.

1 Then I would ask her did she get approval from her
2 neighbors for that truck to come down the street to deliver
3 that fuel oil, and I don't know if she did. Then when I
4 think about it, she has imposed a risk on her neighbors by
5 having that fuel oil truck come down the street.

6 So everything that we do, regardless of the energy
7 source, we are imposing a risk on someone else
8 involuntarily.

9 Q. Obviously, that fuel oil has to move through
10 pipelines in other neighborhoods just to create the heating
11 oil that is trucked to her home as well.

12 A. That's right. It's going to be gathered. It's
13 going to move as a crude oil product through pipelines and
14 near other neighborhoods. It's going to be processed from
15 petroleum to fuel oil. It's going to be put in a pipeline
16 or a tanker truck or a truck on the road and it's going to
17 be moved to a location. It's going to be then put in
18 tankage and then reloaded into a truck for delivery in the
19 home, and it doesn't matter.

20 It's the same thing with electricity. Electricity is
21 generated typically through the burning of fossil fuel. We
22 do have nuclear plants that people don't like as well, but
23 it's fossil fuel. So in order to get the natural gas or the
24 fuel oil or the diesel oil or whatever it is that's powering
25 that power plant, you're imposing a risk on somebody else,

1 but we don't think about that.

2 My electricity in my home, I have imposed a risk on
3 somebody else. It's part of our lives.

4 Q. You heard Mr. Marx read from a prepared list that
5 the risk of injury or death to a member of the general
6 public from the leak or rupture of an HVL pipeline is
7 significantly higher than a natural gas pipeline. Is he
8 right?

9 A. No, he is not right. Of the three types of
10 pipelines, natural gas and fuel oil, leaks through
11 distribution pipelines that cause fatalities is the highest
12 on the list. It's about four times higher, subject to
13 check, about four times higher than natural gas transmission
14 lines, and natural gas transmission lines are I think,
15 subject to check again, about two times higher than
16 hazardous liquid pipelines.

17 MR. WITKES: Thank you, Mr. Zurcher. I know
18 we had done a lot of this earlier, but it was important to
19 get it on the record in this case, and I have no further
20 questions, Your Honor.

21 JUDGE BARNES: Any cross-examination or -- Mr.
22 Kanagy, do you have any questions?

23 MR. KANAGY: No, Your Honor.

24 JUDGE BARNES: All right. Cross.

25 MR. BOMSTEIN: Thank you, Your Honor.

CROSS-EXAMINATION

1
2 BY MR. BOMSTEIN:

3 Q. Mr. Zurcher, can you hear me all right from here?

4 A. Yes. Thank you.

5 Q. Okay. You mentioned that if there's a pipeline
6 leak in a HVL line, that you will smell petroleum. So I'm
7 going to posit to you that Nancy Harkins and her husband are
8 asleep in their Westtown house and there's a leak a hundred
9 feet away. Are they going to smell petroleum?

10 MR. WITKES: Objection; assumes in the
11 question something that Mr. Zurcher did not say. He did not
12 say that you will smell petroleum. He said that that is one
13 of the ways that you may detect a leak.

14 JUDGE BARNES: He testified about being asleep
15 and probably not waking up, so I'm going to allow the
16 question.

17 BY MR. BOMSTEIN:

18 Q. Mr. Zurcher, I wrote down your exact words, quote,
19 "You will smell petroleum," unquote. Do you still stand by
20 that quote?

21 A. You will smell the -- there will be a petroleum
22 type smell is what I meant to say. It will be a petroleum
23 type smell.

24 Q. Didn't you also mean to condition that on how far
25 you are away from the leak?

1 A. Well, again, distance away will vary for all three
2 senses. I believe I explained that.

3 Q. No. Let's just talk about --

4 MR. WITKES: Can the witness finish the
5 answer?

6 MR. BOMSTEIN: No. If Your Honor please --

7 MR. WITKES: Not be interrupted.

8 MR. BOMSTEIN: He has an opportunity to
9 redirect. I'm asking the simple question. He can answer
10 yes, no or I don't know.

11 MR. WITKES: No.

12 JUDGE BARNES: All right. Please rephrase
13 your question.

14 BY MR. BOMSTEIN:

15 Q. Sir, you made a statement, quote, "You will smell
16 petroleum," unquote. Do you stand by that statement?

17 A. You smell a petroleum-like smell, yes.

18 Q. Fine. You will smell a petroleum-like smell
19 depending on where you are standing relative to the leak.
20 Isn't that a more accurate statement?

21 A. What I tried to say earlier was that the further
22 distance you get away, the less likely you are to either
23 hear it, smell it or see it. Distance does matter.

24 Q. So, for example, if Nancy Harkins and her husband
25 are asleep in their Westtown home and there's a leak a

1 hundred feet away, are they likely to smell petroleum?

2 A. If they are asleep -- I believe I said earlier if
3 you're sleeping, your olfactory senses do not wake you up.
4 So I don't know if they will wake up.

5 Q. You don't know or would you assume they would not
6 based on smell?

7 A. I don't know. It will not wake you up. People do
8 wake up, though, in the evenings, and once you're awake, you
9 will smell, I believe, but it will not wake you up.

10 Q. Likewise, question for sound. If you're 200 feet
11 away and there's a two-inch leak, are you likely to hear it?

12 A. If you can't hear it, then I wouldn't worry about
13 it. If you're so far away that you can't hear it, unless
14 you have a hearing problem, which is a possibility, but for
15 a person with normal hearing, you're going to hear it. If
16 you're 200 feet away and can't hear it, I would say that
17 leak is not something that you need to be -- you need to be
18 concerned about it, obviously, but it's not something that's
19 imminent. You're going to have time to get away.

20 Q. Now, Mr. Zurcher, we've heard conflicting testimony
21 on whether HVLs are visible; that is can you see them. For
22 example, there's guidance that says that they are invisible.
23 Are they visible or not visible? I'm not talking about do
24 they have an effect on something else that you can see. Can
25 you see the vapor itself?

1 A. It's an interesting question. I have to take away
2 that scientific view from the practicality of the situation.
3 If I put propane as a gas into a jar, a glass jar, and you
4 look at it, you probably won't see any color. You're
5 probably not going to see the color. It's kind of almost
6 invisible. It's going to be clear.

7 But, but, when it's released from a pipeline, it's a
8 vaporization event. It's going to chill the water as we
9 heard yesterday. It's going to form a vapor cloud and dust
10 cloud. Then it is visible.

11 Q. From what distance?

12 A. For what distance?

13 Q. Yeah.

14 A. It would depend on the size of the leak, the
15 pressure in the pipeline, the diameter of the pipeline, and
16 a number of other factors.

17 Q. Are you aware that there is a document called an
18 emergency response procedure manual revised 8/21/17?

19 A. I don't recall looking at that.

20 Q. Are you familiar with the existence of an emergency
21 responders procedures manual? Counsel was asking about it
22 yesterday.

23 A. Is this a manual by Sunoco?

24 Q. Well, if you're not familiar with it, you're not.
25 Counsel was quoting from that manual. It states, quote,

1 "Ethane is a colorless gas with no odor or taste," quote.

2 Is that statement accurate or inaccurate?

3 A. Again, we're talking about two things. There's the
4 scientific view versus the practical view of pipelining.
5 Ethane in and of itself, I don't disagree with that, but
6 ethane in a pipeline with other materials that are in there,
7 including the higher hydrocarbons, the C5s through the C12s
8 and so forth are going to have those smells, are going to
9 have those colors, and are going to have that sound when it
10 comes loose.

11 So, again, different from the scientific view of a
12 product versus the practical view of pipeline
13 transportation.

14 Q. You made a comment a few moments ago when you were
15 asked by counsel about the imposition of risk on other
16 people. Do you remember that discussion?

17 A. I'm so sorry, sir.

18 Q. Counsel was asking you about the fact that Ms.
19 Harkins was worried about the risk being imposed on her.
20 Do you remember that discussion?

21 A. Yes, I do.

22 Q. You pointed out that even a person like herself who
23 uses fuel and she thinks of it as her receiving a risk, the
24 fact is that she arranges for a fuel truck to go through the
25 neighborhood. You pointed that out, didn't you?

1 A. Yes, I did.

2 Q. But implicit in that isn't it that it's these
3 things are to one degree or another for the benefit of the
4 people in the neighborhood? In other words, there are going
5 to be a lot of people in that neighborhood who don't get
6 pipeline gas. In her neighborhood, they get fuel by a fuel
7 truck; is that correct?

8 A. I think you're missing my point with that
9 discussion --

10 Q. I'm just asking you a question.

11 A. Excuse me. I was answering the question, sir.

12 Q. I asked you a straight question. I'd like you to
13 answer it. You can explain your answer later.

14 A. Whether or not, like I said, the neighbors have
15 agreed to the transportation through the neighborhood, I
16 don't know, but I'm telling you in order for that fuel oil
17 to get to a delivery plant and be loaded onto the truck, it
18 had to go through somebody else's neighborhood.

19 Q. Did it?

20 A. The fuel oil? Yes, it would have to, because it
21 would have been petroleum first. It then would have been
22 refined into fuel oil. It then would have been transported
23 through a pipeline or on rail or by truck through other
24 communities to get to that distribution center or tankage
25 where it's then loaded onto a truck for delivery to the

1 home. So you are imposing the risk on other people that
2 have no benefit from the product that's being consumed.

3 Q. And the benefit of the product is an important
4 factor, isn't it?

5 A. The benefit of the product?

6 Q. Yes.

7 A. It's energy. We all need energy. We want energy.

8 Q. But the HVL pipelines, they're not benefiting the
9 people in Pennsylvania. They're being transported overseas;
10 isn't that correct? The HVLs basically are going across
11 people's property and sent to a terminal and transshipped to
12 Scotland to be transmuted into plastics. Is that for the
13 benefit for Nancy Harkins' neighborhood?

14 MR. WITKES: Objection. It's irrelevant and
15 beyond the scope.

16 JUDGE BARNES: I think you're going beyond the
17 scope of the direct examination at this point.

18 BY MR. BOMSTEIN:

19 Q. Sir, I'd like you to look at the document that's
20 been marked as Exhibit 2. If you don't have a copy, I'd be
21 happy to bring it up to you.

22 MR. WITKES: I think it's the petitioners'
23 exhibits and they're not in our binders. I don't know what
24 Mr. Bomstein did with the admitted exhibits or where they
25 are. I have it. I just was informing you that they're not

1 up there.

2 JUDGE BARNES: You may approach.

3 THE WITNESS: Thank you.

4 BY MR. BOMSTEIN:

5 Q. Sir, do you recognize this two-page brochure?

6 A. It looks familiar. I apologize. I've been looking
7 at the other ones so long, I can't remember this one for
8 sure.

9 Q. Very good. I'd like you, please, to go to the
10 section in the middle. It says, "What to do in the event a
11 leak were to occur." Do you see that?

12 A. Yes, I do.

13 Q. First, I call your attention to the language,
14 quote, "From a safe location, call 911." Do you see that
15 language?

16 A. Yes, I do.

17 Q. I think you testified at some length that you
18 assisted in the preparation either of this brochure or
19 similar brochures after a lot of work and consultation in
20 the industry and government; is that correct?

21 A. I am so sorry. This chair, it's very hard to hear
22 sitting over here. I apologize.

23 Q. I can talk louder.

24 JUDGE BARNES: Could you repeat?

25 MR. BOMSTEIN: Sure. I'm just going to talk a

1 little louder.

2 BY MR. BOMSTEIN:

3 Q. Is that better?

4 A. Thank you.

5 Q. Sure. Okay. Do you see where it says, quote,
6 "From a safe location, call 911"?

7 A. Yes, I see that.

8 Q. Do you agree that this language is appropriate?

9 A. Would you say that last part again?

10 Q. Do you agree that this language is appropriate?

11 A. Yes, I do.

12 Q. Would you tell the Judge what the word "safe" means
13 in this context?

14 A. The company, I believe that what we're trying to do
15 here is for you to determine, I think the homeowner, what is
16 that safe location. I don't think the company can dictate
17 to you. So I think it's asking you to decide for yourself
18 what that is, but I'm going to go to what I view as a safe
19 location.

20 Q. So, as a consumer of this -- let me go back one
21 step. Maybe I misheard your testimony earlier. I thought
22 you said that this language or the similar language was
23 prepared and similar language appears in the brochures of
24 many companies that you're familiar with; is that correct?

25 A. Yes. It --

1 Q. And I think you also said -- I didn't mean to cut
2 you off.

3 A. I'm sorry. I was just going to say it looks
4 similar to me, yes.

5 Q. I think you also said that this language is
6 consistent with PHMSA regulations, PHMSA guidance, state
7 law, state regulations so far as you know; is that correct?

8 A. Yes; to the best of my knowledge, yes.

9 Q. And are you telling this Judge that the word "safe"
10 here really doesn't have any objective meaning and that the
11 companies that put this out are not all saying the same
12 thing, but rather, it's like beauty is in the eye of the
13 beholder; that whatever safe means to you, that's what
14 you're admonishing people to do? Is that what you're
15 saying, sir?

16 A. Let me collect my thoughts here for a second. I
17 don't know what else the company could tell you. That's
18 what I want to say. They have warned you to move to a safe
19 location. I don't think the company can tell every
20 individual along the pipeline right-of-way what is a safe
21 distance for them. It would depend on how far away your
22 home is, how far away your business is, how far you may need
23 to go. It may depend on a number of other factors.

24 I don't know how you would possibly come up with a
25 number that would be universal if that is, in fact, what

1 you're looking for, a number.

2 If you think the pipeline company should attempt to
3 define safe, then I don't know how you would do that
4 objectively. It's kind of a subjective term for you to
5 determine. The company can't tell you. I don't believe the
6 company can tell you to go a block away or to go a half a
7 mile away or two miles away.

8 Q. Why not?

9 A. I don't think it's up to them. It's up to you to
10 make that determination, but they're warning you to move to
11 a safe distance before making a call.

12 Q. Let's go back one step. Hypothetically, there's a
13 child in a schoolyard in the Downingtown Area School
14 District playing on a playground 50 feet away from the re-
15 purposed Mariner 1 pipeline. Got that picture?

16 A. Yes.

17 Q. And there is a leak two or three inches, and to an
18 adult, it might be visible. It might be audible. I'd like
19 you tell me first, if that child remains in that position,
20 is the child at risk of serious injury?

21 A. Are you asking me to opine on the risk to the
22 child?

23 Q. That's the question.

24 MR. WITKES: I think risk is not part of the
25 case and I think that's beyond the scope. I object.

1 MR. BOMSTEIN: It's very much a part of the
2 case, because the second piece of our case is the danger of
3 these pipelines in places such as schools, churches. We've
4 alleged from the beginning to the end and it's all
5 throughout our petition this is dangerous.

6 MR. WITKES: Well, you have to distinguish
7 what was alleged in the petition and what was put into
8 evidence and then our discussion at the end of the testimony
9 yesterday.

10 JUDGE BARNES: Yesterday, the probabilities,
11 the risk assessment and the probabilities of fatalities and
12 all of that, that seemed to go away, but the issue of safety
13 as I recall remains on the table, and I think this falls
14 under that realm, the question. So I'm allowing the
15 question.

16 BY MR. BOMSTEIN:

17 Q. Sir, back to this situation. Downingtown Area
18 School District, I'm positing that the play area of a seven-
19 year-old child is just a few feet away from the re-purposed
20 Mariner East 1 pipeline that is currently transporting HVLs.
21 Got it?

22 A. Yes. I have a picture.

23 Q. And would you picture, please, a leak two to three
24 inches; okay? Now, I'm going to ask you to assume that the
25 child doesn't notice it. Okay? I'm not saying an adult

1 would or wouldn't. I'm saying a child. I'm asking you to
2 assume that.

3 If that child does not move away from that close
4 position to the leak, is that child at risk of serious
5 injury?

6 A. I'm going to answer the question and Your Honor may
7 be angry with me, but if you're asking me about risk, I can
8 tell you that the risk of that event happening in the first
9 place is extremely small.

10 MR. BOMSTEIN: Move to strike. This is
11 exactly what they've been doing since yesterday. We're not
12 talking about whether or not it's going to happen. We're
13 talking about what will happen if it occurs, the
14 consequences. His answer was entirely non-responsive and he
15 pivoted in order not to answer the question. We request
16 Your Honor to direct him to answer that question.

17 MR. WITKES: I think there three or four words
18 that came out of his mouth and he interrupted him.

19 JUDGE BARNES: I do feel the answer was, I
20 guess, given your explanation, evasive. You're trying to
21 get at not the risk of the occurrence happening, but you're
22 giving -- he's giving you a hypothetical situation. So
23 accept for the purposes of the question that the
24 hypothetical facts are true. He wants an answer, will the
25 child be hurt.

1 MR. BOMSTEIN: At risk.

2 JUDGE BARNES: At risk of being hurt.

3 THE WITNESS: Yes. The child is at risk.

4 BY MR. BOMSTEIN:

5 Q. Of a serious injury?

6 A. The child is at risk of a serious injury or
7 fatality.

8 Q. Thank you. Now, if the child instead were 50 feet
9 away when that occurred, would the child be less at risk
10 than if the child were standing right in front of the leak?

11 A. It's impossible --

12 MR. WITKES: Objection. I think the
13 hypothetical is incomplete. Is it upwind, downwind? Has
14 there been a release to the atmosphere? I mean, all we've
15 said is there's -- I think the hypothetical just says 50
16 feet. We don't know what's happened. It's really an
17 incomplete hypothetical.

18 MR. BOMSTEIN: Your Honor, I'll rephrase the
19 question.

20 JUDGE BARNES: All right. Thank you.

21 BY MR. BOMSTEIN:

22 Q. All other factors being equal and assuming it's a
23 Tuesday, is that child less at risk --

24 MR. WITKES: Objection as being sort of
25 injecting, you know, irrelevant and sort of inappropriate --

1 MR. BOMSTEIN: We'll assume it's not Tuesday.

2 JUDGE BARNES: Overruled. You can ask your
3 question.

4 BY MR. BOMSTEIN:

5 Q. All other things being equal, if the child is 50
6 feet away rather than standing right in front of the leak,
7 do you believe, sir, that the child is less at risk of
8 injury or death? Yes or no? You can explain it, but that's
9 a yes or no question.

10 A. It's not a yes or no question because I don't have
11 enough information to answer it one way or another. It
12 would depend. As I said before, it would depend on the
13 pressure in the pipeline, the product in the pipeline. It
14 would depend on the size of the leak, the direction of the
15 wind for me to opine whether they were at less risk or not.

16 Q. Very good. Now I'm going to restate the question.
17 All other things being equal, the only variable in this
18 hypothetical, sir, is the distance from the leak. Got it?

19 A. Okay.

20 Q. So if that child is now 50 feet away from the leak,
21 would you venture to say the child is a little less at risk
22 of injury or death?

23 A. I can't say that. I can't say that. It may be the
24 same.

25 Q. Do you believe, sir, that the farther a person

1 travels from the source of the leak, the safer a person is?

2 A. Yes. I said that earlier. You want to get as far
3 away from a leak as you can.

4 Q. Do you believe, sir, that there's some distance --
5 I'm going to make up an example like ten miles -- that it is
6 most likely very safe?

7 A. I'm not sure how to answer that. You want to get
8 as far away as you can.

9 Q. You didn't answer the question, so I'll rephrase
10 it. Maybe you weren't clear. Is there some distance beyond
11 which you feel relatively confident that if a person travels
12 from the source of a leak, that that person is relatively
13 safe?

14 A. Again, I can't answer that question without knowing
15 a lot of specifics about your hypothetical leak.

16 Q. Then we'll go back again, sir. All other factors
17 being equal -- you're an engineer by background; right?

18 A. Yes, I am.

19 Q. So if you come up with an equation that has one
20 variable versus ten variables, there's a difference in the
21 outcome, isn't there?

22 A. Are you asking if there's a difference?

23 Q. Yes.

24 A. In the variables?

25 Q. If there are ten variables rather than one, that

1 multiples the number of things that could affect the
2 decision and the outcome; correct?

3 A. Well, it may be some multiple, yes.

4 Q. But if isolate it down to one variable, then
5 knowing what you do about science, you have a basis for
6 coming up with a pretty confident answer that the farther
7 you are from the leak -- you already answered this. The
8 farther you are from the leak, the safer you are; correct?
9 You said that twice now. Is that correct?

10 MR. WITKES: It has been asked and answered.

11 BY MR. BOMSTEIN:

12 Q. And what I'm asking you, sir --

13 JUDGE BARNES: Sustained.

14 BY MR. BOMSTEIN:

15 Q. Based on your knowledge of the science, based on
16 your knowledge of petroleum products, based on your
17 experience for decades in the industry, isn't it a fact,
18 sir, that you know that there's a certain distance beyond
19 which you can predict with some confidence that people will
20 be safe if they only reach that distance? Isn't that a
21 fact?

22 A. You're asking about a hypothetical situation --

23 MR. BOMSTEIN: Your Honor, I would ask that
24 you direct him to answer the question.

25 JUDGE BARNES: He is answering the question,

1 Mr. Bomstein.

2 MR. BOMSTEIN: He's saying it's a
3 hypothetical. We know it's a hypothetical.

4 JUDGE BARNES: His answer is that it -- maybe
5 if you ask something like the worst-case scenario, like a
6 12-foot gash in -- what are you actually trying to get at?
7 How far away do you have to be for a worst-case --

8 MR. BOMSTEIN: I'm asking him how far you have
9 to be to be safe. I've asked him that --

10 JUDGE BARNES: But you're not being specific
11 as to what --

12 MR. BOMSTEIN: I am being specific --

13 JUDGE BARNES: -- as to what -- are we talking
14 about a puncture? Are we talking about a --

15 MR. BOMSTEIN: I was specific, Your Honor --

16 JUDGE BARNES: -- rupture?

17 MR. BOMSTEIN: I said a leak two to three
18 inches.

19 JUDGE BARNES: Okay.

20 MR. BOMSTEIN: And I said, isolate this
21 question. Eliminate all other variables such wind speed,
22 altitude, topography.

23 JUDGE BARNES: Temperature.

24 MR. BOMSTEIN: Eliminate all of those. You're
25 down to one variable, the distance from the leak.

1 JUDGE BARNES: I think he --

2 MR. WITKES: Well, Your Honor --

3 THE REPORTER: One second.

4 JUDGE BARNES: Hang on. When I'm talking, the
5 court reporter takes down what I say.

6 MR. BOMSTEIN: Your Honor --

7 JUDGE BARNES: I think he has answered that
8 question.

9 MR. BOMSTEIN: Your Honor, with all due --

10 JUDGE BARNES: He says he does not know, given
11 -- but I'll let you answer it one more time. Go ahead.

12 MR. BOMSTEIN: Let me rephrase the question,
13 Your Honor.

14 BY MR. BOMSTEIN:

15 Q. You testified clearly that the farther away you
16 are, the safer you are; correct?

17 A. I said if there's a leak, you want to get as far
18 away as possible.

19 Q. I asked a different question. Do you believe and
20 have you now testified that the farther away you are from
21 that leak, the safer you are? Didn't you just say that?

22 A. I don't believe I ever used the word "safer."

23 Q. What do you believe the reason is to get away from
24 the leak?

25 A. You want to get away from a leak to save your life.

1 Q. To save, in other words, to be safe.

2 A. No, no, no. Those are two entirely different
3 terms.

4 Q. Oh. So the term "to save your life" has nothing to
5 do with being safe. Is that what you're telling this Judge?

6 MR. WITKES: Objection; argumentative.

7 JUDGE BARNES: You don't have to answer that.

8 MR. BOMSTEIN: I will move on from this line
9 of questioning in one more moment.

10 BY MR. BOMSTEIN:

11 Q. I want to be clear. Are you saying that you know
12 of no data, no information, no internal memos, nothing in
13 your experience, nothing in your knowledge, nothing you've
14 heard that will enable you to answer the simple question how
15 far do you need to be away from let's say a two-inch leak,
16 all other things being equal, in order to be safe? Is that
17 correct?

18 A. I could model it based on my limited information of
19 modeling. I could go to a dozen different companies and ask
20 them to model it for me. I could talk to first responders
21 and get an answer from them. I can do a number of things,
22 but they're all going to be different. So I can't give you
23 a definitive answer, because every person that would model
24 that would give you a different answer.

25 Q. Why are you advising -- when I say you, the

1 industry -- why is Sunoco advising people to leave the area
2 at all? Isn't it because it's not safe to stay where you
3 are?

4 A. They're advising people to get away to save their
5 lives.

6 Q. Sir, would you say that a safe distance from a leak
7 on ME1 might be different from a safe distance from a leak
8 on ME2 hybrid?

9 MR. WITKES: Objection; asked and answered.

10 MR. BOMSTEIN: It hasn't been asked and
11 answered.

12 MR. WITKES: It's just another variation of
13 the same question.

14 JUDGE BARNES: Overruled.

15 BY MR. BOMSTEIN:

16 Q. Sir, is a safe distance from ME1, a leak, different
17 from a safe distance from a leak on ME2 hybrid?

18 A. For me to answer that question, we would have to
19 come to agreement on what we meant by safe.

20 Q. So you can't answer the question?

21 A. Other than that, it would depend on I said the
22 pressure, the diameter and so forth and the size of the
23 leak, obviously

24 Q. Sir, where do you reside?

25 A. Where do I live?

1 Q. Yes.

2 A. I live in Houston, Texas.

3 Q. Is your house within ten feet of an HVL pipeline?

4 A. Within ten feet of an HVL pipeline?

5 Q. Yes.

6 A. No, but gas distribution is outside my window.

7 Q. I'm talking about HVL today; okay? Your house is
8 not even close to an HVL pipeline; isn't that correct?

9 A. Not to my knowledge.

10 Q. Isn't it a fact that one cannot generally predict
11 where or when an HVL pipeline is likely to leak or rupture?

12 A. I would disagree with that.

13 Q. Okay. Well, let's take the incident in Carmichael,
14 Mississippi. You're familiar with that?

15 A. Yes, I am.

16 Q. Are you aware of whether or not the pipeline
17 operators had a clue that it was likely to rupture at the
18 location where it ruptured?

19 MR. WITKES: Objection; beyond the scope and
20 goes into likelihood and risk.

21 JUDGE BARNES: Can we have an offer of proof?

22 MR. BOMSTEIN: Yes, Your Honor. What it's
23 laying the foundation for is the fact that pipeline
24 explosions are very hard to predict where they're going to
25 occur. They might occur in the countryside. They might

1 occur in Andover development.

2 So, whether or not they're able to determine
3 in advance where it's likely to happen is a foundational
4 question. It's certainly pertinent.

5 JUDGE BARNES: I'll allow the question.

6 MR. BOMSTEIN: I'll repeat the question.

7 BY MR. BOMSTEIN:

8 Q. Mr. Zurcher, isn't it the case that you are not
9 generally able to predict where or when an HVL pipeline is
10 likely to leak or rupture?

11 A. And I believe I said I disagree with that.

12 Q. Could you explain why?

13 A. There are a number of methods that companies use to
14 determine the condition of their pipeline. I don't know if
15 we're supposed to talk about integrity management after
16 yesterday, but those are the programs that we would have as
17 an industry. When I say "we," I'm sorry, as an industry,
18 those would be programs. They tell you the condition of the
19 pipeline so that I can predict when and where and why a
20 pipeline will fail.

21 Knowing that, I'm going to go out and proactively
22 remediate the situation so that failure will not happen.

23 Q. And I think I understand your point. So let me
24 rephrase it in my terms and make sure you agree. I think
25 you're saying that if you're careful and if you monitor

1 things and you do your best within existing standards to
2 keep things safe, you're reducing the chance of a leak or a
3 rupture. Is that what you're saying?

4 MR. WITKES: Your Honor, this really goes into
5 integrity management.

6 MR. BOMSTEIN: No, it doesn't, Your Honor,
7 because it goes to the question of whether it's going to be
8 in a cornfield or whether it's going to be in Avondale.

9 MR. WITKES: And the likelihood -- I wasn't
10 finished. The likelihood of a release, which are off the
11 table.

12 MR. BOMSTEIN: No. What I'm asking, Your
13 Honor, is whether they have a means of knowing and whether
14 they do know with confidence that if they install an HVL
15 pipeline in Avondale, it's not going to explode because
16 they've done all these things.

17 JUDGE BARNES: I'll give you a little bit of
18 leeway because I think I can attach it to the consequence.
19 You're still arguing not risk, although it does seem like
20 you are going into that area. Everything is interrelated,
21 so it's difficult for me.

22 MR. BOMSTEIN: I understand, and I recognize
23 it touches on it slightly, and, second of all, I want to
24 correct the record. I said Avondale. I keep doing that all
25 the time. I meant Andover.

1 JUDGE BARNES: Andover, not Avondale. Okay.

2 MR. BOMSTEIN: Thank you.

3 BY MR. BOMSTEIN:

4 Q. So, I think you're saying, sir, that you're
5 minimizing the chances of an untoward event by doing certain
6 things, but what I'm asking you is something different. I'm
7 assuming for the sake of this discussion only that Sunoco is
8 taking great care to make sure its pipelines have integrity.
9 That's the assumption of this hypothetical question. Okay?
10 So you don't need to explain, sir, that you're taking good
11 care of the pipelines. I'm going to assume that for now. I
12 don't necessarily believe it, but we're assuming it for now.

13 So, if that's the case, sir, isn't it a fact that
14 despite Sunoco's best efforts, there have been many
15 instances where there have been leaks, there have been
16 untoward events? Isn't that a fact?

17 A. Are you asking specifically for Sunoco pipeline?

18 Q. That's what the question said, Sunoco.

19 A. Okay. Sunoco I understand has had releases. I
20 have looked at the database. So, yes, they do have
21 releases.

22 Q. And that's despite having what you believe is a
23 very good integrity management program, there still are
24 accidents; isn't that correct?

25 A. (No response.)

1 Q. Isn't that correct?

2 A. I've looked at it and they still have leaks on
3 their pipeline system, yes.

4 Q. Take the accident in Mississippi in Carmichael.
5 You're familiar with that. Did you read the petition in
6 this case?

7 A. Yes, I've read the petition and I am familiar with
8 the Carmichael accident.

9 Q. Very good. Isn't that the one where two young
10 people died in a truck by the ignition of the vehicle, that
11 is turning the engine on?

12 A. Yes, that's my understanding.

13 Q. Now, what if that accident had happened in Westtown
14 Township in Chester County? Isn't it likely that had it
15 occurred in a highly populated area, the outcome would have
16 been much worse from the standpoint of injury and possible
17 death?

18 A. The pipeline accident in Carmichael, Mississippi
19 was a pipeline that was not in a high consequence area. As
20 such, it was not required to be part of a company's
21 integrity management program as defined by the pipeline
22 safety regulations.

23 The Sunoco pipeline that goes through this part of the
24 country is a high consequence area, is in high consequence
25 areas. They are required by regulation, therefore, to have

1 integrity management programs, which includes the running of
2 smart pigs and other activities to determine the condition
3 of the pipeline to be able to predict when and where and why
4 a pipeline event may occur and then to remediate that
5 pipeline before the event occurred.

6 The Carmichael situation was not the same thing. It was
7 not under an integrity management program. Those tests and
8 inspections were not required to be done.

9 Q. Are you familiar with the fact that there was an
10 incident in Beaver County in the last couple years?

11 A. Um --

12 Q. Pennsylvania, Beaver County.

13 A. That sounds very familiar. Is there another name?

14 Q. Hold on a second.

15 (Pause.)

16 Q. I've been advised that it's Centre Township in
17 Beaver County. Does that ring a bell?

18 A. It does ring a bell, but I'm not thinking of the
19 specifics if you could help me out here.

20 Q. Sure. I will represent to you that prior to the
21 incident, Sunoco had run a pig through the pipeline and done
22 hydrostatic testing. Is that part of what you say is
23 integrity management?

24 A. Okay.

25 Q. And that subsequent to their integrity management,

1 there was this accident around midnight; that there was
2 extensive property damage. Does that ring a bell?

3 MR. WITKES: Objection, Your Honor. He's not
4 asked this as a hypothetical. He's made a representation.
5 There's no facts in evidence about this.

6 MR. BOMSTEIN: There doesn't have to be facts
7 in evidence. I'm cross-examining him on his knowledge of
8 accidents.

9 JUDGE BARNES: He can answer the question
10 whether he's familiar with the accident.

11 BY MR. BOMSTEIN:

12 Q. Are you familiar with that accident as I've
13 described it?

14 A. As I sit here right now, I can't recall the
15 specifics of that accident.

16 Q. Are you familiar with an accident in Morgantown on
17 or about April 1st, 2017, that followed on the heels of
18 Sunoco doing integrity management? Are you familiar with
19 that accident?

20 A. I don't believe so, no.

21 Q. Are you familiar with the fact that PHMSA
22 statistics show that during the period from 2006 to 2018,
23 Sunoco had 305 incidents and cost \$72 million in property
24 damage? Are you familiar with that statistic?

25 A. No. I have not looked at that information.

1 Q. Are you familiar with the fact, sir, that the PHMSA
2 website, which we have access to here now, shows that in the
3 last several years, there have been four fatalities
4 associated -- hold on, please.

5 (Pause.)

6 Q. The period involved in 2010 through 2018. PHMSA
7 statistics show that HVL pipelines caused four fatalities.
8 Are you familiar with that?

9 A. I have looked at that data extensively. I believe
10 that there is only one fatality to the general public and
11 the other fatalities were to company personnel. It is a
12 danger business, obviously, but it was two company
13 personnel, not the general public.

14 Q. But to their families, that was important?

15 A. I'm sorry?

16 Q. To their families, their deaths were important;
17 correct?

18 A. I'm sure they were.

19 Q. And it was caused by pipeline leaks; correct?

20 A. I don't know that for a fact. It may very likely
21 have been caused by some action that individual took or did
22 not take that caused the accident to occur. I don't know
23 the specifics.

24 Q. Sir, you talked earlier about people assuming
25 various risks. You were asked by counsel and you were asked

1 by me. Are you telling the Judge that it's all right to run
2 HVL pipelines through schoolyards in Downingtown?

3 A. I am really sorry, but I didn't quite catch that
4 question.

5 Q. Sir, are you telling the Judge that it's all right
6 to run HVL pipelines through schoolyards in Downingtown?

7 JUDGE BARNES: Downingtown is the word.

8 THE WITNESS: Okay. Is it okay to run -- I'm
9 just going to paraphrase it if I could. You're asking me is
10 it okay to run an HVL pipeline through a schoolyard?

11 MR. BOMSTEIN: Sure.

12 THE WITNESS: I don't think that would be
13 possible. I don't know how that would be allowed.

14 BY MR. BOMSTEIN:

15 Q. Sir, in general, can we also agree that when an HVL
16 pipeline is going through a school property, that the
17 children and their parents did not voluntarily assume that
18 risk?

19 A. Did not voluntarily assume the risk; is that what
20 you're saying?

21 Q. Yeah, the risk associated with being next to an HVL
22 pipeline.

23 A. I don't know what to say to that for sure. I mean,
24 we all assume risk. I'm not sure how to answer the
25 question.

1 MR. BOMSTEIN: I have a few more minutes, Your
2 Honor. I definitely have questions here.

3 (Pause.)

4 BY MR. BOMSTEIN:

5 Q. Were you here in court yesterday to listen to the
6 testimony?

7 A. Yes, I was here yesterday.

8 Q. Did you see Mr. Walsh identify photographs and
9 pointing out where homes are less than a hundred feet away
10 from the proposed ME2 hybrid pipeline?

11 A. I did not see the photographs.

12 Q. Did you hear his testimony?

13 A. Yes, I did.

14 Q. So you're aware he stated that his home is less
15 than a hundred feet from the proposed pipeline; is that
16 correct?

17 A. I don't recall the specifics.

18 Q. Do you recall that there was testimony that the
19 valve site next to Duffer's Restaurant is perhaps 50 feet
20 from the back of the restaurant where people sit and smoke
21 cigarettes? Do you recall hearing that?

22 A. Yes, I do recall it. I don't recall the specific
23 distance, but I remember the conversation.

24 Q. Do you think it's a good idea to put a valve
25 station behind a restaurant where people smoke cigarettes?

1 A. To put a valve station there?

2 Q. Yes.

3 A. It's a difficult answer. I'm so used to
4 communities working together. Whether or not it's a valve
5 station, I struggle, Your Honor, I'm sorry, because it all
6 to me comes back to risk and so forth, the risk I'm assuming
7 by having that in the distance.

8 If we could talk about likelihood of occurrence and
9 consequence of occurrence, that would be a different thing,
10 but again, this is in a high consequence area. All of those
11 additional inspection requirements and those additional
12 testing requirements kick in. So, again, that likelihood
13 goes down.

14 So if the consequence goes up and the likelihood goes
15 down, the risk remains steady.

16 MR. BOMSTEIN: Your Honor, I move to strike
17 the answer again as non-responsive. It's the same statement
18 and the same objection.

19 MR. WITKES: I think it is responsive.

20 JUDGE BARNES: Overruled.

21 BY MR. BOMSTEIN:

22 Q. Sir, I'm going to represent to you that one of our
23 petitioners, Rosemary Fuller, lives on Valley Road in Media,
24 Pennsylvania. I'm going to tell you that she lives in
25 what's called a gated community, and I'm going to tell you

1 that it's surrounded, the community, by electric gates and
2 fencing.

3 Would that be a concern to you if you were a resident in
4 a gated community in the event of a pipeline leak or
5 rupture?

6 MR. WITKES: I'm just going to object. There
7 are many facts that aren't in evidence. If he wants to give
8 him a hypothetical set of facts, that's a different thing,
9 but he can't represent facts that aren't in evidence.

10 MR. BOMSTEIN: It is a hypothetical. I just
11 didn't use the word "hypothetical."

12 MR. WITKES: It wasn't a hypothetical and that
13 was the nature of my objection, which I think was sustained.

14 MR. BOMSTEIN: I will rephrase the question.
15 BY MR. BOMSTEIN:

16 Q. I'm going to ask you to assume that a petitioner
17 named Rosemary Fuller lives in a hypothetical place called
18 Media, Pennsylvania, on Valley Road in a hypothetical gated
19 community surrounded by electric gates and fences. Would
20 you accept and do you understand that hypothetical?

21 A. An individual lives in a gated community.

22 Q. Fair enough. Would you be concerned about the
23 ability of people living in a gated community to escape in
24 the event of a serious leak or rupture of an HVL pipeline?

25 A. I have no idea what that gated community looks

1 like. I don't know how many emergency exits there are from
2 the gate. I don't know whether a vehicle gate is there that
3 can be opened manually. I have no idea. Can I climb over
4 the fence? I have no idea where to begin with that type of
5 a hypothetical.

6 Q. Fair enough. I'll ask you to assume instead that
7 Route 352 in the vicinity of Andover is directly alongside
8 the construction of the new Mariner 2 hybrid pipeline. Can
9 you visualize that?

10 A. There's a pipeline being built near a highway.

11 Q. Right next to the highway. I'm going to ask you to
12 assume that there are several bus loads of school children
13 driving by one afternoon, and I'm going to ask you if there
14 were a rupture of a pipeline that's that close to where
15 children go back and forth in school buses, would that cause
16 you a concern that they're at heightened risk for injury or
17 death?

18 A. I struggle, Your Honor, and I really apologize. It
19 keeps coming back to risk to me. Is there a risk to those
20 individuals, the children and the school bus? Yes, there
21 is. There's a risk of being on the bus. There's a risk of
22 the pipeline being nearby. If that's your question, I have
23 to concede that there is risk.

24 Q. Thank you. Sir, what is a combustible gas
25 detector?

1 A. You're getting into an area that I'm a big fan of,
2 so I'd love to explain that to you. I found a few years ago
3 while doing some research that combustible gas detectors are
4 now available for the homeowner. Prior to that, they were
5 typically a hand-held instrument or something that was used
6 in industrial application, but approximately, four years ago
7 I think it was, a couple of manufacturers, one being Kiddie,
8 K-i-d-d-i-e, the other one being First Alert, the same
9 people that make smoke detectors and fire detectors and
10 carbon monoxide detectors, entered into the combustible gas
11 indicator detectors.

12 I'm a big fan of them. I have them in my home. I have
13 bought them for my kids and I have bought them for other
14 family members. They detect combustible gases, which would
15 include methane, butane, propane, anything that's in a
16 gaseous. It will detect them and it will alarm.

17 Q. So would you recommend that people who are situated
18 next to HVL pipelines arm themselves with combustible gas
19 detectors?

20 A. Sir, I would recommend that anybody anywhere that
21 has natural gas or lives near a pipeline, has nature gas in
22 their home -- the reason I have them in my home is because I
23 have natural gas. I have a furnace. My dryer is natural
24 gas. My range is natural gas. I have natural gas in my
25 home. So I have those combustible gas indicators in my

1 home.

2 Now, we know that the natural gas in the home is
3 odorized, and I told you some of my concerns about the
4 inadequacy of odorization in some ways, but I have them for
5 that warning system. I believe in them, and therefore I
6 have them there.

7 So whether I live near a pipeline or have gas coming
8 into my home or in this building right here where there's
9 natural gas, I believe they should be everywhere.

10 Q. Would you agree that people who don't have them are
11 at somewhat of a disadvantage to people who have them?

12 A. Are they at a disadvantage?

13 Q. Yes.

14 A. To me, it's exactly the same as smoke detectors,
15 carbon monoxide detectors and fire detectors. I believe
16 everybody should have them. If they are disadvantaged, then
17 I would suggest they go to Lowe's and spend \$29.95.

18 Your Honor, they've come down \$10.00 in price since I
19 was here last time. So they are now \$29.95 at Lowe's.

20 Q. Would you recommend that Sunoco advise people to
21 get combustible gas detectors if they're going to be living
22 in close proximity to Mariner HVL pipelines?

23 A. What I would recommend is that every city, county
24 and state put in their building codes a requirement to have
25 combustible gas detectors in homes and businesses.

1 Q. Sir, are you aware that there is available today
2 leak detection equipment that can be placed on or in
3 proximity to HVL pipelines?

4 A. HVL pipelines are required by regulation to have
5 leak detection systems. Many of those are computer-based
6 models. In fact, most of them are computer-based models and
7 they're actually required in the regulations to have
8 computer-based models to monitor pressures and flows in the
9 pipelines and to determine if a leak or failure has occurred
10 on the pipeline.

11 Q. Are they used in Sunoco's pump and compressor
12 stations?

13 A. I'm sorry. One more time.

14 Q. Are there leak detection systems that are installed
15 in pump and compressor stations maintained by Sunoco?

16 A. That I don't know.

17 Q. Would you advise that if they didn't have them,
18 that they want to have them?

19 MR. WITKES: Objection. We're I think getting
20 into integrity management and well beyond the scope of --

21 MR. BOMSTEIN: Let me withdraw the question.

22 JUDGE BARNES: I think we're going beyond the
23 scope also of direct.

24 BY MR. BOMSTEIN:

25 Q. Let's posit that there is an HVL pipeline behind

1 the Glenwood Elementary School within five or six hundred
2 feet. Wouldn't it be a good idea if Sunoco had some kind of
3 detection and alarm system installed so that the school
4 would easily hear when there's a leak event or a rupture?

5 A. Are you talking about some kind of national defense
6 type warning system with horns and everything else?

7 Q. Sure.

8 A. I don't know how a company could implement
9 something like that. It would have to be a government
10 agency that would require it. You can't just have an alarm.
11 A company can't just set out a huge alarm out there --

12 Q. Why?

13 A. -- without approval from all kinds of people.
14 There would have to be reasons for it and there would have
15 to be approvals.

16 Q. Wouldn't the reason be to safeguard the lives of
17 children and school staff?

18 A. Well, if the school would like to have one, I
19 believe that's their prerogative is to have them.

20 Q. But you're saying it would be the responsibility of
21 the school to protect itself from Sunoco's danger rather
22 than Sunoco protecting the school from the danger. Is that
23 what you're saying?

24 A. What I'm saying is that I don't believe Sunoco
25 could put in those types of systems legally. I'm sure there

1 are all kinds of permitting requirements. There would be
2 noise, noise abatement. There would be a number of things
3 that would have to be managed. I don't know how the company
4 could do that.

5 The school, however, I can't speak to what their hurdles
6 or what their possibilities were.

7 Q. So you don't -- I'll go to another area in a
8 second. You don't believe that Sunoco could apply to
9 Middletown Township to install an alarm? That's what you're
10 stating to this court?

11 A. I don't believe the company can install an alarm.
12 That's what I'm saying.

13 Q. Thank you. Sir, do you agree that placing an HVL
14 pipeline such as the ME2 hybrid work-around next to an
15 elementary school increases the risk of injury to persons
16 and property as compared to not having a pipeline there at
17 all?

18 MR. WITKES: Objection; beyond the scope and
19 that is risk, which is not at issue.

20 MR. BOMSTEIN: I'm not talking about the risk.
21 I'm asking --

22 MR. WITKES: The specific question was does it
23 increase the risk --

24 JUDGE BARNES: It does sound like a risk
25 question.

1 MR. BOMSTEIN: Pardon?

2 JUDGE BARNES: Sustained.

3 BY MR. BOMSTEIN:

4 Q. Do you agree, sir, that the placement of the ME2
5 work-around pipeline has not been done at the request of the
6 schools?

7 A. I'm sorry. I have no idea.

8 Q. Do you believe that the schools asked for the
9 pipeline to be installed there?

10 A. Did the school want the pipeline to be installed
11 there?

12 Q. Yeah. Did they ask for it?

13 A. I would assume not, but I don't know.

14 Q. Do we agree, sir, that Exhibit 2, the two-page
15 color brochure provides no advice for persons who are not
16 able to leave by foot?

17 A. Was your question that this doesn't discuss what to
18 do for people who can't leave by foot?

19 Q. Correct.

20 A. Yeah. I acknowledged that it does not say that if
21 you're immobile for any reason what you should do. You as
22 the homeowner or individual would have to make that decision
23 of how you're going to evacuate or get away if you're
24 immobile.

25 Q. Sir, from a safety standpoint only, do we agree

1 that all other things being equal, it's better to place HVL
2 lines in areas that are less highly populated than areas
3 that are highly populated?

4 A. I'm sorry. I don't understand that question.

5 Q. Would you agree, sir, that from the standpoint of
6 safety, it's better to place HVL lines in areas that are
7 less highly populated?

8 A. We have to come back to risk for me to answer that.

9 Q. Then you don't need to. Sir, you wouldn't want HVL
10 lines to go through the City of Harrisburg, would you?

11 A. An HVL line through Harrisburg?

12 Q. Right; right through the middle of downtown
13 Harrisburg.

14 A. I don't --

15 Q. Do you think it's a good idea?

16 A. I'm sorry I'm struggling here, but again, it's back
17 to risk. What's the risk for the location? There are just
18 too many factors that fit in.

19 Q. Very good. I don't mean to be facetious, but just
20 to be clear, when you're talking about explosions, HVL lines
21 can explode just like a bomb can explode; correct? An
22 explosion is an explosion.

23 A. There can be a catastrophic failure. Dependent on
24 your definition of explosion -- PHMSA has a definition of
25 explosion. It's either rupture, explosion or leak.

1 Q. And you wouldn't put a bomb factory next to a
2 schoolyard, would you?

3 A. Would I put a bomb in a schoolyard?

4 MR. WITKES: Objection.

5 BY MR. BOMSTEIN:

6 Q. You wouldn't put a bomb factory --

7 JUDGE BARNES: Sustained.

8 BY MR. BOMSTEIN:

9 Q. -- next to a schoolyard.

10 JUDGE BARNES: Sustained.

11 MR. BOMSTEIN: Your Honor, I have no further
12 questions on direct.

13 JUDGE BARNES: Mr. Raiders.

14 MR. BOMSTEIN: Excuse me. No further
15 questions on cross.

16 JUDGE BARNES: It is cross; that is true.

17 CROSS-EXAMINATION

18 BY MR. RAIDERS:

19 Q. Good morning, sir.

20 A. Good morning.

21 Q. I'd like to clarify certain issues that were raised
22 on direct if you don't mind. Are you familiar with the
23 products that Sunoco has identified as being transmitted in
24 the Mariner East project?

25 A. The HVL products?

1 Q. Yes, which products.

2 A. Yes, I am.

3 Q. Which ones do you know of?

4 A. Typically, HVLs are three categories, propanes,
5 butanes and ethanes.

6 Q. Are you familiar whether these products are
7 significantly refined or if they're blends with other
8 hydrocarbons in them as they're being transmitted in a
9 batch?

10 A. It is a refined product by definition. It's going
11 to be butanes, propanes and ethanes, and the constituencies
12 or the percentages may vary on a daily basis, but there are
13 also the other contaminants that are in all pipeline
14 streams.

15 Q. Are you familiar there are significant amounts, as
16 you referred to earlier, C4s, C5s, C6s, which are larger
17 hydrocarbons?

18 A. There will be some of those in every stream.

19 Q. Do you know how much?

20 A. I don't have a quality sheet that gives me the
21 percentages.

22 Q. So we don't know whether those would impart odor on
23 ethane based what we know so far from your knowledge?

24 A. I haven't looked at the analysis of the product to
25 that degree of certainty.

1 Q. Are you familiar with the odor threshold of ethane?

2 A. The --

3 Q. Odor threshold.

4 A. The odor threshold of ethane?

5 Q. Yes.

6 A. I don't know what you mean, sir.

7 Q. The odor threshold is when an average human nose
8 can detect an ethane molecule entering the nose.

9 A. Oh, okay.

10 Q. We talked a little earlier about different
11 potential catastrophic releases. I assume you're familiar
12 with vapor clouds that could emanate out of a release.

13 A. Yes.

14 Q. And you're familiar with BLEVE?

15 A. With a BLEVE?

16 Q. Yes.

17 A. Yes. I know what that is.

18 Q. Could you describe to the court what a BLEVE is all
19 about?

20 A. It's a term that is not used in the pipeline
21 industry. It is used in the processing -- excuse me, Your
22 Honor. It is a term used in the processing and refinery
23 industry. It's also a term associated with tanker cars that
24 are both moved by rail and by truck, but BLEVE stands for a
25 boiling liquid evaporating vapor explosion.

1 Q. And you're saying that it's not something that
2 happens on pipelines?

3 A. It's not a term that I know of that's used in
4 pipelines. It requires a heat source. Take a train tanker
5 car that's exposed to a fire. That petroleum product in
6 that tanker as it's exposed to the fire will start to
7 vaporize. As it vaporizes, it's going to build pressure,
8 and if the pressure gets too high exceeding the ability of
9 the container to contain it, it's going to explode, boiling
10 liquid evaporating vapor explosion.

11 Q. You testified earlier that a release could cause a
12 vapor cloud.

13 A. Yes.

14 Q. And that vapor cloud would go out into the
15 atmosphere potentially.

16 A. Yes. The vapor cloud is going to move and
17 disperse.

18 Q. And usually that would be into the air at some
19 level depending on the product?

20 A. Yes. It's very dependent on product.

21 Q. You also said that without a significant amount of
22 additional facts, you can't predict where that vapor cloud
23 might go, because in your earlier discussion with Mr.
24 Bomstein, you said that where a vapor cloud may go is highly
25 dependent upon several different facts that would be case by

1 case. Is that a fair characterization?

2 A. Yes. There would be a number of factors that would
3 come into play for you to determine where that vapor cloud
4 may go.

5 Q. You mentioned about distribution lines versus
6 transmission line and you talked earlier about the natural
7 gas service to your house. What's the approximate pressure
8 of that natural gas service to your house; do you know?

9 A. I know exactly what it is.

10 Q. And what would that pressure be?

11 A. Immediately outside my house in the street in front
12 of me, which is about 12 feet -- in Houston, we live in very
13 high buildings. Land is very valuable there as it probably
14 is here, but we have small footprints. There is a
15 distribution main, called a main, in my front yard
16 approximately 12 feet from my front door. The pressure in
17 that main is 90 pounds per square inch.

18 From that main, there's a service line that then goes to
19 the side of my house. That is also at 90 pounds. From
20 there, it goes through a regulator and then a meter. The
21 pressure is cut down to one-quarter-of-a-pound per square
22 inch as it goes into my house.

23 Q. Do you know what the maximum operating pressure is
24 of Mariner East 1?

25 A. I'm sorry. I've seen that number, and as I sit

1 here, I can't recall it.

2 Q. Would you say it was significantly different than
3 90 psi?

4 A. I believe it is probably on the order of 1,000
5 pounds or maybe more.

6 Q. If there was a release on a segment of pipeline, do
7 you have any idea how much product would be potentially
8 released? For instance, for Mariner East 1, the segments
9 around Delaware, Chester County, are you familiar with that
10 at all?

11 A. I mean, I've looked at it on a map. I have not
12 visited the sites.

13 Q. Mariner East 1 is 8-inch; correct?

14 A. That's my understanding, yes.

15 Q. And if represented to you that valve sites on that
16 line are approximately five miles apart; you could determine
17 the amount of material that would be in the line between one
18 valve site and another; correct?

19 A. Yes. It would be very easy to do. I know the
20 length. You've given me that. I know the outside diameter.
21 I would have to try to determine the inside diameter. I
22 take that diameter, divide it by two to get a radius. I
23 square radius times radius and then multiply it by the
24 universal pi, 3.14, times that total distance. That will
25 give me a cubic foot volume of the amount of product that's

1 in that pipeline.

2 Q. Would it be fair to say that for a five-mile
3 segment, that would be a lot?

4 A. I don't know what you mean a lot. I'd be happy --

5 Q. More than a hundred gallons.

6 A. More than what?

7 Q. More than a hundred gallons. More than what
8 somebody would have in their home in a home heating tank.

9 A. I'd have to run the calculations.

10 Q. I'm not going to ask you to run the calcs.

11 A. Okay.

12 Q. Just order of magnitude discussion.

13 A. And I really don't know how big a tank would be in
14 a home. When I was a kid, we had fuel oil. It was a 500-
15 gallon tank.

16 Q. That's in the range.

17 A. And without doing the calculations, I can't even
18 estimate how much would be in that pipeline.

19 Q. It would be a significant amount of material.
20 Would you agree with that?

21 A. It would be?

22 Q. A significant amount of material in that pipeline.

23 A. Well, again, I don't know what you mean by
24 significant. I'd be happy to do the calculation.

25 Q. Do you have the ability to do that calculation just

1 to facilitate this discussion?

2 (Pause.)

3 MR. BOMSTEIN: May we have a moment, Your
4 Honor?

5 (Pause.)

6 BY MR. RAIDERS:

7 Q. I'm getting a number for an eight-inch diameter
8 line of five miles, 9,215 cubic feet. Is that within reason
9 in your mind? That would be 68,000 gallons.

10 JUDGE BARNES: Could you repeat the figures?

11 MR. RAIDERS: A five-mile segment of an
12 eight-inch line is 9,215 cubic feet or 68,939 gallons.

13 JUDGE BARNES: The last figure again?

14 MR. RAIDERS: 68,939 gallons.

15 JUDGE BARNES: Are you testifying as to that?

16 MR. RAIDERS: No. I'm setting up a
17 hypothetical.

18 BY MR. RAIDERS:

19 Q. We talked about a hypothetical three-inch leak a
20 little while ago. You remember that conversation with Mr.
21 Bomstein?

22 A. You're talking about a hypothetical leak --

23 Q. Yes.

24 A. -- in an eight-inch pipeline that's three inches in
25 diameter?

1 Q. A three-inch leak in an eight-inch, yes.

2 A. Okay.

3 Q. And let's assume that the operator is able to
4 isolate that one pipeline segment so the rest of the line is
5 not involved. Is that a fair assumption?

6 A. It's an isolated segment with a certain volume in
7 it that's going to leak out of a three-inch hole?

8 Q. Right.

9 A. Okay.

10 Q. Can I assume that for an ethane leak, that that
11 entire 9,000-plus cubic feet of product has to eventually
12 find its way out of that pipeline segment?

13 A. It won't all come out, no.

14 Q. How's that going to work?

15 A. How's that going to work?

16 Q. What's going to come out and what's not going to
17 come out?

18 MR. WITKES: Your Honor, this is well beyond
19 the scope of direct on safety warnings, compliance with
20 regulations.

21 MR. RAIDERS: I'm trying to reach a question
22 of the consequence as to how much vapor cloud could be
23 coming out of this line, which gets to the point of can the
24 public be adequately noticed based on the two-page document
25 that the people have available to know about it.

1 We had a long discussion about what is safe.
2 So we have to understand the magnitude of what it is that
3 we're trying to deal with as a consequence, and you can't
4 understand what the consequences are if you don't understand
5 how much material is being discussed.

6 JUDGE BARNES: I'll allow the question, but it
7 does seem like you're going beyond the direct examination
8 scope.

9 BY MR. RAIDERS:

10 Q. So in your expert opinion, if you have that release
11 from this hypothetical, what do you think the fate of the
12 material in that segment would be?

13 A. I've got to go back to your -- you're assuming a
14 five mile length of pipe and it's going to have a certain
15 volume of HVL.

16 Q. Ethane, specifically.

17 A. Okay. And it's going to be under liquid. It's
18 going to be liquid because it was under pressure at the
19 times the valves were isolated.

20 Q. Yes.

21 A. And now I have a three-inch hole in the pipeline.

22 Q. Yes.

23 A. And you're asking me to opine on what exactly?

24 Q. What you think will happen with the material in
25 that segment. Is it going to stay in the line? Is it going

1 to go into the vapor cloud?

2 A. Well, there's two things that happen here. One is,
3 once that hole is there, the pressure in the pipeline is
4 going to relieve to atmospheric pressure very quickly. It's
5 a non-compressible fluid, so once you make that hole in the
6 pipeline, the pressure in the pipeline goes to zero almost
7 instantaneously, okay.

8 So the pressure in the pipeline is now the same as the
9 pressure outside of the pipeline because of the hole. But
10 what happens here with that highly volatile liquid, like
11 propane or ethane or butane, is as that pressure has now
12 been removed, okay, it's going to vaporize.

13 And as it vaporizes, when it's coming out that hole,
14 okay, it's going to vaporize, and liquid is coming out, and
15 it's going to, you know, leak out onto the countryside.

16 MR. WITKES: Excuse me. Your Honor, I'd like
17 to make an objection here, if I may. This is an important
18 case to us they've made, seeking very severe relief against
19 us. Yesterday, I was limited to one hour of cross-
20 examination of their expert.

21 We have a number of witnesses. They've now
22 gone about an hour and 20 minutes more time than direct. We
23 are going to get squeezed again, and you are going to impose
24 limitations that we are not going to like on our witnesses.

25 And they've had much more time than they need

1 for cross-examination, multiple hypotheticals that are
2 saying the same thing, that are all beyond the scope, all on
3 things that have nothing to do with the case. I think they
4 should be cut off at this point.

5 MR. BOMSTEIN: Your Honor please, I certainly
6 understand his concern --

7 MR. WITKES: And I think it would be
8 appropriate for Mr. Raiders to respond, because Mr. Bomstein
9 completed his cross-examination.

10 JUDGE BARNES: Okay.

11 MR. RAIDERS: Your Honor, this is a central
12 point of this entire discussion here, is, is the public
13 awareness program adequate. If we can't identify what the
14 public is supposed to be aware of, how do we know it's
15 adequate or not?

16 JUDGE BARNES: I do think, though, that you're
17 kind of going into a fishing expedition here --

18 MR. RAIDERS: Well, no, I --

19 JUDGE BARNES: -- with this line of
20 questioning.

21 MR. RAIDERS: I have a few other lines of
22 questioning I can get to, because I was finishing with that.

23 MR. WITKES: I'm actually asking the Court to
24 stop the examination --

25 JUDGE BARNES: Yes, I think I'm going to

1 stop --

2 MR. WITKES: -- and to limit the cross-
3 examination.

4 JUDGE BARNES: All right. Is there any
5 redirect?

6 MR. WITKES: No, Your Honor.

7 JUDGE BARNES: All right. Thank you, sir.
8 You may step down.

9 THE WITNESS: Thank you. Your Honor, it was
10 nice to see you again.

11 JUDGE BARNES: You too.

12 (Witness excused.)

13 JUDGE BARNES: We will take a ten minute
14 recess.

15 (Recess.)

16 JUDGE BARNES: We are back on the record.

17 Mr. Fox, you may call your next witness.

18 MR. FOX: Thank you, Your Honor. Call Gregory
19 Noll.

20 Whereupon,

21 GREGORY G. NOLL

22 having been duly sworn, testified as follows:

23 JUDGE BARNES: Please be seated.

24 MR. FOX: Can we just move the exhibits in
25 front of him, the two exhibit binders in front of him?

1 JUDGE BARNES: Yes.

2 DIRECT EXAMINATION

3 BY MR. FOX:

4 Q. Good late morning, Mr. Noll. Can you turn to
5 Exhibit 15, please, in the binder?

6 A. Thirteen?

7 Q. Fifteen.

8 A. Oh, I'm sorry. Got it.

9 Q. Is that your C.V.?

10 A. Yes.

11 MR. FOX: Your Honor, I'd like to move Exhibit
12 15 into evidence.

13 JUDGE BARNES: Any objection?

14 MR. BOMSTEIN: No objection.

15 JUDGE BARNES: It is admitted.

16 (Whereupon, the document was marked as SPLP Exhibit No.
17 15 for identification, and was received in evidence.)

18 BY MR. FOX:

19 Q. Mr. Noll, can you describe for me your educational
20 background?

21 A. I have an associate degree in fire science from
22 Prince George College in 1976, bachelor's degree in business
23 administration from Kutztown State College in 1978, and a
24 master's degree in public administration with a minor in
25 occupational safety and health in 1981.

1 Q. Do you have any professional certifications?

2 A. Yes. I'm a certified safety professional and a
3 certified emergency manager by examination. As a member of
4 the National Incident Management Team System, I'm a Type 3
5 incident commander and a Type 3 operations section chief.

6 I also have numerous firefighter professional
7 qualification certifications as a fire officer, a hazardous
8 materials technician, a hazmat incident commander and as a
9 hazmat officer.

10 Q. Can you describe your military experience?

11 A. I served in the United States Air Force for 29
12 years. I was on active duty in the seventies. The
13 remainder of my time was primarily on the Reserves and Air
14 National Guard.

15 I served as a fire officer, fire and emergency services.
16 Among my duties was, I was involved in virtually every
17 hazardous materials, weapons of mass destruction training
18 program that was developed for emergency responders during
19 the period 1997 to 2012. I retired as an E-8, or a senior
20 master sergeant.

21 Q. Can you highlight your work experience as it
22 relates to emergency planning, emergency response and
23 incident management?

24 A. I've been in the emergency services community for
25 48 years. It's been in a variety of different positions,

1 both on the volunteer, the career and the industry side.

2 For the last, since approximately 1989, I had a business
3 partner, Hildebrand and Noll Associates. We provided
4 emergency planing and response consulting to both public
5 safety and industry.

6 Also, for the last 13 years, I've served as the program
7 manager for the South Central Task Force here in
8 Pennsylvania where I manage the -- I served as the program
9 manager for the Homeland Security Grant Program. And in
10 that position, I deal with virtually all elements of the
11 emergency response community, ranging from agriculture to
12 business and industry to fire to law enforcement, EMS and so
13 forth.

14 Q. Part of that is for Homeland Security as well,
15 correct?

16 A. That is correct.

17 Q. So some of the work that you've done actually has
18 been for public agencies and fire departments?

19 A. That is correct.

20 Q. And do you have specific experience with respect to
21 emergency response, emergency management and incident
22 management with respect to pipelines?

23 A. Yes, in several areas. In 2004, we were contracted
24 by the National Association of State Fire Marshals who
25 received a grant from PHMSA to develop a pipeline

1 emergencies curriculum. That led to the development of the
2 Pipeline Emergencies textbook, which is now in its third
3 edition.

4 In addition, we have done a lot of work over the years
5 in the oil and chemical industry, not just in pipelines but
6 also upstream and downstream. The common theme is always
7 going back to emergency planning and emergency response
8 issues.

9 In addition, I've served as an adjunct instructor for
10 the National Fire Academy as well as for the FBI Technical
11 Hazards Response Unit.

12 Q. Are you familiar with pipeline and hazardous
13 materials safety regulations that deal with emergency
14 response, public awareness requirements for pipelines?

15 A. Yes, I am.

16 Q. Are you a member of any codes or standards
17 committee relating to emergency response?

18 A. Yes. I am a member of the National Fire Protection
19 Association Technical Committee on Hazardous Materials and
20 WMD Emergency Response. I've been a committee member since
21 its inception in 1986. For the period of roughly 2007 to
22 2017, I served as the chair.

23 That committee is responsible for the development of the
24 training standards that directly pertain to hazardous
25 materials emergency response.

1 In addition, we worked on several projects relative to
2 pipeline audits as it relates to specific emergency response
3 issues.

4 Q. Have you published any texts or articles on the
5 subject of emergency response?

6 A. Yes. I've either authored or co-authored a total
7 of ten documents. Eight of those are stand-alone textbooks.
8 The two that would be pertinent to our discussions here
9 today would be Hazardous Materials: Managing the Incident,
10 which is now in its fourth edition. It was originally
11 published in 1986.

12 It also serves as, it's been adopted by a number of
13 states and agencies as the basis for their hazardous
14 materials technician and incident commander training
15 curriculum, directly leading to certification.

16 In addition, we were involved with the pipeline
17 emergencies curriculum, as I previously noted, which is the
18 framework for what a lot of the pipeline companies use for
19 their emergency response training.

20 Q. Is it fair to say that you literally wrote the book
21 on these issues?

22 A. Yes, but I was very fortunate. It's not just whose
23 name's on the front of the book, but who are the reviewers
24 in the process.

25 Q. I know you're a modest gentleman, but have you

1 received any awards in this area?

2 A. I received two lifetime achievement awards, one
3 from the International Association of Fire Chiefs through
4 their Hazardous Materials Committee, the second from the
5 State of California through their hazardous materials
6 response community, both pertaining to leadership and
7 activities in the hazardous materials emergency response
8 community.

9 In addition, I have awards for valor as a member of
10 Pennsylvania Task Force 1 responding to the World Trade
11 Center attack.

12 Q. Have you ever testified before?

13 A. This is really the first time. I've done two other
14 activities, one for the National Transportation Safety Board
15 and one for OSHA, both of those dealing specifically with
16 hazardous materials emergency response training issues.

17 Q. So it's an easy math to say there's really no
18 percentage of your work that's based upon your expert
19 testimony?

20 A. It's somewhere around .001.

21 MR. FOX: We'd like to offer Mr. Noll as an
22 expert in the area of emergency planning, emergency
23 response, public awareness and incident management for
24 pipelines.

25 JUDGE BARNES: Any objection?

1 MR. BOMSTEIN: No objection.

2 JUDGE BARNES: All right. He is accepted as
3 an expert witness in those areas.

4 BY MR. FOX:

5 Q. Mr. Noll, is it fair to say that the work that you
6 have done with respect to the Mariner East project is
7 related to the training of emergency planning and emergency
8 response officials?

9 A. That is correct. The MERO program, the Mariner
10 Emergency Responder Outreach program, was directly targeted
11 towards emergency responders and planners along the right-
12 of-way.

13 Q. So you were not involved in the other aspects of
14 public awareness? Your responsibilities dealt with training
15 emergency responders and the community around emergency
16 response?

17 A. That is correct.

18 Q. Okay. So you mentioned this MERO program.

19 MR. FOX: We're going to refer to it, Your
20 Honor, as MERO, as a shorthand. I think everybody knows
21 what that is.

22 BY MR. FOX:

23 Q. Can you tell me what your role was when you first
24 got started with respect to the MERO program?

25 A. My role was to reach out to the county emergency

1 management agencies along the pipeline right-of-way and to
2 work with them on the scheduling, coordination and the
3 logistics of the delivery of the classes.

4 The classes were approximately two to two and a quarter
5 hours in length, and I believe it was a total of 23 programs
6 that were delivered along the right-of-way, including three
7 of those -- two of those were in Ohio and one was in West
8 Virginia.

9 Q. And was there already some materials that had been
10 drafted as the training as part of the MERO?

11 A. That is correct. There was already a basic MERO
12 program that was already in existence and had previously
13 been used for the training of responders along the right-of-
14 way, in I think the 2015-2016 time frame.

15 Q. And what was your role with respect to reviewing
16 that existing MERO paperwork?

17 A. I reviewed the previous program and then made some
18 modifications to reflect several areas. One was just
19 personal teaching preferences, how the material is
20 developed, what makes sense. Second was the inclusion of
21 what we refer to as risk based response. And third was to
22 ensure that the materials, what we were teaching was
23 consistent with the latest edition of the pipeline
24 emergencies textbook and curriculum.

25 Q. I think you mentioned this, but just for emphasis,

1 you conducted the MERO training in all the categories where
2 the Mariner East project runs through, correct?

3 A. That is correct.

4 Q. I want to focus on the training in Delaware and
5 Chester Counties that are at issue here. First, with all
6 the MERO training, were you the lead instructor?

7 A. I served as the lead instructor and then was
8 supplemented by Sunoco personnel on the operation side who
9 served as what I would refer to as the technical specialists
10 for the pipeline operations questions.

11 Q. But essentially, you led the MERO training?

12 A. That is correct.

13 Q. Let's first talk about the training that was done
14 in Delaware County, and we'll come back to that later as
15 well. You conducted the MERO training in Delaware County?

16 A. Yes.

17 Q. How many times?

18 A. Twice.

19 Q. And just so we can speed this along, was one on
20 September 25, 2017?

21 A. Yes.

22 Q. And the other was on October 14, 2017?

23 A. Yes.

24 Q. Approximately how many people attended those
25 sessions?

1 A. As I recall, approximately 40 in each session.

2 Q. Now, the second session, was that part of a larger
3 emergency planning operation that was going on in Delaware
4 County that day?

5 A. Yes. Delaware County conducts an annual hazardous
6 materials training day through their local emergency
7 planning committee, so the MERO session was one of several
8 workshops on a variety of different emergency response
9 topics that day.

10 Q. And we're going to come back to this later. Can
11 you describe the role of the local emergency planning
12 committee for Delaware County?

13 A. The local emergency planning committee is a
14 requirement that was originally enacted in 1986 as part of
15 the Superfund Amendments and Reauthorization Act.

16 Within the Commonwealth of Pennsylvania, there is an
17 LEPC within each of the counties, and those counties are
18 charged with essentially coordinating emergency planning and
19 training as it relates to hazardous materials.

20 There is funding that comes to each of the LEPCs through
21 the state, specifically through the Pennsylvania Emergency
22 Management Agency, to support those activities.

23 Q. Can you tell me generally who attended the MERO
24 training that you did in Delaware County?

25 A. The training was primarily attended by firefighters

1 and emergency managers. Those consistently represented the
2 two largest audiences. And then there would be additional
3 individuals from law enforcement, EMS, emergency medical
4 services, and hospitals.

5 Q. Were there township officials there as well?

6 A. Yes.

7 Q. And were there also occasionally representatives
8 from the Department of Homeland Security?

9 A. Yes, as well as, there were some sessions in the
10 western part of the state where we had representatives from
11 the PUC as well.

12 Q. Did you also conduct as the lead instructor the
13 MERO sessions in Chester County?

14 A. Yes.

15 Q. How many times?

16 A. Twice.

17 Q. Was the first one on October 23, 2017?

18 A. Yes.

19 Q. And was the second on October 26, 2017?

20 A. Yes.

21 Q. Approximately how many people attended those
22 sessions?

23 A. Approximately 50, I believe, in each. Again, it
24 was consistently in that 45 to 50 range, as I recall.

25 Q. And again, can you tell me generally who attended

1 those sessions?

2 A. The makeup paralleled what we saw in Delaware
3 County, again fire and emergency management. In the Chester
4 County incident, as I recall, there were more elected
5 officials that were there.

6 Q. Were there also representatives from the
7 Pennsylvania Department of Environmental Protection?

8 A. Yes.

9 Q. And were there representatives from the Chester
10 County Department of Emergency Services?

11 A. Yes. Chester County Department of Emergency
12 Services actually helped to coordinate the scheduling and
13 the logistics.

14 Q. Can you turn to Exhibit 7?

15 A. Yes.

16 Q. Can you identify that document?

17 A. That is a hard copy of the PowerPoint slides that
18 were used as part of the MERO training program.

19 (Whereupon, the document was marked as SPLP Exhibit No:
20 7 for identification.)

21 Q. And we'll get through it, but this was specific to
22 Delaware and Chester County, correct?

23 A. Yes. There were modifications that were made to
24 each program so that we could insert the pertinent local
25 maps for that jurisdiction.

1 Q. And this is the MERO training materials that you
2 said you updated to your personal specifications?

3 A. That is correct.

4 MR. FOX: I'd like to offer this into
5 evidence.

6 JUDGE BARNES: Any objection?

7 MR. BOMSTEIN: No objection.

8 JUDGE BARNES: SPLP Exhibit No. 7 is admitted.

9 (Whereupon, the document marked as SPLP Exhibit No. 7
10 was received in evidence.)

11 BY MR. FOX:

12 Q. So you've sat here through the first day and a half
13 of this hearing, correct?

14 A. Yes.

15 Q. So a lot of questions have been raised about the
16 type and quantity and quality of information that's provided
17 on emergency planning and emergency response, so I want to
18 go through this document in some detail; just so we'll see
19 the type of information that was provided to the audience
20 that you described.

21 So first of all, this is training for the Mariner East
22 project, correct?

23 A. Yes.

24 Q. Does it provide a description of the nature of the
25 materials in the pipeline?

1 A. Yes.

2 Q. Okay. Can you turn to page 57, please?

3 (Pause.)

4 Q. Is the beginning of the presentation that you made
5 that describes the nature of the materials that are in the
6 Mariner East project?

7 A. Yes.

8 Q. Okay. So it specifies that specifically as what
9 we've talked about, ethane, propane and butane, correct?

10 A. Correct.

11 Q. Okay. And if we start flipping the pages, on the
12 next page there is what I would call information about those
13 materials in terms of their vapor, pressure and shipping,
14 correct?

15 A. Correct.

16 Q. And then if you turn to page 59, it has a series of
17 information about the health hazards?

18 A. Correct.

19 Q. And then on page 60, it provides information that
20 would be, what I'll call medical response. The heading is
21 medical care, if you're exposed to those; is that correct?

22 A. Correct.

23 Q. And that goes on on page 61 as well?

24 A. Yes.

25 Q. And then there are some really scientific

1 information starting on page 62 about the qualities of these
2 materials, so on page 62 it has boiling point; do you see
3 that?

4 A. Yes.

5 Q. Okay. And on page 63, it has specific gravity?

6 A. Yes.

7 Q. And then on page 64, it has vapor density?

8 A. Yes.

9 Q. And then page 65, it has vapor range?

10 A. Yes.

11 Q. Okay. And then it has a whole bunch of summary
12 information on page 66, 67 and 68 for each of the different
13 products; is that correct?

14 A. Correct.

15 Q. And then page 69 is kind of a summary of some of
16 that information; is that right?

17 A. That is correct.

18 Q. So you were here and you heard testimony yesterday
19 about the availability of information about what direction
20 the product in the pipeline flows. Do you recall that?

21 A. Yes.

22 Q. Okay. Can you turn to page 12 of the MERO
23 document?

24 (Pause.)

25 Q. On pages 12, 13 and 14, does that tell the

1 direction in which the product flows?

2 A. Twelve, thirteen and fourteen provide an overview
3 of the projects. I'm not sure if I'm looking at the
4 right --

5 Q. Well, it does talk about it going from west to
6 east?

7 A. Oh, yes, yes.

8 Q. And that's on pages 12 through 14, correct?

9 A. Yes.

10 Q. Okay. Does it provide information and mapping
11 resources regarding the location of the pipeline?

12 A. Yes. It is complemented by the maps that are also
13 provided for each session that showed specifically where the
14 pipeline right-of-way was going through that respective
15 county jurisdiction.

16 Q. Okay. So if you can start on page 22, and we're
17 not going to walk through every one of these pages, but I'm
18 just going to give you examples. It starts with a Chester
19 County overview, which is the countywide mapping, correct?

20 A. Correct.

21 Q. And then it literally goes through every borough
22 and township in Chester County showing where it's located?

23 A. Yes.

24 Q. Okay. And then if we flip all the way forward, it
25 does the same thing for Delaware County starting with page

1 32?

2 A. Yes.

3 Q. Gives the county overview and then it goes borough
4 by township, correct?

5 A. Correct.

6 Q. We've heard a lot of testimony about this as well.
7 Does your MERO training provide information about how to
8 detect a release?

9 A. Yes.

10 Q. And if you could turn to page 77 of the document?
11 So we're not breaking new ground here. This is what you've
12 heard. It has information on detecting a release by sight,
13 sound and smell; is that correct?

14 A. Correct.

15 Q. And there's actually some photographs on pages 78
16 and 79 about what a release may look like, photographs of
17 that. Do you see that?

18 A. Yes.

19 Q. Okay. Does it provide information in your training
20 about responding to different kinds of releases? And by
21 that I mean, releases that result in ignition and non-
22 ignition?

23 A. Yes.

24 Q. Okay. Can you turn to page 88?

25 (Pause.)

1 Q. Does that provide the emergency response procedures
2 for non-ignition?

3 A. Yes, it does.

4 Q. And it lists what you're supposed to do. Can you
5 just tell me generally what you're supposed to do in this
6 circumstance as reflected in your MERO training?

7 A. Control ignition sources, do not start motor
8 vehicles or electrical equipment. And then we also note
9 that there are special considerations associated with butane
10 in cold temperatures.

11 Q. And it goes on on 89 with more information about
12 what not to do in the case of non-ignition?

13 A. That is correct.

14 Q. And actually, it also talks about air monitoring
15 considerations on page 90. Could you explain that?

16 A. In this respective, as was noted yesterday in the
17 testimony, it's very common for emergency responders, both
18 the engine companies and for the hazmat teams, to have
19 access to monitoring and detection equipment.

20 So as we say, this bring science to the process in terms
21 of determining where, in a scenario where the vapors are not
22 visible, where the vapors are at and at what concentration.

23 Q. Could you turn to page 91?

24 (Pause.)

25 Q. Does it also provide training to the emergency

1 responders specifically on what happens in the case of
2 ignition and fire?

3 A. Yes.

4 Q. And what does it say in that regard?

5 A. Do attempt to control the spread of the fire. Do
6 protect exposures. Do not attempt to extinguish a product
7 fire.

8 Q. And there's several pages on that as well, correct?

9 A. Yes.

10 Q. Does it provide information on the danger areas of
11 the release? And for that, I want you to turn to page 70.

12 A. Yes.

13 Q. And can you explain to me what that page is
14 providing in terms of information?

15 A. Building on some of the previous testimony, it
16 points out that in the areas where you have the release
17 area, you'll have the condensation of moisture and air which
18 will give you a visible vapor cloud. However, flammable
19 vapors can actually go beyond the visible vapor cloud.

20 And then we have the flash fire area, which typically in
21 open vapor cloud scenarios, the ignition source is further
22 away from the release point.

23 Q. So essentially this is identifying different types
24 of incidents and what they look like?

25 A. That's correct. And then on the following page, we

1 did use a videotape to illustrate that point. That was
2 based on a training prop fire at Delaware State Fire School.

3 Q. Does the MERO training also provide specific
4 information about how emergency personnel are to assess and
5 respond to a release?

6 A. Yes.

7 Q. Can you turn to pages 72 to 76?

8 A. Yes.

9 Q. Is that the information that's provided in your
10 MERO response on emergency responders on how to respond to a
11 release?

12 A. Yes. That's the initial emphasis on communication
13 to 911 and to the pipeline control center.

14 Q. And that goes all the way through to pages 76,
15 correct? This is the entire train that we talked about
16 yesterday from somebody detecting it, 911, notifying the
17 emergency responders, and then starting the whole process?

18 A. Yes.

19 Q. Is it important as part of this whole MERO process
20 in emergency response to develop relationships among the
21 pipeline operator and the local emergency response
22 community?

23 A. Yes. Relationships provide the foundation for when
24 you have a response.

25 Q. Is that critical in your mind?

1 A. Absolutely.

2 Q. Did Sunoco do that as part of the MERO training,
3 establishing these relationships not only between Sunoco and
4 the emergency responders but among the emergency response
5 professionals?

6 Q. At each of the MERO sessions that I conducted,
7 there were Sunoco pipeline personnel, operators and
8 supervisors who were present. There were a number of
9 instances where contact information was exchanged between
10 emergency responders and their peers.

11 And in some cases, there was already person-to-person
12 relationships that were already in existence from previous
13 activities.

14 Q. So do you believe, in your opinion, that you were
15 able through this process to establish those important
16 relationships between the emergency response and Sunoco?

17 A. Yes.

18 Q. Did Sunoco put any limitations on you in terms of
19 establishing those relationships with the emergency
20 responders?

21 A. No.

22 Q. Now, in your professional opinion to a reasonable
23 degree of certainty, does the MERO provide all of the
24 specific information to the emergency responders to allow
25 them to develop a pre-incident plan?

1 A. Yes.

2 Q. And as part of that pre-incident plan, does the
3 MERO also provide public protective action procedures?

4 A. Yes. There are discussions on evacuation versus
5 sheltering in place.

6 Q. We'll get to that specific question in a second. I
7 think this is an important point because I think there's
8 some confusion on this issue, and I know in our discussions
9 this is critical, and I want to be clear on this. Who
10 actually develops the emergency response and evacuation
11 plans? Is it Sunoco or is it the local emergency
12 responders?

13 A. Within the Commonwealth of Pennsylvania, each
14 county is responsible for the development of an emergency
15 operations plan. That is typically developed through the
16 county emergency management agency, and that would
17 incorporate many of the questions that were asked yesterday.

18 After that point, there are also planning requirements
19 that exist at the local jurisdiction level, i.e. the
20 townships, the towns and the boroughs.

21 Q. So just to be clear on this, the obligation on the
22 pipeline operator is to provide information sufficient for
23 the local or county planning and emergency responders to
24 develop their emergency response plan?

25 A. Yes.

1 Q. Now, this is kind of a self-evident question but
2 I'll ask it because it's a foundation for some other
3 questions I want to follow up. Is it correct that each
4 actual incident may be different and unique?

5 A. Yes.

6 Q. I know that was a silly question. I got a laugh
7 out of you there. Does the MERO describe what is known as a
8 risk management approach to allow for a response by the
9 local emergency responders to each specific incident?

10 A. Yes. Within MERO, we integrated the concept of
11 risk-based response, and in simple terms, risk-based
12 response is based upon analysis of a problem, assessing the
13 hazards, estimating potential consequences, and then
14 determining courses of action, with those courses of action
15 based upon facts, science and circumstances.

16 Q. Explain a little bit about what you mean about
17 basing those decisions for each unique incident based upon
18 facts, circumstances and science?

19 A. So for example, when we talk about facts -- and
20 this is not unique to pipelines, this is a system that is
21 used in hazardous materials training in general -- by facts,
22 we would look at the container, the product and the location
23 of the incident, the environment where it's taking place.

24 By science, we would focus on the physical and the
25 chemical properties of the material with an emphasis of how

1 they will behave when released.

2 And in circumstances, we would focus on what resources
3 and capabilities and experience do emergency responders
4 bring to the incident.

5 Q. And when an incident occurs, do the emergency
6 response plans identify a point person, an incident
7 commander?

8 A. Yes. All of the documents typically go back to and
9 reference the local on-scene commander.

10 Q. And who is that, typically?

11 A. In most jurisdictions, for a pipeline incident,
12 that would be the local fire chief of the authority having
13 jurisdiction, i.e., where's the fire at. It would be the
14 local fire chief.

15 Q. And is that incident commander who is working
16 within the plan and using this risk-based approach to make
17 specific decisions based upon that unique event?

18 A. That is correct.

19 Q. So we heard a lot of discussion about this, about
20 what's the safe distance and those types of decisions.
21 That's made based upon the experience, the training and the
22 decisions of the incident commander in each specific
23 instance?

24 MR. BOMSTEIN: Objection, leading question.

25 BY MR. FOX:

1 Q. Is that correct?

2 A. Yes. It goes back to the basics of facts, science
3 and circumstances.

4 Q. Does that apply to decisions about how far to go to
5 be safe?

6 A. Yes. And again, it is not unique to just
7 pipelines. This is a process that we use for hazardous
8 materials training and response holistically.

9 Q. Can you explain the process between an individual's
10 walking away from the incident and then the emergency
11 responders setting up a safe zone?

12 A. My experience has been, is that in most cases
13 civilians are already taking actions to protect themselves
14 prior to our arrival. If not, we initiate that process.
15 But our initial goal, in very simple terms, is to separate
16 people from the problem. What that distance is will be
17 dependent upon what the scenario is and what the location
18 is.

19 Q. And once the people are moving, essentially, then
20 what is the role of the emergency response team in terms of
21 establishing a safe distance?

22 A. We would look to establish an isolation perimeter
23 and have your control zones. Most people would refer to
24 them as hot, warm and cold zones.

25 And then we would initiate actions for public protective

1 actions, i.e., would we look to evacuate or were we able to
2 shelter in place, again based upon incident specific
3 considerations.

4 Q. And we'll come back to the issue of evacuation
5 versus shelter in place, because I know that's an issue
6 that's been raised. But I want to address one other issue
7 that there's been testimony about, and that is people of
8 limited mobility.

9 Are you aware that Chester County actually has a
10 vulnerable needs registry for people who have limited
11 mobility to make emergency responders aware of that and what
12 their limitations are and where they live?

13 A. Yes. And that is not unique to Chester County.
14 What you will find is that most counties have a database,
15 often incorporated in their computer aided dispatch center
16 or the CAD, so that if there is an emergency at a specific
17 location and you have that special needs information, it
18 would pop up on the screen and communications would be able
19 to advise the incident commander or the first view companies
20 as appropriate.

21 Q. And are you aware whether Delaware County has a
22 special needs registry as well?

23 A. I believe they do.

24 Q. In your professional experience, is there any way
25 in advance of a particular incident to address the

1 variability of immobility, of people who may have to
2 evacuate in the case of an emergency?

3 A. It would be extremely difficult, even if we take
4 this outside of the realm of pipelines and just look at fire
5 calls. We run into continuous experiences where we go to
6 emergencies where people need assistance to get out. It's
7 not unique to one specific hazard. It's part of what we do.

8 Q. But am I correct that, is there any way for you to
9 know in a particular event who's had surgery and who is
10 immobile?

11 A. No.

12 Q. Okay. Or who may have been drunk and not mobile?

13 A. No.

14 Q. Or on drugs and not be mobile?

15 A. No.

16 Q. Okay. And so you actually heard testimony from Mr.
17 Walsh yesterday about having ACL surgery. There would be no
18 way for the emergency responders to know that about a
19 particular individual at a particular time unless they
20 registered?

21 A. That is correct.

22 Q. And that's, as you said, not unique to pipelines.
23 That's for any kind of emergency response?

24 A. Correct.

25 Q. So one of the other things we're going to back to

1 is, you were here when Mr. Hubbard testified?

2 A. For part of it.

3 Q. One of the things that he testified -- and I don't
4 want to mischaracterize his testimony, but I think he said
5 or testified that he was not given an information about
6 whether you could shelter in place.

7 Have you provided any information as an alternative that
8 there may be circumstances in the case of a pipeline
9 incident that you could shelter in place?

10 A. We discuss that in the program. Also, I would
11 point out, Your Honor, that emergency responders have pre-
12 existing hazardous materials training requirements before we
13 ever get to the pipeline question. That training, for
14 example with the use of the emergency response guide,
15 specifically gets into assessing what factors would be
16 viable with respect to making that decision of either
17 sheltering in place or evacuating, or some combination of
18 both of them simultaneously.

19 Q. So if you could just turn back to the MERO, I want
20 to show some specific references to that as an alternative
21 as well. Can you turn to page 83 of the MERO?

22 A. Yes.

23 Q. Can you read the last line there?

24 A. "Sheltering in place may be an alternative."

25 Q. And can you turn to page 93 of the MERO?

1 A. Yes.

2 Q. Is that a fuller discussion of the types of things
3 that you may consider as to whether to evacuate or shelter
4 in place?

5 A. Yes. If I could point out, following up on a
6 comment from yesterday, when dealing with flammable vapor
7 releases, historically we would try to do evacuation first.

8 But there are situations where it's impossible to do a
9 complete evacuation, so while evacuation is preferable to
10 sheltering in place, there are scenarios where sheltering
11 would be applicable if to buy time or to wait for additional
12 responders to arrive on the scene or to simply move them
13 from one part of a structure into another part of the
14 structure that's further away from the problem.

15 Q. Is it difficult to determine wind direction?

16 A. My experience is, it's pretty straightforward on
17 determining wind direction, and I've never had that question
18 in teaching for 40 years.

19 Q. In addition to the MERO training, have you done any
20 other emergency training relating to the Mariner East
21 project?

22 A. I was contracted by the Chester County Department
23 of Emergency Services to facilitate a table top session
24 which was conducted last May or June, I believe, and I am
25 facilitating a second table top exercise in December.

1 Q. Just so we're clear about this, you were contracted
2 by the county, not Sunoco?

3 A. That is correct.

4 Q. And just to get the date correct, does it ring a
5 bell that it was May 18, 2018?

6 A. Yes.

7 Q. Okay. Who was present at that?

8 A. It was a very diversified audience. Again, in many
9 respects, it mirrored what we saw in the MERO classes: fire
10 service, emergency management, a lot of local elected
11 officials, representatives from some schools, and there were
12 several other additional folks as well, but it was a very
13 diversified audience.

14 Q. About how many people were there?

15 A. As I recall, approximately 50.

16 Q. Were there representatives of the Environmental
17 Protection Agency there?

18 A. Yes. PA DEP had representation there.

19 Q. And the United States Environmental Protection
20 Agency?

21 A. That is correct.

22 Q. So I just want to show you, if you could, turn to
23 Exhibit 28, I believe it is.

24 (Pause.)

25 Q. I'm sorry, go to 29. I'm sorry. I made a mistake.

1 Is this an email that was sent out by Mr. Frank Sullivan
2 after your table top exercise in May of 2018?

3 A. Yes.

4 (Whereupon, the document was marked as SPLP Exhibit No.
5 29 for identification.)

6 Q. Who is Frank Sullivan?

7 A. Mr. Sullivan is the chief for the Chester County
8 Hazardous Material Response Team.

9 Q. And can you read the third paragraph, please, into
10 the record?

11 A. "In particular, we would also like to thank the
12 Pipeline and Hazardous Materials Safety Administration for
13 awarding the technical assistant grant and sponsoring the
14 table top exercise, and Greg Noll, GGN Technical Resources
15 LLC, who led the multi-disciplinary exercise."

16 Q. So this was actually done through a grant from
17 PHMSA for you to do this training?

18 A. That is correct.

19 Q. Now we'll turn to Exhibit 28.

20 (Pause.)

21 MR. FOX: I'd like to move in Exhibit 29, Your
22 Honor.

23 JUDGE BARNES: Any objection?

24 MR. BOMSTEIN: No objection.

25 JUDGE BARNES: It is admitted.

1 (Whereupon, the document marked as SPLP Exhibit No. 29.
2 was received in evidence.)

3 BY MR. FOX:

4 Q. I'm going to show you Exhibit 28. It's described
5 as the Chester County Department of Emergency Services
6 Pipeline Emergency Preparedness and Training Table Top
7 Exercise After Action Report. Do you see that?

8 A. Yes.

9 (Whereupon, the document was marked as SPLP Exhibit
10 No. 28 for identification.)

11 Q. Did you prepare that document?

12 A. Yes, I did.

13 Q. Can you describe what it is?

14 A. It's the -- when we do exercises, we develop after
15 action reports which capture a synopsis of what the exercise
16 objectives were, what our planning assumptions were, and
17 then lay out the scenario.

18 The purpose of a table top exercise is to present
19 problems. Essentially, the incident serves as a platform
20 for discussion, focusing on questions and issues related to
21 emergency response to the scenario.

22 Q. As part of that, did you ask for feedback and
23 ratings from the audience participants about the value of
24 this training?

25 A. Yes. That's a key part of the AAR process, is the

1 evaluation loop.

2 Q. Could you turn to page 19 of the report? Can you
3 describe the rating system that you developed, and then
4 would you please read the ratings that you were given for
5 each of the categories?

6 A. The question was, "What is your assessment of how
7 the table top exercise was designed and conducted?" The
8 ratings scale went from one, strongly disagree, to five,
9 strongly agree, and there were five points.

10 The exercise was well structured and organized, 4.9.

11 The exercise scenario was plausible and realistic, 4.9.

12 The time allowed to run the exercise was sufficient,
13 4.6.

14 Participation in the exercise was appropriate for
15 someone in my position, 4.7.

16 And the exercise included the right mix of people and
17 disciplines to accomplish the stated objectives, 4.7.

18 Q. Was one of the recommendations in your after action
19 report that some of the participants wanted some additional
20 training?

21 A. Yes.

22 Q. And have you planned another session in response to
23 that?

24 A. Yes. Chester County is facilitating the scheduling
25 of another table top exercise in December. In addition,

1 they have done some additional training and meetings since
2 that time. I know in September they sent a group down to
3 Texas A&M University for the pipeline emergencies course,
4 and I believe they also sent a group out to Oklahoma City to
5 the US DOT transportation test center for additional
6 information on pipelines.

7 Q. Are you aware that a table top exercise was also
8 done in Delaware County?

9 A. Yes.

10 Q. Is that available on the LEPC website for Delaware
11 County?

12 A. It's my understanding that there is a link to that
13 video on their website.

14 MR. FOX: Your Honor, I'd like to show that
15 now.

16 JUDGE BARNES: All right. We're going to off
17 the record.

18 (Discussion off the record.)

19 JUDGE BARNES: Back on the record. For
20 showing a video --

21 MR. FOX: There's a link.

22 JUDGE BARNES: Do you have it physically?

23 MS. SILVA: It's physically on file, extracted
24 from the Internet.

25 JUDGE BARNES: No, I have no problem with you

1 showing the video anyway you want. What I'm concerned with
2 is, we're not going to have the court reporter transcribe
3 the video. What I would like is the video in the form of an
4 exhibit, either a CD-ROM or thumb drive.

5 MR. FOX: We will do that for you, and give it
6 to the court reporter, I guess we can do it this weekend.
7 If you give us your information, we'll provide it to you, if
8 not this afternoon.

9 JUDGE BARNES: Okay. If it's a post-hearing
10 exhibit, that's okay, and then label it as an exhibit.

11 MR. FOX: We can run this now.

12 JUDGE BARNES: We're off the record now.

13 (Discussion off the record.)

14 JUDGE BARNES: We're on the record now.

15 MR. BOMSTEIN: Your Honor please, I'm unclear
16 how Sunoco proposes to treat this from an evidentiary
17 standpoint.

18 MR. FOX: I have a question for the witness
19 that is one question about this, and that's it.

20 MR. BOMSTEIN: We can respond at that time.

21 JUDGE BARNES: Okay.

22 MR. RAIDERS: Your Honor?

23 JUDGE BARNES: Yes?

24 MR. RAIDERS: Can defendants provide us actual
25 link of where that video came from?

1 MR. FOX: Yes, absolutely.

2 BY MR. FOX:

3 Q. I really have one simple question. Unfortunately,
4 we don't have a video of your Chester County table top that
5 you did in May. Is the one that you saw similar to the ones
6 that you're doing in Chester County?

7 A. The process would be one and the same. Obviously,
8 they had a lot more people there and some different
9 objectives, but the fundamental process, Your Honor, of how
10 you manage a table top exercise was one and the same.

11 Q. Thank you. I want to go back to the PHMSA
12 regulations on public awareness as it relates to emergency
13 response, which is at 49 C.F.R. 195.440. You're aware of
14 those requirements?

15 A. Yes.

16 Q. Okay. The MERO training and the other training
17 that you have done, does it identify a One-Call notification
18 system prior to excavation?

19 A. Yes, Your Honor.

20 Q. Does it identify possible hazards from pipeline
21 release?

22 A. Yes, Your Honor.

23 Q. Does it identify physical indicators that a release
24 may have occurred?

25 A. Yes, Your Honor.

1 Q. Does it identify steps that should be taken for
2 public safety in the event of a release?

3 A. Yes, Your Honor.

4 Q. Does it identify procedures to report such an
5 event?

6 A. Yes, Your Honor.

7 Q. Does it identify for the public the pipeline
8 locations?

9 A. Yes, Your Honor.

10 Q. And does it address all counties where the pipeline
11 runs through?

12 A. Yes, Your Honor.

13 Q. Okay. Could you turn to Exhibit 32?

14 (Whereupon, the document was marked as SPLP Exhibit
15 No. 32 for identification.)

16 MR. FOX: I'm almost done, Your Honor, less
17 than five minutes.

18 BY MR. FOX:

19 Q. Are you aware that there's also specific outreach
20 that Sunoco is making to school districts as part of its
21 public awareness and emergency response program?

22 A. Your Honor, I'm aware of the process. I was not
23 involved in that process, though.

24 Q. That's done by another company, correct?

25 A. That is correct.

1 Q. If you take a look at that information, I'm going
2 to represent -- we'll have a represent talk about what the
3 outreach is to the schools -- have you seen that before?

4 A. Yes.

5 Q. Is the information that's contained on there on
6 planning, mapping, pipeline marking, contact information,
7 types of materials, indication of release and how to respond
8 to release consistent with your MERO training?

9 A. Your Honor, it is consistent.

10 Q. I have three final questions for you, and these are
11 in your opinion to a reasonable degree of professional
12 certainty. Is the emergency planning and emergency
13 response, public awareness activities you've conducted for
14 the Mariner East project compliant with PHMSA regulations?

15 A. Your Honor, yes.

16 Q. In your opinion, to a reasonable degree of
17 professional certainty, is the emergency planning and
18 emergency response, public awareness you've conducted for
19 the Mariner East project consistent with what other pipeline
20 operators in Delaware and Chester County provide?

21 A. Your Honor, yes.

22 Q. And in your opinion to a reasonable degree of
23 professional certainty, is the emergency planning, emergency
24 response and public awareness you have conducted for the
25 Mariner East project sufficient for emergency responders to

1 respond safely to a pipeline incident, including potential
2 impacts to schools or for those who have limited mobility?

3 A. Your Honor, yes.

4 MR. FOX: No further questions. I want to
5 just move a couple exhibits in. So we have Exhibit 32.

6 JUDGE BARNES: Any objection to Exhibit 32?

7 MR. BOMSTEIN: No objection.

8 JUDGE BARNES: It is admitted.

9 (Whereupon, the document marked as SPLP Exhibit No. 32
10 was received in evidence.)

11 MR. FOX: And 28, we'd like to move in.

12 JUDGE BARNES: Any objection?

13 MR. BOMSTEIN: No objection.

14 JUDGE BARNES: It is admitted.

15 (Whereupon, the document marked as SPLP Exhibit No. 28
16 was received in evidence.)

17 MR. FOX: And then subject to us providing
18 them the actual link and the thumb drive, No. 27.

19 (Whereupon, the document was marked as SPLP Exhibit
20 No. 27 for identification.)

21 MR. BOMSTEIN: No objection.

22 MR. FOX: So we have 27, 28, 29 and 32, are
23 the other ones.

24 JUDGE BARNES: I'm double checking my memory.
25 Okay, so 27 is blank, and that's going to be your video?

1 MR. FOX: Twenty-seven is blank?

2 MS. SILVA: Twenty-seven is the video.

3 JUDGE BARNES: It's the video. I mean it's
4 blank in the -- there's nothing here.

5 MR. FOX: We'll provide that.

6 JUDGE BARNES: Okay. Any objection to
7 admission of the video?

8 MR. BOMSTEIN: No objection.

9 JUDGE BARNES: All right. It will be admitted
10 once I receive it, and I'll do that by order probably, the
11 order, December 10th.

12 (Whereupon, the document marked as SPLP Exhibit
13 No. 27 was received in evidence.)

14 JUDGE BARNES: Okay. Mr. Kanagy, do you have
15 any questions of this witness?

16 MR. KANAGY: No, Your Honor. Thank you.

17 JUDGE BARNES: All right. Mr. Bomstein, you
18 may cross-examine.

19 MR. BOMSTEIN: Thank you, Your Honor.

20 CROSS-EXAMINATION

21 BY MR. BOMSTEIN:

22 Q. Sir, is it important for you to know which
23 pipelines are operating in the areas for which you have
24 responsibility?

25 A. Yes.

1 Q. Which of the Mariner pipelines are currently
2 operating, as far as you know?

3 A. That would be the pipelines that are outlined in
4 the MERO program. If you go back down to that list, Mariner
5 East 2, 2X.

6 Q. Well, they're not operational yet, are they?

7 A. But as part of the training, we talked about all of
8 the projects, and we made it clear which projects were
9 operational at the time and which ones were to be coming on
10 line at a later date.

11 Q. Is the eight-inch Mariner East 1 pipeline
12 operational?

13 A. I do not know.

14 Q. Is the 12-inch line operational?

15 A. Your Honor, I would defer to, going back to Sunoco
16 Pipeline for those questions, because when we did the
17 training, I knew what was operational. In terms of what's
18 up today, I can't answer that question. I just don't have
19 access to the information and am not in a loop to routinely
20 get it.

21 Q. Sir, you talked about a safe zone and you referred
22 to hot zones, warm zones, cold zones. What exactly do you
23 mean?

24 A. Those are terminology that we use for managing the
25 incident layout as it relates to emergency responders. For

1 the public at large, we would look to establish an isolation
2 perimeter.

3 So when you talk about a safe zone or where is it safe,
4 what we're trying to do is to separate those civilians from
5 the problem and push them towards an area of safety.

6 We would define safety as being a lowering of the
7 hazard. Obviously, to go back to some of the previous
8 questions, time distance shielding, those are basics. The
9 further away you can get from the problem, whatever the
10 problem is, the lower the probability of harm.

11 Q. Thank you. With respect to the question of a vapor
12 leak of propane, do you know, based on your experience, how
13 far out propane clouds extend from the point of origin?

14 A. It would be dependent upon the circumstances of the
15 incident.

16 Q. Could it be only 100 feet?

17 A. It would be dependent upon the circumstances of the
18 incident, including not just -- if we're looking at propane
19 across the board, what type of container, what the size of
20 the container is, what the weather conditions are, what the
21 size of the breach is, and I can keep going down the line.

22 Q. Have you ever personally been involved in dealing
23 with an HVL leak?

24 A. With an HVL leak, no, not on a pipeline. I have
25 been involved in numerous propane emergencies.

1 Q. But not on a pipeline?

2 (No response.)

3 Q. You talked about your training and experience and I
4 respect that, and I understand that you have a lot of
5 knowledge that most of us don't. But when you're talking
6 about a safe location and giving out information to the
7 public, might that be different from your understanding of a
8 safe location as an experienced professional?

9 MR. FOX: Objection. We specifically limited
10 his testimony to what he was hired to do, which is training
11 emergency responders. He's not offering any opinions about
12 public awareness to the public generally.

13 JUDGE BARNES: Sustained.

14 BY MR. BOMSTEIN:

15 Q. Is there such a thing as a safe distance from a
16 pipeline event?

17 A. From a process perspective, as emergency
18 responders, we will try to move the public towards an area
19 of less harm. What that distance is, the relative safety
20 will vary based on the parameters that I outlined before.

21 Also, understand that at the beginning of the incident,
22 that is going to be a very, Your Honor, subjective process
23 based upon what you see, what you recognize, what you know.

24 If we're dealing with a scenario that involves a vapor
25 leak, obviously the quicker I can bring air monitoring into

1 the process, that provides me with a scientific basis to now
2 say, here's where it's a safe haven, here's where it might
3 not be at that same level.

4 Q. Would that be important to establish in the event
5 of a vapor leak?

6 A. Yes. And it's something that's done routinely by
7 emergency responders.

8 Q. But it's not done by civilians?

9 A. No.

10 MR. FOX: It's the same issue. If he wants to
11 ask about emergency responders, that's what he's testifying
12 to.

13 JUDGE BARNES: Sustained.

14 BY MR. BOMSTEIN:

15 Q. Sir, very briefly, you talked about scenarios when
16 firefighters have to go in and take people out of
17 properties. Remember you mentioned that, correct?

18 A. Yes.

19 Q. So if you have a call to a fire scene and you need
20 to evacuate a family that's in the home, can you say in
21 general typically how far you have to go away from the
22 structure in order to get them safe?

23 A. Once again, sir, there's so many variables there.
24 Obviously the key concern is to get them out of the
25 structure first, and then from that, it will be based upon a

1 number of factors.

2 Q. And if you're dealing with removing a disabled
3 person from a structure that's on fire, would you sometimes
4 need to put them in vehicles and remove them from the scene?

5 A. Once they're out of the structure?

6 Q. Yes.

7 A. Perhaps. At a minimum, we would probably be
8 putting them in an ambulance to go to a hospital or to go to
9 another location.

10 Q. And same question for a pipeline leak event. Would
11 you in fact be able to remove a disabled person from a
12 propane cloud using an emergency vehicle?

13 A. Again, in that particular case, there are many
14 variables in terms of what type of structure, what size of
15 the cloud, where's the location of the release, which
16 direction are the winds blowing, and I can go on.

17 Q. Isn't it a fact, sir, that people are warned not
18 aid turn on electrical switches and not to create a source
19 of ignition in a vapor leak event?

20 A. Yes.

21 Q. So are you saying -- let's just be clear -- are you
22 saying, nevertheless, you might have people driving an
23 emergency vehicle into a cloud?

24 A. From a -- emergency responders driving into that
25 cloud?

1 Q. Correct.

2 A. I would like to think that we have provided them
3 with the training and the clues to look for to minimize that
4 taking place.

5 Q. You wouldn't want it to happen?

6 A. Obviously, no.

7 MR. BOMSTEIN: Thank you.

8 CROSS-EXAMINATION

9 BY MR. RAIDERS:

10 Q. Very quickly, so we can get to lunch, good
11 afternoon, sir.

12 A. Hi.

13 Q. Could you explain quickly how the incident
14 commander would designate the hot zone and how they would
15 make the decision to change the hot zone?

16 A. Initially, frankly, it would be based on what his
17 visual cues are in terms of where the problem is. Let's
18 take a step back. What's the type of scenario? Are we
19 looking at a --

20 Q. Pipeline.

21 A. -- leak or a fire? If we're looking at a leak,
22 what type? Are we looking at, to use the terminology from
23 yesterday, are we looking at a leak? Are we looking at a
24 puncture scenario or are we looking at a rupture? If it's a
25 rupture, it's probably going to be a fire scenario, which in

1 turn radiant heat would become a critical issue.

2 Q. So you're saying that the incident commander would
3 have to make that call based on what they're observing at
4 the time?

5 A. At the time, correct. And as the incident time
6 line goes on, we would refine that process, particularly if
7 it's dealing with a vapor release with no ignition, because
8 now we would do air monitoring which would give us science,
9 if you will, to make valid technical decisions in terms of
10 managing the incident site.

11 Q. Are you aware of any air monitoring available to an
12 emergency responder along the pipeline route or at any
13 stations for the Mariner East project?

14 A. I can't speak for what might be provided by Sunoco.
15 I can tell you that it would be, I would be surprised to go
16 to any fire department and not find a basic combustible gas
17 indicator.

18 Q. That would just be in the fire department's
19 equipment, correct?

20 A. That's correct.

21 Q. There's no such technology implemented along the
22 pipeline route?

23 A. In terms of fixed, I do not know the answer to
24 that. In terms of portable equipment, to the best of my
25 knowledge, I believe that the Sunoco pipeline operators have

1 that in their vehicles.

2 Q. Am I correct in assuming that you're not sending
3 people into the hot zone unless the incident commander makes
4 the decision to change the hot zone?

5 A. If you take a step back, the hot zone is where the
6 problem is, however you want to characterize that problem.
7 The incident commander will send people into there based
8 upon, again, what's the nature of the problem, what do we
9 need to do to reduce the scope of that problem, i.e. or fix
10 the problem.

11 There's a number of questions that he's going to have to
12 go through, including what's the required level of personal
13 protective clothing and equipment. He's going to have to
14 send it in as a buddy. He's going to have to have a backup
15 capability.

16 So again, it's not that we as responders aren't willing
17 to assume risks, but we're managing the overall risks, not
18 just of the response but also to responders.

19 Q. In your experience, would an incident commander
20 send somebody into a visible vapor cloud?

21 A. If you're saying physically go into the vapor
22 cloud, the answer to that is no. If you're talking about a
23 scenario where I can see the vapor cloud, the vapor cloud is
24 visible, I can go in, I can use master streams or water
25 streams to knock down that vapor cloud or start to dissipate

1 it, and at least reduce the level of risk at that point.

2 Q. Can we go to page 66 of MERO, please?

3 A. Was that 66 of the MERO handout?

4 A. Yes -- no, of the -- yeah, of the slide, yes.

5 (Pause.)

6 JUDGE BARNES: What exhibit number are we on?

7 MR. RAIDERS: Seven.

8 MS. SILVA: Seven.

9 JUDGE BARNES: Thank you.

10 THE WITNESS: Yes.

11 BY MR. RAIDERS:

12 Q. Could you read the third bullet, please?

13 A. "Odorless and colorless gas at standard temperature
14 and pressure."

15 Q. And what material does this refer to?

16 A. Ethane.

17 Q. If you look at the next two pages, would you see
18 the exact same comments for propane and butane?

19 A. Yes.

20 Q. Thank you. Are you familiar with the materials
21 that the public receives from Sunoco concerning public
22 awareness?

23 A. No.

24 MR. FOX: Objection.

25 JUDGE BARNES: Sustained.

1 MR. RAIDERS: I'll rephrase.

2 BY MR. RAIDERS:

3 Q. Do you know if the public has been informed at all
4 about sheltering in place?

5 MR. FOX: Objection.

6 MR. RAIDERS: This goes to the central point
7 of, his slides say shelter in place, but the public is not
8 aware of these things. If the public is getting conflicting
9 information in emergency response, the adequacy of 440 is in
10 severe doubt.

11 MR. FOX: He's not testifying as to what the
12 public receives. He's testifying about what he's training
13 the emergency responders. If he wants to ask other
14 witnesses about that, he can. That's not what this witness
15 was proffered for.

16 MR. RAIDERS: This witness was proffered to
17 the veracity of the training that he offered, and I'm asking
18 a question about, the training that he offered conflicts
19 with what the public has been told by the pipeline operator.

20 MR. FOX: The training offered was to
21 emergency responders and public officials, not public
22 awareness. We've made that clear from the outset.

23 MR. RAIDERS: However, if emergency responders
24 are telling people different information than what the
25 pipeline operator is telling them, could that cause

1 confusion among the lay public?

2 JUDGE BARNES: All right. You can make that
3 argument in your brief, but I do believe the scope of his
4 testimony was regarding training to emergency responders and
5 not to the public outreach pamphlet and things of that
6 nature, so I'm going to sustain the objection.

7 BY MR. RAIDERS:

8 Q. Take you to slide 91 in the MERO.

9 MR. FOX: Ninety-one?

10 MR. RAIDERS: Ninety-one.

11 MR. FOX: Thank you.

12 THE WITNESS: Yes.

13 BY MR. RAIDERS:

14 Q. Could you describe why it is you offered this
15 particular slide and the information on it?

16 A. I'm not sure I'm following your question.

17 Q. You say here, if the pipeline release is ignited,
18 do not attempt to spread (sic), do not (sic) protect
19 exposures. So am I correct in saying that a first responder
20 reaching this is basically not going to manage the pipeline
21 fire at all?

22 MR. FOX: Object. Your Honor, he didn't read
23 the document correct. You have to read the first bullet.
24 You said, "Do not." It does not say, "Do not."

25 JUDGE BARNES: Is that a mischaracterization

1 in the question?

2 MR. RAIDERS: Okay.

3 JUDGE BARNES: Perhaps you could rephrase it.

4 MR. RAIDERS: I'll rephrase it.

5 BY MR. RAIDERS:

6 Q. Does this slide that a first responder would
7 attempt to address the actual source of the ignition?

8 A. When dealing with flammable gas emergencies,
9 regardless of what the gas is, whether it's propane, butane,
10 natural gas, the proper way to extinguish that fire is to
11 isolate the source, to shut off the source.

12 In this particular scenario, the firefighters would
13 never, never be directed to try to go in and extinguish that
14 fire. If you take that scenario, you go with the picture,
15 the proper or the appropriate tactics would be to, what we
16 would say is cool exposures and prevent the growth and
17 migration of the fire to other areas beyond what was
18 originally involved.

19 Q. Slide No. 70, please.

20 A. Yes.

21 Q. Is it correct that you have both a visible vapor
22 cloud area and an invisible vapor cloud area identified on
23 this slide?

24 A. Yes.

25 Q. Could you describe the importance of that

1 distinction?

2 A. Well, as was noted previously, the visible vapor
3 cloud, you're not physically seeing the propane vapors.
4 You're seeing the moisture in the air being condensed.

5 The key point that we emphasize for our emergency
6 responders is, the visible cues don't represent the entire
7 problem, is that there can be vapors that extend beyond the
8 vapor plume.

9 Q. And how would an incident commander use that
10 information in setting up the hot zone?

11 A. It would determine where his problem is and what
12 the size of his hot zone is, and he would also start --
13 again, if we're looking at a vapor cloud release, the best
14 thing that emergency responders have coming with them is
15 water. So I'm probably going to start to look to apply
16 water to knock down that vapor cloud.

17 Q. When was the MERO training conducted?

18 A. It was conducted in the period of August to
19 November 2017.

20 Q. Do you know approximately when Sunoco converted
21 Mariner East 1 to HVL service?

22 A. I would have to go back and check with them.

23 Q. Do you have any knowledge as to what triggered the
24 MERO process, as to why it was set up?

25 A. My understanding is that it was the, what I would

1 call the similar approach used by all the pipeline operators
2 for providing training to emergency responders. This is not
3 the only program of this type that I've seen from other
4 pipeline operators. They also have the requirements under
5 PHMSA to do so.

6 Q. Could you talk for a minute about what you just
7 said about the requirements under PHMSA to conduct a program
8 similar to MERO?

9 A. It's my understanding that under the PHMSA
10 requirements, that among the outreach is to reach out to
11 emergency responders.

12 Q. In your opinion, do you think that the MERO process
13 should have been done before Mariner East 1 was operational,
14 or was it appropriate to wait until years after?

15 MR. FOX: Objection.

16 JUDGE BARNES: Overruled. Please answer the
17 question.

18 MR. FOX: He hasn't identified or laid a
19 foundation -- I'm sorry, I didn't give you a full objection.
20 He didn't establish a foundation for whether there was
21 additional training or earlier training for Mariner East 1
22 done by somebody else.

23 JUDGE BARNES: How do you know this to be
24 true?

25 MR. RAIDERS: I don't know it to be true or

1 not.

2 JUDGE BARNES: You don't know.

3 MR. RAIDERS: I'm trying to examine what this
4 witness knows, and he is somebody identified as doing this
5 process.

6 THE WITNESS: There was previous MERO training
7 that was provided in the years prior to myself being
8 engaged.

9 BY MR. RAIDERS:

10 Q. What do you know about that?

11 A. I know that from looking at the student records and
12 the training records of where previous sessions were
13 delivered.

14 Q. Do you know if this program has been updated at
15 all?

16 A. It was updated for the deliveries last year.

17 Q. Has it been updated since?

18 A. To the best of my knowledge -- I have not made any
19 additional deliveries since then.

20 MR. RAIDERS: That's all I have.

21 JUDGE BARNES: Any redirect?

22 MR. FOX: No, Your Honor.

23 JUDGE BARNES: Thank you, sir.

24 THE WITNESS: Thank you, Your Honor.

25 JUDGE BARNES: You may step down and you are

1 excused.

2 (Witness excused.)

3 JUDGE BARNES: It is now 12:50. I think this
4 would be a good time to break for lunch. How much time do
5 we need, 1:30?

6 MR. FOX: One-thirty would be great.

7 JUDGE BARNES: All right, 1:30 it is. We are
8 now off the record.

9 (Whereupon, at, 12:50 p.m., the hearing was adjourned,
10 to be reconvened at 1:30 p.m., this same day.)

11 AFTERNOON SESSION

12 (1:33 p.m.)

13 JUDGE BARNES: Back on the record. Before we
14 have the next witness called, I photocopied an emailed link
15 from Ms. Silva to me, including the link of the video
16 broadcast that we just saw. I instructed the court reporter
17 to attach those copies as SPLP 27, and they are admitted
18 into the record. So that's taken care of.

19 MR. RAIDERS: And we acknowledge receipt of
20 that.

21 JUDGE BARNES: Thank you, Mr. Raiders.

22 Mr. Kanagy, you have a witness to call?

23 MR. KANAGY: Yes, Your Honor. Thank you very
24 much. At this time, Your Honor, Range Resources would call
25 Alan Engberg.

1 JUDGE BARNES: Mr. Engberg, please raise your
2 right hand.

3 Whereupon,

4 ALAN ENGBERG

5 having been duly sworn, testified as follows:

6 JUDGE BARNES: Please state your name and
7 spell it for the record.

8 THE WITNESS: Alan Engberg. Alan is A-L-A-N,
9 Engberg, E-N-G-B-E-R-G.

10 JUDGE BARNES: Go ahead, Mr. Kanagy.

11 MR. KANAGY: Thank you, Your Honor.

12 DIRECT EXAMINATION

13 BY MR. KANAGY:

14 Q. Mr. Engberg, by whom are you employed?

15 A. Range Resources.

16 Q. And what is your position with Range Resources?

17 A. I am vice president of liquids marketing for Range
18 Resources.

19 Q. And so what are your responsibilities in that
20 position?

21 A. My responsibility is to safely and reliably move
22 the natural gas liquids away from the production site and to
23 customers in the marketplace at the best price that we can
24 get.

25 Q. How long have you been in that position?

1 A. I've been with Range for two years in that
2 position.

3 Q. And what is your educational background?

4 A. I'm a chemical engineer from McGill University, and
5 then I subsequently got a masters in business administration
6 from the University of Texas at Austin.

7 Q. And what about your work experience?

8 A. Most of my career was with Shell and then BP,
9 working in energy, in petrochemicals. I've also worked for
10 Cargill, Deutsche Bank and Enron.

11 Q. And how many years have you worked in the energy
12 industry?

13 A. It's been a long time, 30 years.

14 Q. What does Range Resources do?

15 A. Range is an independent natural gas exploration and
16 production company. They've operated for over 25 years.
17 They're actually the pioneer of Marcellus production with
18 the Renz No. 1 well that they brought to production in 2004.

19 Range's largest office is in Canonsburg, Pennsylvania,
20 and that's actually their headquarters for their
21 northeastern production.

22 Range is a top ten natural gas producer in the country,
23 and we're also actually number three in the country for
24 natural gas liquids production.

25 Q. And has Range invested capital in Pennsylvania?

1 A. Yes. Since 2004, we've invested over \$7 billion in
2 capital in Pennsylvania. More recently, just last year, we
3 spent roughly -- or we paid out \$212 million in royalties
4 and bonuses to landowners where we have leases. We also
5 paid out \$31.7 million in Pennsylvania's drilling and impact
6 fees.

7 MR. RAIDERS: Your Honor, is the witness
8 looking at notes?

9 MR. KANAGY: Yes, Your Honor. The witness
10 does have notes. I'm happy to hand them out, but we're not
11 introducing it into the record, but they can see -- he has
12 written out notes for his testimony, written out his
13 testimony.

14 (Pause.)

15 MR. KANAGY: Would Your Honor like a copy?
16 It's up to you.

17 JUDGE BARNES: Not necessary.

18 BY MR. KANAGY:

19 Q. Mr. Engberg, is Range aware of the Commission's May
20 3rd order allowing service on ME1 to resume after it was
21 investigated by the Bureau of Investigation and Enforcement?

22 A. Yes. Range is very much aware. We were very much
23 impacted by that occurrence. We're interested in the safe
24 and reliable transportation of the products that we move,
25 and we felt that the research and the investigation that was

1 done by the Bureau of Investigation and Enforcement as well
2 as their technical consultant, ARM, was conclusive in
3 showing that moving our product along ME1 was safe.

4 Q. Has ME1 continued to safely operate since it went
5 back into service?

6 A. Yes, it has.

7 Q. And what Sunoco pipelines does Range utilize for
8 delivery of natural gas liquids?

9 A. Range is a transporter on ME1, 20,000 barrels a day
10 of ethane and 20,000 barrels per day of propane. Range also
11 sells into the Mariner West pipeline.

12 Q. And how necessary are these pipelines to Range's
13 business?

14 A. These pipelines are critical to our business. As I
15 mentioned earlier, in my job, my main responsibility is to
16 ensure the safe and reliable take-away of the production
17 away from the well pad.

18 MR. KANAGY: Your Honor, at this point, we
19 need to go on the highly confidential record.

20 JUDGE BARNES: All right. Anyone who has not
21 signed the non-disclosure agreement, please exit the hearing
22 room. You will be notified when we are back on the public
23 record.

24 (Whereupon, the following pages 519 through 534 were
25 sealed and bound separately.)

1 JUDGE BARNES: We are now on the public
2 record. You may proceed, Mr. Kanagy.

3 MR. KANAGY: Thank you, Your Honor.

4 FURTHER DIRECT EXAMINATION

5 BY MR. KANAGY:

6 Q. Mr. Engberg, you mentioned earlier in your
7 testimony that Range pays drilling impact fees to the
8 Commonwealth. How much has the Commonwealth received in
9 drilling impact fees?

10 A. Since its inception in 2012, there's actually been
11 \$1.5 billion paid in those fees across all 67 counties in
12 the state.

13 Q. And would a shutdown of ME1 after the drilling
14 impact fees paid to the Commonwealth?

15 A. Yes. Those impact fees are based on production,
16 and if production is curtailed because of the shutdown of
17 the pipeline, those fees would be reduced.

18 Q. Would Range support a bond being established in
19 this case which would include the amount of the losses you
20 describe in your testimony?

21 A. Yes.

22 MR. KANAGY: Your Honor, with that, I have no
23 further questions and Mr. Engberg is available for cross-
24 examination.

25 JUDGE BARNES: Go ahead, Mr. Bomstein.

1 MR. BOMSTEIN: Thank you, Your Honor.

2 FURTHER CROSS-EXAMINATION

3 BY MR. BOMSTEIN:

4 Q. You referred just a moment ago to the effect on
5 impact fees, the impact on impact fees. Wouldn't that also
6 be a deferral? In other words, the state might not receive
7 it this month or next, but when you resume production and
8 transportation, the state will get the money?

9 A. Again, as long as that production is resumed, then
10 I believe you are correct. One other issue to consider,
11 though, is the time of year that this happens and what the
12 absolute prices are now versus then.

13 So in particular, right now with it being wintertime,
14 that's typically when prices are higher, so the fees are
15 higher as a result, not just that, but also royalty fees.

16 Q. Thank you for clarifying that. I note that twice
17 you referred to moving products on ME1 as safe, and also
18 that ME1 operates safely since the May 3rd resumption of
19 service. Do you remember stating that?

20 A. Yes, I do.

21 Q. Okay. So you're familiar with the PHMSA site?

22 A. I'm sorry, I'm not.

23 Q. You're familiar with PHMSA?

24 A. Not very.

25 Q. Pipeline Hazardous Materials Safety Administration?

1 A. I'm familiar with its existence, but --

2 Q. Okay. Well, I'm going to represent to you they
3 maintain websites with information concerning leak
4 incidents.

5 MR. KANAGY: Your Honor, I object to this line
6 of questioning. I think it's outside the scope of his
7 testimony.

8 MR. BOMSTEIN: He said it was safe, Your
9 Honor, and I've got eight incidents after the date of May
10 3rd resumption. It's fair game. He opened the door.

11 JUDGE BARNES: I'm going to allow the
12 question.

13 THE WITNESS: I'm sorry, what's the question?
14 BY MR. BOMSTEIN:

15 Q. You said that the transportation of your products
16 on ME1 was safe, correct?

17 A. Yes.

18 Q. But if it turns out that since May 3rd, there have
19 been one, two, three, four -- like ten different leak
20 incidents involving ME1, would that have any effect on your
21 conclusion as to how safe ME1 is?

22 A. No.

23 Q. So you have a different idea of what "safe" is?

24 A. I'm not aware of the details, were there any
25 injuries.

1 Q. If there's a loss of, let's say, \$12 million in
2 property, that wouldn't concern you?

3 MR. KANAGY: Your Honor, I object to this.
4 He's talking about "safe" and about loss of property, and
5 our witness said he's not aware of these incidents, so I
6 think that's the answer. He's not aware.

7 MR. SNISCAK: Your Honor, there's no
8 foundation.

9 JUDGE BARNES: Well, the witness did testify
10 that the line was safe, so I'm allowing a little bit of
11 questioning regarding his definition.

12 MR. SNISCAK: There's no foundation for \$12
13 million worth of property damage. That's picked out of the
14 air.

15 MR. BOMSTEIN: Actually, it was picked out of
16 this printout from the PHMSA website, and the foundation for
17 my question was that PHMSA, the website, reflects this. It
18 wasn't pulled out of the air.

19 MR. KANAGY: Well, this witness isn't an
20 expert on PHMSA. He said that. And if Mr. Bomstein wanted
21 to get that in the record, he should have had his witness do
22 it yesterday.

23 MR. BOMSTEIN: I thought I was asking whether
24 it was safe. Okay. Your Honor, if I may, I'll move on.

25 JUDGE BARNES: Please do.

1 BY MR. BOMSTEIN:

2 Q. I think you said or implied, sir, that the loss of
3 Range's ability to transport these products during the cold
4 months would have an adverse affect on the Pennsylvania
5 public. Did I understand you correctly?

6 A. Yes.

7 Q. Did I understand you to say or imply that people
8 rely on the delivery of these Range products, for example,
9 to heat their homes during the winter?

10 A. Not exactly, no.

11 Q. How would it affect the Pennsylvania public
12 adversely during the winter?

13 A. If it removes production from the marketplace, it
14 stands to reason that the public will pay a higher price
15 because the supply-demand balance is changed and it's gotten
16 tighter.

17 Q. Okay. Perhaps it's implicit in your answer, but
18 I'm not clear, so let me ask you to walk me through it.
19 Will the non-delivery of your products during the cold
20 months affect the supply of heating oil in Pennsylvania?

21 A. No.

22 Q. What will it affect that hurts Pennsylvania
23 residents?

24 A. Natural gas.

25 Q. Okay, so let's now talk about heating. Natural gas

1 is used for heating?

2 A. Uh-huh.

3 Q. Right? I was just talking about the effect on
4 heating. Did I misunderstand you?

5 (No response.)

6 Q. The supply of natural gas is adversely affected if
7 your products are not delivered; isn't that right?

8 A. Yes.

9 Q. Okay. And how does that hurt Pennsylvania
10 residents?

11 A. If the supply of natural gas is curtailed, then the
12 price gets higher for the natural gas for consumers.

13 Q. Okay. And that's kind of a basic law of supply and
14 demand, you're saying?

15 A. Yes.

16 Q. Got it. But aren't there other competitors in the
17 business also delivering natural gas?

18 A. Yes.

19 Q. So couldn't they just fill the vacuum and deliver a
20 little bit more natural gas and increase their profits
21 during that period?

22 A. I think if they could, they would, but we're
23 already at a position in the marketplace as I mentioned
24 where gas storage is very low.

25 Q. Am I right, it's also implicit in the statement,

1 sir, that your products are being delivered in the state of
2 Pennsylvania; is that correct?

3 A. Natural gas?

4 Q. Yes.

5 A. Yes.

6 Q. Are you also delivering HVLs?

7 A. In Pennsylvania?

8 Q. Yes.

9 A. Yes.

10 Q. And how isn't Mariner 1 transporting HVLs at this
11 point, perhaps ethane?

12 A. I'm sorry, could you repeat the question?

13 Q. Yes. Isn't ME1 delivering ethane in Pennsylvania
14 at this time?

15 A. It's delivering it to Marcus Hook.

16 Q. Okay. Is any of that product going to Pennsylvania
17 residents?

18 A. If it is, it's a very small amount.

19 Q. Would you say it's less than two percent of the
20 product is being delivered to Pennsylvania residents from
21 ME1?

22 A. I don't know exactly, but it's a small amount.

23 Q. Less than five percent?

24 A. I'd comfortably say less than ten. How's that?

25 Q. Very good. Are you saying, sir, that approximately

1 90 percent of that product is being delivered outside the
2 country?

3 A. Yes.

4 MR. BOMSTEIN: Thank you. I have no further
5 questions.

6 JUDGE BARNES: All right. Mr. Raiders, do you
7 have any?

8 MR. RAIDERS: No.

9 JUDGE BARNES: All right. No? Mr. Kanagy?

10 MR. KANAGY: Yes, Your Honor. Thank you. I
11 have a few follow-up questions.

12 REDIRECT EXAMINATION

13 BY MR. KANAGY:

14 Q. Mr. Engberg, on cross-examination, Mr. Bomstein
15 indicated about ethane moving on the ME1 pipeline. If Range
16 is not able to move ethane on the ME1 pipeline, how does
17 that impact Range's natural gas production?

18 A. If we can't move ethane and propane on the ME1
19 pipeline, we have to curtail production of natural gas. To
20 be able to flow the natural gas, as I mentioned earlier in
21 my testimony, you have to remove the natural gas liquids.

22 So if we can't move the product, we curtail the natural
23 gas and then that affects residents of Pennsylvania.

24 MR. KANAGY: Thank you.

25 MR. BOMSTEIN: Your Honor, I have one follow-

1 up question if I may.

2 JUDGE BARNES: You may.

3 MR. BOMSTEIN: Thank you.

4 RECROSS-EXAMINATION

5 BY MR. BOMSTEIN:

6 Q. You've testified that you're concerned or Range is
7 concerned about the adverse effect of a shutdown on the
8 Pennsylvania public, correct?

9 A. Correct.

10 MR. KANAGY: Your Honor, that's outside the
11 scope of my redirect.

12 JUDGE BARNES: May I hear the question first?

13 MR. BOMSTEIN: Thank you.

14 BY MR. BOMSTEIN:

15 Q. So have you calculated, has Range calculated the
16 impact of your extraction activities on the Pennsylvania
17 environment?

18 MR. KANAGY: Your Honor, I objection.

19 JUDGE BARNES: I think that does go outside
20 the scope. Sustained.

21 MR. BOMSTEIN: I have no further questions.

22 JUDGE BARNES: Thank you. Thank you, sir.
23 You may step down, and you are excused. Correct?

24 MR. KANAGY: Yes, Your Honor. I just to
25 confirm that he is excused. He has a flight to catch.

1 JUDGE BARNES: Yes. I understand. So you are
2 excused.

3 (Witness excused.)

4 JUDGE BARNES: Ms. McDowell, also, you are
5 excused. Thank you.

6 MS. McDOWELL: Thank you.

7 JUDGE BARNES: Mr. Sniscak, you have a
8 witness?

9 MR. SNISCAK: Yes, Your Honor.

10 JUDGE BARNES: We need a second to change the
11 microphone, so we're off the record.

12 (Discussion off the record.)

13 JUDGE BARNES: We are on the record. This is
14 Judge Barnes.
15 Whereupon,

16 ANTHONY GALLAGHER
17 having been duly sworn, testified as follows:

18 JUDGE BARNES: Go ahead, Mr. Sniscak.

19 MR. SNISCAK: Thank you, Your Honor.

20 DIRECT EXAMINATION

21 BY MR. SNISCAK:

22 Q. Mr. Gallagher, can you hear me clearly?

23 A. Yes, I can.

24 Q. Okay. Could you state your full name?

25 A. It's Anthony Gallagher.

1 Q. And could you provide your title?

2 A. Yes. I'm the business manager of Steamfitters
3 Local Union 420.

4 Q. And have you previously testified before the PUC?

5 A. I have.

6 Q. Okay. Thank you. Let's start with a little bit of
7 background. Were you a member of the Governor's Task Force
8 on Pipelines?

9 A. I was.

10 Q. Okay. Are you authorized to appear here and
11 testify today on behalf of the Steamfitters Local Union 420?

12 A. Yes, I am.

13 Q. Okay. And could you describe the membership?

14 A. We have about 4,700 members. We're in a ten county
15 area of Southeastern Pennsylvania.

16 Q. Okay. Could you repeat that number again, for the
17 record?

18 A. Forty-seven hundred members.

19 Q. Okay. And can you describe your membership's --

20 JUDGE BARNES: Time out.

21 (Pause.)

22 JUDGE BARNES: Okay.

23 BY MR. SNISCAK:

24 Q. First question, does your union membership provide
25 labor and expertise regarding construction relative to the

1 ME1 and ME2 pipelines?

2 A. Yes. We install the pipes, the valves, the control
3 valves, the pneumatics, the whole deal.

4 Q. Okay. Is that important employment to your
5 members?

6 A. Oh, yes, 100 percent.

7 Q. Okay. Are there --

8 A. The pipeline is -- yeah, go ahead. I'm sorry.

9 Q. Please continue. I'm sorry, I cut you off.

10 A. No, no. I was going to say, yeah, it's extremely
11 important. The pipeline is the source that, you know, as I
12 testify in town hall meetings and normally when I testify,
13 the pipeline itself, getting the liquids, the gas and the
14 propane and all that to product -- to market, the product to
15 market is just, it's a small role in the big picture where
16 the real work is. The downstream side is where we really
17 generate a lot of manhours and capital.

18 The pipeline itself, you know, is extremely important to
19 get that product, but it's the end result of the downstream
20 side of that pipeline.

21 Q. Okay. Now, these other jobs, are they union jobs,
22 420 jobs, that is?

23 A. Yes. We're referring to Mariner East, right, 1 and
24 2?

25 Q. Okay. And can you describe what those other

1 facilities are and where they're located?

2 A. We have Braskem that's another facility that's
3 located actually, it's in the same yard and across the
4 street from where Mariner East 2 is in Marcus Hook, and also
5 as I stated, you know, with the pipeline itself, with the
6 liquids and gas, we're in two confidentiality agreements
7 with major developers with the liquids that's tied to
8 Mariner, that we're talking about maybe five to seven
9 billion dollars worth of work that is just tied to that.
10 And they're two yards that are in the Chester, Marcus Hook
11 vicinity that we're looking at.

12 Q. Okay. For those other facilities, can you tell me
13 how many jobs would be involved?

14 A. Oh, for just the steamfitters? You're talking
15 about five, six hundred.

16 Q. Okay.

17 Q. Five to six hundred men probably; for the building
18 trades, 2,500 in the facilities that are in confidentiality
19 agreements or the one in Braskem if they expand, which, you
20 know, as I shared before, they did want to expand but we
21 couldn't get the product to them in time so they ended up
22 building down in Texas, unfortunately, because of all the
23 holdups.

24 Q. Okay. Is ME2 coming on line necessary for that
25 expansion?

1 A. Yes, 100 percent.

2 Q. Okay. What's the effect upon your membership of
3 any stoppage of ME1 and moving toward putting ME2 on line?

4 A. The effect, the direct effect of having our welders
5 and our rig welders sitting idle is costly to them. Our rig
6 welders, they have to maintain their trucks, pay for them.

7 They invest about 50 to 60 thousand in their rigs, their
8 welding rigs I'm referring to when I say "rigs," that they
9 use out on the pipeline.

10 And when they're sitting idle and they're not getting
11 paid for that, you know, they have to maintain that, and
12 it's critical to their livelihood, especially on the
13 pipeline itself.

14 As we sit idle and the delays keep happening, we keep
15 pushing out the other projects that are in the pipeline at
16 the end, again, the downstream side, whether it's MEX2 that
17 we've been planning for years now that we keep having to
18 push back because of all the delays, which MEX2 is probably
19 a couple hundred steamfitters putting to work, you know.

20 And the further we keep pushing these jobs out, you
21 know, that's more of a detriment to our benefits and the
22 health of, you know, the stability of our union.

23 Q. Okay. Are you aware of the Flynn petition for
24 emergency relief which seeks to shut down ME1's operation
25 and ME2 from operating?

1 A. Yes. It was just recently brought to my attention.

2 Q. Okay. And what's your position regarding that
3 request?

4 A. Anything that would delay or stop that project is
5 detrimental to the economy, not only of steamfitters, the
6 building trades, but the area. I mean, these delays and
7 stoppages continue to drive capital away from us, you know.

8 The big picture that I'm talking about, the fact that
9 we're delaying the jobs and I have members sitting idle,
10 hurts my membership.

11 But there's the fact that you have a lot of people that
12 want to invest capital in the state of Pennsylvania, you
13 know, that's tied to the shale, to the liquids and gases.
14 It scares them away from doing business here in
15 Pennsylvania, and that is very problematic, you know, when
16 they recognize that they have so much resistance to
17 something that's so natural, you know.

18 And when we scare that kind of capital away, that really
19 costs. That costs major jobs for the building trades and
20 the area and the economy, local economy, you know.

21 And the ripple effect to that's tremendous, as everyone
22 knows. Just on the state income tax, you could imagine, on
23 the building trades, five million manhours, and we all make
24 a pretty good wage there, we're talking about tens of
25 millions of dollars in income tax, state income tax that

1 we're losing, you know, as a state just on that.

2 But the vendors, the shops, the community around, the
3 diners, you know, all the things we do when we spend money,
4 so it has a tremendous impact when we shut these things
5 down.

6 And sometimes I've got to question the motives behind
7 it, you know. I'm not sure sometimes, because safety is
8 number one priority for us, public safety, human life, top
9 priority, you know, equipment, homes, you know, priorities
10 for us, you know, and business is third, you know.

11 But we as Steamfitters Local 420 and the building
12 trades, you know, we take great pride in making sure we put
13 that in that order and make sure everybody is safe, so when
14 we're moving these liquids and gases, it's being done right,
15 it's being done proper, it's being done by skilled
16 craftsmen, men and women.

17 So when we hear of these delays and stoppages and the
18 petitions, you know, especially on this project, it's been
19 alarming to say the least, and you know, it's definitely
20 costing a lot of time, energy and money for everybody, for
21 everybody at stake here. So, yeah, I'm very concerned about
22 it.

23 Q. Okay. Sir, have you seen a difference in the
24 Marcus Hook facilities you referenced from before ME1 came
25 on line to when ME1 came on line?

1 A. Yeah. It was shut down. That facility, you know,
2 the refinery that was there, Sun, closed up shop, and
3 naturally it was sitting idle. Thank God that the shale had
4 hit. We were able to attract business, you know, to build
5 down there.

6 To be honest, on an industrial site, you know, some
7 people talk about different types of development and
8 community, you know, and it's tough to do that on an
9 industrial site, believe me, and many people that understand
10 that know what I'm talking about.

11 So to see that facility blossom again and put hundreds
12 and thousands of tradesmen down there and then actually keep
13 a lot of the employees that were in, you know, the
14 steelworkers that were in that refinery, to put them back to
15 work in that neighborhood was tremendous.

16 So to watch that go from idle to depression, basically,
17 to a thriving neighborhood again, and to watch it want to
18 expand, you know, it's like night and day, night and day.

19 And it's not just the money. It's the spirit that comes
20 with it, you know. I think people really need to
21 understand, when you don't have -- when you're used to going
22 to a place, going to work, and you don't have that, you
23 know, that depression that comes with that, we all know what
24 happens. We all know just the psychology of what happens to
25 people.

1 To see that come back and the spirit, you know, get
2 alive again, you know, that's a tremendous boost, tremendous
3 boost to all of us, and then to have hope, you know. People
4 need to know there's a job to go to, and it's critical.

5 Q. Okay. Would you expect the same type of
6 transformation to occur when ME2 comes on line?

7 MR. BOMSTEIN: Objection --

8 THE WITNESS: Yes, major expansion --

9 MR. BOMSTEIN: -- lack of foundation.

10 MR. SNISCAK: Your Honor, the witness has said
11 two things that I think make the foundation. The first is,
12 he saw the effect of ME1 coming on line. Earlier in his
13 testimony, he referenced these other potential things that
14 may occur if ME2 comes on line. There is a foundation for
15 this question, Your Honor.

16 MR. BOMSTEIN: If Your Honor pleases, we
17 certainly concede that it's possible, but the fact is that
18 he's not an economist. He hasn't established his ability to
19 project that on a certain date, something is likely to
20 happen. He can't talk dollars and cents. He may believe
21 it, he may be right, but there's no foundation in this
22 record.

23 MR. SNISCAK: Your Honor, he mentioned
24 projects that he has personal knowledge of occurring that
25 would be related to ME2. It is a fair question.

1 JUDGE BARNES: Does the question pertain to
2 the Marcus Hook area and Claymont facility?

3 MR. SNISCAK: To the Marcus Hook facility.
4 The witness has testified that ME1 coming on line caused
5 idled facilities and refineries to be able to come back on
6 line and, in his words, blossom.

7 And again, the issue this goes to, one of the
8 things is the effect of an injunction on the public
9 interest. That is a public interest. That is a
10 Pennsylvania public issue, jobs, facilities that were idled
11 not being idled.

12 JUDGE BARNES: I recognize he's not an
13 economist, but I'll allow him to give his layperson opinion
14 on the matter.

15 MR. SNISCAK: Thank you, Your Honor. Again,
16 I'll repeat the question.

17 BY MR. SNISCAK:

18 Q. Do you expect the same transformation to occur if
19 ME2 comes back on line, or comes on line?

20 A. I expect that and more, knowing what we know. And
21 again, you know, I heard what was being said. I'm not an
22 economist, but you know, as a business manager of a labor
23 organization, businesses come to us to find out about the
24 skilled manpower that's available, so we are always in the
25 planning phases of a lot of these large projects, so they're

1 comfortable investing capital here.

2 So, you know, although I'm not an economist, I do know
3 what the plans are and, you know, the amount of money that's
4 going to be spent. And again, we're talking five to seven
5 billion dollars in other facilities other than Energy
6 Transfers or Sun Logistics, a couple more billion projects
7 that Energy Transfers is talking about, you know.

8 So that is, you're talking millions of manhours that's,
9 again, you do the math, you're talking about, you know,
10 hundreds of millions of dollars per year in wages and
11 benefits for, you know, my members and the members of the
12 building trades.

13 Q. Okay. Sir, if an injunction were issued and it
14 ultimately proves out on the merits of the base case itself
15 that the Flynn complaint was not sustained, and therefore
16 the injunction was issued nonetheless even though the
17 complaint wasn't successful, would you want your membership
18 to be able to recover their lost wages?

19 A. Yes, yeah, absolutely.

20 Q. Would Local Union 420 support a bond being
21 established in this case?

22 A. Yes, we would, we sure would.

23 Q. Is there anything else you would like to add, sir?

24 A. Just, you know, in the society I guess we're in now
25 and the controversy that comes with not only just the

1 liquids and gases of the shale and the fossil fuel industry,
2 we're in a transformation time.

3 And the liquids and gas and the natural gas revolution
4 is the bridge, is the bridge fuels to get us to eventually,
5 to get us to that wind, solar economy.

6 And I'm here to tell you, knowing some of the depressed
7 areas that rely on natural gas and liquids, you know, they
8 need these fuels to heat their homes, because there's
9 numerous poor people in the area of Chester, you know,
10 certain parts of Philadelphia that are being supplemented
11 tremendously from natural gas and them liquids, you know.

12 So they're dependent upon this stuff. It goes deeper
13 than just jobs. It's about keeping communities, you know,
14 safe, keeping them warm in the winter.

15 And you can ask any utility. I know you there with the
16 PUC understand exactly what I'm talking about, you know. We
17 deal with these issues regularly.

18 And myself as a labor organization and some of my
19 contractors, we make sure we take care of them families the
20 best we can, you know. And to cut off these pipelines and
21 to starve the economy and the neighborhoods of this, it's
22 just a detriment, again. And it goes much deeper than jobs,
23 much deeper. So, that's all.

24 MR. SNISCAK: Thank you, Sir. Your Honor, the
25 witness is now available for cross-examination.

1 JUDGE BARNES: Mr. Bomstein?

2 MR. BOMSTEIN: Thank you, Your Honor.

3 CROSS-EXAMINATION

4 BY MR. BOMSTEIN:

5 Q. Can you hear me okay, Mr. Gallagher?

6 A. You're a little muffled, but I got you.

7 Q. I've moved the microphone. Can you hear me any
8 better?

9 A. Yes. Yes, I can.

10 Q. Great. Sir, what do your members do during
11 shutdown?

12 A. When you say "shutdown," are you referring to no
13 work, or are you referring to -- because when we talk about
14 shutdowns, we talk about plant maintenance, like -- is that
15 what you're referring to? I'm not sure.

16 Q. Let's cover both circumstances. Isn't it a fact
17 that when you have shutdowns, you send guys to other jobs?

18 A. Again, are we talking about the job's not working,
19 the job's shut down, nobody's being employed, shutdown?

20 Q. Do you remember in your previous testimony in July,
21 you stated that during shutdown, you send guys to other
22 jobs? Do you remember stating that?

23 A. That we send guys out on jobs?

24 Q. That's the question. Isn't that what you said in
25 July?

1 A. I don't remember saying -- if there's other jobs
2 available, we would look to do that, absolutely. But when
3 it comes to the pipeline itself, I believe I stated
4 something about, with OQ, the way you have to test before
5 you even start on a pipeline, you have to go through
6 rigorous testing.

7 And to just move our members from one job to another,
8 it's not that simple. It is not that simple at all.

9 Q. Thank you for clarifying --

10 A. As a matter of fact --

11 MR. SNISCAK: Please let the witness answer.

12 THE WITNESS: -- you would have to -- yeah,
13 you would have to re-test, you know. So not knowing when
14 the line's going to start back up or not, again, it's a
15 guessing game. So the companies aren't just going to
16 naturally let a guy go, you know.

17 BY MR. BOMSTEIN:

18 Q. So they're going to keep --

19 A. So if it's shut down, they're not necessarily
20 basically, long and short, they're not necessarily going to
21 be moved anywhere until we have a definitive answer. If we
22 know the line's shut down completely, then they'll talk
23 about moving people.

24 Q. Got it. So let's take the shutdown of Mariner that
25 occurred early in this year. Are you with me?

1 A. Uh-huh. Yes.

2 Q. During that time --

3 MR. SNISCAK: Your Honor please, which
4 Mariner?

5 MR. BOMSTEIN: Mariner 1 I believe was shut
6 down.

7 JUDGE BARNES: It was shut down twice, in
8 March and in May.

9 BY MR. BOMSTEIN:

10 Q. In March and in May. Do you recall that fact?

11 A. Yes. You're talking about the line that was
12 operational?

13 Q. Yes, the line that was operational.

14 A. Okay.

15 Q. Did that affect your members?

16 A. That line itself, yes, because there were some tie-
17 ins that were supposed to take place at that point, so yeah,
18 it did have a little ripple effect on us, even though we
19 weren't working directly on that line while it's live,
20 obviously.

21 Q. And did ETS keep your people on the payroll during
22 that shutdown time?

23 A. They -- I think it's like, they get like four hours
24 of show-up time, so they would get, you know, our guys would
25 get like four hours of show-up time until, you know, after a

1 while, some guys will just end up, you know, maybe just
2 going to another job on their own.

3 Q. Now, Mr. Gallagher, isn't it true that the
4 construction work on ME2 is pretty much completed?

5 A. Yes, yes, but you have the second line that they
6 still got to get through.

7 Q. And you're talking about --

8 A. You're talking about the first line, the first line
9 for the liquids? Yeah, that's pretty close to being 100
10 percent completed.

11 Q. And what about the other line?

12 A. We still got a little ways to go on that.

13 Q. So you anticipate work --

14 A. I don't know the exact coordinated plan. I'd have
15 to lift up and find out the different spreads on where
16 they're at.

17 Q. Thank you.

18 A. I don't have that information in front of me
19 exactly, though. No.

20 Q. You mentioned two developers are engaged in or
21 beginning to engage in a project around Marcus Hook?

22 A. Uh-huh.

23 Q. And I think you were saying that their project
24 plans depend on the flow of the liquids. Is that what you
25 said?

1 A. Yes.

2 Q. And what are those plans?

3 A. The plans of the liquids themselves?

4 A. The plans of the developers.

5 MR. SNISCAK: Your Honor, the witness did say
6 it's confidential --

7 THE WITNESS: Again, it's --

8 MR. BOMSTEIN: Your Honor, it's --

9 THE WITNESS: It's definitely confidential,
10 but put it this way. You can hear of different plants. I
11 can kind of answer it vague as I can. There's been
12 different plants planned all around the area.

13 You have actually Philadelphia Gas Works, one
14 of them, talking about, you know, LNG expansion, which is
15 public information now.

16 But you know, there's two other facilities,
17 major facilities, that are directly tied to the use of that
18 LNG and LNG expansion, so yes, it's -- and that's the
19 product that we need.

20 BY MR. BOMSTEIN:

21 Q. Mr. Gallagher, I think it would be helpful if you
22 would at least explain in general terms what those
23 developers are planning to do with these HVL liquids that
24 makes you believe would have an effect on Pennsylvanians.
25 What is it that their plans are? What are they going to do

1 with the stuff?

2 MR. SNISCAK: Asked and answered.

3 MR. BOMSTEIN: No, one of them only was,
4 natural gas liquids, PGW.

5 BY MR. BOMSTEIN:

6 Q. But you identified other developers. What are
7 those developers going to do so far as you understand?

8 JUDGE BARNES: Overruled.

9 THE WITNESS: Pretty much close to what I was
10 saying to what PGW's talking about in reference. And again,
11 when we get into this proprietary information, I got to be
12 real careful how I answer. But we're definitely talking
13 about -- and some of it may be public record. There may be
14 some avenues of people looking at permits which, you know,
15 I'm sure, you know, Flynn has looked at, anybody that's
16 looking at pulling permits for different jobs in the state
17 of Pennsylvania in the planning stages. That's all public
18 information, you know. As to exactly what they're going to
19 do, I'm not going to be able to get into that.

20 MR. BOMSTEIN: Thank you. I have no further
21 questions of this witness.

22 JUDGE BARNES: Mr. Raiders?

23 MR. RAIDERS: Briefly.

24 FURTHER CROSS-EXAMINATION

25 BY MR. RAIDERS:

1 Q. Good afternoon, Mr. Gallagher. My name is Rich
2 Raiders. I'm an attorney that's working with an intervenor
3 on the matter. You said a few minutes ago that this is a
4 project that's involving LNG; is that correct?

5 A. Yes, well, the Philadelphia Gas Works, yeah, part
6 of the LNG expansion.

7 Q. Are there any LNGs associated with the Mariner East
8 project?

9 A. Any liquids?

10 Q. Do you know what LNG stands for?

11 A. Liquid natural gas, you're talking about?

12 Q. Yes.

13 A. Yeah. Well, there's all the byproducts of it,
14 associated with it, the butane, ethane, propane.

15 Q. Are those LNGs?

16 A. No. They're the liquids. They're the liquids
17 from, you know, the gas itself, and then the dry gas which
18 will make the combination.

19 Q. So the PGW project you're talking about doesn't
20 involve being transported in the Mariner East project?

21 A. No, no, no. I was referencing, the PGW project is
22 something similar to what these other facilities were
23 looking at, so I was kind of just referencing that as a
24 starting point to use your imagination a little bit, without
25 being -- you know, I'm trying to be vague here. I have to

1 be.

2 Q. I understand. You mentioned Braskem. They're a
3 facility that's basically on the Pennsylvania-Delaware line,
4 correct?

5 A. Yes.

6 Q. And you said that there was a potential for
7 expansion from Braskem that you knew of?

8 A. Yeah, couple years back.

9 Q. But it didn't happen?

10 A. No. They built it down in Texas.

11 Q. So are there any other plans for Braskem at this
12 point, or is that on the shelf?

13 A. No, there is. There definitely is. They would
14 like to have that product close to the logistical location
15 of the ports that we have. Logistically speaking, the
16 Marcus Hook facility is probably, other than, you know, the
17 harbors of Baltimore, to the European market, logistically
18 speaking, is probably the best location you can get.

19 So naturally, from Braskem's -- from what I've heard
20 their senior management talk about, you know, that would be
21 a huge transformation for them, to be able to expand in that
22 facility. Although they expanded down in Texas, they still
23 would like to expand in the area, in the proximity of Energy
24 Transfers.

25 Q. You answered some questions from counsel about the

1 number of jobs that are involved, and in your world there's
2 the concept of a permanent job and a construction job.
3 Could you explain the difference, please?

4 A. In my world there's -- we're in construction.
5 There's no such thing as permanent. Every job we have is
6 temporary. We build, we move on. The difference with the
7 facilities we're referring to is, we have to maintain them
8 facilities.

9 So when we build them, they still require our
10 maintenance crew down there, and then every year, two years,
11 they have different -- that's when I was being asked the
12 questions about a shutdown, we call them shutdowns.

13 When the plant shuts down and does different
14 maintenance, changes out valves, safety valves, different
15 things of that nature, it required a lot of manpower.

16 For example, at Monroe facility that's right up the
17 street from Energy Transfers, we just had 500 steamfitters
18 in there for six weeks, six days a week, ten hours a day,
19 doing the maintenance shutdown. Same thing happened in
20 these facilities, you know.

21 Naturally, when you're dealing with these liquids and
22 gases, you have to always, you know, look to change out the
23 valves, change out some piping if necessary, you know.

24 You're always looking at that.

25 When they have these maintenance shutdowns, we come in

1 with a group, six to eight weeks, you know, of overtime, and
2 we take care of it for them.

3 Q. Would that be what you call a turnaround --

4 A. There's always a crew --

5 Q. Go ahead.

6 A. No, but there's always a crew, a maintenance crew
7 that we have in the facility along with -- you know, to
8 supplement the crew that's already there, whether, you know,
9 the steelworkers that are in the facility now, whether it's,
10 you know, Energy Transfers or Monroe. We have a crew of
11 building tradesmen that are down there, you know, regularly.

12 Q. Is what you're talking about what they would call
13 in the refinery world a turnaround?

14 A. Yeah, turnaround, yeah. We always -- shutdown
15 turnaround, maintenance turnaround, however you want to
16 refer to it.

17 Q. You mentioned some delay on Mariner East 2. Are
18 you familiar with why some of these delays have been
19 happening?

20 A. When you're referring to -- what delays?

21 Q. Mariner East 2, you mentioned that there were
22 delays in construction in Mariner East 2.

23 A. Are we talking the shutdowns that took place, the
24 injunction or --

25 Q. No. We talked about that and I don't have further

1 questions on that, but you had also mentioned that you would
2 like to see Mariner East 2 come on line.

3 A. Yes, we would.

4 Q. And you mentioned delays associated with Mariner
5 East 2 construction.

6 A. No, I'm not sure of the delays that you're
7 referring -- I thought you were talking about the
8 injunctions that stopped it from working. Any other delays,
9 I'm not sure what you're really referring to. Are you
10 talking about equipment delays or like material delays? I'm
11 not sure, to be honest.

12 Q. I appreciate your candor --

13 A. Can you be a little more specific?

14 MR. RAIDERS: All right. Nothing further.

15 JUDGE BARNES: Any redirect?

16 MR. SNISCAK: Yes, I do, one question.

17 REDIRECT EXAMINATION

18 BY MR. SNISCAK:

19 Q. Mr. Gallagher, you were asked a question by Mr.
20 Raiders, counsel for the Andover Property Owners
21 Association, regarding ethane not potentially being
22 involved, I think, in LNG. Sir, if you know, do you know if
23 ethane is used to chill methane to make LNG?

24 A. Yes.

25 MR. SNISCAK: Thank you. No further.

1 JUDGE BARNES: All right. Thank you very
2 much, Mr. Gallagher. We will be disconnecting the phone
3 now. Have a nice day.

4 (Witness excused.)

5 JUDGE BARNES: We're off the record.

6 (Discussion off the record.)

7 JUDGE BARNES: We're back on the record. Ms.
8 Snyder, are you calling the next witness?

9 MS. SNYDER: Yes. Sunoco Pipeline LP next
10 calls Mr. Richard Billman to the stand.

11 JUDGE BARNES: Mr. Billman, would you raise
12 your right hand?

13 Whereupon,

14 RICHARD BILLMAN

15 having been duly sworn, testified as follows:

16 JUDGE BARNES: Please state your name and
17 spell it for the record.

18 THE WITNESS: Richard Billman, R-I-C-H-A-R-D,
19 Billman, B-I-L-L-M-A-N.

20 JUDGE BARNES: You may proceed, Ms. Snyder.

21 DIRECT EXAMINATION

22 BY MS. SNYDER:

23 Q. Mr. Billman, who is your employer?

24 A. Energy Transfer and Sunoco Pipeline L.P.

25 Q. And what is your current position?

1 A. Currently the vice president of business
2 development.

3 Q. And how long have you been in that position?

4 A. I've held various roles within business development
5 since about 2010, but currently as the vice president for a
6 little over a year now.

7 Q. And what are your job responsibilities?

8 A. My primary job responsibilities are for the
9 commercial and strategic growth of some of our assets and
10 developing new assets around natural gas liquids and refined
11 products. I'm one of the early developers of the Mariner
12 system, the Mariner East system, primarily Mariner East 2
13 and beyond.

14 Q. Okay. So you're familiar with the products shipped
15 on the Sunoco pipeline?

16 A. Yes.

17 Q. And you're familiar with the associated revenues
18 generated from those products?

19 A. Yes.

20 Q. You testified before on losses that the Mariner
21 East pipeline would suffer before this Commission, haven't
22 you?

23 A. Yes.

24 MR. RAIDERS: I can barely hear counsel.

25 JUDGE BARNES: You could pull the mic closer

1 to you. Thank you.

2 BY MS. SNYDER:

3 Q. And that testimony was in the Dinniman proceeding,
4 correct?

5 A. Yes.

6 Q. And did Sunoco in fact suffer losses from --

7 A. Yes, we did.

8 MS. SNYDER: Now, Your Honor, I'd request that
9 we enter onto the highly confidential record.

10 JUDGE BARNES: All right. Once again, ladies
11 and gentlemen, if you have not signed the non-disclosure
12 agreement, please exit the hearing room, and we will notify
13 you when we are back on the public record. Thank you.

14 (Whereupon, the following pages 570 through 583 were
15 sealed and bound separately.)

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1 JUDGE BARNES: Did you move to admit -- yes.

2 MS. SNYDER: I did.

3 JUDGE BARNES: We covered that. Thank you.

4 MS. SNYDER: Your Honor, we do have a
5 PowerPoint presentation.

6 JUDGE BARNES: Sure. We're off the record.

7 (Recess.)

8 JUDGE BARNES: We're ready to proceed. Mr.
9 Perez?

10 MR. SNISCAK: Thank you, Your Honor.

11 JUDGE BARNES: Please raise your right hand.
12 Whereupon,

13 JOSEPH PEREZ

14 having been duly sworn, testified as follows:

15 JUDGE BARNES: Please state your name and
16 spell it.

17 THE WITNESS: Joseph Perez, J-O-S-E-P-H, P as
18 in Paul, E-R-E-Z.

19 JUDGE BARNES: Go ahead, Mr. Sniscak.

20 MR. SNISCAK: Thank you, Your Honor.

21 DIRECT EXAMINATION

22 BY MR. SNISCAK:

23 Q. Good afternoon, Mr. Perez.

24 A. Good afternoon.

25 Q. Could you state your title?

1 A. Yes. I'm the vice president, technical services
2 for operations and engineering for Energy Transfer Sunoco.

3 Q. Thank you. And within your company, do you
4 generally refer to your group as compliance?

5 A. Yes.

6 Q. Thank you. I'm showing you -- do you have before
7 you what we've marked for identification purposes as SPLP
8 Exhibit 41?

9 A. Yes.

10 (Whereupon, the document was marked as SPLP Exhibit
11 No. 41 for identification.)

12 Q. And that is a PowerPoint presentation?

13 A. Yes.

14 Q. And it contains 11 pages, or 11 slides?

15 A. Yes.

16 Q. Okay. And it's captioned, Sunoco Pipeline L.P.
17 Public Awareness and Emergency Response.

18 A. That's correct.

19 Q. Okay. Was that prepared by you?

20 A. It was.

21 Q. Do you have any corrections to this document?

22 A. I do.

23 Q. Would you please make them on the record?

24 A. Yes. On slide number four, bullet states,
25 "Emergency Response organizations." "Organizations" should

1 be "contacts."

2 Q. You say "contacts"?

3 A. Contacts.

4 Q. Okay. Speak up. Thank you.

5 A. You bet.

6 Q. And others?

7 A. Yes. Page 11, there's data there for the Chester
8 Community Charter, we'll include a date of December 12th,
9 and for the Penn Delco School, December 13th. And that's
10 all.

11 Q. It would actually be on -- you would be adding
12 that, am I correct, sir, on page ten?

13 A. Page ten, yes, that's correct.

14 Q. And in terms of the, on page 11 where it says,
15 "Gray, Outreach Declined," do you have a correction to that?

16 A. Yes. There are no declines from any of the
17 schools.

18 Q. Okay. And in terms of this document, is it true
19 and correct to the best of your knowledge and belief?

20 A. Yes.

21 Q. Okay. Thank you. I'd also like to bring your
22 attention to some exhibits that you're sponsoring,
23 authenticating as a company witness, and they're all company
24 derived. The first ones are SPLP Exhibits 1-3, which are
25 maps of Chester and Delaware County.

1 (Whereupon, the documents were marked as SPLP Exhibits
2 Nos. 1, 2 and 3 for identification.)

3 A. Yes.

4 Q. Would you take a look at those? Those maps were
5 referenced in the record in cross-examination, and also
6 depict -- and again, I'm going off memory -- the location of
7 certain pipelines as well as schools; is that correct?

8 A. Yes, that's correct.

9 Q. Okay. And the next document I would bring your
10 attention to is SPLP Exhibit 11, and that is the SPLP public
11 awareness excerpt of the SPLP compliance filing in the
12 Dinniman matter.

13 (Whereupon, the document was marked as SPLP Exhibit
14 No. 11 for identification.)

15 A. That's correct.

16 Q. Okay. Next one would be SPLP Exhibit 18. That is
17 the public awareness slide mailing.

18 A. Yes, that's correct.

19 Q. The next one I draw your attention to is SPLP
20 Exhibit 31, public awareness plan.

21 A. Yes.

22 Q. The last one is SPLP 32, the school outreach
23 handout.

24 A. Yes.

25 Q. At this point, regarding those documents and in

1 your capacity on behalf of the company, are they true and
2 correct to the best of your knowledge, information and
3 belief?

4 A. Yes.

5 MR. SNISCAK: Your Honor, with that, we would
6 move into the record at this point -- and again, for the
7 other attorneys in the room, this is common PUC practice --
8 subject to cross-examination as so identified, including
9 SPLP Exhibit No. 41.

10 JUDGE BARNES: Any objection, subject to
11 cross?

12 MR. BOMSTEIN: No objection, subject exactly
13 as counsel said.

14 JUDGE BARNES: All right. Subject to cross,
15 those exhibits are admitted.

16 (Whereupon, the documents marked as SPLP Exhibit Nos. 1,
17 2, 3, 11, 18, 31, and 41 were received in evidence.)

18 MR. SNISCAK: Thank you, Your Honor.

19 BY MR. SNISCAK:

20 Q. Before we start with your slides, Mr. Perez, I
21 would like you to address one item that came up yesterday,
22 and that is the Enterprise HVP pipeline that was raised
23 yesterday. Have you been able to ascertain what the
24 diameter of that pipeline is?

25 A. Yes. That's an eight-inch pipeline.

1 Q. Okay. And that's an HVL pipeline, correct?

2 A. Yes.

3 Q. Thank you, sir. Now I'd like to, if you would,
4 could you start with slide two of your presentation, and am
5 I correct that this is the beginning of your public
6 awareness program?

7 A. Yes.

8 Q. Could you walk Her Honor through the major points
9 of the plan as it exists at the company?

10 A. Yes. Good afternoon, Your Honor. As part of
11 yesterday's discussions, with some of the information that
12 was communicated concerned with some of the information
13 provided at that time, as I have responsibility for the
14 public awareness emergency response team here with Energy
15 Transfer Sunoco, with that, we went back, put together this
16 presentation last evening after we were finished, to
17 hopefully provide some detail and clarification as it
18 relates to the activities that we have completed and do
19 around the ME2 pipeline, ME1 and the 12-inch pipeline.

20 That being said, I want to start off at, Energy Transfer
21 Sunoco has a robust public awareness program that engages
22 the community, utilizing a variety of methods. These
23 methods are one-on-one meetings, they are group meetings.

24 We also conduct mass mailings, and we also conduct
25 specialized training. These are all things that are

1 completed, that are in accordance with our plan, and these
2 items are taken very seriously, and we are very involved
3 with the work that has taken place to make these activities
4 take place.

5 The primary goal, as everybody can see, is to raise
6 awareness with the public and other stakeholders with the
7 presence of our pipelines that are associated -- and the
8 other associated facilities within the community, and to
9 ensure that everybody understands where those pipelines are,
10 for what we operate.

11 So stakeholders, with regard to stakeholders, RP 1162
12 talks about the various stakeholders that we have to engage
13 with. As you can see, the emergency response organizations
14 and excavators, we meet with them annually to comply with
15 the recommended practice.

16 From a standpoint of the affected public, that is done
17 every other year. It's on a two-year basis. And then we
18 also meet with our public officials on a three-year
19 frequency.

20 So with regard to the program inspections and what we've
21 done so far, we've met with PHMSA and the Pennsylvania
22 Public Utility Commission on multiple occasions to talk
23 about the activities that we've completed as part of the
24 ME1, 12-inch, and the ME2 lines, and they have reviewed our
25 public awareness plan and have not had any issues with the

1 plan as it is today. As a matter of fact, in November of
2 2016, the Public Utility Commission reviewed the plan and
3 had no citings.

4 JUDGE BARNES: Can I ask one question of
5 clarity on that last slide regarding the affected public,
6 every two years?

7 THE WITNESS: Yes, ma'am.

8 JUDGE BARNES: What does that mean? Does that
9 mean you mail out the pamphlet every two years or does it
10 mean you have a town meeting, or what does that mean?

11 THE WITNESS: Yes, Your Honor. Thank you.
12 Good question. These are the mailings. The mailings that
13 everybody received and that's been covered today, that is
14 what's sent out every two years.

15 Okay. Moving on to the next slide, so with
16 regard to the mailings, so pipeline safety messages shared
17 with the stakeholders, so the affected public. This kind of
18 goes into some of the question Your Honor just had.

19 So we're not just looking at those that are
20 the affected public that have pipelines on their property,
21 but also addresses that extend 1,000 feet from the pipeline.

22 So this includes our residents, businesses,
23 farms, schools, other places of congregation. And again,
24 it's a 1,000 mailing zone either side of the pipeline, is
25 the criteria that we use.

1 BY MR. SNISCAK:

2 Q. If I may interrupt, is that beyond the guideline,
3 or is it less than the guideline?

4 A. Yes. API 1162 refers to a 660 foot criteria. We
5 utilize the 1,000 feet. What we've seen is, during our
6 conversations with our peers, that is something that's
7 consistent, and we made a decision to go above and beyond
8 the recommended practice with that number.

9 Q. Thank you.

10 A. With regard to public officials, governmental
11 departments, officials within the county where the pipeline
12 is located, so those bodies within a ten-mile mailing zone
13 are sent the mailings.

14 We want to make sure that the neighboring counties are
15 notified, and they will be done based on that criteria.
16 Excavators, so companies who routinely and periodically
17 engage in excavation as part of their normal business,
18 they're sent out the same brochures, so they know and
19 understand the requirements of our plan.

20 And then lastly, on the emergency responders side, it's
21 the organizations in the county where the pipeline is
22 located, and again, the emergency organizations within a
23 ten-mile mailing zone.

24 So, next slide. So with regard to the 2018 annual
25 public awareness mailing that was sent in mid-September,

1 Sunoco mailed public awareness brochures to the following
2 Pennsylvania stakeholders.

3 So I'll just give these numbers out so that everybody
4 understands the extent of the mailing list, and this is for
5 pipelines that transport or will transport NGLs.

6 So for the affected public, 40,046 brochures; 16,338 for
7 excavators; and for public officials, nearly 4,400 total, of
8 which about 3,300 were sent to the emergency response
9 contacts.

10 So there were some questions or comments yesterday with
11 regard to not receiving mailers. I did go back and visit
12 with our team. Both Mr. Walsh and Ms. Hughes were both on
13 our mailing list and were sent out the brochures for the
14 2018 public awareness brochures here in September of this
15 year.

16 Next slide, please. So the group meetings, we talked a
17 little bit about that. Emergency responders, you know, our
18 focus with emergency responders is to conduct the annual
19 training sessions, and those are offered across Pennsylvania
20 with other local pipeline contractors.

21 The one thing that the agencies like is that when we
22 conduct these trainings with the other operators, that it's
23 not a drain on their resources, there's an opportunity to
24 interface with the other operators and the agencies together
25 as part of this meeting.

1 So from a standpoint of the session itself, there's a
2 coordinated response exercise that's conducted. There are,
3 of course, the liaison opportunities with the local pipeline
4 operators and then of course we have a meal at the end.

5 It's a small thank-you for them making the time to be
6 there for such an important thing, and then that networking
7 that takes place during those meetings and information
8 sharing goes a long way not only for us but those other
9 operators and the emergency responders.

10 With regard to the meetings held in Pennsylvania, you'll
11 see that we sponsored 22 meetings here this year. We are
12 still finalizing the results and the totals as far as the
13 number of participants that participated, but normally that
14 takes place from August through October of each year.
15 You'll see the numbers for 2017 alone, we had over 2,000
16 participants, which was really good.

17 Next slide, please. So supplemental specialized
18 training, MERO, you heard that earlier as far as Mariner
19 Emergency Responder Outreach that Mr. Noll talked about.

20 The one thing I wanted to cover with everyone, Sunoco
21 developed a MERO training program to assist with the local
22 emergency responders in preparedness with the NGLs.

23 We set up a program initially going back to the original
24 meetings, and then here recently brought on Mr. Noll, I
25 think going back to 2017, and I'll cover those numbers here.

1 So as early as 2013 with Mariner West, we had six
2 sessions with the attendance of over 120 people. In 2014
3 for Mariner 1, we also had 21 sessions reaching out to 632
4 individuals, and in '15 and '16, we addressed the Mariner 1
5 pump station location, and those were 17 sessions, 530
6 people, 85 emergency responders.

7 So this has been really successful. And then Mr. Noll
8 covered here this morning the Mariner 2, Mariner East 2 and
9 2X, we've had 20 sessions in excess of 660 attendees at
10 these meetings, and a total of 1,950 responders and
11 officials in Pennsylvania have attended since the program
12 has started. Chester and Delaware Counties along, we've
13 seen over 276 participate.

14 Next slide, please. So I'll go over this real quick
15 because we did hear this early this morning, these MERO
16 courses. Obviously they were conducted last year, starting
17 2017 by Mr. Noll. And he is the author of Pipeline
18 Emergencies, and we utilized his expertise to help us and
19 help the emergency responders that we work with to develop
20 their programs.

21 Subsequent to the MERO training offered by Sunoco, Mr.
22 Noll, as he has stated, was hired by Chester County as far
23 as their emergency services groups to conduct table top
24 exercises. As you can see there, the May table top exercise
25 that took place, and then the one scheduled for December

1 will focus on health care facilities and schools.

2 Next slide, please. So there were questions relative to
3 the 12-inch line, local emergency responder outreach for the
4 12-inch portion of the Point Breeze to Montello pipeline in
5 Chester and Delaware Counties.

6 So I'll cover a little bit of the details that we put
7 together as far as the plan for the outreach. We initiated
8 communication with police, fire, emergency management. This
9 goes back to the ten communities, and we reached out to them
10 starting in July of this year.

11 So we located, we provided information on location,
12 talked about other related information for those facilities,
13 and then sat down with them. We actually had 62 responders
14 and officials from Chester and Delaware Counties participate
15 in those sessions, including 28 agencies that I would like
16 to identify here on the next slide.

17 So we'll see here in the table, Chester County
18 Department of Emergency Services; Chester County Hazmat;
19 Delaware County Department of Emergency Services; Delaware
20 County Hazmat; Edgmont Emergency Management; Edgmont Fire
21 Company; Glen Moore Fire Company; Good Fellowship Ambulance;
22 Goshen Fire Company; Lionville Fire; Middletown Emergency
23 Management; Middletown Fire; Middletown Fire Marshal;
24 Pennsylvania State Police; Thornbury Township Emergency
25 Management; Upper Uwchlan Emergency Management; Upper

1 Uwchlan Police; Uwchlan Emergency Management; Uwchlan
2 Township Fire Marshal; Uwchlan Township Police; West
3 Brandywine Police; West Goshen Police; West Goshen Township;
4 West Whiteland Emergency Management; West Whiteland Fire;
5 West Whiteland Police; Westtown East Goshen Police; and
6 Westtown Emergency Management. So, really pleased with the
7 participation from all of these organizations.

8 Next slide, please. We'll move on to the outreach to
9 the school districts. Sunoco Pipeline developed and
10 initiated supplemental school outreach starting in 2017 to
11 provide the emergency planning information to the
12 administrators of the schools. So those are schools within
13 a half a mile of the ME2 pipeline across the state of
14 Pennsylvania.

15 Practices for school emergency planning related to
16 pipelines was examined and resources identified that could
17 be utilized by the schools in their planning and
18 preparedness efforts.

19 So those 11 meetings were held with 53 school officials
20 in nine counties to start. We are not done yet. We do have
21 some additional outreach programs that will take place.

22 Sunoco continues in Chester and Delaware Counties with
23 the eight school districts. We have contacted all eight of
24 those districts, and we will be meeting with them here in
25 December, so you'll see here, December 10th, Rose Tree Media

1 School District will participate in these meetings; on the
2 11th, Downingtown School District; and the 19th is
3 Chichester School District.

4 I did skip, December 12th we'll be meeting with the
5 Chester Community Charter, and on December 13th with the
6 Penn Delco School.

7 Q. Mr. Perez, what's the Delta Group?

8 A. The Delta Group, they're an organization that
9 conducts these meetings or let's say these sessions with
10 school districts. They're a nationally recognized group.
11 They've worked with school districts before on similar type
12 emergency development programs.

13 Based on their expertise, we believe they would provide
14 additional benefit for us and for the school districts and
15 we chose to go with them as part of this effort.

16 Q. Okay. And they've been hired when?

17 A. They've been hired here, going back as far as 2017.

18 Q. Thank you, sir. And are they involved in all the
19 meetings that have been scheduled or planned to be scheduled
20 on the next slide?

21 A. Yes. Yes, they are.

22 Q. Thank you, sir. Please continue.

23 A. Next slide, I just want to cover the final list of
24 schools. There are still some schools that are identified
25 on the table here that we are working with to coordinate the

1 date. Those would be St. Simon and Jude, St. Peter and Paul
2 School, St. Philip and James School, as part of the
3 Archdiocese of Philadelphia.

4 We are also reaching out and trying to coordinate dates
5 with East Goshen and Exton Elementary in West Chester, and
6 that will cover, once we complete and schedule meetings
7 there, we will have 100 percent participation from the
8 districts.

9 Q. And sir, am I correct that the company during 2018
10 submitted its public awareness program and emergency
11 response program to the PUC?

12 A. That's correct.

13 Q. And is it also accurate that SPLP 11 contains those
14 documents as well as the Commission's reaction thereto?

15 A. That's correct.

16 MR. SNISCAK: Thank you. If I could just have
17 a moment, Your Honor, I think we may be done.

18 (Pause.)

19 MR. SNISCAK: That's it. The witness is
20 available for cross-examination.

21 JUDGE BARNES: Any cross-examination? Mr.
22 Raiders?

23 CROSS-EXAMINATION

24 BY MR. RAIDERS:

25 Q. Good afternoon, sir.

1 A. Good afternoon.

2 Q. You mentioned in your presentation that you were
3 mailing within 1,000 feet?

4 A. Yes.

5 Q. And were you here yesterday for the testimony?

6 A. Yes.

7 Q. Did you remember the testimony of Ms. Fuller (sic),
8 the first witness that came up?

9 A. Yes.

10 Q. And did you find her name on the list of people
11 that you had sent the brochure to in September?

12 A. No.

13 Q. Do you know why you would have not found that?

14 A. I took notes yesterday. I recall her stating that
15 she was about 1,200 feet from the pipeline.

16 Q. Did you recall her testimony yesterday that she
17 felt that she was within an impact zone where she could be
18 impacted by Mariner East 1 or 2?

19 A. I don't recall that part of her testimony.

20 Q. Have you reached out to members of the public to
21 determine what they think the impact area is around the
22 pipeline for people who should be notified of these
23 brochures?

24 A. We have had discussions with the public, but with
25 regard to the brochures themselves, we focus on 1162.

1 That's the guidance document that we have. The 660 feet
2 that's identified in there is the guidance that PHMSA
3 recognizes, and we choose to extend to the 1,000 feet.

4 Q. Eleven sixty-two also contains a process where
5 you're supposed to periodically evaluate your program, does
6 it not?

7 A. It does.

8 MR. SNISCAK: Do you have a copy of it in
9 front of you?

10 (No response.)

11 MR. SNISCAK: Do you have one that opposing
12 counsel and the witness can look at and maybe Her Honor?

13 MR. RAIDERS: I can pull it up electronically.
14 I don't have paper copies.

15 MR. SNISCAK: In the interest of time, if you
16 can't find it, just -- we'll hear the question.

17 JUDGE BARNES: As long as he has recollection
18 of it, go ahead.

19 BY MR. RAIDERS:

20 Q. We'll just state for the record, you're familiar
21 with 1162, correct?

22 A. Yes.

23 Q. All right. So could you describe for me briefly
24 your understanding of the review process concerning the
25 public, and you reviewing your program?

1 A. Can you explain a little bit more --

2 Q. What do you understand as your opinion of what a
3 public review process should be in an 1162 review of your
4 440 program? What do you think should be done? What do you
5 do to review it with the public as part of your review?

6 A. So as part of our mailing, we provide the mailing
7 to the public. We have meetings where we invite the public
8 out to participate and discuss public awareness as it
9 relates to Sunoco Energy Transfer, so that they're aware of
10 where our pipelines are and understand where we operate our
11 facilities.

12 Q. Could you explain what those meetings are, where
13 they are, and how you conduct them? Because I'm not
14 familiar with that at all.

15 A. So the -- one second.

16 (Pause.)

17 A. So with regard to the affected public, I talked
18 about this before earlier and mentioned this on slide three.
19 We meet with the public, and we send the information out to
20 all of the individuals with pipelines on their property that
21 extend out 1,000 feet. And we provide information as it
22 relates to our facilities near their residences.

23 Q. I guess my question is, do you take feedback from
24 the public whether these are adequate? Because the
25 testimony you heard yesterday, you have several people in

1 the public who claim that these outreach efforts that you're
2 doing, they think are clearly inadequate.

3 A. As part of the meetings, we would capture comments,
4 bring those back, evaluate those as it relates to our
5 procedures that exist today, and determine whether or not
6 that makes the most sense for our organization and our plan.

7 Q. How do you call these meetings and how do you
8 publicize them?

9 A. So the meetings, again, goes back to the mailers
10 and the individuals that are located within 1,000 feet of
11 our pipelines. We reach out, the outreach is conducted with
12 -- we have meetings that are communicated through our
13 operations teams, and as part of that we look for that
14 participation from the public.

15 Q. How does the public know?

16 A. Again, it comes back to the mailing locations, the
17 1,000 feet. That is how we're focused on within our plan.

18 Q. Do you invite people to attend meetings on a
19 periodic basis? Do you sample the 40,000 people who are
20 receiving these mailings? How do you choose who you seek
21 feedback from from the public?

22 A. Oh, there is no -- we don't pick and choose who it
23 is that we would select, from a standpoint of outside of the
24 1,000 criteria.

25 Q. You showed in your last couple of slides a

1 significant outreach to the schools.

2 A. Yes.

3 Q. And when did that outreach start?

4 A. It started in 2017.

5 Q. When did Mariner East 1 start HVL operation?

6 A. I don't have that information in front of me. I'd
7 have to go back and look at that. Mariner East 1, we were
8 looking -- I'd have to go back and look.

9 Q. Would it be significantly before 2017?

10 A. It would be before 2017.

11 Q. Is there any reason that the school outreach was
12 not done before Mariner East 1 started up?

13 A. Again, the school outreach that we talked about is
14 a supplemental school outreach. If we go back to the
15 initial slides that are part of the presentation, the
16 schools are part of the affected public and they are
17 communicated to through the mailing, and are part of that --
18 are welcome to call us and reach out to us as well at that
19 time.

20 Q. Do you recall the testimony yesterday from the
21 safety officer from Downingtown?

22 A. I do.

23 Q. And do you think that he was satisfied with
24 Sunoco's outreach to him in his role?

25 A. What I heard was that he did not receive the

1 invite. That was of obvious concern to me. I went back to
2 our employees within our organization. He was sent a direct
3 invite to the last two meetings that were conducted. So
4 it's troubling that he claims that he didn't receive it, but
5 we have record that it was sent to him.

6 Q. When the Mariner East 1 conversion process was
7 happening --

8 A. I'm sorry, I didn't hear that.

9 Q. When the Mariner East 1 conversion process was
10 happening, were you in your role that you're in now?

11 A. I missed the first part again.

12 Q. When you were in --

13 A. No, I caught that.

14 Q. When Mariner East 1 conversion occurred.

15 A. When Mariner East 1 occurred?

16 Q. Yes. Were you in your current role?

17 A. No.

18 Q. Would you have been involved in the decision to
19 notify the public about that project at that time?

20 A. I would have, if I would have been in the current
21 role, yes.

22 Q. Was there any significant outreach to the schools
23 about the conversion of the eight-inch line to what became
24 Mariner East 1?

25 A. Excuse me. I'm just going back to see -- the

1 specific outreach would have been the same as far as the
2 communication to the affected public. Again, going back to
3 2017 is when we had the supplemental school involvement.

4 Q. You're obviously familiar with the 12-inch Point
5 Breeze to Montello segment being incorporated into the
6 Mariner East project?

7 A. Yes.

8 Q. Did that change any of the outreach to
9 institutional entities like schools compared to what you
10 would have done for Mariner East 1 or Mariner East 2? Were
11 there any additional schools that might have been impacted
12 or impacted differently?

13 A. No.

14 Q. Was there any schools in the Downingtown School
15 District that were on Point Breeze to Montello that were not
16 on the Mariner East 1 or 2 corridor?

17 A. I would have to go back and refer to the
18 information.

19 MR. RAIDERS: I believe that's all I have.
20 Thank you.

21 MR. BOMSTEIN: Your Honor, I have no further
22 questions.

23 JUDGE BARNES: All right. Thank you. Any
24 redirect?

25 MR. SNISCAK: Yes. One brief one.

REDIRECT EXAMINATION

BY MR. SNISCAK:

Q. And again, I don't know about the timing of your tenure, but sir, do you remember or are you aware of an open house, a series of open houses that happened in 2016 regarding Mariner East 2, two in Chester County, one at West Chester University and one in Delaware County?

A. I did hear about those. I'm not familiar with those meetings, but yes, I have heard about them.

Q. You heard they were held?

A. Yes.

MR. SNISCAK: Thank you. That's all I have, Your Honor. Thank you.

JUDGE BARNES: Thank you, sir. You may step down, and you are excused.

THE WITNESS: Thank you, Your Honor.

(Witness excused.)

MR. SNISCAK: Your Honor, at that point, in terms of housekeeping, I would ask that -- I guess, subject to cross-examination --

JUDGE BARNES: This was already --

MR. SNISCAK: Should I repeat those, out of an abundance of caution?

JUDGE BARNES: No. They're admitted. Thank you.

1 MR. FOX: We have a couple other housekeeping
2 items.

3 JUDGE BARNES: Okay. We're going to have to
4 talk about the transcript, too.

5 (Pause.)

6 MR. FOX: Your Honor, we're just checking
7 exhibits. Were Exhibits 4 and 5 admitted?

8 JUDGE BARNES: Let's go off the record.

9 (Discussion off the record.)

10 JUDGE BARNES: We're back on the record.

11 MR. WITKES: Your Honor, I'd like to move for
12 the admission of various publicly available documents.
13 Exhibit SPLP 6 is a letter to Governor Wolf from Chairperson
14 Brown dated February 2, 2018.

15 MR. BOMSTEIN: No objection.

16 JUDGE BARNES: SPLP Exhibit No. 6 is admitted.

17 (Whereupon, the document was marked as SPLP
18 Exhibit No. 6 for identification, and was received
19 in evidence.)

20 MR. WITKES: SPLP Exhibit 8 is the
21 Commission's order on the restart of the Mariner East 1
22 pipeline under the Dinniman consolidated docket. I move for
23 its admission.

24 MR. BOMSTEIN: No objection.

25 JUDGE BARNES: SPLP Exhibit No. 8 is admitted.

1 (Whereupon, the document was marked as SPLP
2 Exhibit No. 8 for identification, and was received
3 in evidence.)

4 MR. WITKES: SPLP Exhibit 9 is Chairperson
5 Brown's statement relating to the ME1 restart order, which
6 was our Exhibit No. 8.

7 JUDGE BARNES: Any objection?

8 MR. BOMSTEIN: None, Your Honor.

9 JUDGE BARNES: SPLP Exhibit No. 9 is admitted.
10 (Whereupon, the document was marked as SPLP
11 Exhibit No. 9 for identification, and was received
12 in evidence.)

13 MR. WITKES: SPLP Exhibit 10 is the
14 Commission's opinion and order dated June 14, 2018.

15 MR. BOMSTEIN: No objection.

16 JUDGE BARNES: Exhibit 10 is admitted.
17 (Whereupon, the document was marked as SPLP
18 Exhibit No. 10 for identification, and was received
19 in evidence.)

20 MR. WITKES: SPLP Exhibit 12 is the
21 Commission's opinion and order dated August 14, 2018.

22 MR. BOMSTEIN: No objection.

23 JUDGE BARNES: The exhibit is admitted.
24 (Whereupon, the document was marked as SPLP
25 Exhibit No. 12 for identification, and was received

1 in evidence.)

2 MR. WITKES: SPLP Exhibit 13 is a portion of
3 the transcript from the Dinniman hearing that has attached
4 to it two exhibits that were admitted in that hearing,
5 Exhibits P-1 and P-2, which were letters from the school
6 district to Governor Wolf, and they are being admitted
7 simply for the purpose that those were at issue in the
8 Dinniman proceeding.

9 MR. BOMSTEIN: No objection.

10 JUDGE BARNES: SPLP Exhibit No. 13 is
11 admitted.

12 (Whereupon, the document was marked as SPLP
13 Exhibit No. 13 for identification, and was received
14 in evidence.)

15 MR. WITKES: SPLP Exhibit 30 is a letter from
16 Paul Metro dated November 1, 2018 to school superintendents.

17 JUDGE BARNES: How is that authenticated?

18 MR. WITKES: That is publicly available.

19 JUDGE BARNES: It is publicly?

20 MR. WITKES: Yes.

21 MR. BOMSTEIN: Which exhibit are we on?

22 MR. WITKES: No. 30. All our exhibits were in
23 the binders we handed out yesterday.

24 MR. RAIDERS: This is the letter to
25 Downingtown, Broad Street in the West Chester area; is that

1 the right one?

2 (Pause.)

3 MR. RAIDERS: It is public.

4 (Pause.)

5 MR. BOMSTEIN: Your Honor, I don't recall
6 whether this was used. I might be mistaken.

7 JUDGE BARNES: It wasn't referenced.

8 MR. WITKES: No, we did not show it to a
9 witness. We're offering it as a publicly available
10 document.

11 JUDGE BARNES: He's claiming it's publicly
12 available.

13 MR. BOMSTEIN: Very well.

14 JUDGE BARNES: Any objection?

15 MR. BOMSTEIN: No.

16 JUDGE BARNES: All right. It is admitted.

17 (Whereupon, the document was marked as SPLP

18 Exhibit No. 30 for identification, and was received
19 in evidence.)

20 MR. WITKES: Your Honor, SPLP Exhibit 33 is an
21 article dated April 7, 2017 from State Impact, obviously a
22 publicly available document.

23 MR. BOMSTEIN: No objection.

24 JUDGE BARNES: Exhibit 33 is admitted.

25 (Whereupon, the document was marked as SPLP

1 Exhibit No. 33 for identification, and was received
2 in evidence.)

3 MR. WITKES: And with that, we rest.

4 JUDGE BARNES: All right. Anything further,
5 Mr. Bomstein?

6 MR. BOMSTEIN: We have nothing further, Your
7 Honor.

8 JUDGE BARNES: Mr. Raiders?

9 MR. RAIDERS: No.

10 JUDGE BARNES: Mr. Kanagy?

11 MR. KANAGY: No, Your Honor. Thank you.

12 JUDGE BARNES: All right. Sunoco?

13 (No response.)

14 JUDGE BARNES: All right. Let's go off the
15 record to discuss the transcript.

16 (Discussion off the record.)

17 JUDGE BARNES: We'll go back on the record.
18 If there's nothing further?

19 (No response.)

20 JUDGE BARNES: Hearing nothing further, thank
21 you all very much for participating here today, and have a
22 good day, and we are adjourned.

23 (Whereupon, at 4:01 p.m., the proceedings were
24 concluded.)

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C E R T I F I C A T E

I hereby certify that the foregoing proceedings, C-2018-3006116 and P-2018-3006117, were reported by me on November 30, 2018, and that I, John A. Kelly, read this transcript and attest that this transcript is a true and accurate record of the proceedings.

By: 

John A. Kelly

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