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A P P E A R A N C E S

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A P P E A R A N C E S (Continued)

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A P P E A R A N C E S (Continued)

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1 PROCEEDINGS

2 JUDGE NOBLE: Good morning everyone. We are
3 resuming proceedings in the matter of Application
4 Number 2013-01 before the State of Washington Energy
5 Facility Siting Council, Vancouver Energy Distribution
6 Terminal. When we adjourned last evening, we were in
7 the midst of Mr. Rhoads' testimony.

8 Mr. Kisielius, are you ready to proceed with
9 the remainder of Mr. Rhoads' testimony this morning?

10 MR. JOHNSON: Your Honor, if I may,
11 Mr. Lothrop just wanted to clear up one small exhibit
12 matter on that exhibit that you'd reserved a ruling on.

13 JUDGE NOBLE: Yes.

14 MR. LOTHROP: Your Honor, Exhibit 5332 is
15 the report regarding effects of diluted bitumen exposure
16 on juvenile sockeye salmon. On Tuesday, I believe,
17 while I was asking Mr. Challenger questions and offered
18 this document, Mr. Johnson objected to its entry and you
19 reserved decision on that until this morning. And if we
20 could pick that up this morning, that would be great.

21 JUDGE NOBLE: We will. And I want to look
22 at it just one more time, so let me wait until the break
23 and after the break, I'll rule on it. Thank you.

24 MR. LOTHROP: Thank you. Okay.

25 JUDGE NOBLE: We'll proceed now.

KISIELIUS / RHOADS

1 MR. KISIELIUS: Yes, Your Honor.

2 GREG RHOADS,

3 having been previously sworn, testified as follows:

4 DIRECT EXAMINATION

5 BY MR. KISIELIUS:

6 Q. Good morning, Mr. Rhoads.

7 When we were -- when we broke yesterday we were
8 talking about some of the emergency planning documents,
9 and I'd like to finish up some questions on that. And
10 in particular, several Intervenor witnesses suggested
11 that their individual departments are not sufficiently
12 equipped to handle a hazardous material incident.

13 Does the hazardous materials plan that you were
14 discussing yesterday describe a multi-responder
15 approach?

16 A. Yes, it does. The Emergency Support Function 10
17 to the Comprehensive Emergency Management Plan lists
18 29 different agencies and companies which would be
19 involved in a unified command for a large incident.

20 Q. How about evacuation? Do the planning documents
21 that you reviewed provide for mobilizing specific
22 transportation resources?

23 A. Yes, it does. The plan references C-Tran as a
24 source of buses and evacuation resources. It also
25 discusses the availability of school buses that can be

KISIELIUS / RHOADS

1 used to evacuate people.

2 Q. And what about shelter, emergency shelter? I
3 asked Mr. Johnson about, for example, the park district
4 and he wasn't clear whether that was an option for
5 sheltered.

6 A. Yes. The plan does reference the park district
7 as being a component of the overall unified command for
8 sheltering. It also includes the American Red Cross to
9 participate in that sheltering effort.

10 Q. And can you tell us the date of the most -- most
11 recent date of the adoption of the hazardous materials
12 plan?

13 A. The hazardous materials plan, ESF 10, that I
14 reviewed was January 2014.

15 Q. I'd like to switch topics entirely now and ask
16 you about Chief Molina's testimony.

17 Are you familiar with Chief Molina's testimony
18 about marine fire response and limitations on funding to
19 what he termed FPAAC?

20 A. Yes, I am.

21 Q. And to your knowledge, are you aware of any
22 recent changes to the funding outlook for MFSA and
23 marine funding capabilities?

24 A. Yes, I am. Based upon a press release from the
25 MFSA, they report that they were recently the recipient

KISIELIUS / RHOADS

1 of a \$198,000 fiscal year 2016 port security grant
2 issued from the Federal Emergency Management Agency.

3 **Q. And do you know what that grant was going to be**
4 **used for?**

5 A. My review of the information available, it was
6 that that plan would -- or that grant would be used to
7 update the comprehensive response plan for the lower
8 Columbia.

9 **Q. Is that specific to marine firefighting**
10 **resources?**

11 A. It is.

12 **Q. Switching topics again, we've heard quite a bit**
13 **of testimony about water supply for firefighting,**
14 **especially areas where the public water supply is not**
15 **available or limited.**

16 **In general, can first responders use water from**
17 **natural water bodies to fight fire?**

18 A. Oh, absolutely. I started my fire service
19 career in a very rural fire district drafting or pulling
20 water from farm ponds, rivers, cisterns was a very
21 common occurrence for large fires.

22 **Q. Okay. There was some discussion from Mr. Hicks**
23 **about -- I'm sorry, I'm switching topics again.**

24 A. Okay.

25 **Q. Some discussion from Mr. Hicks regarding the**

KISIELIUS / RHOADS

1 unified command that was implemented in Mosier, and
2 Mr. Hicks -- are you familiar with his testimony?

3 A. Yes, generally.

4 Q. And are you familiar with his testimony about
5 the unified command and the time that it took to
6 organize in Mosier?

7 A. Yes, I am.

8 Q. He suggested I think that it took 36 hours for
9 unified command to organize. Is that consistent with
10 your understanding of the response?

11 A. No, it is not.

12 Q. And I think -- what I want to focus on is a
13 suggestion he made that different aspects of incident
14 command operate to different goals.

15 Do different incident command teams have
16 different goals in the event of a response?

17 A. Well, the unified command system as a component
18 of the National Incident Management System, unified
19 command brings together a number of key stakeholders in
20 an event that include both federal, local and primary
21 responsible party, in this case the railroad. Each one
22 of them of course brings their own perspective and their
23 own experience to the unified command.

24 However, the common goal of any unified command
25 and any participant on the unified command will always

KISIELIUS / RHOADS

1 be life safety and protection of populations first.
2 Secondly, protection of property. Thirdly, the
3 environment. And fourth is system restoration.

4 Now, system restoration can be restoration of
5 utilities, it can be restoration of transportation
6 routes and certainly restoration of, in this case, the
7 rail line is a component of that. But while that's a
8 consideration, that is not to the detriment of the
9 primary goal of any incident which is life and safety
10 protection.

11 Q. Okay. Switch to my final subject for you,
12 Mr. Rhoads.

13 When I talk about some of Mr. Hildebrand's
14 testimony about the DOT-117 standard related to the
15 thermal protection. And Mr. Hildebrand testified to the
16 100-minute standard for thermal protection related to a
17 pool fire.

18 A. Okay.

19 Q. Are you familiar with that testimony?

20 A. I am.

21 Q. And I think he said it was common for fires
22 associated with rail incidents to last more than
23 100 minutes. I'd like to ask you, and we've heard a
24 little bit from Dr. Barkan yesterday about that
25 100-minute standard.

KISIELIUS / RHOADS

1 I'd like to ask you to explain, what does that
2 100 minutes measure?

3 A. Okay. I think it's important to recognize that
4 that 100 minutes that's been referenced by several
5 witnesses. The 100 minutes is not necessarily applied
6 to an incident. It is simply a parameter of the test of
7 the pool fire test.

8 It means that a tank car is put in a pool of
9 burning flammable liquids so that the bottom of the car
10 and all four sides of the car are exposed evenly to
11 thermal loading from the pool fire. There's sufficient
12 fuel in the pool to allow the fire to burn for at least
13 100 minutes.

14 The test is designed to measure the heat flux
15 from the outside of the car to the inside of the car.
16 So it's how much heat is transferred from the outside of
17 the car to the inside of the car.

18 What I think is really important to understand
19 is while it's a 100-minute test it doesn't mean that at
20 minute 101 that catastrophic things happen. It simply
21 means that it measures that heat flux for only
22 100 minutes.

23 At 101 minutes the car will continue to have
24 that heat flux passing across that thermal barrier. It
25 does not mean that the car will catastrophically fail at

KISIELIUS / RHOADS

1 101 minutes. It just simply means that the amount of
2 heat that is transferred across that thermal barrier.

3 As the car would continue to heat what we would
4 see actually happening is the pressure relief device on
5 the car would open to relieve excess pressure on the
6 inside of the car. So yes, a fire can burn longer than
7 100 minutes, but that is not corresponding to the test.
8 It simply is how long the contest was conducted for.

9 **Q. And can you talk in particular about, are there**
10 **defensive -- and sorry, stepping back.**

11 **You've talked about offensive strategies and**
12 **defensive strategies in terms of a fire response. Are**
13 **there defensive strategies that would prolong the time**
14 **that a tank car could be exposed to a pool fire?**

15 A. Sure. As we discussed, the application of
16 cooling water to a tank car that's impinged by fire will
17 help to slow down that heat transfer from the fire area
18 to the inside contents of the car. So that application
19 of cooling water will extend the amount of time that the
20 car has before it heats up.

21 And the intent of the defensive strategy or the
22 cooling water would be to keep the pressure to the point
23 that the pressure relief device would not open up. But
24 even with a functioning pressure relief device, that is
25 a good thing because that means that the pressure is

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1 adequately being relieved inside the tank and that would
2 prevent a heat-induced tear or an energetic release of
3 material from the car.

4 MR. KISIELIUS: Thank you, Mr. Rhoads. I
5 have no further questions for this witness.

6 JUDGE NOBLE: Cross-examination?
7

8 CROSS-EXAMINATION

9 BY MR. POTTER:

10 Q. Good morning, Mr. Rhoads.

11 A. Good morning, Mr. Potter.

12 Q. I'd like to ask you some questions about
13 calculating the number of people who need to be
14 evacuated from an area in the event of a derailment and
15 fire.

16 A. Okay.

17 Q. The ERG 128 guidance states that if a tank car
18 or even a tank truck is involved in a fire and is
19 scattering crude oil that the initial evacuation area
20 that should be considered is a half mile; is that
21 correct?

22 A. That is correct.

23 Q. And if rather than a single tank car multiple
24 tank cars are involved in a fire, would a prudent
25 emergency responder consider expanding the evacuation

POTTER / RHOADS

1 area beyond a half mile?

2 A. My modeling, as I reported yesterday, looking at
3 three cars involved, only increased the distance from a
4 half mile to .6 miles. So --

5 Q. So the answer to my question -- I didn't ask if
6 it was linear. I asked if a prudent emergency responder
7 would consider expanding the evacuation zone if multiple
8 tank cars were involved in a fire.

9 A. I wouldn't assume that that would automatically
10 be done.

11 Q. I didn't ask you if it would automatically be
12 done. I asked you if that's something that somebody
13 would consider.

14 A. An incident commander may consider that.

15 Q. You testified yesterday that in the
16 24 derailments where there were fires the evacuation
17 zone was expanded to one mile in five of those
18 incidents; isn't that correct?

19 A. No, I didn't say it was expanded. I said that
20 in those incidents there were five incidents where there
21 was an evacuation zone of a mile.

22 Q. All right. Given that, would you think that
23 somebody in Mr. Johnson's position as an emergency
24 management planner would take into consideration
25 planning for a worst-case scenario and consider the

POTTER / RHOADS

1 number of people who would need to be evacuated in a
2 one-mile radius?

3 A. Can you restate your question, sir?

4 **Q. Yes. I'm asking you whether a person like**
5 **Mr. Johnson, Scott Johnson, who is an emergency**
6 **management planner, if planning for a worst-case**
7 **scenario, which is part of his job, would it be**
8 **reasonable for him to plan for eventuality of a one-mile**
9 **radius evacuation in the event of an oil train**
10 **derailment and fire?**

11 A. I believe that Mr. Johnson could look at a mile,
12 he could look at a quarter mile, he could look at
13 three-quarters of a mile. I think that all provide data
14 points. But I think that the incident will really
15 dictate what the incident commander chooses is best.

16 **Q. A part of his responsibility is to plan for a**
17 **worst-case scenario, is it not?**

18 A. I believe that he is to plan for credible
19 threats as identified in the HIVA.

20 **Q. We'll get to the HIVA in a minute.**

21 A. Sure.

22 **Q. The fact is, in 5 out of 24 incidents, the**
23 **evacuation area has been one mile. You acknowledge**
24 **that?**

25 A. Well, yes, there were five.

POTTER / RHOADS

1 Q. Okay. So given that, that's over 20 percent of
2 the time. Would it not be prudent for Mr. Johnson to
3 consider the one-mile evacuation and what resources
4 would be needed to effectuate that?

5 A. Yes.

6 Q. Mr. Johnson never testified that if two cars
7 were involved in a derailment and fire that you would
8 automatically go to a one-mile evacuation radius, did
9 he?

10 A. I did not see that in his testimony.

11 Q. Yesterday you acknowledged that the GIS data
12 that Mr. Johnson used to calculate population numbers
13 within evacuation zones was more current and accurate
14 than the 2010 census data that is used in MARPLOT;
15 correct?

16 A. I did.

17 Q. And you testified that, I believe, CAMEO is the
18 application that calculates the size of the area needing
19 evacuation? Did I understand that correctly?

20 A. CAMEO is a suite of tools. The particular tool
21 that I used was a tool call RMP Comp, which is a
22 component of CAMEO.

23 Q. Okay. Is that what you used to calculate the
24 size of the evacuation area?

25 A. It's what I used to calculate the size of the

POTTER / RHOADS

1 release impact area. So the area within that release
2 area would be considered the evacuation area, yes, sir.

3 **Q. Okay. So I believe in your original testimony a**
4 **few weeks ago you testified that the maximum number of**
5 **people requiring evacuation in Vancouver was 1200; is**
6 **that correct?**

7 A. There were various numbers given for various
8 locations that I modeled.

9 **Q. Do you recall what the maximum was?**

10 A. No, sir. Without reviewing my report, I
11 couldn't say off the top of my head.

12 **Q. What was the size of the evacuation area that**
13 **you used when you calculated the number of people who**
14 **would need evacuation in Vancouver?**

15 A. I used the RMP tool based upon a release of a
16 single tank car of product and the vapor cloud ignition
17 from that to determine the distance. The distance that
18 was reported for my modeling was .5 miles so that's what
19 I used for the evacuation distance.

20 **Q. A half mile?**

21 A. Yes, sir.

22 **Q. Radius?**

23 A. That's correct.

24 **Q. Okay. Now, you said that that was for a single**
25 **tank car?**

POTTER / RHOADS

1 A. That's correct.

2 **Q. In Mr. Chipkevich's table of derailments of unit**
3 **trains with releases, is it true that only one of those**
4 **incidents involved only a single tank car?**

5 A. I would have to review Mr. Chipkevich's table
6 again, but the majority involved more than one.

7 **Q. Isn't it true that the vast majority involved**
8 **more than a single tank car?**

9 A. A majority were more than one car.

10 **Q. You don't know how many specifically?**

11 A. Well, in each incident there were different
12 numbers of cars. And in fact, his report actually has
13 several incidents where there were multiple commodities,
14 for example, the Painesville derailment was ethanol, LPG
15 and maleic anhydride. That was a one-mile evacuation
16 largely due to the fact that it was a mix of chemicals
17 and that there were other products other than ethanol
18 involved.

19 **Q. I'm not asking you about the size of the**
20 **evacuation area now. I'm just asking you about the**
21 **number of incidents involving multiple cars.**

22 A. The majority of the incidents on
23 Mr. Chipkevich's list involved multiple cars.

24 **Q. You reviewed Mr. Johnson's testimony?**

25 A. I did.

POTTER / RHOADS

1 Q. He testified that he used MARPLOT and a
2 half-mile radius to calculate the number of people
3 requiring evacuation for specific points.

4 A. He did.

5 Q. And at -- where the railroad intersects with
6 Grant Street his calculation was that 2,341 people would
7 require evacuation.

8 Do you recall that?

9 A. Can you give me a cross street to Grant Street,
10 sir?

11 Q. It's the intersection of Grant Street and the
12 railroad. He's using MARPLOT along the railroad line.
13 At one point, Grant Street passes over the railroad. At
14 that point, he calculates a half mile radius would
15 require the evacuation of 2,341 people.

16 Do you recall that testimony?

17 A. No, sir.

18 Q. Did you check that specific location?

19 A. The specific locations that I used was Columbia
20 and Phil Arnold Way. I looked again at 88th Street and
21 the railroad. I looked at 164th Street and the
22 railroad, and I believe it was Lieser -- Lester --

23 Q. Lieser.

24 A. -- Lieser, and the railroad. So again, I'm not
25 familiar particularly with where Grant Street crosses

POTTER / RHOADS

1 the railroad. If you could give me an indication of
2 where Grant Street is to one of those four locations, it
3 would be helpful.

4 Q. Well, it's downtown Vancouver, I can tell you
5 that, not far from city hall.

6 A. Is it near Phil Arnold and Columbia?

7 Q. I can't give you the distance. It's in that
8 general area.

9 A. Well, distances are important for our discussion
10 here.

11 Q. Well, my specific question is, did you check
12 using a half mile from the railroad and Grant Street?

13 A. No. Then the answer is no, sir.

14 Q. Okay. And again, Mr. Johnson's testimony that
15 you reviewed used a specific location of the railroad
16 and where Mill Plain passes over it, and there he
17 calculated using MARPLOT an evacuation with a half mile
18 radius would require 2,733 people being moved.

19 Did you check that specific location?

20 A. No, sir, I did not.

21 Q. Mr. Johnson in his testimony regarding the
22 number of people requiring evacuation made the point
23 that when he sends out a notice, and he used an example
24 of everybody south of Fourth Plain in this area needs to
25 evacuate, that he would expect people north of Fourth

POTTER / RHOADS

1 Plain to evacuate as well once the word is passed out
2 that there's an evacuation.

3 Would you disagree with that?

4 A. No, I would not.

5 **Q. So when we're calculating specific numbers**
6 **within specific areas, the actual number of people**
7 **leaving the area may expand?**

8 A. I would not say expand. I would say there may
9 be additional people outside of the impact area who
10 choose to leave, yes.

11 **Q. With respect to the planning documents, you**
12 **reviewed three plans; was the Comprehensive Emergency**
13 **Management Plan, the Hazard Identification Vulnerability**
14 **Assessment and the Clark County Hazardous Material**
15 **Emergency Response Plan; correct?**

16 A. That's correct.

17 **Q. Did the -- I'll just call it the HIVA, have an**
18 **analysis of the risk specifically focusing on crude oil**
19 **unit trains?**

20 A. It referenced crude oil. It did not use the
21 term "crude oil unit train."

22 **Q. And it didn't include any analysis on the risk**
23 **of crude oil unit trains, did it?**

24 A. The expression "unit train" was not used in the
25 HIVA.

POTTER / RHOADS

1 Q. Well, my question is a little different than
2 that.

3 I'm asking about whether it contained an
4 analysis of the risk of crude oil unit trains.

5 A. No, sir.

6 Q. All right. And that's also true for the
7 Comprehensive Emergency Management Plan; it doesn't
8 contain an analysis of the risk and the response for
9 events specific to crude oil unit trains, does it?

10 A. It does not.

11 Q. That's also true for the Clark County Hazardous
12 Material Response Plan, isn't that correct?

13 A. That's correct.

14 Q. In your prior testimony, didn't you agree with
15 the statement from the Congressional Research Service
16 and its publication, the Transportation of Crude Oil,
17 that oil trains concentrate a large amount of crude oil
18 increasing the probability that should an accident
19 occur, large fires and explosions could result?

20 A. I don't recall that question, but I would agree
21 with that statement.

22 Q. Okay. So given that oil trains concentrate a
23 large amount of crude oil and that increases the
24 probability of large fires and explosions, wouldn't you
25 agree that oil trains pose a different and greater risk

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1 of fire and explosion than mixed freight trains?

2 A. I would agree with that.

3 **Q. So the analysis and those planning documents**
4 **that don't contain an analysis of crude oil train risk**
5 **and response need to be updated, don't they?**

6 A. I believe it would be prudent to update these
7 documents, yes, sir.

8 **Q. In your prefiled testimony, you testified that**
9 **in the past eight years the number of crude oil**
10 **shipments has increased exponentially; correct?**

11 A. Yes, sir.

12 **Q. And then you also state that during the same**
13 **period "the number of train accidents has continued to**
14 **decrease."**

15 A. That's correct.

16 **Q. What do you mean by the number of train**
17 **accidents has continued to decrease during this same**
18 **time period?**

19 MR. KISIELIUS: Objection, Your Honor.
20 Mr. Potter is now I think extending beyond the scope of
21 rebuttal testimony and revisiting Mr. Rhoads' earlier
22 testimony.

23 MR. POTTER: Two questions, Your Honor, and
24 I've gotten into it.

25 MR. KISIELIUS: These are questions that

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1 could have and should have been asked when Mr. Rhoads
2 appeared first. We're limited on rebuttal and -- to
3 rebuttal testimony, and for good reason. We have a lot
4 of witnesses to get through today.

5 JUDGE NOBLE: I'm overruling the objection.
6 I'll allow the questions. I'll allow this question. I
7 don't know what the next one is.

8 THE WITNESS: Could you restate your
9 question, sir?

10 BY MR. POTTER:

11 **Q. I will. Your prefiled testimony said that in**
12 **the last eight years the number of crude oil train**
13 **shipments has increased exponentially.**

14 A. That's correct.

15 **Q. In the same period, you say that the number of**
16 **train accidents has decreased.**

17 **My question is, what do you mean by the number**
18 **of train accidents has decreased?**

19 A. I believe that according to the Federal Railroad
20 Administration and the Association of American
21 Railroads, that the overall number of FRA reportable
22 train accidents nationwide has continued to decline.
23 Those number of incidents are falling.

24 MR. POTTER: Can we bring up Exhibit 3058 at
25 the bottom of Page 7, please?

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1 JUDGE NOBLE: 3058?

2 MR. POTTER: Yes.

3 BY MR. POTTER:

4 Q. Mr. Rhoads, are you familiar with this graph?

5 A. I saw this graph yesterday during Dr. Barkan's
6 testimony.

7 Q. Okay. And it's a chart showing the number of
8 crude oil shipments and the number of crude oil train
9 derailments.

10 Would you agree that at least during the period
11 of 2009 to 2013 shown on this graph, the number of crude
12 oil derailments has increased right along with the
13 increase in the number of shipments?

14 A. Yes, I would.

15 Q. So your testimony and your prefiled testimony,
16 you're talking about all types of train accidents
17 decreasing?

18 A. Yes, that's correct.

19 Q. But we're here focused on crude oil trains,
20 aren't we?

21 A. We are.

22 Q. Last question, on the water supply system.

23 Did you review the testimony of Tyler Clary, the
24 City of Vancouver water system manager?

25 A. No, sir, I did not.

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1 Q. Okay. His testimony was that the City -- it's
2 not known today if the City water supply system can
3 provide a sufficient amount of water at a sufficient
4 pressure to -- for the fire foam suppression system at
5 the terminal to operate.

6 That fire suppression system does not rely on
7 water from natural water bodies, does it?

8 A. Again, sir, I have not reviewed the testimony
9 that you're referring to. I can't answer your question.

10 Q. Have you reviewed the fire suppression system
11 plan for the terminal?

12 A. I have reviewed work by the fire protection
13 engineer and a report that was issued.

14 Q. What's the source of water that the fire foam
15 suppression system relies on?

16 A. Again, your question, sir?

17 Q. What is the source of water that the fire foam
18 or suppression system for the terminal relies on?

19 A. Sir, I'm not aware of the water supply for this.
20 I believe it to be the City.

21 Q. Okay.

22 MR. POTTER: I have no further questions.
23 Thank you.

24 JUDGE NOBLE: Redirect?

25 MR. KISIELIUS: Ms. Mastro, could you please

KISIELIUS / RHOADS

1 pull up Exhibit 3136?

2 REDIRECT EXAMINATION

3 BY MR. KISIELIUS:

4 Q. I'm going to ask you a couple unrelated
5 questions to this exhibit.

6 Mr. Potter asked you about the half mile and the
7 mile radius. The ERG, which one does that use?

8 A. The ERG Guide 128 references a half a mile
9 evacuation area.

10 Q. Okay. And why does it use a half mile
11 evacuation area?

12 A. The distances developed by the DOT and PHMSA for
13 inclusion into the ERG are based upon their experience
14 in past incidents and also looking, it's my
15 understanding, of their development that includes
16 modeling of how far an incident involving that
17 particular commodity would affect.

18 Q. Fair to say the ERG includes life safety
19 considerations?

20 A. Absolutely.

21 Q. I want to ask you about the mapping, and
22 Mr. Potter asked you several questions about
23 intersections. Do you recognize this exhibit?

24 A. I do.

25 Q. Did you check your tool against the four

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1 specific incidents depicted -- excuse me. Let me start
2 that again.

3 Did you check against the four intersections
4 depicted on this map?

5 A. I want to be clear that in the initial modeling
6 that I did, it included three of these four. I did not
7 initially model Fourth Plain and Lincoln because the
8 trains for this facility would not be in that area.
9 That's north of the facility and our loaded trains or
10 the loaded trains for this facility would not be
11 impacting that, so I did not initially model that.

12 When I did a comparison of Phil Arnold and
13 Columbia, which is kind of that Columbia and 3rd Street
14 area, I believe, when I looked at Evergreen and 88th,
15 Evergreen and 164th, my numbers were fairly consistent
16 with these numbers, yes.

17 MR. KISIELIUS: I have no further questions.
18 Thank you.

19 JUDGE NOBLE: Council questions? Mr. Moss?

20 MR. MOSS: Mr. Rhoads, good morning.

21 THE WITNESS: Good morning.

22 MR. MOSS: You testified early on that
23 sources of fresh water are available to first responders
24 in incidents such as we've been talking about; right?

25 THE WITNESS: That's correct.

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1 MR. MOSS: Did you mean to infer by that
2 that the water from the Columbia River would be readily
3 available to first responders in the event of a terminal
4 fire?

5 THE WITNESS: I believe that it would
6 through the use of the marine assets and the fire boats
7 available, yes, sir.

8 MR. MOSS: The fire boats, but not to the
9 systems in place at the facility?

10 THE WITNESS: It's not uncommon, sir, for
11 facilities that are marine based that the fire boats
12 actually serve as a fire pump, if you will, drawing
13 water from the water that they're floating on, and
14 supplying land-based assets through a hose connection.

15 MR. MOSS: The reason I'm asking is we had
16 some testimony the other day concerning the Mosier
17 incident, and I believe it was Witness Sanchez who was
18 testifying that there was a proposal during that
19 incident to draw water from the Columbia River to which
20 the tribes would apparently object. And in fact, Chief
21 Appleton testified that the source was something other
22 than the Columbia River. I don't know what it was, but
23 it wasn't the Columbia River. And apparently there are
24 some limitations on the ability of first responders to
25 draw on that source, and I was wondering if you knew

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1 anything about that.

2 THE WITNESS: I have not reviewed the
3 testimony of -- was it Mr. Sanchez?

4 MR. MOSS: Ms. Sanchez.

5 THE WITNESS: Ms. Sanchez. Sir, I haven't
6 seen her testimony.

7 Drawing from a river, as I said, is commonly
8 done in the fire service, but it takes, again, some
9 preplanning. You can't just say, Well, if there's an
10 emergency, we'll draw from the river. That needs to be
11 thought out ahead of time to make sure that you have
12 access to good points, that you have -- train your
13 responders in the use of floating dock strainers and
14 other drafting equipment to do that. I was not aware
15 that there was a question of whether they should or
16 should not.

17 MR. MOSS: So we would want to see some
18 provisions in our fire suppression plan that would set
19 this up in advance so to speak.

20 THE WITNESS: In my earlier testimony, I
21 talked about preplanning for local responders along the
22 route, and the identification of water sources was one
23 of the items I referenced.

24 MR. MOSS: Turning to the 100-minute
25 standard, I appreciated your explanation of how that

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1 100 minutes came to be. It's not the case, however, is
2 it, that the design of the 117 tank cars makes them
3 essentially foolproof in the event of a large pool fire
4 that lasts for hours?

5 THE WITNESS: I'm not sure I understand your
6 use of the word "foolproof," sir.

7 MR. MOSS: Can it fail under that
8 circumstance? Can a 117 car fail if it sits in a pool
9 fire for several hours? Just can that happen?

10 THE WITNESS: If the pressure relief device
11 was unable to relieve the internal pressure within that
12 car to a pressure underneath or beneath the ability of
13 the steel shell to hold it, yes, that could occur.

14 MR. MOSS: Okay. Thank you. That's all I
15 have.

16 JUDGE NOBLE: Other council questions? I
17 have one.

18 With regard to Mr. Moss's question and also
19 your earlier testimony, you said that at 101 minutes it
20 doesn't mean that there will be a fire immediately just
21 because you pass the 100-minute, and that what should
22 happen is that the pressure device will open and relieve
23 the pressure to avoid an energetic release of material
24 from the car.

25 What do you mean by "energetic release of

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1 material"? Do you mean a spray of the commodity or do
2 you mean explosion?

3 THE WITNESS: I mean the phenomenon that
4 we've observed in some of the older cars, the
5 heat-induced tear where the pressure inside of the car
6 and due to the steel being heated, that that pressure
7 builds up, a blister or bubble on the tank shell occurs
8 and then finally it splits open. When it splits open,
9 that sudden release of pressure inside the car is that
10 energetic release of material.

11 JUDGE NOBLE: So it's coming out when the
12 pressure device releases?

13 THE WITNESS: It could. What we've seen in
14 the past is that the pressure relief device is used on
15 the Legacy 111 cars did not provide enough volume; that
16 is, it did not allow enough of that pressure to be
17 relieved fast enough before the tank shell failed. On
18 the CPC-1232 cars, they have a larger bore or orifice on
19 the pressure relief device to allow more of that
20 pressure out to reduce the potential for that car to
21 split open with a heat-induced tear.

22 JUDGE NOBLE: And what comes out of the tank
23 when the pressure device does work?

24 THE WITNESS: It would depend upon the
25 orientation of the device. And what I mean is, if the

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1 car is upright and that the pressure relief device,
2 which is found on the top of the car, vapor, you have a
3 liquid level and then you have the vapor level in that
4 car, if it is upright and the pressure relief device
5 opened, it would be vapor that would be released. That
6 vapor could ignite and it would be like a flare type of
7 fire from the top of the car. But as that pressure
8 dropped, that fire from that flare would be reduced.

9 If the car was at an orientation where now
10 the pressure relief device was let's say at the 3:00
11 position and it was liquid, when that pressure buildup,
12 the pressure relief device would open and liquid product
13 would come out of that device and that would be ignited.

14 JUDGE NOBLE: Thank you. Questions based
15 upon council questions?

16 RECROSS-EXAMINATION

17 BY MR. POTTER:

18 Q. So just to follow up on that.

19 When the pressure relief valve is opening,
20 either vapor is releasing or liquid is releasing?

21 A. That's correct.

22 Q. In either case, that's additional fuel for the
23 fire?

24 A. It could, yes.

25 Q. Well, it would?

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1 A. Well --

2 **Q. Vapor is flammable, is it not?**

3 A. It is not, but it would be a separate fire, not
4 necessarily the same pool fire.

5 **Q. I didn't ask if it was the pool fire. I said**
6 **fuel for the fire.**

7 A. You said "the" fire which I interpreted to mean
8 the pool fire.

9 **Q. The overall incident.**

10 A. The overall incident, yes, sir, that's a fair
11 statement.

12 **Q. Just to be clear on the heat-induced tear and**
13 **the energetic release, this is what we have in earlier**
14 **testimony talked about resulting in a fireball; correct?**

15 A. That's correct.

16 **Q. Not technically an explosion?**

17 A. Not technically an explosion, yes, sir.

18 JUDGE NOBLE: Other questions based on
19 council questions?

20 MR. JOHNSON: No, Your Honor.

21 JUDGE NOBLE: All right. Thank you very
22 much, Mr. Rhoads. You are excused as a witness. We
23 appreciate your coming back. Thank you.

24 THE WITNESS: Thank you.

25 THE COURT: Are we ready for Mr. Corpron?

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1 MR. JOHNSON: Yes, Your Honor. The
2 applicant calls Mr. Corpron.

3 JUDGE NOBLE: Good morning. You were sworn
4 before but I excused you as a witness.

5 DAVID CORPRON,
6 having been first duly sworn, testified as follows:

7 DIRECT EXAMINATION

8 BY MR. JOHNSON:

9 Q. Mr. Corpron, welcome back.

10 A. Thank you.

11 Q. And just by way of reminder, it's been a few
12 weeks. You're the senior project manager responsible
13 for design and engineering of the Vancouver Energy
14 Terminal; is that right?

15 A. That is correct.

16 Q. Okay. And have you been here to observe the
17 testimony of the various witnesses throughout the last
18 five weeks?

19 A. Yes, I have.

20 Q. Okay. And have you missed any of that
21 testimony?

22 A. I did miss some of the testimony last Friday.

23 Q. Okay. And for those witnesses that you might
24 have missed last Friday, were you able to review their
25 testimony?

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1 A. Yes.

2 Q. Okay. I want to ask you some questions related
3 to some specific witnesses' testimony that have touched
4 on the facility design and design-related issues. And I
5 think picking up on where we just left off, maybe the
6 best place to start is with the water supply issues that
7 Mr. Potter was asking the previous witness about.

8 MR. JOHNSON: And I would like to use
9 Exhibit 0373 to have you talk about some of this, but I
10 don't know if you guys have an objection or not to that
11 exhibit, 0373.

12 MR. POTTER: Which is?

13 MR. JOHNSON: It's the map that shows the
14 looping plan.

15 MS. REED: Subject to a foundation being
16 laid.

17 MR. JOHNSON: Okay. All right. But you
18 don't have a problem if I pull it up so we can talk to
19 it?

20 MS. REED: No.

21 MR. JOHNSON: So could you pull up 0373.

22 BY MR. JOHNSON:

23 Q. Maybe if you could just orient the council to
24 what this represents.

25 A. Yeah. This is the waterline map. The green

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1 line is the industrial area that the Port had just put
2 in. I don't have a pointer.

3 Where you see the arrow and it says Planned COV
4 Waterline, that just to the left of that green area is
5 Parcel 1-A or the Area 300 for the tank farm. So this
6 area right here is where you would have the tank farm,
7 so for Area 300 where the storage area would be sitting.

8 JUDGE NOBLE: We're getting a little far
9 from identifying the exhibit. Let me just ask if
10 there's an objection to the admission of this exhibit
11 still.

12 MS. REED: No.

13 JUDGE NOBLE: All right. Exhibit 0373 is
14 admitted.

15 BY MR. JOHNSON:

16 **Q. Were you done orienting council to what it**
17 **represents?**

18 A. Yes.

19 **Q. Okay. So what I want to do is, as Mr. Potter**
20 **referenced earlier, Mr. Clary testified earlier in the**
21 **proceeding about water supply. Do you recall that**
22 **testimony?**

23 A. I do.

24 **Q. And he testified about the need for looping of**
25 **the water lines to address the need for more than one**

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1 feed, if you will, into the facility area and to ensure
2 adequate volume and pressure. Do you recall that
3 testimony?

4 A. Yes.

5 **Q. Okay. Can you describe what efforts you've**
6 **undertaken to address the concerns about looping?**

7 A. Early on, back in 2013, the Port approached us
8 before they had built their industrial facility where
9 you see the green line on this map and you see the
10 purple line for the COV waterline. And they asked us,
11 because they were trying to make their system stronger
12 for all their tenants, if we would be interested in
13 participating with them splitting the cost three ways,
14 50 percent with us, 50 percent with the Port, 50 percent
15 with the City, to install that purple waterline, and we
16 said yes.

17 So we had met several times; we got management
18 committee approval. We had estimates in, and then it
19 sat on the City's desk and hasn't moved.

20 **Q. Okay. And you said that you agreed to a**
21 **three-way split of 50 percent apiece. Did you mean a**
22 **third a piece?**

23 A. Sorry. The amount was \$50,000; that's what I
24 was thinking of.

25 **Q. Okay. All right. And in your role as the**

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1 primary engineer for the project, are you prepared to
2 continue to pursue that effort?

3 A. Yes. We still feel that it is desirable to have
4 a looped system, and we want to pursue that with the
5 City.

6 Q. Okay. Mr. Clary also testified about concerns
7 he had about water pressure draw-down in the event of a
8 major incident where you were drawing large volume of
9 water from the City system that could result in
10 draw-down below the regulatory mandated 20 PSI. Do you
11 recall that testimony?

12 A. Yes, I do.

13 Q. Have you explored engineering solutions to
14 address that water pressure draw-down in the event it in
15 fact were to occur?

16 A. Yes. There's several. As Mr. Rhoads just
17 talked about, one of the solutions is you put an inlet
18 in the river. That does include needing water rights
19 and talking with tribes and whatnot. But that is common
20 at facilities near water.

21 You can increase the pipe size. As Mr. Clary
22 testified, there's one section of pipe that has a
23 reduced size and the volume that can go through a pipe
24 for rough numbers, if you square the pipe size, that is
25 the amount that you'll get through it. So a 2-inch

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1 pipe, you get four through it; a 3-inch pipe, you get
2 six through it. So you're going up. And a 10-inch pipe
3 you're 100 versus, you know, 12-inch or 144. So a
4 2-inch change can be a lot of volume in a pipe. It's
5 not a linear relationship. So you could change that.

6 You could add onsite storage. You could add
7 pump stations. There's lots of solutions to do that,
8 and that is a typical thing when cities look at adding
9 facilities or subdivisions, everything else, to make
10 sure the water supply is adequate.

11 **Q. Okay. And is the looping solution, identified**
12 **here I guess by the violet line, is that something that**
13 **you would expect to help address this concern about**
14 **potential draw-down of the overall pressure in the**
15 **City's water system?**

16 A. Yes. The looping is shown by the violet and the
17 green is also part of it that helped create the loop
18 that the Port has in place today with their completion
19 of their last project.

20 **Q. Okay. Sticking with the emergency response**
21 **theme, I guess, Fire Chief Molina testified earlier. Do**
22 **you recall his testimony?**

23 A. I do.

24 **Q. Okay. And there was a discussion with Chief**
25 **Molina about an emergency response gap analysis. Do you**

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1 recall that?

2 A. Yes.

3 **Q. Have you been involved with the applicant's**
4 **efforts to address the creation or development of an**
5 **emergency response gap analysis?**

6 MR. POTTER: Your Honor, I'm going to object
7 to this line of questioning. It involves efforts that
8 were going on during the development of the Draft
9 Environmental Impact Statement which I believe we were
10 not to get into in this proceeding.

11 JUDGE NOBLE: Well, I'll overrule that
12 objection because I think it's just foundational for
13 what he's going to be testifying about what his
14 suggestions are that can be done. So I don't think this
15 is in the nature of a critique of the draft EIS, so I'll
16 allow the question.

17 MR. JOHNSON: All right, Your Honor.

18 BY MR. JOHNSON:

19 **Q. So the question was what efforts has the**
20 **applicant undertaken with regard to development of a gap**
21 **analysis?**

22 A. When we did our preapplication with the City, we
23 invited the fire department and then met with the fire
24 department afterwards with more of the firefighters
25 describing the facility, trying to understand their

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1 concerns, what they wanted to see in the facility as we
2 were developing this further. And we subsequently met
3 with them about a month later.

4 We arranged site visit up to the Anacortes
5 facility so they could see a facility similar to what we
6 were talking about in operation. And then we worked
7 with them to create a scope of work for a gap analysis
8 that we had worked with Heidi Scarpelli and Steve
9 Eldridge with the fire department. They were very good
10 to work with.

11 And then everything went on hold, so...
12 And then it was transferred, and that scope of work was
13 transferred to EFSEC to incorporate.

14 **Q. And is the applicant still prepared to cooperate**
15 **in development of that gap analysis?**

16 A. Absolutely.

17 **Q. Okay. Changing topics a bit. Dr. Sahu**
18 **testified. Do you recall Dr. Sahu?**

19 A. Yes.

20 **Q. And he testified about concerns he had regarding**
21 **total vapor pressure testing which has been a recurring**
22 **theme here. Do you recall his testimony?**

23 A. I do.

24 **Q. Okay. And I think when you originally testified**
25 **you talked about your responsibility for engineering a**

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1 loading facility in North Dakota; is that right?

2 A. That is correct.

3 Q. Okay. Dr. Sahu, he testified about that
4 methodologies and protocols for ensuring that the
5 terminal maintains compliance with the NSPS for the
6 terminal tanks. Do you recall that? And that's the TVP
7 of 11 or less.

8 A. That's correct.

9 Q. So the question is, I would like you -- he
10 leveled a critique or articulated concerns about how one
11 tests at the origin, potential changes along the route,
12 and then how testing would occur at the destination.

13 So given your familiarity with how the railcars
14 are filled at the origin, how they travel and then how
15 they would be unloaded at this facility, can you
16 describe the process beginning with the process at
17 origin that allows you to determine that the proper
18 vapor pressure is maintained?

19 A. Yeah. So at the facility, some of our customers
20 want us to test before it goes in the railcar, before we
21 ever start loading. So we'll turn off the mixers, let
22 it sit, and then pull the samples, send those to the
23 lab. The lab tests them and then once we have the
24 results, then we start testing. On other customers
25 because of the long history of tests that we have run on

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1 the facility, we do in-line sampling.

2 And so in the pipe you'll have a sample tube
3 that's sitting down part way and it has holes along it
4 so it's taking a grab sample as the oil is passing it.
5 So it's taking a couple milliliters of oil at different
6 intervals all during the loading process, so you have a
7 cumulative grab sample for what has gone in all the
8 railcars during the loading process. And that is tested
9 and sampled as well.

10 **Q. Okay. And when a unit train is loaded, is it**
11 **drawn from one tank or multiple tanks or how does that**
12 **usually work?**

13 A. The unit train, it is typical in the industry to
14 draw from a single tank, and that is why most of the
15 interlocks at facilities do not allow you to fill a tank
16 and draw from the same tank at the same time. And that
17 would be the expected practice. We do that in sulfur,
18 we do that with crude oil. It's a standard practice.

19 **Q. And so in the cases where a customer would draw**
20 **a sample from the tank from which the train is being**
21 **loaded, would the grab sample from the pipe essentially**
22 **be occurring as well?**

23 A. The grab sample would be occurring as well. And
24 we have the results before that ships. So the sampling
25 and the results takes about an hour to get the results

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1 back. In North Dakota, there's plenty of facilities
2 there and so we have the answers before the train leaves
3 the facility.

4 **Q. Okay. And then in the route, once the unit**
5 **train is built, if you will, are there any changes to**
6 **the composition of the train itself during transit?**

7 A. No. The whole purpose of unit trains is from
8 origin to destination and back again. The train doesn't
9 stop, it doesn't add anything, it doesn't break
10 anything. The only time it would stop is if it were to
11 pull out a bad order car. But it doesn't add anything
12 to the system.

13 **Q. So it doesn't stop halfway down the line and top**
14 **off or anything?**

15 A. No, it does not.

16 **Q. Okay. Now, bringing it to the terminal, what**
17 **will occur at the Vancouver Energy Terminal as it**
18 **relates to testing for vapor pressure? Can you describe**
19 **how that will work?**

20 A. Yeah. In the Area 200 unloading area, we will
21 have a sampler similar to what I described that we have
22 at our loading facility where it will take a cumulative
23 grab sample. We will take it to a facility in
24 Vancouver. There's a facility right here in Vancouver
25 that can do the testing and all the crude oil meets the

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1 ASTM testing standards for the crude oil that will be
2 shipping.

3 Q. Okay. In the event that there is a sample that
4 would show a vapor pressure in excess of 11, what would
5 you do?

6 A. If it was in excess of 11, then we would pull a
7 sample on the tank as well. And you have to remember
8 that in the tank it would be a fifth to a quarter of the
9 tank volume for one of the trains, and so we would test
10 the tank immediately and report that if there was a
11 violation.

12 Q. So as to your last point, you said it would
13 be -- the volume of one tank would be -- or the volume
14 of a train would be a fifth to a quarter of a tank?

15 A. That is correct.

16 Q. So there's a potential that some -- in the event
17 that there was a car or more that had a vapor pressure
18 in excess of 11, there's a possibility that some of that
19 could mix with what's existing in a tank?

20 A. That is correct. And all the tanks do have
21 mixers on them.

22 Q. Okay. And so you would ensure -- well, let me
23 back up and ask.

24 Would you stop the loading process once you got
25 a hit above 11?

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1 A. The loading process would most likely be -- the
2 train would be unloaded, we would test the tank and
3 verify that we're in compliance at the tank. But it's
4 highly unlikely that that would occur seeing as we're
5 testing at the origin and we have years of history
6 saying what the vapor pressure is and showing it coming
7 from those areas.

8 **Q. Okay. And have you considered the need for an**
9 **onsite laboratory as opposed to using this local**
10 **laboratory you discussed?**

11 A. With a site being right in Vancouver, they can
12 turn samples very quickly so there's really no need for
13 an onsite.

14 **Q. Okay. Switching topics again.**

15 **Mr. Goodman testified about some economics of**
16 **the project and impacts on the local economy. Do you**
17 **recall his testimony?**

18 A. I do.

19 **Q. Okay. And one of the topics that Mr. Goodman**
20 **testified about related to the use or non-use of local**
21 **labor to construct and man and operate the facility. Do**
22 **you recall that testimony?**

23 A. Yes, I do.

24 **Q. And how do you respond to his concern that much**
25 **of this work would be performed by specialty trades that**

JOHNSON / CORPRON

1 may be drawn from outside the local area?

2 A. In reviewing his testimony, I did agree that
3 these are skilled craftsmen and they do travel around,
4 but a lot of those craftsmen are right here. And for
5 the civil, the mechanical, the electrical, the tanks for
6 the boilermakers, everything, the State of Washington
7 has the labor force to be able to do this work.

8 T Bailey, who is going to be the person that
9 constructs these tanks should this permit go through, is
10 based in Anacortes, Washington. They build tanks all
11 over, and there is -- I don't want to name all the
12 specific contractors we're talking to because I'm sure
13 I'll miss one and then I'll get a phone call saying, Oh,
14 Dave, you forgot me, how could you do that? But there's
15 plenty of local -- we do not see anything that cannot be
16 sourced locally for this project as far as labor.

17 **Q. Have you had any -- if you can say, have you had**
18 **any conversations with any labor organizations about the**
19 **labor force?**

20 A. Yes. We've actually signed a labor agreement
21 with the trades union saying that we will use local
22 union trades in this project.

23 **Q. Okay. And I apologize because I had you talk a**
24 **bit about Dr. Sahu's testimony about air-related issues**
25 **and I missed something.**

JOHNSON / CORPRON

1 One of the things Dr. Sahu talked about or
2 referenced was concerns about fugitive emissions from
3 valve seals and gaskets and those types of equipment.
4 Is there technology available to help address those
5 concerns?

6 A. Yes, there is. There's low emissions valves.
7 Most of the major manufacturers have already switched to
8 that.

9 And what that is is at the valve stem when it
10 rotates, because of that movement you can have emissions
11 release and that is accounted as part of the fugitive
12 emissions. And the current standard is 500 parts per
13 million.

14 You have to be below that any time a valve
15 rotates. With the low omissions it is less than 100.
16 And when I have spoken to our manufacturers that we are
17 talking to, they tested at 650 degrees Fahrenheit -- or
18 650 PSI and 350 degrees Fahrenheit. And they run the
19 test, run 5,000 cycles on the valve to prove that over
20 the life of the valve that packing holds up and all of
21 them are less than -- on the specific tests that I saw
22 on three valves, 15 PPM was what was coming out of the
23 valves.

24 So much, much lower than a standard valve. And
25 those would be used in the system as well.

JOHNSON / CORPRON

1 One other item is gaskets. He mentioned leaking
2 along the flanges. The gaskets we're using are flex
3 metallic gaskets, which are actually a spiral wound
4 material so it's steel that's very thin and it is
5 compressed, so they are a one-time-use gasket. They're
6 expensive, but they work very well and the facility will
7 have all spiral wound gaskets so they reduce emissions
8 as well.

9 **Q. Okay. Last topic. Dr. Wartman testified**
10 **regarding seismic issues after you had testified. Were**
11 **you present for Dr. Wartman's testimony?**

12 A. Yes, I was.

13 **Q. Okay. And one of the issues that Dr. Wartman**
14 **expressed concern about was the design standard for the**
15 **tanks. Do you recall that testimony?**

16 A. Yes, I do.

17 **Q. And Dr. Wartman testified that in his opinion it**
18 **would have been more appropriate to design using a**
19 **Design Standard 3 versus a Design Standard 2. And I**
20 **think he was using the ASCE standard. Do you recall**
21 **that?**

22 A. Yes.

23 **Q. Okay. From your perspective as the principal**
24 **engineer in charge of the seismic team, have you**
25 **considered that testimony, that concern, and if so, how**

JOHNSON / CORPRON

1 have you responded to it?

2 A. We did look at that. What we also looked at was
3 the API code. API -- so for ASCE, the importance factor
4 was a 1.0 for a Level 2, and for a Level 3 it was a
5 1.25. And on API's code, API 650, if you look in the
6 appendix, and it talks specifically about what you
7 should be designing to, it says a tank in a facility
8 with secondary -- with spill protection and secondary
9 containment, I can't remember the exact wording, is a
10 "1" and for API the "1" is a 1.0 importance factor and a
11 "2" is a 1.25. So we designed to the appropriate
12 standard of the ASCE 2 or API Level 1 with the
13 importance factor 1.

14 With that being said, we designed with an extra
15 thickness to that tank. And if you run the calculations
16 on that tank, the tank meets the Level 2 criteria and
17 still has an eighth-inch of corrosion allowance. Once
18 again, the code says we should be at an API Level 1 or
19 the ASCE Level 2, and that's what we designed to. But
20 the tank does have the thickness on it, as I had
21 testified earlier, and it meets the other code, but that
22 is not what we designed to.

23 **Q. Okay. Separate seismic topic. Dr. Wartman**
24 **testified about his concerns regarding Area 200 and**
25 **specifically a lack of ground improvements in that area.**

JOHNSON / CORPRON

1 Can you describe how Area 200 is designed to
2 account for the findings of the geotechnical analysis
3 performed by GRI?

4 A. Yes. As I stated previous, I think Dr. Wartman
5 may have not heard all of my testimony. But in Area 200
6 we have pilings underneath the unloading area, and so,
7 per the geotechnical report, we expect no more than
8 one inch of settlement in that area.

9 **Q. Okay. And so that's the unloading area. And**
10 **there is containment and/or secondary containment in the**
11 **unloading area as well; is that right?**

12 A. There is. As I mentioned before, the
13 containment and the trenches, the trenches act as
14 tertiary containment for that, and those are in that
15 area.

16 **Q. Okay. Now, in addition to the unloading area**
17 **which is in Area 200, there's also the existing loop**
18 **rail. And Dr. Wartman testified that there's not**
19 **sufficient ground improvement under the existing rail**
20 **line.**

21 Can you describe from a design perspective what
22 you have taken into account in your determination not to
23 put in any additional ground improvements there?

24 A. The AREMA standard allows for --

25 **Q. Hold on. Let me interrupt.**

JOHNSON / CORPRON

1 You said AREMA. Can you just say what is?

2 A. Yes. The American Railroad Engineering
3 Maintenance-of-Way Association.

4 **Q. Please continue.**

5 A. So the AREMA standard, which engineers look at
6 for designing rail, allows for typically 3 inches on a
7 Class 1 track. Most yard track is Class 1 track. And
8 up to 8 inches on the outside rail of a track. If you
9 look at the geotechnical report, the differential
10 settlement within any 50-foot section would be no more
11 than 8 inches, because it was 16 inches was the maximum,
12 and in a 50-foot section, you would see half of that.
13 So 8 inches is the maximum that you would see, and you
14 were still falling well within the standards of the
15 AREMA.

16 The other part of that is rail ties and the rail
17 in general acts as a spread footing. So you're
18 spreading the load, that's the whole intent of why
19 railroads put down the ties and put down the rail is to
20 spread the load and change the area that it's being
21 loaded on. So per those, I don't see an issue.

22 **Q. Okay. And just finally, again, as the principal**
23 **for designing and constructing the facility, are you**
24 **continuing to refine the design of the facility? And**
25 **specifically, are you continuing to work to address**

BRIMMER / CORPRON

1 concerns that have been raised during the last five
2 weeks in this hearing?

3 A. Yes. I have actually spent quite a bit of time
4 with our engineers, with our staff, Sonia Bumpus had set
5 up a call. When we talked last week with the seismic
6 team we were running through that, going through those
7 discussions. And we continue to look at the input from
8 the council and from the opposition on how we can
9 improve this design and make it better.

10 MR. JOHNSON: Thank you very much. No
11 further questions.

12 JUDGE NOBLE: Cross-examination?

CROSS-EXAMINATION

13
14 BY MS. BRIMMER:

15 Q. Good morning, Mr. Corpron.

16 A. Good morning.

17 Q. Again, I'm Janette Brimmer; I represent some of
18 the intervenors here. I want to ask you about some of
19 your testimony today concerning sampling for vapor
20 pressure.

21 You first talked about taking grab samples in
22 the pipeline at the point of origin. Do you recall
23 that?

24 A. Yes.

25 Q. And you've also I think said that in addition to

BRIMMER / CORPRON

1 that you were sampling at the loading point.

2 Is that a correct understanding?

3 A. It's sampling at the loading point. They're one
4 in the same. You can take from the tank or you can take
5 from the pipeline while it is being loaded.

6 **Q. So then my understanding is that you were taking**
7 **from both places; is that right?**

8 A. That's correct.

9 **Q. So, and I think I didn't hear you say which test**
10 **you were performing. Is it read or true vapor pressure**
11 **that you're performing at those points?**

12 A. We run Reid vapor pressure and they can run TVP
13 as well.

14 **Q. But which one are you doing?**

15 A. We always run Reid because that is required.
16 And this goes to more on the transportation side, but I
17 think the read is what's needed at the facilities. And
18 true vapor pressure is typically lower than Reid vapor
19 pressure and so if the Reid vapor pressure is within
20 alignment, true vapor pressure is also.

21 **Q. So what is the Reid vapor pressure readings that**
22 **you need at the point of origin to ensure that you're**
23 **going to get 11 true vapor pressure when it arrives the**
24 **facility?**

25 A. Say that again.

BRIMMER / CORPRON

1 **Q. What is the Reid vapor pressure readings that**
2 **you need at the point of origin to ensure that you meet**
3 **11 true vapor pressure when it arrives at the facility?**

4 A. It can vary. But you could test for true vapor
5 pressure and they do test for true vapor pressure as
6 well.

7 **Q. How does it vary? Isn't Reid vapor pressure**
8 **done because it's a consistent measurement?**

9 A. Reid vapor pressure is done because it's a
10 consistent measurement. It's at 100 degrees Fahrenheit.

11 **Q. So do you know how you ensure what the Reid**
12 **vapor pressure reading at the point of origin needs to**
13 **be to ensure that it is 11 true vapor pressure when it**
14 **arrives at the facility?**

15 A. I know that through our testing our average is
16 10.5 and we've never exceeded that -- 10.5 as an RVP. I
17 don't know what it would be as a maximum to go down to
18 the true vapor pressure. I know that our samples have
19 all been in alignment.

20 **Q. When you say "our," who are you referring to?**

21 A. Savage and Tesoro's facilities.

22 **Q. And the Reid vapor pressure at the point of**
23 **origin, then, is 10. That's what you're saying?**

24 A. Yes. The average is 10.5.

25 **Q. How does the grab sample in the pipeline, let's**

BRIMMER / CORPRON

1 just focus on that one, how is that done to maintain the
2 required liquid and vapor ratio for a proper Reid vapor
3 pressure sample?

4 A. It's in an enclosed canister, so when you're
5 doing the testing, you don't want to expose it to
6 atmosphere, so it's an enclosed canister so you pull it
7 and then change out the canisters and take the canister
8 to the lab.

9 **Q. Do you have a third party doing that?**

10 A. Yes.

11 **Q. So let's turn to the terminal. Again, at the**
12 **terminal there's a grab sample taken; correct?**

13 A. Yeah, similar to the sampling method that we do
14 at origin.

15 **Q. So earlier testimony was that not all of the**
16 **cars on a train would be sampled. How many cars per**
17 **train will be sampled?**

18 A. All of the cars are sampled by aggregate, so as
19 the sampler is at the end of the pipe so as it's pumping
20 towards the tank, all of that material goes past the
21 sampler, so in aggregate, all the cars are sampled.

22 **Q. So in fact the sampling is being done not in the**
23 **car but as it's going to the tank?**

24 A. That is correct.

25 **Q. And again, is that Reid or true vapor pressure**

BRIMMER / CORPRON

1 you're sampling for?

2 A. We can test for either one since we haven't
3 built it yet.

4 **Q. But which one are you going to test for?**

5 A. We'll test for true vapor pressure because
6 that's what is required in the tank.

7 **Q. That's a different test than Reid and more**
8 **complicated; correct?**

9 A. We can test for both if it's so needed.

10 **Q. Do you know the details of how you test for**
11 **true?**

12 A. I would have to get with the testing folks on
13 that.

14 **Q. So earlier the testimony, I don't remember, I**
15 **think it was your testimony, but frankly I don't recall**
16 **that far back, I think that the testimony was if a car**
17 **is sampled and it doesn't pass the test for vapor**
18 **pressure, and I'm pretty sure I'm quoting, that car will**
19 **be pulled out and set aside and the customer will be**
20 **called.**

21 So it appears that that has now changed and, in
22 fact, the sampling occurs as this is going into the
23 tank. So now what do you do when it doesn't pass the
24 test? It's going into the tank, right?

25 A. As I said just moments ago, if we ran it and it

BRIMMER / CORPRON

1 was high, we would test at the tank and verify what the
2 test is at the tank and see if mixing, because the test
3 is supposed to be performed in the tanks, if the volume
4 or anything in the mixing with the other products, if we
5 were still in compliance and if not, we would be in
6 violation.

7 Q. So you'd be in violation, basically, of what the
8 Clean Air Act regulations say your tank design is
9 supposed to be; correct? (Court reporter interruption.)
10 Dictate what the tank design is supposed to be; correct?

11 A. Based on historical numbers?

12 Q. No. I asked you, when you said you would be in
13 violation, I'm asking you to confirm that that would be
14 in violation of what the Clean Air Act regulations
15 dictate for your tank design.

16 A. We would be over the 11, yes.

17 Q. So what happens then? I presume you can't pull
18 the storage tank out and send that back to the customer.
19 What do you do then?

20 A. With what?

21 Q. With the violation.

22 A. We report it to EFSEC and Ecology or the air
23 permitting agency.

24 MS. BRIMMER: I have nothing further.

25 JUDGE NOBLE: Mr. Potter, did you have

POTTER / CORPRON

1 cross-examination?

2 MR. POTTER: Yes, Your Honor, just specific
3 to the City of Vancouver testimony.

4 CROSS-EXAMINATION

5 BY MR. POTTER:

6 Q. Good morning.

7 A. Morning.

8 Q. Mr. Corpron, can you tell me what your
9 experience is in either designing or managing a
10 municipal water system?

11 A. I have not designed or managed a municipal water
12 system.

13 Q. All right. You gave some testimony this morning
14 with respect to the water pressure draw-down issue on
15 the City of Vancouver water system if the fire
16 suppression system at the terminal had to be operated.
17 And I'd like to ask you a couple questions about that.

18 You mentioned some engineering solutions. One
19 of them was, you said the inlet in the river.

20 Would that be an inlet to use water from the
21 river to operate the fire suppression systems?

22 A. That's one of the possibilities, yes.

23 Q. Okay. And the system isn't designed today to do
24 that, is it?

25 A. No, it is not.

POTTER / CORPRON

1 **Q. And you said you would need water rights to be**
2 **able to do that; correct?**

3 A. In some areas you do need water rights and some
4 with emergency situations, I'm not sure what it takes
5 for the Columbia and how emergency responders address
6 that. So that is something we'd have to look into. It
7 was just saying it's a possible engineering solution.

8 **Q. Okay. And those water rights don't exist today;**
9 **you don't have them. If you needed them, you don't have**
10 **them.**

11 A. I own no water rights.

12 **Q. There was also questions from council about**
13 **limitations on drawing from the Columbia River and the**
14 **Endangered Species Act.**

15 Do you know what limitations that would impose
16 **on your ability to rely on an inlet in the river?**

17 A. No, I do not. But I know that fire boats and
18 stuff are allowed to pull from the river in an emergency
19 situation, so I don't know what the code would entail on
20 something like that.

21 **Q. Well, the short answer is you don't know?**

22 A. I don't know.

23 MR. POTTER: Can we bring up 3073 [sic], the
24 map of the water system that we had up last? Thank you.

25 BY MR. POTTER:

POTTER / CORPRON

1 Q. So I want to ask you a question about looping
2 the system. If I could borrow your pointer there.

3 So this is how the system -- potentially where
4 it would be looped, this purple line?

5 A. That is correct.

6 Q. And then there's a line coming in from the
7 City's water system here. So I was confused.

8 Is your testimony that looping the system here
9 would alleviate the draw-down on the municipal system in
10 the event that the fire suppression system was
11 activated?

12 A. In Mr. Clary's testimony he was talking about
13 how the system had a reduction in it and it narrowed
14 down and so he didn't know if the water flow would do
15 that, would be adequate, even though we had the flow
16 tests. And so with the City system, as you can see --

17 Q. Do you want this back? We can share it.

18 A. There's the tie in right here that comes in now
19 as well as the tie in here coming over and feeding the
20 system and then you're feeding it this way going out and
21 have other feeds. So you are, in fact -- and that's
22 what we talked with the -- and in fact I think it was
23 Mr. Clary that we had been working with, and Monty
24 Edberg at the Port to enact this.

25 Q. If we could just focus on my question

POTTER / CORPRON

1 specifically here, and I just want to be clear.

2 Is looping the system in this area going to
3 resolve the issue of the potential draw-down on the
4 municipal system over in the rest of the City?

5 A. On the potential draw-down on the fire tests
6 that we did that the City performed for us, it said that
7 the City had adequate, but that is why when a facility
8 is built or a building, anything, you actually perform
9 the test to ensure that it doesn't.

10 **Q. With respect to the gap analysis and the**
11 **preparation of it, Tesoro Savage was involved in**
12 **discussions with the City about providing some funding**
13 **to prepare a gap analysis; correct?**

14 A. We helped. We were in discussion with the City
15 from a very early point about gap analysis and what
16 would be required and actually sat with them and helped
17 develop some of the scope for that gap analysis.

18 **Q. Were you offering to provide funding to have gap**
19 **analysis prepared?**

20 A. Absolutely -- (Court Reporter interruption.)
21 Yes, absolutely.

22 **Q. Just let me finish my question. Okay?**

23 **And then, ultimately, the decision was made that**
24 **EFSEC was going to prepare the gap analysis; correct?**

25 A. The City was told to -- from my understanding,

HALLVIK / CORPRON

1 they were told that because they had put a resolution it
2 was hard for them to work with us and that it may be
3 easier to go and work with EFSEC and get this done
4 through EFSEC. So it did go to EFSEC after that.

5 **Q. Okay. And in fact, a gap analysis of the**
6 **Vancouver Fire Department capability has not been**
7 **prepared, has it?**

8 A. The scope that we had looked at with the fire
9 department, if that's specifically what you're referring
10 to, no, that was not done.

11 MR. POTTER: Thank you. No further
12 questions, Your Honor.

13 JUDGE NOBLE: Redirect? I'm sorry. There's
14 only room for two at the table, though.

15 CROSS-EXAMINATION

16 BY MR. HALLVIK:

17 **Q. Thank you, Mr. Corpron. I just have a couple**
18 **questions pertaining to your testimony this morning that**
19 **the applicant would be willing to entertain engineering**
20 **solutions to improve the design of the facility based**
21 **upon the testimony that has been received by this**
22 **council.**

23 Are you familiar with the testimony that burying
24 the pipelines on the north and on the east boundaries of
25 the property of the Jail Work Center would significantly

HALLVIK / CORPRON

1 reduce the risks to that population?

2 A. That is not my understanding from the BakerRisk
3 study.

4 **Q. I understand, but there's been testimony**
5 **received by the council to that effect. Are you**
6 **familiar with that testimony?**

7 MR. JOHNSON: Objection. This is beyond the
8 scope of my direct examination.

9 JUDGE NOBLE: Well, he hasn't really had a
10 chance to ask. He's just asked about familiarity with
11 the testimony.

12 MR. JOHNSON: Well, he asked a specific
13 question about pipelines and their proximity to the work
14 center. That was not a topic of any direct examination.

15 MR. HALLVIK: Mr. Corpron testified
16 generally this morning in response to Mr. Johnson's
17 questions about whether the applicant would be generally
18 willing to improve the design and entertain engineering
19 solutions to resolve, generally speaking, the concerns
20 of the Intervenors and opponents to the project. And so
21 I'm asking about a specific engineering solution that's
22 been proposed in that testimony and whether that would
23 be something that the applicant would entertain.

24 MR. JOHNSON: I'll withdraw my objection,
25 assuming Mr. Corpron can answer the question.

HALLVIK / CORPRON

1 JUDGE NOBLE: Thank you. You may answer.
2 Well, once the question is finished, you may answer it.

3 BY MR. HALLVIK:

4 Q. So I guess you may have already answered this
5 question, but are you familiar with that testimony that
6 was received by the council that burying the pipelines
7 on the north and on the east boundaries of the Jail Work
8 Center property could significantly reduce the risk to
9 that population?

10 A. I don't remember that comment, but if you're
11 saying that, okay.

12 Q. Okay. That would be the testimony of
13 Dr. Peterson.

14 Would it be possible to bury the pipeline as an
15 engineering solution to address that concern?

16 A. With all engineering solutions, just like with
17 the council, we need to balance the cost and benefit and
18 what we're trying to do. And so just as a hypothetical,
19 there's all kinds of engineering solutions and that
20 could be one of them.

21 Q. So given that the -- one of the costs in this
22 particular situation would be the 200 people at the Jail
23 Work Center, that would be something that you would
24 entertain or that the applicant would entertain?

25 A. Looking at the pipeline, we can -- you know, I

HALLVIK / CORPRON

1 obviously don't have the final say on this, but we can
2 look at that and pull costs and present those. But as
3 we had run the analysis before, that is not a high risk
4 based on the BakerRisk analysis.

5 **Q. But it would be something that would --**
6 **(Unreportable crosstalk.)**

7 **JUDGE NOBLE: One at a time.**

8 BY MR. HALLVIK:

9 **Q. But it would be something that would be on the**
10 **table?**

11 A. I can't say if it would be on the table or off
12 the table. I can say I can look at an engineering
13 solution and what that would cost. I can't say if it's
14 on or off the table.

15 **Q. But it would be a cost-driven determination?**

16 A. I think you have to look at costs, risk,
17 benefit, how much does it reduce. You have to weigh
18 multiple variables.

19 MR. HALLVIK: I don't have any other
20 questions. Thanks.

21 JUDGE NOBLE: Ms. Brimmer?

22 MS. BRIMMER: I just want to follow up on
23 that last question.

24
25 ///

JOHNSON / CORPRON

RECROSS-EXAMINATION

1
2 BY MS. BRIMMER:

3 Q. So, in fact, when you testified earlier today
4 that the facility is willing to look at changes, in fact
5 you don't really know that, that the facility is just
6 going to consider it like everything else; right?

7 A. We presented several things to the management
8 committee last night, and Mr. Larrabee would be able to
9 speak to those.

10 MS. BRIMMER: Nothing further.

11 JUDGE NOBLE: Any other cross-examination of
12 Mr. Corpron? Redirect?

13 REDIRECT EXAMINATION

14 BY MR. JOHNSON:

15 Q. Mr. Corpron, if you bury a pipe, is it easier or
16 more difficult to inspect that pipe?

17 A. More difficult.

18 Q. Is that a consideration you take into account
19 when determining whether or not to bury a pipe versus
20 leaving it above the surface?

21 A. Yes.

22 Q. Is your ability to inspect a pipe above the
23 surface enhance safety?

24 A. It does.

25 Q. You were asked some questions by Ms. Brimmer

JOHNSON / CORPRON

1 regarding how you ensure the appropriate vapor pressure,
2 whether it's Reid vapor pressure or total vapor
3 pressure. Do you recall that line of questioning?

4 A. Yes.

5 **Q. Are you the individual who does the science; in**
6 **other words, are you the lab technician who runs the**
7 **test?**

8 A. No, I am not.

9 **Q. Okay. And do you have a team of folks or**
10 **contractors who do that work for you?**

11 A. Yes, we do.

12 **Q. And do you rely on them to provide the**
13 **appropriate testing methodologies and protocols?**

14 A. Yes.

15 **Q. And have you ever -- well, strike that. We need**
16 **to move on.**

17 MR. JOHNSON: Your Honor, that's all.

18 JUDGE NOBLE: Council questions?

19 Mr. Rossman.

20 MR. ROSSMAN: Thank you, Mr. Corpron. I'd
21 like to ask further about the seismic design standards
22 and risk factors.

23 So my understanding from testimony from
24 witnesses on both sides is that the international
25 building code, which is the required building code here,

CORPRON

1 references ASCE 710 making that also part of the
2 requirements to be code compliant.

3 Is that your understanding?

4 THE WITNESS: That is correct.

5 MR. ROSSMAN: Can you tell me, do you know
6 what risk category the ASCE 710 would prescribe for this
7 facility?

8 THE WITNESS: I do.

9 MR. ROSSMAN: Can you explain why that's the
10 case?

11 THE WITNESS: I don't have the code in front
12 of me, but it basically says it's a non-critical
13 structure, and so typically it would be designed to a 2.
14 But with that, I will say that we on our seismic design
15 in general, like specifically for the tanks, we did a
16 performance criteria rather than just a code-based
17 criteria. So we went beyond code, so we limit it to the
18 2 inches.

19 And when we did the design, the seismic
20 design of the tank was done modeling the tank without a
21 ring wall foundation. So when you put in that ring wall
22 foundation and have a larger support base, you once
23 again increase that as well.

24 So it's conservatism in the tank design;
25 it's conservatism in the geotechnical ground

CORPRON

1 improvements.

2 MR. ROSSMAN: So are you testifying that the
3 facility as a whole would meet the standard of risk
4 Category 3 because of those additional features?

5 THE WITNESS: No. I said the tank will meet
6 the Category 3.

7 MR. ROSSMAN: Okay. Is this a facility
8 where a failure of a component or piece of a building
9 could cause risk to human health? To life?

10 THE WITNESS: The facility is isolated and
11 has secondary spill and tertiary spill containment, and
12 with the systems designed and are in place -- well, not
13 in place; in my mind they're in place, I'm ready to
14 build this thing -- then we would -- you know, in a
15 large seismic event, as you have heard testified, this
16 facility would be one of the few things standing because
17 of the design standard changes with the 50 percent
18 design standard and code are tighter design standard.

19 MR. ROSSMAN: Hypothetically, if some of the
20 structures at this facility were to fail, could that
21 jeopardize human life?

22 THE WITNESS: Such as what? What's in your
23 hypothetical?

24 MR. ROSSMAN: A release causing a fire.

25 THE WITNESS: The bottom ring of the tank

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1 wall is an inch and a quarter in design, if I'm
2 remembering correctly. An inch and a quarter doesn't
3 just suddenly rip, especially when it's on a solid
4 foundation and strong. And all the piping is fully
5 welded with expansion loops so it can move. I mean you
6 can move that piping. I don't know if you've ever seen
7 pipelines installed, natural gas or other, but they will
8 weld it on the -- they'll dig the trench, they'll weld
9 the pipe along the edge on the top and then they pick it
10 up and lay it like a spaghetti noodle right into the
11 trench and run it.

12 So while people think of metal as not
13 flexible and not bending, in general that's true, but,
14 you know, when you see the material perform, the
15 stresses on the pipes and the other, and the volume in
16 the pipes is not a significant amount, and we have
17 vertical expansion loops. So if you had something, you
18 would likely hit an air brake.

19 MR. ROSSMAN: But if those systems failed
20 and crude oil were released, could that jeopardy human
21 health?

22 THE WITNESS: We looked at that in the risk
23 analysis, and with fire at the facility and with the
24 controls. If there was a fire in the tank, the fire
25 foam system would put it out. If it's outside in the

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1 berm, we have monitors every 300 feet and foam
2 capability to tie into those monitors as well.

3 MR. ROSSMAN: Is this a facility that's
4 storing hazardous fuels?

5 THE WITNESS: This is a facility storing
6 crude oil, yes.

7 MR. ROSSMAN: Does the ASCE 710 say anything
8 about what risk category facilities storing hazardous
9 fuels should be designed to?

10 THE WITNESS: This facility is designed to
11 the ASCE 2, which is the correct code for that.

12 MR. ROSSMAN: My question was, does the
13 ASCE 710 say anything specific about the appropriate
14 risk category for facilities storing hazardous fuels?

15 THE WITNESS: If you're referring to
16 something, I don't have the code memorized, I'm sorry.

17 MR. ROSSMAN: In reference to the API
18 guidelines or codes, can you explain to me how those
19 pertain to what's required? Is that also incorporated
20 into the Washington building code in some manner?

21 THE WITNESS: The API code is -- it's really
22 the leading code on tanks. Several years ago on the
23 East Coast when there were some tank failures, the
24 chemical safety board was talking about implementing the
25 API standards for all tanks, not just petroleum based,

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1 which it governs right now. So I don't know if
2 Washington code has specifically adopted API. That I
3 don't know. But they meet the same design criteria of
4 the 1.0.

5 MR. ROSSMAN: And I believe you testified
6 that were it not for secondary containment the API would
7 require it to be designed to that 1.25 seismic standard;
8 is that right?

9 THE WITNESS: If it was in -- if the public
10 had access to it and it did not have secondary
11 containment, it would be required to have the 1.25.

12 MR. ROSSMAN: Do you know if the ASCE says
13 anything about secondary containment changing the risk
14 classification or design standard of the facility?

15 THE WITNESS: I don't.

16 MR. ROSSMAN: And the API code, when it says
17 public access, I understand the Port is going to be a
18 secure facility, but I also understand that the tanks
19 are going to be located proximate to a public road.

20 Is API, does it define what public access
21 means? Does that mean the ability to walk right up to
22 the tank or some proximity?

23 THE WITNESS: I don't know where that is
24 defined in API, if that is. We do have security fencing
25 around the facility, as well as you mentioned, the Port

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1 is a secure facility.

2 MR. ROSSMAN: And the rest of the facility
3 aside from the tanks themselves, those are also designed
4 to risk Category 2; is that right?

5 THE WITNESS: Yes.

6 MR. ROSSMAN: Okay. Thank you.

7 JUDGE NOBLE: Mr. Stohr?

8 MR. STOHR: Good morning, Mr. Corpron. Just
9 one question.

10 We talked quite a bit about the transfer
11 pipelines and visual inspections, et cetera, but I
12 looked back through my notes and didn't see specifics
13 about automatic leak detection.

14 How much would have to leak before the
15 detection system worked? How fast would you detect that
16 leak?

17 THE WITNESS: As I had previously testified,
18 we do have automatic tank gauging systems that are
19 accurate within -- I can't remember if it's 1 or
20 2 millimeters on those tanks, and then we have flow
21 meters on the pipeline that measure that. So we are --
22 in the unloading area, when it's going through the
23 Coriolis, and we want it to be accurate because that's
24 how we get paid is what we're moving as well, and our
25 customers, we are matching what is coming out of the

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1 cars and what is going into the tank, and it's looking
2 at it as it's coming from the tank and to the Area 400
3 load-out for the vessels.

4 MR. STOHR: So it's a flow measurement, not
5 a leak detection in and of itself?

6 THE WITNESS: It is a flow measurement. We
7 would have daily inspections that would walk and inspect
8 the pipeline. We would test that at least yearly and
9 where we would pressure up the line to a higher pressure
10 than the normal operating pressure to look for that, and
11 we would also have at any area where we have a flange or
12 a gasket, a chemical cover. So if it were to be exposed
13 to vapors maybe that you wouldn't see it as a leak, but
14 if it were exposed to vapors, it would change colors
15 alerting you to perform maintenance and fix that so you
16 would shut the system down before you had an issue.

17 MR. STOHR: Can you translate that flow
18 measurement into how much would have to leak and how
19 fast you would notice the difference? I think there's
20 state standards that go to those two endpoints, and I'm
21 trying to get a sense of compliance with those state
22 standards.

23 THE WITNESS: I don't know the specific
24 devise, but we're looking at several right now. So...

25 MR. STOHR: Thank you.

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1 JUDGE NOBLE: Mr. Stone?

2 MR. STONE: Good morning, Mr. Corpron.

3 Could you please clarify your testimony with respect to
4 ground improvements at Area 200, which is the unloading
5 and office area? You mentioned there would be pilings
6 installed. Was that correct?

7 THE WITNESS: That is correct.

8 MR. STONE: And where would those pilings
9 would be within Area 200, what kind of pilings and how
10 deep would they be?

11 THE WITNESS: The pilings are about 110 feet
12 deep. They run underneath the loading trenches and the
13 concrete. So the structure right there is underneath
14 all of the facilities for the unloading are on piles.
15 How about that?

16 MR. STONE: Okay. But aren't there existing
17 tracks there already at that location?

18 THE WITNESS: We will pull those out and
19 drive the piles, put in the concrete and --

20 MR. STONE: And then replace the track?

21 THE WITNESS: -- then replace the track.
22 Build the track over -- through the center.

23 MR. STONE: Okay. Thank you.

24 JUDGE NOBLE: Mr. Stephenson had a question.

25 MR. STEPHENSON: Thank you, Mr. Corpron.

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1 On testimony we've heard several different
2 versions of whether the crude oil changes from the
3 source to the facility, and I wondered -- in terms of
4 vapor pressure. And I wondered, since Tesoro also sends
5 crude to the refinery in Anacortes, have you tested your
6 version of this with those receipts?

7 THE WITNESS: Yes, and Tesoro's receipts
8 show the same thing that ours do, and John Hack, when we
9 were discussing, because he does the rail shipments for
10 Tesoro, I think his highest true vapor number was like
11 7 1/2 that he's seen in any of the shipments over the
12 last, I think we pulled up two and a half, three years.

13 MS. BRIMMER: Objection. That's hearsay.
14 Mr. Hack was a witness here. He can't testify to what
15 someone else told him. He's not an expert.

16 JUDGE NOBLE: I'm going to sustain that
17 objection and also I think it went beyond the question.

18 MR. STEPHENSON: One more question. A
19 follow-up to Mr. Rossman.

20 You talked about monitors every 300 feet,
21 and I don't think those are air quality monitors. Am I
22 right? So could you clarify what you meant by monitors,
23 because I think that would help us?

24 THE WITNESS: So a fire hydrant with a
25 monitor, so it can be aimed at a tank or at a fire, so

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1 it can be used for cooling, it can be used for
2 extinguishing. So it's a fire hydrant with a monitor
3 nozzle so you can adjust the stream for emergency
4 response capabilities.

5 JUDGE NOBLE: Mr. Snodgrass?

6 MR. SNODGRASS: Good morning. Just a couple
7 of questions.

8 The first you had mentioned in considering
9 your labor force needs that a lot of the labor,
10 including the skilled labor, would be locally sourced.

11 THE WITNESS: Yes.

12 MR. SNODGRASS: Do you have any estimates of
13 how much of that labor would be Oregon-based versus
14 southwest Washington or just Washington-based, and
15 obviously, that has profound differences for the way
16 that the money that those workers make will be spent.

17 THE WITNESS: Right now the way the building
18 trades is set up in the Vancouver area, it also includes
19 some of Portland, to my understanding. So I'm not sure
20 who -- where they would be coming from.

21 It really is a little premature. There's
22 enough contractors here in Washington, qualified,
23 quality contractors, and until we go to the bidding
24 process to be able to guess on that, on where they're
25 pulling from, it would just be a guess on my part.

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1 MR. SNODGRASS: Okay. And to your knowledge
2 in working with your economic consultant, Mr. Schatzki,
3 did he consult with you on the extent to which locally
4 sourced labor would be Oregon-based versus
5 Washington-based?

6 THE WITNESS: Mr. Schatzki had talked to me
7 when we were looking at this and pulling the numbers,
8 and we told him that it would be in Washington primarily
9 but there could be some that come in from the Portland
10 area.

11 MR. SNODGRASS: When you say "primarily," do
12 you have a sense what percentage, ballpark?

13 THE WITNESS: Well, all of TBailey for the
14 tanks; there's several contractors there. It really
15 comes down to who we choose as the contractor. Some are
16 exclusively in Washington and some pull from the larger
17 labor force of Washington and Portland Metro area as per
18 the labor agreement.

19 MR. SNODGRASS: Thank you.

20 And the second question has to do with, you
21 had mentioned working with other area properties on a
22 second water access line. And sort of a broad question
23 here in terms of the map you showed, showed that
24 covering some distance.

25 My question is, you know, in this area of

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1 potential differential settlement but also of
2 significant differences in different areas of the site
3 in terms of ground improvements or not, what features in
4 that waterline are there to ensure that adequate fire
5 flow capacity is maintained given that some areas of the
6 site will be heavily stabilized and others will not?

7 THE WITNESS: Can you repeat the question?

8 MR. SNODGRASS: Just trying to get a sense,
9 it might help even if we call up the map, your original
10 exhibit that showed the secondary waterline.

11 I just wanted a general sense of what -- to
12 what extent does that waterline, or the main line for
13 that matter, go near areas that are very differently
14 reinforced or not through the site and what are the
15 implications of that for the -- what's going to keep the
16 waterline working at an adequate fire flow given that
17 areas of the site near it presumably have very different
18 improvements?

19 THE WITNESS: I can't guess what would
20 happen in a seismic event and what lines would or would
21 not be compromised of the City's. As I said earlier,
22 I'm not a City water engineer, so --

23 MR. SNODGRASS: Through the site, then, you
24 know, which obviously you are project managing, can you
25 give a sense of what features are in place to ensure

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1 that the water flow will be maintained given that
2 portions of the site are heavily reinforced and portions
3 of the site are not?

4 THE WITNESS: On the tank farm and at the
5 unloading area, we have loops just in our own system, so
6 we have looped that as well. And all of the fire pump
7 houses have expansion and slide so we can still pull
8 from the water even if something were to move, it's
9 allowed. It's in the design of the piping, so we can
10 still pump to our piping and supply our system.

11 MR. SNODGRASS: Thank you.

12 JUDGE NOBLE: Other council questions?

13 Mr. Siemann?

14 MR. SIEMANN: Good morning.

15 THE WITNESS: Good morning.

16 MR. SIEMANN: So I wanted to ask you a bit
17 more about vapor pressure. And so as I understand it,
18 you're going to test for vapor pressure at the source so
19 before the oil loads onto the trains; is that correct?

20 THE WITNESS: That is correct.

21 MR. SIEMANN: So can you guarantee that no
22 oil with total vapor pressure above 11 will ship?

23 THE WITNESS: What goes right now is
24 historically for our sites and Tesoro's, for the last
25 over two years for our site it was 10 1/2 on a Reid

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1 vapor pressure and true vapor pressure is typically
2 lower than that. The testing, as I had mentioned
3 before, that Tesoro had performed was much lower than
4 that.

5 MR. SIEMANN: So it sounds like you can't
6 guarantee it, but what you're saying is the past
7 evidence suggests it's not a concern; is that right?

8 THE WITNESS: That's correct.

9 MR. SIEMANN: And you also said that the
10 average was 10.5; is that right?

11 THE WITNESS: Yes.

12 MR. SIEMANN: So that suggests there's a
13 range. Do you know what the range is?

14 THE WITNESS: It depends on the season and
15 where they're pulling from in the formation. It can be
16 anywhere from 7 to 11. Maybe that's how they got the
17 name.

18 MR. SIEMANN: So are you suggesting that you
19 have never pulled a test above 11?

20 THE WITNESS: I'm not saying that. I'm
21 saying there's -- that the average is 10.5 and that is
22 well within the standards.

23 MR. SIEMANN: What design changes to the
24 tanks would be required in order to accommodate a total
25 vapor pressure above 11?

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1 THE WITNESS: Above 11, you would put in a
2 collection system to pull any vapors. The tanks have a
3 dual system right now, so it has a mechanical seal and a
4 secondary wiper seal so it cleans off the tank as it
5 slides back down. But any residual that's sitting on
6 the tank can off-gas and that would be captured if it
7 was above 11.

8 MR. SIEMANN: Is there a reason that
9 Vancouver Energy has chosen not to go in that direction?

10 THE WITNESS: As I stated before, it's based
11 on vapor pressure and by putting -- if you're above 11,
12 the tests that we have seen and Tesoro has done, that
13 the TVP is about a 7. And when you're in that range,
14 the typical is to do internal floating roof to help seal
15 that, because then you reduce the surface area; now you
16 only have the surface area of the tank and not the
17 surface area of the top of the oil as well.

18 MR. SIEMANN: I'm not sure that really
19 answers my question, though, because I'm trying to
20 understand, we've heard testimony that Bakken crude
21 ranges up to total vapor pressure of I think 15 and
22 we've had a lot of discussion about testing and what
23 will happen if tank cars come and are tested at the site
24 and we find that they're higher and there's all this
25 question about where they're going to go, how they're

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1 going to be dealt with. It seems like it would be
2 simpler to design the tanks to accommodate that.

3 So I'm still stumped by why not just deal
4 with that?

5 THE WITNESS: As I had said before, the true
6 vapor pressure, which is what you have to design for on
7 the tanks, has shown a much lower number. So we design
8 to the appropriate vapor pressure that we have seen
9 historically.

10 MR. SIEMANN: Okay. Next topic.

11 So you mentioned that you are considering a
12 range of design changes based on what you've heard
13 during this adjudication. Can you tell us what those
14 are?

15 THE WITNESS: Mr. Larrabee can tell you what
16 those are, because some of them have been discussed.
17 But I will tell you there's more than at least a handful
18 of them that we have discussed.

19 MR. SIEMANN: And finally, I want to follow
20 up on Mr. Rossman's question.

21 Is it impossible for mistakes to occur that
22 could cause incidents that would jeopardize life at the
23 facility?

24 THE WITNESS: I think it's extremely
25 unlikely that something would happen like that. With

BRIMMER / CORPRON

1 the PLC system, which is the process logic controller,
2 with the LEL and gas detection systems, if there was a
3 leak somewhere, the LEL and gas detection systems
4 immediately shut it off, isolate all the valves.

5 In case of power outage, you have battery
6 backup, UPS systems that will run the systems, keep
7 monitoring. So the way the -- the way the facility is
8 designed, I would say it's extremely unlikely, but is
9 there a possibility? Yes, and I think the BakerRisk
10 said the possibility was highest in Area 200. But one
11 of the things that he mentioned was with gas detection,
12 which we have, that would reduce that risk as well.

13 MR. SIEMANN: Thank you very much.

14 JUDGE NOBLE: Any other council questions?
15 Questions based on council questions?

16 RECROSS-EXAMINATION

17 BY MS. BRIMMER:

18 Q. Yes, thank you.

19 I think I'll work backwards in time,
20 Mr. Corpron. So I just want to confirm, you are the
21 design manager for the project?

22 A. I'm the senior project manager.

23 Q. And, but Mr. Larrabee is the one that can tell
24 us what changes are being considered?

25 A. Yes.

BRIMMER / CORPRON

1 **Q. He hasn't told you?**

2 A. I'm looking at -- well, of course, I know what
3 they are, but --

4 MR. JOHNSON: Objection. It calls for
5 hearsay. Mr. Larrabee will be testifying later. If
6 counsel has questions for him, she can ask questions of
7 Mr. Larrabee.

8 MS. BRIMMER: I didn't ask what Mr. Larrabee
9 told him; I asked him whether he had told him.

10 JUDGE NOBLE: You can ask whether he had
11 told him and what -- you can ask Mr. Larrabee if you
12 want to.

13 BY MS. BRIMMER:

14 **Q. So I think actually before we were interrupted**
15 **with the objection, you just told me that Mr. Larrabee**
16 **had told you what design changes are being considered;**
17 **is that right?**

18 A. From an engineering standpoint, I have looked at
19 several options, but it is not my place to say which of
20 those options would or would not be considered. Jared,
21 as the general manager of the facility, would be the one
22 to talk on those.

23 **Q. So in response to Mr. Siemann's questions when**
24 **you said you didn't know what's being considered, you do**
25 **know but you're not able to tell us right now.**

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1 Is that your answer?

2 A. That would be a better description of that, yes.

3 Q. In response to some questions from Council
4 Member Rossman concerning potential threats or jeopardy
5 to humans if something like a seismic event happened,
6 Mr. Rossman asked you about public access, and frankly,
7 I'm a little uncertain of what you believe protecting
8 the public or public access means here.

9 Does it include the ILWU workers that have to
10 work inside the rail loop but that are not Vancouver
11 Energy workers?

12 A. When I was speaking to the access, it was per
13 the API code saying if there was public access to the
14 area for a tank design standard.

15 Q. Right, I understood that. And actually, let's
16 be clear on our acronyms.

17 API is American Petroleum Institute; correct?

18 A. That is correct.

19 Q. That's a trade industry association?

20 A. That is correct.

21 Q. So with respect to your testimony about public
22 access affecting the design code for tanks, is the
23 public that is to be protected as part of that code
24 include ILWU workers that have to be inside of that
25 train loop that are not Vancouver Energy employees?

BRIMMER / CORPRON

1 A. I would say ILWU could be inside the loop. That
2 is one of the areas they use to store, and they may also
3 be at the dock --

4 Q. Can I interrupt? That's not my question. I
5 know they have to be inside the loop. We've heard
6 testimony to that effect.

7 Are they considered part of the public that
8 would then affect the design code for the tanks?

9 A. It depends on how you define "public," but sure.

10 Q. How do you define "public"? You're the one
11 that's interpreting the code.

12 MR. JOHNSON: Objection, Your Honor. She's
13 mischaracterizing what the witness has said. He has
14 said he didn't have the code in front of him. He's not
15 interpreting the code.

16 JUDGE NOBLE: I'm overruling that objection.
17 I don't agree that that's what the question said -- was.
18 So he may answer if he can.

19 THE WITNESS: Can you restate the question?

20 BY MS. BRIMMER:

21 Q. Let's start at the beginning.

22 The ILWU workers that are inside the train loop
23 that are not Vancouver Energy employees, are they the
24 public that needs to be considered as part of the design
25 code for the tanks?

BRIMMER / CORPRON

1 A. I think people working in an area have a higher
2 understanding of the risk for that area, and know the
3 evacuation routes and the others. So --

4 **Q. So is your answer no, that it doesn't affect the**
5 **design for the tanks because workers for a different**
6 **facility accept risk?**

7 A. My answer is the general public is excluded from
8 this area, and they're excluded from the Port in
9 general.

10 **Q. So is your answer that the workers that have to**
11 **be there from a different facility are not relevant to**
12 **your considerations for tank design?**

13 A. No, I would say they're absolutely relevant.
14 That's one of the reasons we did the risk assessment and
15 looked at risk and why we're -- we did the profile. So
16 that's one of the reasons we had BakerRisk look at
17 onsite populations and risk and did their profiles. So
18 no, I wouldn't.

19 **Q. My last question goes to some questions that**
20 **Mr. Siemann was asking you about why not design the**
21 **tanks to capture vapor. In fact, that decision is based**
22 **on the cost; correct?**

23 A. That decision is based on a number of market
24 factors.

25 **Q. Are market factors the cost?**

BRIMMER / CORPRON

1 A. It's cost, it's build time, it's maintenance.

2 **Q. If you were filing a major air pollution source**
3 **permit application, you would have to include that tank**
4 **design as part of your BACT analysis, wouldn't you?**

5 MR. JOHNSON: Objection. This is beyond the
6 scope of this -- she's just said he's not an expert. So
7 if she's going to ask him questions about -- for an
8 opinion regarding a hypothetical, it's beyond the scope
9 of this witness's ability to answer.

10 MS. BRIMMER: Your Honor, I asked him about
11 something that he testified to, whether or not they
12 decided to design a tank with vapor collection, and I
13 asked -- if he doesn't know, he doesn't know.

14 But I asked whether it would have to be
15 part -- that design would be part of a major source
16 permit application.

17 JUDGE NOBLE: Let's ask him if he knows
18 first.

19 BY MS. BRIMMER:

20 **Q. Mr. Corpron, do you know whether if the facility**
21 **were filing a major air pollution source permit**
22 **application the vapor capture tank design would have to**
23 **be part of the BACT analysis?**

24 A. I do not know what the BACT is for the State of
25 Washington.

REED / CORPRON

1 MS. BRIMMER: I have nothing further, Your
2 Honor.

3 JUDGE NOBLE: Any other questions based upon
4 council questions?

5 MS. REED: I have one, Your Honor.

6 JUDGE NOBLE: Ms. Reed. Can I just ask if
7 there's going to be a lot of questions? Because we're
8 quite far beyond the normal break time and we're mindful
9 of our court reporter.

10 MS. REED: I just had one question, Your
11 Honor, and it was a point of clarification.

12 CROSS-EXAMINATION

13 BY MS. REED:

14 **Q. Hi. I'm Karen Reed for the City of Vancouver.**
15 **And I wanted to clarify, I thought I heard you say that**
16 **the storage tanks at the facility were designed to a**
17 **Risk Category 3. And I just wanted to clarify that you**
18 **had said that.**

19 A. The tanks do meet a Risk Category 3. They are
20 Design Code 2, but because of our conservatism, they
21 meet the Risk Code 3 with an eighth-inch of corrosion
22 allowance.

23 MS. REED: Okay. Thank you.

24 JUDGE NOBLE: Any other questions based on
25 council questions?

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1 MR. JOHNSON: Nothing further, Your Honor.

2 JUDGE NOBLE: Thank you very much,
3 Mr. Corpron. Thank you for coming back and adding to
4 your testimony today. You're excused once again as a
5 witness.

6 THE WITNESS: Thank you.

7 JUDGE NOBLE: We will be in recess until
8 11:20.

9 (Recess taken from 11:07 a.m. to 11:23 a.m.)

10 JUDGE NOBLE: Mr. Lothrop?

11 MR. LOTHROP: Yes, Your Honor.

12 JUDGE NOBLE: You don't need to come up. I
13 just want to give you a ruling on Exhibit 5332, the
14 environmental toxicology chemistry dilbit exposure to
15 juvenile sockeye salmon. I'm going to admit that
16 exhibit, in accordance with the APA, RCW 34.05.452(1).
17 In my judgment, it's the kind of evidence that on which
18 reasonable, prudent persons, such as our council, are
19 accustomed to rely upon in the conduct of their affairs.

20 MR. LOTHROP: Thank you, Your Honor.

21 JUDGE NOBLE: Are we ready with the next
22 witness?

23 MR. DERR: Yes, we are, Your Honor. The
24 applicant would like to recall Ms. Michelle Hollingsed.

25 JUDGE NOBLE: Ms. Hollingsed, you've already

DERR / HOLLINGSSED

1 been excused as a witness, so I'll swear you once again.

2 MICHELLE HOLLINGSSED,

3 having been first duly sworn, testified as follows:

4 JUDGE NOBLE: You may proceed, Mr. Derr.

5 DIRECT EXAMINATION

6 BY MR. DERR:

7 **Q. Welcome back, Ms. Hollingsed.**

8 MR. DERR: And for the council's benefit, I
9 just want to refer to Exhibit 274, which has already
10 been admitted. It's Ms. Hollingsed's CV.

11 And when we notified the parties that we
12 would be bringing this witness back, we also notified
13 them that we intended to treat her testimony as expert
14 witness testimony, so I will be entering -- or not
15 entering, that exhibit has been admitted, but we will be
16 asking her some questions as an expert in the insurance
17 and the risk management issues that she will be
18 rebutting.

19 JUDGE NOBLE: That's fine to classify her as
20 an expert witness. I think that's in accord with the
21 Washington Evidence Rules. Thank you.

22 MR. DERR: Thank you.

23 BY MR. DERR:

24 **Q. Ms. Hollingsed, I already mentioned Exhibit 274,**
25 **your CV. I'm not going to bother asking you any**

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1 additional questions about that.

2 But I would like to ask you, have you been
3 involved in assessing risk and obtaining coverage for
4 crude oil and crude-by-rail terminal facilities
5 specifically, particularly ones that involve multiple
6 parties in the supply chain similar to the Vancouver
7 Energy Terminal?

8 A. Yes. As mentioned, we have a large crude oil
9 terminal in Trenton, North Dakota. We also handle
10 crude-by-rail at three facilities in Canada and four in
11 the United States. We do participate at many points of
12 the supply chain.

13 So to give you an example with the Anacortes
14 Tesoro facility, we may actually pick up the crude oil
15 at the well head, truck to our facility. Third parties
16 may also bring the crude oil to our facility. We unload
17 it -- (Court Reporter interruption.) -- then BNSF picks
18 up the unit train, takes it to the facility in
19 Anacortes, Washington, where we then take control of the
20 locomotive at the property line, bring it on to the
21 property, break it into pieces, place it on unit tracks,
22 parallel tracks. We unload the crude oil into
23 underground piping and then it goes into the Tesoro
24 facility. We then, when the railcars are emptied, we
25 hook that train back together, take it to outside of the

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1 property line and again pass it off to the BNSF
2 railroad.

3 Q. Thank you.

4 Since your previous testimony, have you reviewed
5 the testimony of Mr. Robert Blackburn?

6 A. Yes.

7 Q. And have you either listened to or reviewed the
8 rebuttal testimony of Dr. Kelly Thomas from BakerRisk
9 specifically regarding the various incidents that were
10 identified by Intervenor witnesses during their
11 testimony?

12 A. Yes.

13 Q. And have you reviewed anything else to prepare
14 your testimony today?

15 A. Yes. Since the time that we last talked, I've
16 been quite busy in trying to further my risk assessment
17 and evaluation. So I've done a number of things.

18 In reaction to Mr. Blackburn's testimony I've
19 spoken with industry peers and colleagues to confirm my
20 reactions with their feeling. I've also reviewed
21 additional literature and materials about the losses
22 that have been discussed prior.

23 I have consulted with Marsh's senior insurance
24 attorney who has first-hand experience with the
25 Lac-Megantic accident, the U.K. incident. He also is

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1 involved with some of the largest losses that happened
2 with Marsh clients.

3 I've talked with casualty experts who are
4 familiar with designing large, complicated insurance
5 programs so that I understand that further.

6 And then I've also done a lot of work in terms
7 of the MFL concept, maximum foreseeable loss, since that
8 has been referenced many times. So I've spoken with our
9 broker Marsh, who is the world's largest broker, and
10 consulted with experts in the rail practice, the energy
11 practice that governs the movement of crude oil through
12 the whole entire supply chain.

13 In addition, I've spoken with Tesoro's broker,
14 Aon. They're the second largest broker in the world, to
15 get their understanding of MFL. I've consulted with
16 BakerRisk, since they also have an approach to MFL in
17 order to better understand the methodology around that.

18 **Q. Let's go there first.**

19 **Is Mr. Blackburn's testimony about what is a**
20 **maximum foreseeable loss, or what you call MFL, and how**
21 **he said it should be used consistent with your**
22 **understanding of how it is used in the industry?**

23 A. No. It is my understanding and in speaking with
24 others, that MFL is typically a property concept. So a
25 study will be done for the owner of a facility to look

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1 at what levels of insurance coverage needs to be
2 obtained because the limits have to be sufficient enough
3 to not only cover repair or rebuilding of the facility
4 but also lost profits while the facility is down and
5 continuing expenses. So MFL in my experience is a
6 property concept, not a casualty within.

7 **Q. So how did Mr. Blackburn use it?**

8 A. Well, he described that it was used for both
9 property and casualty, and it appeared to be one study
10 that he was referring to.

11 **Q. So can you just, to make sure we're all clear,**
12 **explain in your view what is casualty as distinguished**
13 **from property?**

14 A. So property is owned property that we call
15 first-party risk, whereas casualty is third-party risk,
16 so damage to third parties in terms of bodily injury,
17 property damage, consequential damages.

18 **Q. Thank you.**

19 **Based on your experience and your confirmation**
20 **with, I believe you said Marsh and Aon and insurance**
21 **industry peers, does the insurance industry combine**
22 **property loss and casualty loss in a single MFL**
23 **analysis?**

24 A. No. That is not done.

25 **Q. Can you perhaps for council's benefit explain a**

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1 little bit more your understanding of what is a maximum
2 foreseeable loss and how it's done?

3 A. So the definition of a "maximum foreseeable
4 loss" is the maximum expected losses that could be
5 sustained in an unusual incident assuming there are no
6 protective systems.

7 **Q. So by that definition, does MFL take into**
8 **consideration probability or likelihood of an event?**

9 A. By definition, an MFL is a claim outsider, is
10 one of the most extreme claims that has been seen in an
11 industry. There is a level of probability that is
12 included, so, for instance, the large oil companies, the
13 names that we know, they don't consider an asteroid
14 hitting their facility or they don't consider a 747
15 dropping out of the sky to be in an MFL. So there is
16 some level of probability that is included in an MFL
17 study.

18 **Q. Let me ask in terms of your review. In a**
19 **casualty context, I believe you testified previously to**
20 **a Black Swan.**

21 **Can you describe how -- what you did, I believe**
22 **you called it Black Swan, compares with what**
23 **Mr. Blackburn described as MFL in a casualty context?**

24 A. Yes. So when we were entering the oil and gas
25 industry about five years ago, we conducted what we

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1 called the Black Swan study, because we wanted to
2 understand the largest losses that had occurred in the
3 industry and then compare that to the limits that we
4 carried in terms of what events could be covered by
5 that. We were casualty colleagues who were conducting
6 that study, so we called it Black Swan.

7 Really essentially it's the same as a maximum
8 foreseeable loss; we just didn't use a property term to
9 describe what we were doing. But essentially it's the
10 same thing. We were trying to understand the largest
11 losses.

12 With MFL it also is important that you consider
13 the type of activity and you get the appropriate peer
14 group, so for a crude oil terminal it's appropriate to
15 look at crude oil losses and not losses that could occur
16 across the entire supply chain.

17 JUDGE NOBLE: Ms. Hollingsed, could you slow
18 down a little bit?

19 THE WITNESS: Sure.

20 JUDGE NOBLE: Thank you.

21 BY MR. DERR:

22 **Q. I want to ask a question about another term.**

23 **Can you explain your understanding of what is a**
24 **"probable maximum loss"?**

25 **A. So a probable maximum loss starts with the**

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1 maximum foreseeable loss, the worst-case incident, but
2 then includes probability and includes credible events
3 that could occur. So at a plant, if a certain portion
4 of the plant was affected, what are the impacts on the
5 other part of the plant. Probability is considered.
6 But also risk mitigation is included, so in terms of
7 facility design, safety systems, redundancy like spill
8 containment, and also the quality of the first
9 responders are included in an estimated probable loss.

10 **Q. Do you recall from Mr. Blackburn's testimony as**
11 **to whether he indicated that probability factors into**
12 **the risk assessment?**

13 A. He didn't specifically say that. However, when
14 he talked about things that would temper the risk, he
15 gave an example of giving a 30 percent credit, he talked
16 about he wasn't aware of the facility design, but those
17 were good things. I believe that he was talking about
18 entering into a degree of probability into the analysis.

19 **Q. How about, I believe you testified just a minute**
20 **ago that you need to look at relevant peer industries.**

21 **Does Mr. Blackburn in his testimony talk about**
22 **looking at relevant peer industries for an MFL?**

23 A. He does mention type of operation is important,
24 so that an MFL at a nuclear facility wouldn't be
25 applicable to a MFL on a pipeline.

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1 **Q. Do you also recall Mr. Blackburn testified that**
2 **he had not seen any study or analysis of the MFL and**
3 **that one should be completed.**

4 **Do you agree with that testimony?**

5 A. Yes, I do agree. And we've done quite a bit of
6 work. I would estimate we're about 75 percent of the
7 way of being done with the analysis. We are committed
8 to completing the analysis --

9 JUDGE NOBLE: Still too fast.

10 THE WITNESS: Sorry.

11 -- as required by statute, with regulatory
12 oversight and as recommended by the DEIS. So I do agree
13 with that.

14 I don't agree, however, with the appropriate
15 losses to include in that study, and I also don't agree
16 with the appropriate funding mechanism.

17 BY MR. DERR:

18 **Q. So let me ask you about that. I was going to**
19 **ask you if you agree with the incidents or the approach**
20 **that Mr. Blackburn suggested in his testimony.**

21 **And if you don't agree, can you explain why not?**

22 A. I don't agree with the approach. Again, it is
23 not appropriate to combine looking at first-party
24 property risks and third-party property risks.

25 **Q. Okay. How about, Mr. Blackburn testified about**

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1 doing an MFL for a nuclear facility.

2 In your view, if you were to look at MFL using
3 his approach, what kind of incidents would you look at
4 for things like nuclear facilities, aircraft, et cetera,
5 according to Mr. Blackburn?

6 A. Well, I would certainly look at other losses
7 that had occurred in the nuclear industry. So I
8 certainly wouldn't include a pipeline loss when looking
9 at losses that could be experienced in nuclear.

10 **Q. So if -- Mr. Blackburn testified that event**
11 **transition to the MFL analysis should inform the amounts**
12 **of coverage. Do you recall that testimony?**

13 A. Yes.

14 **Q. And do you agree with Mr. Blackburn that the**
15 **amounts identified in the MFL approach should be used to**
16 **set amounts of coverage for various industries?**

17 A. No, I do not.

18 **Q. Can you explain why?**

19 A. By definition, an MFL is a loss outlier. It is
20 an extreme incident. And if entities were to required
21 to insure and have financial wherewithal to cover an
22 MFL, then, by definition, only the very largest
23 companies could meet that standard in terms of insurance
24 and financial wherewithal. Risk takers, entrepreneurs
25 need not apply.

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1 So to give you an example, if MFL was used to
2 establish insurance, every nuclear event would be
3 Chernobyl, every airline event would be Tenerife, which
4 is the largest aviation accident where two 747s collided
5 in fog and almost 600 people were killed.

6 **Q. What kind of impact would that approach to**
7 **insurance coverage have on industries like the one you**
8 **work for or other industries that deal with hazardous**
9 **materials and risk?**

10 A. Essentially, I think that it would cripple our
11 economy because only the largest companies could comply
12 with that. So I would suspect that you wouldn't have
13 refineries, you likely wouldn't have chemical or
14 pharmaceutical manufacturers. I suspect with the solar
15 industry, due to the chemicals that have to be moved and
16 transported with the manufacturer's solar panels, that
17 that would not be a viable industry.

18 Even in the hydroelectric facilities, if an MFL
19 for a dam breaking and all of the water releasing and
20 then the downstream consequences of that had to be
21 considered, I would suspect projects like that wouldn't
22 be built.

23 **Q. How about the incidents that Mr. Blackburn**
24 **identified that he focused on two in particular,**
25 **Lac-Megantic and Hertsfordshire or Buncefield incident.**

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1 Do you consider those peer incidents for the
2 Vancouver Energy Terminal MFL analysis?

3 A. I don't for a crude oil terminal.

4 **Q. Can you explain why not, maybe starting with**
5 **Lac-Megantic, if you want to pick one at a time?**

6 A. Well, first, Lac-Megantic is a rail incident.
7 It's not a crude oil terminal incident, so I wouldn't
8 include it for that purpose. And also, Lac-Megantic had
9 definite unique circumstances. The short line MM&A was
10 much, much different operationally and financially from
11 BNSF. So for that standpoint, I don't think it would be
12 applicable.

13 **Q. I believe Mr. Blackburn testified to -- also**
14 **about Lac-Megantic about insurance coverage and people**
15 **being left without available insurance. Can you comment**
16 **on that?**

17 A. Yes. So in the end, the issue with Lac-Megantic
18 was not an insurance one, because the insurance carrier
19 paid out very quickly. But it was more an issue of
20 inadequate insurance. Insurance that was woefully
21 inadequate to respond to an event that occurred.

22 **Q. Is that your expectation for this project, that**
23 **there would be woefully inadequate insurance?**

24 A. No. That's part of the study that I would
25 conduct, and it is my job to make sure that our

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1 operations are adequately insured.

2 **Q. How about Hertfordshire? Can you comment on**
3 **that, whether that's a peer incident in your view?**

4 A. I believe others have testified on this claim,
5 but in my opinion, due to the product that was being
6 stored, it was diesel and gasoline, that the nature of
7 that product is much different than crude oil.

8 Also, the facility design was much different
9 than how our facility would be designed, so I would not
10 consider that a peer event or a peer claim.

11 I also need to correct a misstatement. At the
12 end of the day, that claim ended up being 1 billion to
13 \$1 1/2 billion. I mistakenly said it was a
14 \$2 1/2 billion loss. It actually ended up being, like I
15 said, a billion to 1 1/2 billion, which is actually
16 pretty incredible given that it was the largest
17 post-World War II loss that the U.K. had seen, and that
18 it happened in such a congested area. Basically it
19 happened in a neighborhood.

20 **Q. What about other incidents that were mentioned**
21 **by other Intervenor witnesses, a Texas City incident and**
22 **a Flixborough incident. Do you consider those peer**
23 **incidents?**

24 A. I wouldn't, and primarily it's because of the
25 product. The product that was handled I think is much,

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1 much different, and there are also other factual
2 differences that I would not consider these to be peer
3 events.

4 Q. Is that based on your review of Dr. Kelly
5 Thomas's testimony where he talked about those
6 incidents?

7 A. Yes.

8 Q. And finally, one other comparison question.
9 So Lac-Megantic you mentioned was a rail
10 incident and, for that reason, not a peer event.

11 What about the nature of the railroads between
12 BNSF, which I believe would be the railroad serving
13 Vancouver Energy Terminal, and the MM&A railroad that
14 served or that was involved in the incident in
15 Lac-Megantic? Are those similar?

16 A. Actually, definitely not for a crude oil
17 terminal since we are not moving the product via rail.
18 But I'm not sure that that incident is even comparable
19 for railroad MFLs.

20 The small railroad, MM&A, was financially
21 strapped, was operating on a shoestring budget. There
22 were less than 180 employees that worked for the
23 railroad. There wasn't a safety department, so there
24 wasn't adequate training for their employees or first
25 responders, and they were also operating on a lower

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1 class of rail.

2 Compare that to BNSF, that insurance-wise and
3 financially is well able to respond to an incident,
4 spends thousands of hours every year training its
5 employees and first responders, and operates on a higher
6 grade of rail. Again, I would see these as being very
7 operationally and financially different.

8 **Q. You also did some investigation of other Class 1**
9 **railroad incidents and their response to claims?**

10 A. Yes. In the review of rail accidents, there
11 wasn't a single Class 1 railroad accident that was not
12 responded to and handled by the railroad. A good
13 example of that is Graniteville, South Carolina. That's
14 actually the Class 1 loss that has occurred. There was
15 a release of chlorine.

16 In that instance, Norfolk Southern fully
17 responded -- I should say Norfolk Southern and their
18 insurers fully responded to the loss which ended up
19 being about \$800 million.

20 **Q. Thank you. I want to change topics slightly.**

21 **Mr. Blackburn testified that he would look at**
22 **rail risk in conjunction with terminal risk, the entire**
23 **supply chain.**

24 **Would you look at them as a single operation for**
25 **a maximum casualty loss analysis?**

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1 A. No. So typically MFL analysis are done for each
2 part of that supply chain, so the railroads will conduct
3 a different analysis than the terminals than the vessel
4 owners.

5 **Q. Didn't Mr. Blackburn suggest that one party, in**
6 **this case Vancouver Energy, can and should be**
7 **responsible for the risk coverage for the entire supply**
8 **chain at least from Idaho to the Pacific Ocean?**

9 A. He did suggest that as an option. However, I've
10 spoken with Marsh and this just absolutely is not done.
11 There isn't a policy that is written for an entire
12 supply chain, and partially because of all the
13 complexities of a supply chain.

14 So in the instance of crude oil you could have
15 multiple origination points. The railroads can choose
16 to route the crude on various rail lines, with other
17 companies, other short lines.

18 For a company to underwrite something this
19 complex, they would have to understand every potential
20 company that could be involved in the supply chain, they
21 would have to know that company, know their operational
22 style, their safety protocol. It's just too large for a
23 single carrier to undertake.

24 **Q. Again, is it your understanding from the**
25 **industry that it's ever done that way?**

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1 A. No.

2 **Q. And to address Mr. Blackburn's concerns, is**
3 **there a different approach where each component of the**
4 **supply chain can and does obtain its own coverage?**

5 A. Certainly. In our instance, the railroads have
6 their own insurance, the crude oil terminal will have
7 its insurance and the vessel owners will have their own
8 insurance.

9 **Q. And I believe you testified before to at least**
10 **your understanding of the rail and the vessel coverage;**
11 **is that correct?**

12 A. Yes.

13 **Q. Can you just briefly recap your understanding of**
14 **that and how that addresses the risk that Mr. Blackburn**
15 **was talking about?**

16 A. So as required by statute, the rail lines are
17 required to carry a certain amount of insurance. Vessel
18 owners are also required by Washington statute to carry
19 a billion dollars of pollution insurance.

20 **Q. Thank you.**

21 **So if Lac-Megantic is in your mind not a**
22 **relevant peer incident, certainly for the terminal, it**
23 **sounds like even perhaps not for rail itself, what about**
24 **the other rail incidents that Mr. Chipkevich testified**
25 **to? Are those peer incidents for evaluating risk**

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1 associated with a rail transportation component?

2 A. Certainly. I think that many of those should be
3 looked at, should be understood and evaluated in terms
4 of setting MFL, like we talked about Lac-Megantic is an
5 extreme industry outlier. We looked at two of the
6 largest of those incidents, and I think they are
7 comparable to a risk that the Class 1 railroads should
8 look at.

9 So the first happened in Virginia, and it was
10 a -- Lynchburg, Virginia. It was a situation where
11 there was a derail, there was a release of crude into
12 the river, there was a fire, and downtown had to be
13 evacuated. This claim is estimated to be under
14 \$9 million at this point. I don't believe that accounts
15 for all of the environmental mitigation and testing. So
16 even if we doubled that number, that claim would likely
17 be under \$20 million.

18 Another one that I think is comparable and
19 should be evaluated is Aliceville, Alabama, and that was
20 an incident where there wasn't a lot of property damage
21 because it happened in a rural area, but that there was
22 release of oil into the wetlands. And this claim is
23 estimated to be between 25 and \$30 million, and I do
24 think these are applicable losses to look at and include
25 in an MFL for a railroad.

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1 Q. I want to be sure I'm clear on that point.

2 So that's MFL for the railroad. Is that the MFL
3 for the terminal?

4 A. No.

5 Q. And are you suggesting by describing those
6 incidents that that dollar amount is an appropriate
7 dollar amount for total insurance coverage for the
8 terminal facility?

9 A. No. Because you do have an MFL, an outlier of
10 Lac-Megantic, certainly 25 to \$30 million is not an
11 adequate amount to be carried by the Class 1s and, in
12 fact, is not what is carried by the Class 1s. They
13 carry much, much more than that.

14 Q. I want to ask you a couple questions about
15 Mr. Blackburn's testimony about how insurance claims are
16 paid especially in a multi-party logistics supply chain
17 incident.

18 Can you describe how you would look at potential
19 claims in a logistics supply chain incident?

20 A. Well, as described, we're talking about multiple
21 policies, so each piece of that supply chain will have
22 its own policies. So it would be upon us to make sure
23 that we consider and close the gaps in insurance. And
24 what we would do is create a priority of payments,
25 provision on the policies that would establish who's

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1 policy would go first, and that's done through modifying
2 the other insurance clause that are each insurance
3 policy.

4 **Q. Just to be sure I'm clear, so the insurance**
5 **policies themselves and your contracts can specify whose**
6 **insurance carrier goes first?**

7 A. Yeah. So in addition to that, in the contracts
8 we can specify handoff and how that's addressed. We can
9 request copies of their policies to understand how their
10 policy treats loading and unloading. In fact, Marsh
11 does a fair amount of this.

12 They mention that a Japanese manufacturers and
13 traders are the most meticulous about this, that they
14 want to understand to every degree each handoff, what
15 happens a second before and a second after, making sure
16 that the contracts and policies are drafted
17 appropriately.

18 So certainly, in this instance, we would want to
19 draw on that experience as well to make sure that we
20 have identified and closed any coverage gaps.

21 THE COURT: Ms. Hollingsed, you're speeding
22 up again.

23 THE WITNESS: I'm sorry.

24 BY MR. DERR:

25 **Q. Thank you.**

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1 So I want to ask about a concept called
2 "reservation of rights."

3 Mr. Blackburn described a reservation of rights
4 that occurs when you have multiple carriers and
5 suggested in his testimony that that can leave the
6 injured parties waiting, he might have said years, he
7 might have said decades, before payment.

8 Can you explain how that works?

9 A. So in a large complex claim, carriers almost
10 always issue a reservation of rights letter. That is
11 commonly done. What you know in a claim in the first
12 week or two often ends up to be much different on how
13 that claim ultimately plays out. So the carriers are
14 saying although we're paying, we have the right to
15 negotiate the finer points of this claim at a later
16 date. A reservation of rights letter, however, does not
17 preclude payment on a claim.

18 **Q. If I'm understanding you, reservation of right**
19 **allows the insurance companies to argue later about who**
20 **reimburses whom, does not necessarily apply to will**
21 **there be a first responder to pay; is that correct?**

22 A. Correct.

23 **Q. So Mr. Blackburn also testified that in these**
24 **multi-party logistic scenarios there isn't any**
25 **first-party insurer who is going to pay the claim now**

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1 and talk about damages later.

2 Is that consistent with your experience?

3 A. No, that's not consistent. In fact, the
4 insurance attorney that works for Marsh, that's a lot of
5 what he does, in that if there is a dispute between
6 carriers, he brings them in a room and they negotiate;
7 okay, who goes first, understanding there's a rights of
8 contribution at a later date. He said those issues are
9 fairly easily straightened out.

10 Now, hopefully we drafted the policies to close
11 any potential gaps. That's ideal. We don't ever want
12 to have these conversations. But if these conversations
13 with necessary, they're almost always fairly easily
14 straightened out so that you do have a primary carrier
15 who is stepping up and protecting its insured.

16 **Q. Why don't the insurers simply resist payment**
17 **until all that is resolved?**

18 A. Well, certainly I would hope they'd feel a
19 responsibility to protect their insured, but there's
20 also federal laws that protect policyholders. They're
21 called bad faith laws. And that means that insurance
22 carrier has to treat its insured with good faith and
23 fair dealing, and if they don't do that, there are
24 severe consequences from not protecting the insured.

25 The insured paid the premium, expects to have

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1 coverage. The severe consequences include there can be
2 punitive damages assessed, consequential damages
3 assessed. The net effect of that is that a carrier
4 could potentially pay much more than the original amount
5 stated on the policy as a penalty for not protecting its
6 insured.

7 **Q. And you mentioned federal laws. To be clear,**
8 **does the same concept apply in the State of Washington?**

9 A. Yes, that applies in Washington.

10 **Q. You need to wait for me to finish my question.**

11 A. Okay.

12 **Q. Let's move on.**

13 **Mr. Blackburn also recommended having one**
14 **individual enterprise responsible for the entire**
15 **logistics supply chain, and that individual enterprise**
16 **would be responsible for funding the entire risk based**
17 **on the MFL.**

18 **Is that in your experience how it works?**

19 A. No. As described, each party will have a policy
20 that protects their piece of the supply chain, so the
21 railroad would have its own policy, the terminal would
22 have its own policy, and the vessel owner would have its
23 own policy. There would not be a single responder for
24 the entire supply chain.

25 **Q. And just to be clear, how would that work? If I**

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1 had an incident during rail transportation, who would
2 you expect to be the primary responder?

3 A. The railroad would respond to that.

4 **Q. And at the terminal, whom?**

5 A. The terminal owner. That would be the JV that
6 would respond. Same for a vessel owner. If there's a
7 spill with the vessel, then the vessel owner would
8 respond to that.

9 **Q. What about the owner of the oil? Is there a**
10 **concept where perhaps the owner of the oil, as it goes**
11 **all the way the across the system, might have**
12 **responsibility if there's an incident?**

13 A. You know, that's interesting. By statute the
14 owner of the crude oil may be responsible in a strict
15 liability sense for a spill of the crude oil into water.
16 So that may be an example of a single responsible party
17 that would be responsible to -- ultimately responsible
18 for spills into the water. So that spill could happen
19 as a result of rail incident, terminal incident or,
20 obviously, a marine incident.

21 **Q. Back to claims again quickly.**

22 **In response to a council question, Mr. Blackburn**
23 **described a claim situation where he said what he called**
24 **the first-party claims would be paid first for damage to**
25 **the facility and then third-party damage claims would**

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1 wait until disputes among the carriers are resolved.
2 I'm curious.

3 Is that your understanding of how the property
4 and the casualty policies would function?

5 A. No, that's not how it would function. So I
6 think part of the confusion is Mr. Blackburn is more
7 versed in property concepts. And in insurance, once you
8 begin to work with larger risks, we specialize, so you
9 specialize on the casualty side or the property side.

10 We both have CPCU, which is certified property
11 casualty underwriter designation, but you specialize.
12 Based on his answers, I believe he's specialized on the
13 property side. My background is more on the casualty
14 side. So I believe he's answering casualty-related
15 questions through the lens of property.

16 **Q. And just one final question. I suspect I'm**
17 **adding another insurance policy to your -- the list to**
18 **explain.**

19 So in response to a council question, they asked
20 whether the State can be protected from any unfunded
21 exposure from a facility incident. Blackburn described
22 something he said was typically done for public
23 infrastructure and building projects. Do you recall
24 that testimony?

25 A. Yes.

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1 **Q. Can you explain what you think he's describing**
2 **and how that might apply here?**

3 A. Yes. There is not an additional policy that the
4 State could purchase for the unfunded liabilities.
5 There's one set of limits that are available for a
6 single incident.

7 **Q. Now, can the State be named as an additional**
8 **insured on that policy?**

9 A. Sure. And let me go back to when facilities
10 were mentioned. So I believe what he was talking about
11 is the concept of an owner controlled insurance program,
12 or OCIP, also called wrap-up. And these are often taken
13 out on very large construction projects.

14 So in the State of Utah, when our freeways were
15 being rebuilt, UDOT took out an OCIP policy for the
16 construction that was estimated to be four and a half
17 years long. And it works that any subcontractor that
18 comes onsite actually deducts the amount of insurance
19 from the bid and, as a result, the owner provides
20 insurance.

21 So the owner knows it's quality policy with
22 quality insurers, knows there's no coverage gaps, and
23 also takes greater control of the project. So as a
24 result of controlling the safety environment, the rules,
25 the owner can actually save a lot of money by doing

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1 these.

2 However, there are single large projects,
3 generally \$500 million or more that these are done for,
4 so they aren't a situation of responding to an unfunded
5 liability. It's a completely different concept.

6 And then in terms of your additional insured
7 question, so the State, yes, the State could be named as
8 an additional insured on our policies. What that
9 effectively does is divide the policy into two separate
10 policies, so the additional insured has a right to make
11 a claim directly to the policy itself. If there are
12 conflicting interests, then the additional insured would
13 actually receive its own defense counsel. So there are
14 advantages from that standpoint.

15 However, the State can still make a claim under
16 the policy without additional insured status and the
17 downside of that is there's still only one set of
18 limits. So you could potentially be diluting the limits
19 available by having two assured parties on the policy.

20 **Q. I want to go back and clarify one thing on what**
21 **you called OCIP, O-C-I-P. Is that typically done for**
22 **construction projects? And I believe Mr. Blackburn**
23 **described a public infrastructure project. Is that what**
24 **they're used for typically?**

25 A. Yes. They're used for large, like the

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1 rebuilding of the freeway. At Marsh, I actually placed
2 an OCIP -- (Court Reporter interruption.)

3 **Q. Slow down.**

4 A. Construction projects. So when I worked for
5 Marsh, I actually placed an OCIP for the largest health
6 care provider in the State. They were renovating and
7 building new hospitals. That project went on for years
8 and an OCIP was placed for that. But it's a
9 project-specific program.

10 **Q. Thank you. And just the last question.**

11 I believe your testimony before, and again this
12 morning, was you're working on a study, an assessment of
13 appropriate amounts.

14 Is that still your intent to proceed with the
15 condition that's been recommended in the EIS to
16 participate in an assessment of risks, appropriate
17 levels of coverage that would be overseen by the
18 applicable agencies for this project?

19 A. Absolutely. As recommended by the DEIS, we
20 would complete that study to understand property damage,
21 bodily injury. More has to be done in terms of a
22 pollution event, a pollution spill, natural resource
23 damages. That's probably the area that we need to focus
24 more.

25 MR. DERR: Thank you. I have no further

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1 questions.

2 JUDGE NOBLE: Thank you. I'm going to give
3 the court reporter a break and unless you have only one
4 or two questions, Ms. Brimmer. And I don't think that's
5 the case. We're going to have our lunch break now until
6 1:00. We're off the record. Thanks.

7 (Lunch break.)

8 JUDGE NOBLE: We're going to go back on the
9 record.

10 Cross-examination.

11 MS. BRIMMER: Thank you, Your Honor.

12 CROSS-EXAMINATION

13 BY MS. BRIMMER:

14 Q. Ms. Hollingsed, welcome back.

15 So in your rebuttal testimony previously today,
16 you were talking a lot about MFL, and I just want to
17 make sure that my understanding of that testimony is
18 correct.

19 That is in reference to primarily property, I
20 think you said, property coverage; is that right?

21 A. Yes, that's right.

22 Q. Is another way to think about that is really
23 first party; in other words, that's coverage that Tesoro
24 Savage is researching and going to ultimately obtain; is
25 that right?

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1 A. Correct.

2 Q. And then third-party coverage is coverage that
3 Tesoro may obtain that would cover things like loss of
4 life to other people, injury to other people, that kind
5 of thing?

6 A. Correct. We call it bodily injury, property
7 damage. And then consequential damages that ensue from
8 bodily damage or property damage, yes.

9 Q. And in fact, third parties can be covered for
10 property damage as well. It's just not Tesoro Savage's
11 damage?

12 A. It's not owned property, correct.

13 Q. So I just want to then be clear as well about
14 what first-party coverage would cover, so I think we've
15 addressed it doesn't cover loss of life to, for example,
16 Fruit Valley residents, just by way of example?

17 A. Correct.

18 Q. Or to the other union workers that are working
19 nearby?

20 A. Correct.

21 Q. And my understanding is it does not cover damage
22 to the environment like loss of salmon or tribal
23 resources?

24 A. So we will have a marine general liability
25 policy, and that actually does cover pollution events.

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1 It covers sudden and accidental pollution events that
2 you know about very quickly. You have to know about
3 them very quickly, report them to the carrier very
4 quickly. It would not respond to gradual pollution
5 events and would not respond to the natural resource
6 damage coverage which is included on a pollution legal
7 liability policy.

8 **Q. And would that first property policy cover**
9 **losses to the business like fines and penalties like the**
10 **one against Tesoro's Anacortes facility last week?**

11 A. No, not fines and penalties. It covers losses
12 to the facility itself from a covered peril to either
13 repair or rebuild. It covers business interruption
14 which covers lost profits. So say the facility takes
15 12 months to rebuild, it would cover the profits it
16 would have made during that time, which is important, so
17 that the entity continue as a going concern while the
18 facility is being rebuilt.

19 It also includes continuing expenses, so there
20 are key employees that you've invested a lot of training
21 in, are very good and you don't want to lose them
22 because your facility is down for a year. So you can
23 actually purchase insurance to continue to pay them
24 while the facility is being rebuilt.

25 **Q. You also talked about your Black Swan study, and**

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1 I think you said, but correct me if I misheard that,
2 it's the same as an MFL. So if I'm understanding that
3 correctly, is Black Swan study again the study of the
4 first-party policy and what liability should be covered
5 there?

6 A. Actually, no. Our Black Swan was looking at
7 third-party events and trying to understand in our
8 various points of the supply chain, so we looked in five
9 different areas. What the worst losses were that had
10 been seen in the industry as well as comparing those to
11 our limits, so that we could understand would our limits
12 cover one in 5,000 events, one in 10,000 events. But we
13 were looking at it from a third-party perspective.

14 **Q. At one point in your testimony you said it's not**
15 **proper to combine first-party and third-party risks, so**
16 **the Black Swan study is the third-party risk; is that**
17 **right?**

18 A. It's the third-party risk.

19 **Q. And the MFL study is the -- (Court Reporter**
20 **interruption.) And the MFL is the first-party risk?**

21 A. Typically. Now, we are starting to see more MFL
22 that's a property concept. We called it Black Swan, but
23 we're starting to see a little more attempts at MFL
24 work. The reason why it's more difficult is on your
25 property you know your property, you likely know what it

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1 would cost to rebuild, you know your operations, you
2 know how much you're making, you know your expenses, so
3 that's easier to quantify.

4 When you look at third-party risk, now you're
5 dealing with a lot of uncertainties. The claim depends on,
6 you know, what happened, where, why it happened.
7 Jurisdiction can play a big piece in that. So it's much
8 more complicated and many, many more assumptions need to
9 be made in order to try to quantify what an MFL would be
10 for third parties.

11 **Q. So third-party risks like that are what**
12 **Mr. Blackburn was talking about; right?**

13 A. Yes.

14 **Q. And that doesn't have a property component to**
15 **it, right?**

16 A. I would say you would conduct an MFL for
17 property in establishing your property limits and then a
18 similar exercise could be taken on the casualty side,
19 but I wouldn't see any reason why you would combine the
20 two.

21 **Q. The third-party property damage would not be**
22 **part of the third-party analysis?**

23 A. Okay. So first, when I say "property," I mean
24 first-party owned property, the property we owned.
25 Certainly third-party property damage, bodily injury,

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1 consequential damages, yes, that's what a liability
2 policy would respond to.

3 Q. When Mr. Blackburn includes that in his analysis
4 for third party, that's a proper inclusion?

5 A. Yes. What he meant by MFL, right.

6 Q. So you're still -- my understanding of your
7 testimony is that Vancouver Energy, because again, I'm a
8 little unclear when we say "you," who I'm talking about,
9 but I'm going to say it's Vancouver Energy, is still
10 looking at the third party, let's call it most extreme
11 event, and you're still researching that?

12 A. Yes. So what we've called the maximum
13 foreseeable loss, yes, we're still researching that.

14 Q. Now, it's my understanding, though, that you do
15 that to understand what the most extreme loss might be,
16 but that that loss is not what you buy insurance for; is
17 that right?

18 A. Correct.

19 Q. So by the very definition, some potential losses
20 from an extreme event to third parties is not going to
21 be covered by the facility's insurance?

22 A. That's possible.

23 Q. Because that's based on, I think you said, how
24 likely it might be that it happens?

25 A. Right, as well as prevention, protocol, safety,

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1 facility design, et cetera.

2 Q. And I think that your testimony about
3 Lac-Megantic was that the insurance in that case was
4 inadequate; right?

5 A. Correct.

6 Q. So if we get a worst-case here, the facility's
7 insurance will be inadequate if you haven't bought
8 insurance for the worst-case; right?

9 A. Well, Lac-Megantic situation couldn't happen at
10 the terminal, so again, I don't consider that a
11 worst-case scenario for a terminal. So I don't agree
12 that that's a proper comparison.

13 Q. Well, I'm not comparing what actually happened
14 there. What I'm talking about is the fact they didn't
15 have insurance to cover that worst-case. And I think
16 your testimony is the facility too would not buy
17 insurance to cover the worst-case.

18 A. Right. We would look at the probable maximum
19 loss, so we would consider worst-case certainly but then
20 give credits or discounts for the safety measures, first
21 responder, and the probability of events happening. So
22 extremely remote probabilities likely wouldn't be
23 considered in our analysis.

24 Q. I'd like to turn to your testimony about closing
25 gaps and establishing priority of payments.

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1 Establishing priority of payments is not
2 establishing liability under policies; right?

3 A. Right. It's in the event. I think a question
4 was made, well, what if you had a spill exactly at the
5 flange, what happens? And we want to prevent a
6 situation of carriers, two carriers trying -- you know,
7 if they said that wasn't theirs, what we're trying to
8 identify. Okay. If it happens at that moment, a second
9 before, at that moment whose policy will be respond and
10 be very clear about that.

11 JUDGE NOBLE: Slow down.

12 BY MS. BRIMMER:

13 **Q. There has to be an acceptance that they are**
14 **liable by that insurance company before they pay; right?**

15 A. Correct. Legally liable.

16 **Q. And then you talked about a reservation of**
17 **rights letter.**

18 **A reservation of rights in Washington means that**
19 **the company is agreeing to provide a defense immediately**
20 **regardless of liability; right?**

21 A. Correct.

22 **Q. And what that really means is they're basically**
23 **just providing or paying for a lawyer to defend the**
24 **terminal under that policy without deciding whether**
25 **they're going to pay anything under that policy; right?**

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1 A. Well, if the insured is legally obligated to
2 pay, the insurance carrier has a responsibility to
3 respond to that in terms of actual payments as well as
4 defense if liability has not been established.

5 **Q. But my question was a reservation of rights in**
6 **Washington means that they provide a lawyer for the**
7 **defense in determining whether there's liability; they**
8 **don't immediately pay claims, for example, to residents**
9 **of the Fruit Valley neighborhood.**

10 A. It's very fact dependent. Certainly in a
11 response -- in claims handling, it would be in our best
12 interests to quickly help the citizens with what they
13 need and help with repair, and we may go ahead and do
14 that. Or a carrier could pay initially.

15 **Q. So when you say "we would go ahead and do that,"**
16 **are you suggesting that the terminal would actually**
17 **write its own check because you don't make a decision**
18 **whether or not the insurance company pays a claim;**
19 **right?**

20 A. And I would say for the initial responses
21 certainly it's best practices in an event, and I'm sure
22 the railroads are very good to this, to get out in the
23 community and provide the need that is required. So if
24 temporary housing is required, certainly that's
25 something that we may pay immediately. If shelter or

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1 food or personal comfort is required, that may be
2 something that we would initially do because those are
3 things that have to be done immediately.

4 **Q. So you would decide that at the time?**

5 A. Right. It's very claim, fact dependent.

6 **Q. I think you said something about federal bad**
7 **faith law. There's actually no federal bad faith law,**
8 **right, outside of ERISA?**

9 A. There are rules and regulations and legal
10 frameworks to deal with bad faith. I believe that it is
11 a law. I'm not an attorney, so...

12 **Q. Sure. It's actually not federal law. It's**
13 **governed by each state's law; right?**

14 A. Yes. However, they have been adopted by
15 Washington.

16 **Q. They what?**

17 A. The laws and the statutes.

18 **Q. Laws and --**

19 A. They are applicable. Bad faith claims can be
20 brought in the State of Washington.

21 **Q. Each state has its own set of laws and statutes;**
22 **correct?**

23 A. Correct.

24 **Q. And states differ on that; right?**

25 A. Correct.

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1 MR. DERR: This whole line of questions is
2 calling for legal conclusions. She's already testified
3 she's not a lawyer.

4 MS. BRIMMER: But she opened this line of
5 testimony by saying that there are bad faith laws that
6 would apply and would help in these situations.

7 JUDGE NOBLE: She did, but I think your
8 question does call for a legal conclusion.

9 MS. BRIMMER: I'm asking for her
10 understanding since she exhibited some understanding in
11 her previous testimony.

12 JUDGE NOBLE: I know, but I still think it
13 should be -- the question -- excuse me. The objection
14 should be sustained and you should ask her a different
15 question.

16 BY MS. BRIMMER:

17 **Q. Ms. Hollingsed, are you aware of the fact that**
18 **insurance companies often litigate which state laws**
19 **apply in those instances?**

20 A. Yes, I would assume that would be the case.

21 **Q. And sometimes that litigation goes on for quite**
22 **some time?**

23 A. That litigation may go on for some time. If
24 there is a question on legal obligation, legally liable
25 to pay, yes.

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1 Q. So you're still engaged in the study. I think
2 you said you're about 75 percent done?

3 A. Yes.

4 Q. And am I correct that normally the way this
5 happens in the insurance context is you'll finish the
6 study and then you'll present the results to Vancouver
7 Energy; is that right?

8 A. Correct.

9 Q. And then you'll make recommendations presumably
10 at that time?

11 A. Correct.

12 Q. But it's up to them whether to buy the insurance
13 or take your recommendations; right?

14 A. The executive committee of the joint venture
15 ultimately gives approval for that.

16 Q. And customarily do you see a negotiation about
17 price and premiums and what coverage there's going to be
18 at that point in time?

19 A. That would be my job prior to making a
20 recommendation. So prior to that, I've negotiated
21 terms, price and coverage with the carrier, and then
22 present the best final option to the executive
23 committee.

24 Q. So that best final option is some balance of
25 price and coverage?

1 A. Certainly. We look to optimize that in terms of
2 coverage and price, yes.

3 MS. BRIMMER: Thank you. Nothing further.

4 JUDGE NOBLE: Redirect?

5 MR. DERR: No questions, Your Honor.

6 JUDGE NOBLE: Council questions?

7 Mr. Snodgrass?

8 MR. SNODGRASS: Good afternoon and thank you
9 for your testimony again. Just some follow-up questions
10 on the MFL and Black Swan.

11 Earlier you had taken us through a list of
12 what I believe you called peer events, and some of those
13 included things relevant to the terminal, some of those
14 included things relevant to the railroad.

15 Where those for strictly the MFL or the
16 Black Swan or either?

17 THE WITNESS: Both. I would say Black Swan
18 is MFL is used in this context. Same thing, trying to
19 understand the worst claims that could occur and
20 comparing the limits to that.

21 MR. SNODGRASS: That could occur.

22 THE WITNESS: Yes.

23 MR. SNODGRASS: Just on a couple of those I
24 wondered, you had talked about a chlorine exposure.
25 First, I assume, was that -- did you not consider that a

1 relevant peer event because the material was different
2 than what we're talking about here? Was that the
3 primary reason?

4 THE WITNESS: That was Graniteville, South
5 Carolina where there was a release of chlorine. I don't
6 consider that an appropriate comparison because it's
7 rail and it's not terminal operations.

8 MR. SNODGRASS: Right.

9 THE WITNESS: In terms of placing coverage
10 for the terminal, I would want to look at terminal
11 losses that are appropriate.

12 MR. SNODGRASS: Right. And I guess I'm
13 speaking more to you made some judgments on presumably
14 on third-party -- evaluation of the third-party
15 implications for a number of rail, you know, you talked
16 about some of the incidents that have happened and so
17 it's really those that I'm speaking to.

18 In the chlorine, which I -- was that a -- I
19 assume that was a derailment and release in that event?

20 THE WITNESS: What was the --

21 MR. SNODGRASS: Was the chlorine event a
22 terminal event or was it a rail event?

23 THE WITNESS: It was a rail. A railcar
24 leaked and a cloud of chlorine moved through a
25 community.

1 MR. SNODGRASS: I assume the main reason for
2 not considering was it's simply a different material
3 than we're talking about.

4 THE WITNESS: If I was doing an MFL for the
5 railroad, I think that's very applicable since they have
6 to carry every material. They cannot reject loads. I
7 think it's very applicable for a railroad. Not for a
8 terminal.

9 MR. SNODGRASS: Again, I'm -- it sounded --
10 am I incorrect that you in running through the list of
11 potential peer events that you were speaking to some of
12 those as to why they may -- you mentioned the Lynchburg
13 event and I think the Alabama event, and were those, I
14 guess in those events it didn't sound like you were
15 bringing those up relevant to the terminal.

16 You were bringing those up relative to
17 whether they would be appropriate peer events along the
18 rail corridor; is that right?

19 THE WITNESS: Correct.

20 MR. SNODGRASS: I'm just trying to get a
21 better sense of that. That's all.

22 So in the case of the South Carolina
23 chlorine, I assume the material is the main reason that
24 wasn't -- you don't believe that's appropriate in
25 considering a peer event for rail?

1 THE WITNESS: I'm not saying it wouldn't be
2 appropriate event for rail. I think it is appropriate
3 if you're doing an MFL for rail. I don't think it's
4 appropriate if you're doing an MFL for a terminal.

5 MR. SNODGRASS: Okay. But as part of --
6 again, as part of the I guess -- in what you're thinking
7 in terms of the Black Swan, which I understand from some
8 of the cross-examination does include your consideration
9 of those third-party risks, do you consider that event
10 not a peer event primarily because of the material?

11 THE WITNESS: The type of operations.

12 MR. SNODGRASS: Okay. And in terms of
13 considering peer events for a Black Swan on the rail, it
14 sounded like you were looking at the list --
15 Dr. Chipkevich's list of the 24.

16 So did you have any concerns that that's a
17 too small a sample size to look at?

18 THE WITNESS: I just looked at the list that
19 he provided. I didn't go beyond that because I don't
20 see it as my role to understand what the MFL is from the
21 railroad. So I took those examples of accidents as
22 likely being the larger ones that have occurred,
23 otherwise I'm not sure why you would list those.

24 JUDGE NOBLE: Both of you have to slow down.

25 MR. SNODGRASS: No further questions. Thank

1 you.

2 JUDGE NOBLE: Mr. Shafer?

3 MR. SHAFER: Ms. Hollingsed, thank you very
4 much for your testimony today. One question.

5 Can you give us a sense of the track record
6 where there's been incidents where there's been damages
7 that the track record of the local community being in
8 agreement with the industry and the insurance companies,
9 in terms of damages, payment of claims of the incidents
10 that you've had experience in, is the majority of the
11 time is there agreement? Is there satisfaction? Or
12 most of the time does it end up in dispute, arguments,
13 courts, local community kind of left hanging,
14 dissatisfied? Can you help us which way that tends to
15 go?

16 THE WITNESS: Sure. I can tell you from the
17 claims that we handle and our approach is if we are
18 wrong, if we are negligent, we want to very quickly get
19 in and make that party as whole as possible. For one
20 reason, that reduces attorney involvement and typically
21 the claims are much easily handled. And I think that
22 the third party feels like their damage was listened to
23 and accommodated.

24 So from our standpoint, if we feel that we
25 are negligent, we want to quickly settle those and we

1 haven't had issues.

2 Now, if we do dispute our negligence, then
3 certainly we would defend ourselves as appropriate.

4 MR. SHAFER: And can you help us with even
5 just ballpark percentages? Kind of how does that
6 usually trend? Is it kind of a 50-50 where about half
7 the time there's agreement and half the time there's
8 dispute or 90-10? Or kind of where is it?

9 THE WITNESS: It depends on line of
10 coverage. So general liability, usually it's clear-cut.
11 Because usually, in our case, it's property damage. Was
12 the property damaged or not? So those are easier to
13 handle.

14 Where we may dispute more is in auto
15 liability. Since we have a fleet of heavy trucks on the
16 road, if our truck is involved in an accident, we're
17 often the only party onsite that has sufficient limits
18 because we're a corporation, and so, in that instance,
19 we are in a situation where we may have to defend
20 ourselves against claims. And like any prudent
21 business, we would expect to show, to demonstrate that
22 there is a loss, to prove that, and then we can talk
23 about if that is a reasonable amount that should be
24 covered and negotiate that.

25 MR. SHAFER: I know council pursued

1 questions in terms of your recognition that there's,
2 say, a threshold that you recognize that you're not
3 going to go beyond that up to the maximum amount.

4 Do you ever do any kind of probability
5 model, kind of what that percentage is in terms of kind
6 of what the risk is there between a maximum event --
7 coverage of a maximum event and coming below that line?

8 THE WITNESS: Are you saying in terms of
9 insurance that we'd purchase or what?

10 MR. SHAFER: In terms of making a decision
11 at that point. Do you try to put that in any kind of a
12 statistical model where it's like, okay, we think we're
13 up to 90 percent that we've got coverage up to, we'll
14 call the line there, or is it 70 percent? I mean, do
15 you get into that level of detail statistically?

16 THE WITNESS: We did on what we call Black
17 Swan is really comparable to a maximum foreseeable loss,
18 we did that. So we looked on the our five industry
19 groups. We looked at oil and gas upstream, midstream,
20 downstream. We looked at trucking and we looked at
21 rail, because we have a short line railroad.

22 And so that study did show here are the
23 levels of insurance you'd need to cover to cover, say,
24 one in 10,000 event or one in 5,000, and what percentile
25 do our insurance limits fall in. So yes, we did that in

1 that situation. And then we did compare our limits, and
2 we actually found that we had more than adequate limits
3 on the upstream, the trucking and the rail.

4 And midstream, and that's our terminal in
5 North Dakota and certainly this project is considered a
6 midstream operation, we weren't at the highest
7 percentiles because we found that there were pipeline
8 losses, and the largest losses is the MFL for midstream
9 were typically pipeline related and we felt that that
10 wasn't representative of the risk that we had. We had a
11 terminal in North Dakota.

12 And then downstream, the limits suggest were
13 quite high because that looked at refinery and refinery
14 losses, and refinery operations are much more complex
15 than a terminal. They have a terminal exposures, but in
16 addition, they have the refining and the chemical
17 processing.

18 MR. SHAFER: As you come into a local
19 community with a project and if you have an awareness
20 that the local community has significant concerns about
21 the level of protection, let's say there's a gap there,
22 do you ever work with those local communities to try to
23 address that gap and come to more of an agreement before
24 a project is begun?

25 THE WITNESS: Per my recollection, this is

1 the first situation we've had like this that we've had a
2 project where there has been community concern. I
3 really can't think of another situation that I
4 personally have been privy to that is similar to this.

5 MR. SHAFER: All right. Thank you.

6 JUDGE NOBLE: Mr. Paulson?

7 MR. PAULSON: Thank you. Good afternoon,
8 Ms. Hollingsed. Just a question of clarification.

9 You mentioned something about strict
10 liability for owners of crude oil spill into water. Is
11 that state? Federal? Both? And what what's the source
12 of that?

13 THE WITNESS: My understanding -- you know,
14 I'm not sure if it's state or federal. If -- statutes.
15 I'm just not sure. And the source of that was
16 researched on by our team.

17 MR. PAULSON: Somehow I suspect it's
18 federal, but I just wanted to know if you knew.

19 THE WITNESS: I don't know that.

20 MR. PAULSON: Second question. You said bad
21 faith would apply, and I'm just clarifying.

22 Does that apply to insurance carriers that
23 are offshore, for instance, Lloyds, if they're doing
24 business in the states?

25 THE WITNESS: Yes. If they have written a

1 policy in the State, then they would be --

2 MR. PAULSON: Bound by that law?

3 THE WITNESS: -- subject to that, yes.

4 MR. PAULSON: That's all. Thank you.

5 JUDGE NOBLE: Mr. Stohr?

6 MR. STOHR: Good afternoon. I have a
7 process question, and it goes something like this.

8 You know the extent, the quality, the scope
9 of this coverage is going to be a pretty important part
10 of our thinking around the recommendation we make to the
11 governor, and you're in the middle of negotiations on
12 all of this.

13 Are we going to have that information in
14 time to include?

15 THE WITNESS: And what is the timeframe on
16 you making a recommendation?

17 MR. STOHR: I mean, it's still being
18 defined, but sometime around the end of the calendar
19 year.

20 THE WITNESS: No. We wouldn't actually go
21 into the marketplace and start negotiating coverage
22 until definitely after we've received a permit, until
23 likely when the facility is more completed. And at that
24 point, we have a facility that we can talk about
25 specifically, we can bring underwriters and do a

1 facility tour so they can see exactly what they're
2 underwriting.

3 So it would be prematurity point, and a
4 carrier may give indications of what they think they can
5 do, but there's no way they can give a binding quote
6 this far out.

7 MR. STOHR: Thank you.

8 JUDGE NOBLE: Mr. Siemann?

9 MR. SIEMANN: Good afternoon. So I'm
10 interested in the sort of third-party impacts kind of
11 part of the insurance, which if I understand correctly
12 is the Black Swan; right?

13 THE WITNESS: Understanding what the worst
14 kind of incidents that have occurred in the industry,
15 yes.

16 MR. SIEMANN: So that covers that. So would
17 that be the same thing as probable maximum loss?

18 THE WITNESS: No. In our Black Swan, that's
19 really equivalent of a maximum foreseeable loss. So
20 that's your worst-case, your industry outlier. Maximum
21 probable loss, then we would take that number and then
22 look at our control; so the design and the redundancy,
23 spill containment, quality of first responders would be
24 included in that as well as probabilities and the
25 likelihood of an event and what kind of third parties

1 would be affected and to what extent.

2 MR. SIEMANN: And so I guess what I'm trying
3 to get at is, if you think about the Black Swan event,
4 what percent of coverage would you recommended of the --
5 so the Black Swan event let's say is 100.

6 What percentage would you likely recommend
7 as the appropriate level of coverage given the Black
8 Swan event considering the third-party impacts?

9 THE WITNESS: Well, we would temper that
10 with probability and credibility, and then there are
11 controls, and then that gives us maximum probable event.
12 That is the amount that I'd recommend we insure at. At
13 a minimum that would be the floor.

14 MR. SIEMANN: Given your experience with
15 other Black Swan analyses and other coverages that
16 you've recommended, what is the range of percent that
17 that typically falls in?

18 THE WITNESS: Well, an MFL on a casualty
19 standpoint, I've actually never done another one of
20 these with our clients, because, like I said -- when I
21 was with Marsh, because like I said that's more of a
22 property concept and it's very difficult to quantify
23 from a third-party liability. So I can't give you stats
24 of, you know, for X clients they purchase X percent,
25 because I've never gone through that process with anyone

1 other than my company, Savage.

2 MR. SIEMANN: And will your Black Swan
3 assessment be available to this council?

4 THE WITNESS: You know, I'm not sure I can
5 make that call, if I'm allowed to release that. I just
6 don't know enough of what information is provided. I
7 don't see why not, but I don't think ultimately that's
8 my call if I can release that or not.

9 MR. SIEMANN: And one last question.

10 Your testimony is that you also involved
11 issues of whether insurance is insufficient, what
12 happens after that when you talked about the
13 Lac-Megantic example.

14 Are there ways that we as a council can
15 perhaps condition or sort of require things of Vancouver
16 Energy so that we can be assured that if an event occurs
17 for which insurance is insufficient that the parent
18 companies are still held liable?

19 THE WITNESS: You know, I think that's more
20 of a legal question and I don't know the answer to that.

21 MR. SIEMANN: But are there insurance
22 mechanisms that can be applied?

23 THE WITNESS: There will typically be one
24 policy that will respond. So the way that you would try
25 to account for that is in terms of limits and

1 establishing the limits. There isn't another kind of
2 policy that could be purchased to cover a perceived gap.

3 MR. SIEMANN: Okay. Thank you.

4 JUDGE NOBLE: Any other council questions?

5 Mr. Snodgrass.

6 MR. SNODGRASS: Just a quick follow-up
7 question.

8 In terms of the looking at the terminal
9 itself for purposes of the MFL, do you -- it sounds like
10 you look at empirical evidence of what has occurred.

11 Is that fair to say?

12 THE WITNESS: Correct.

13 MR. SNODGRASS: Do you do any looking at
14 trends or modeling or anything like that to -- in your
15 consideration of the MFL or is it strictly or primarily
16 what has occurred, the empirical evidence?

17 THE WITNESS: Well, yeah. It's
18 understanding what has occurred and then comparing our
19 operations to what has occurred. So certainly as there
20 are improvements in tank design or tank spacing, and
21 that we feel that we have a better design facility, that
22 would go into that analysis.

23 MR. SNODGRASS: Okay. Thank you.

24 JUDGE NOBLE: Mr. Paulson?

25 MR. PAULSON: One other follow-up question.

1 You said that you can't quite get to the
2 point of really saying what the final process or premium
3 or coverage would be.

4 Have you determined whether or not the
5 insurance coverage is placeable? Have you done
6 investigative efforts to determine whether you can place
7 it with carriers who can provide some amount, reasonable
8 or unreasonable, coverage?

9 THE WITNESS: Yes. I'm very comfortable
10 that we can obtain insurance. So general consensus is
11 that liability insurance could be obtained in the
12 billion to a billion and a half range. So I am
13 confident that we could obtain coverage for the limits
14 that we would need.

15 We also look at rating, the AM Best rating
16 of insurance carriers, to make sure that they're solid,
17 that they will be around for years to come. That's very
18 important. So in terms of placing the coverage, I don't
19 have any concerns in that area.

20 MR. PAULSON: Thank you.

21 JUDGE NOBLE: Mr. Siemann?

22 MR. SIEMANN: I'm sorry. I had one other
23 question.

24 You mentioned peer incidents and you
25 mentioned some that were rail that were not applicable.

1 What are the peer incidents for this facility?

2 THE WITNESS: Good question. So in
3 reviewing 15 years of terminal history, we haven't
4 uncovered a large loss that we feel is applicable except
5 for in Texas -- or in Louisiana due to
6 Hurricane Katrina.

7 There was a terminal loss where a tank was
8 compromised, and that loss actually ended up being about
9 300 million, where there was cleanup and monitoring and
10 natural resource damages. So we do feel that that is an
11 appropriate peer to include in our analysis.

12 THE COURT: Mr. Rossman?

13 MR. ROSSMAN: You've heard testimony I think
14 from you today that vessels leaving the facility will
15 have a billion dollars in coverage, and I think we've
16 heard earlier testimony suggesting that the rail line
17 should have on the order of 7- or \$800 million in
18 coverage.

19 Based on your experience of looking at
20 supply chains, do you see examples of supply chains
21 where one link in the chain has substantially lower
22 coverage than the other links in the chain?

23 THE WITNESS: Certainly, because the type of
24 operation is critical. The type of operation is
25 critical as well as comparable losses in that space are

1 critical. So each MFL study, each analysis on limits
2 carried would stand on their own for each piece of that
3 supply chain.

4 MR. ROSSMAN: Okay. And I guess I -- you
5 gave some testimony on a couple of rail events that had
6 losses in the neighborhood of 25- or \$30 million, and I
7 think the coverage in Lac-Megantic was around that
8 level.

9 THE WITNESS: 25 million.

10 MR. ROSSMAN: Would that have been a
11 reasonable level of coverage for them to have based on
12 their loss analysis if they had been looking at peer
13 events that were in that range?

14 THE WITNESS: No, I don't believe --

15 MR. ROSSMAN: Why not?

16 THE WITNESS: -- an analysis would have
17 shown that. Because of the products they were carrying.
18 There were other claims in the industry that had
19 occurred. And really, that was -- it was a regulatory
20 call that established the 25 million and if that was an
21 acceptable level of amount.

22 MR. ROSSMAN: Thanks very kindly.

23 JUDGE NOBLE: Other council questions? I
24 have one and it follows on Mr. Rossman's question having
25 to do with Lac-Megantic.

1 You said you made a study of that situation.
2 And the other day I think it was you that testified that
3 the railroad did go into bankruptcy over that.

4 So do you know what happened to the
5 insurance in that case?

6 THE WITNESS: Yeah. So the \$25 million was
7 paid out very quickly. The insurer paid that out. But
8 there wasn't another policy to go to. So as a result,
9 there's been a fund that has been created for the
10 victims of Lac-Megantic and several companies have
11 contributed to that fund.

12 JUDGE NOBLE: So when you say it was paid
13 out, do you have enough depth of knowledge to know who
14 it was paid to?

15 THE WITNESS: No.

16 JUDGE NOBLE: Maybe not individual
17 companies, but was it paid to people damaged by the
18 accident?

19 THE WITNESS: And I don't know if it was for
20 cleanup, repair of the buildings, and the town. I'm not
21 sure where that \$25 million went.

22 JUDGE NOBLE: But do you know when it got
23 paid out?

24 THE WITNESS: All I know is it was paid out
25 very quickly. The carrier looked at the incident, saw

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1 that there was clear liability, and there really wasn't
2 anything to contend. And so the carrier paid that out.
3 And then at that point they are -- they stopped their
4 involvement with the claim.

5 JUDGE NOBLE: And that accident happened in
6 Canada; right?

7 THE WITNESS: Yes.

8 JUDGE NOBLE: Thank you.

9 THE WITNESS: In Quebec.

10 JUDGE NOBLE: Any questions based on council
11 questions?

12 MS. BRIMMER: Yes, Your Honor. Just a
13 couple.

14 RECROSS-EXAMINATION

15 BY MS. BRIMMER:

16 Q. In response to a question from I think Council
17 Member Shafer, you were saying that the Vancouver Energy
18 would pay out quickly in the event of an incident.

19 But then you qualified that and said if you
20 thought you were wrong or negligent; is that correct?

21 A. When I say "pay out," respond, and then cover
22 the immediate costs that need to be covered, yes.

23 Q. Okay. So you would cover the immediate costs
24 that need to be covered if you thought you were wrong or
25 negligent?

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1 A. Correct.

2 Q. And in fact, that's kind of the rub, right? A
3 lot of disputes arise over who is wrong or negligent or
4 whether they are wrong or negligent; correct?

5 A. Certainly.

6 Q. And in fact, that's more likely when you have a
7 complex system like you have here, which you've got the
8 rail, you've got the marine, you've got the terminal,
9 you could have some third-party truck back into a pipe.

10 That gets a lot more difficult in determining
11 who's wrong or negligent, right?

12 A. Well, it follows the care, custody and control.
13 So as the terminal owner, if a truck backs into a tank
14 and causes a spill, the spill came from our property.
15 It is our responsibility, our legal responsibility to
16 pay for that, for our carriers to respond to that. Now,
17 on the back end, we would absolutely subrogate against
18 that trucking company to get recovery for that claim.

19 Q. On that you know you have legal -- you know what
20 the law on that, that you do have a legal liability
21 there?

22 A. Yes. Since it's our terminal and the oil is in
23 our care, custody and control, it would be our
24 responsibility to respond.

25 Q. In response to -- and forgive me, I don't

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1 remember which council member was asking you about this,
2 but you were talking about peer loss, and you were
3 talking about the one terminal incident that you looked
4 at that was 300 million. Do you recall that?

5 A. Correct.

6 **Q. Is that what you found to have been the**
7 **worst-case for a terminal loss? Is that the outer end?**

8 A. For a terminal loss that I consider to be an
9 appropriate peer, certainly the largest terminal loss is
10 the Buncefield, the U.K. incident, that's about a
11 billion dollars.

12 **Q. So for what you consider an appropriate**
13 **comparison for worst loss, that \$300 million incident is**
14 **it?**

15 A. Yes.

16 **Q. So my understanding is that now you will take**
17 **that and you will apply some probability modeling or**
18 **analysis, and you'll give yourself deductions for design**
19 **things and you'll insure at something less than that.**

20 **Is that consistent with your earlier testimony?**

21 A. Well, that piece, that's one piece of it. One
22 piece that we haven't studied to a degree that I feel is
23 appropriate is the pollution spill and the natural
24 resources damages. So that would not be included in
25 that.

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1 But in terms of third-party bodily injury and
2 property damage? Yes, that's how we would approach
3 that. But additional work needs to be done on the
4 pollution element of the claim.

5 MS. BRIMMER: Thank you. Nothing further.

6 JUDGE NOBLE: Mr. Derr?

7 MR. DERR: Just a couple of questions.

8 REDIRECT EXAMINATION

9 BY MR. DERR:

10 **Q. There was questions about is your study done,**
11 **when is it going to be done. Do you recall those**
12 **questions from council?**

13 I want to back up and ask you what is your
14 understanding based on the statute in the EIS as to
15 whether the agency has a role in helping figure out what
16 is the appropriate amount of financial assurance for
17 this terminal project?

18 A. Yes. So a study I believe is required by
19 statute with regulatory oversight, and we would
20 certainly embrace that approach.

21 **Q. So is it your impression once you finish your**
22 **study, that's it, that's what you have to do? Or is it**
23 **your impression that with agency oversight they will**
24 **also consider relevant information in this study and**
25 **decide what's an appropriate amount?**

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1 A. Yes. I assume that's the process that was taken
2 when limits were suggested for railroads. I would
3 assume that would be a similar approach that would be
4 taken from the terminal standpoint.

5 **Q. Is it your expectation that Vancouver Energy**
6 **would be willing to participate and provide information**
7 **in that process?**

8 A. Yes.

9 **Q. One last question.**

10 I believe the administrative law judge asked you
11 a question about what happens in bankruptcy, and I
12 recall actually, that triggered in my mind a question
13 that was asked previously of Mr. Blackburn about what
14 happens in bankruptcy.

15 If there is an incident, there is damage and the
16 company declares bankruptcy, is there a difference in
17 what happens with the first party, the property
18 insurance, and whether that's an asset of the bankrupt
19 estate versus the casualty payments and whether that's
20 an asset to the bankrupt estate?

21 A. Yes, that would be handled much different. So
22 if the facility was damaged or destroyed, the insurance
23 company would be responsible to make payment on that.
24 And that could become an asset of the bankruptcy court.

25 However, from a liability standpoint, liability

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1 policy only responds to third parties that have
2 experienced property damage or bodily injury. The
3 bankruptcy court is a temporary entity, I don't think
4 could experience property damage or bodily injury, so
5 would not be a recipient under a third-party liability
6 policy.

7 MR. DERR: Thank you. I have no further
8 questions. I think I confused you even more. I have no
9 further questions.

10 JUDGE NOBLE: Thank you.

11 MR. DERR: Trying to help.

12 JUDGE NOBLE: Well, it's a little unfair to
13 ask a non-lawyer that question.

14 MR. DERR: I have no further questions.
15 Sorry.

16 JUDGE NOBLE: Ms. Hollingsed, thank you very
17 much for your testimony. You're excused as a witness
18 today. Thanks for coming back.

19 Do you have another witness?

20 MR. DERR: Yes, we do, Your Honor. We'd
21 like to call Mr. Bradley Roach.

22 JUDGE NOBLE: Hello again, Mr. Roach.

23 F. BRADLY ROACH,
24 having been first duly sworn, testified as follows:

25 JUDGE NOBLE: You may proceed.

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DIRECT EXAMINATION

1
2 BY MR. DERR:

3 Q. Thank you, Mr. Roach. And I need to remind you
4 and me to speak loudly and slowly.

5 A. And slowly.

6 Q. So the court reporter can get it, and she will
7 do her best and I will do my best to remind you of that
8 if need be.

9 So Mr. Roach, I'm going to ask you some
10 questions in response to Mr. Ian Goodman's testimony.
11 But first let me just confirm, did you review the
12 testimony of Mr. Ian Goodman?

13 A. Yes, I did.

14 Q. And do you recall Mr. Goodman's testimony
15 regarding the adequacy of the crude supplies for
16 Washington refineries and, therefore, his conclusion
17 that Washington refineries will not need crude oil from
18 the terminal project?

19 A. I recall that.

20 Q. And do you agree with that conclusion?

21 A. I disagree with that conclusion. I disagree
22 with many parts of Mr. Goodman's testimony, but I'll
23 limit my response to some factors that relate to that
24 specific question in regards to the supply of crude to
25 the Washington refineries.

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1 I feel like Mr. Goodman diminished the
2 significance of the decline that's ongoing in the ANS
3 crude supply. I think he overestimated the ability of
4 other pipelines to supply whatever deficiencies might
5 exist because of that decline. And I don't think that
6 Mr. Goodman properly characterized the way that refiners
7 optimize their refineries in a system like we have.

8 **Q. Let's start with the Alaska North Slope, or ANS,**
9 **supply. You mentioned that was one of the reasons why**
10 **you disagreed with Mr. Goodman.**

11 **What is your response to his testimony regarding**
12 **the Alaska North Slope crude supply and his expectation**
13 **for that source as a continuing supply for Washington**
14 **refineries?**

15 A. Mr. Goodman based his testimony on a fairly
16 narrow view of the timeframe involved. He quoted I
17 think it was 2020 as a reference year to evaluate the
18 impact of decline between now and 2020. He did extend
19 that to 2025 and increased that a little bit. But that
20 is still a very narrow window of time as it relates to
21 the Vancouver Energy project, which has a 20-year
22 history.

23 And so both of those dates aren't even to the
24 halfway point, even to the midway point of the project
25 duration that the VE terminal has. He did apply a

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1 decline rate that's similar to what I was expressing in
2 my prefiled testimony.

3 But if you continue that decline beyond what
4 Mr. Goodman did and if you continue that decline on
5 through the rest of the VE terminal project life, you're
6 looking at a decline of some 55 percent from where we
7 are today in the ANS crude production. And last year
8 the EIA published or documented that the production of
9 ANS North Slope crude was 483,000 barrels a day.

10 So, and I'll have to kind of make a side note,
11 that's actually less than I had put in my prefile. So
12 the decline rate is pronounced.

13 Now, if you take 55 percent of 483,000 barrels
14 away, that means you're taking away some 260,000 barrels
15 of crude supply out of the system because of the natural
16 decline in the ANS field. That's about the amount of
17 crude that the Washington refineries feed today. That's
18 about their feed rate.

19 So that's a significant amount of volume
20 removed, and it only leaves about 220,000 barrels a day
21 of crude oil which will then have to be competed for by
22 the remaining refiners.

23 **Q. So can you describe briefly who might be**
24 **competing for that ANS supply?**

25 A. Well, all the refineries that are taking Alaska

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1 North Slope crude today would be competing for the
2 remaining volume that's left. A lot of the refineries
3 on the West Coast were designed for Alaska North Slope
4 crude, so they have a natural appetite for it.

5 In Mr. Goodman's testimony, he somewhat
6 simplistically implied that that decline would get
7 pro-rated across the various consumers, but that's not
8 the case that really happens because each refinery that
9 exists today has its own appetite for Alaska North Slope
10 crude, or for any crude for that matter. So they will
11 value those crudes differently. And it's very hard to
12 predict how that competition will happen, but it's a
13 little simplistic to state that it would be prorated
14 across those competitors.

15 **Q. So do Washington refineries have any assurance**
16 **they will continue to get access to this declining ANS**
17 **supply?**

18 A. There's one of the refiners in the State of
19 Washington that might have a first call or probably does
20 have a first call on production today. That's because
21 they are also an operator in the North Slope field and a
22 co-owner of the Trans-Alaskan pipeline. So they would
23 tend have a first call.

24 If they continue that business model, I have to
25 say that company has demonstrated an ability to sell

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1 assets. So assuming that that business model were to
2 stay in place for 20 years, could be a stretch.

3 But that's the only call that anyone might have
4 on ANS crude, but it's a sizeable call that they have on
5 it. So that the rest of the refiners, of which my
6 company would fall into that category, could see their
7 source of Alaskan North Slope crude diminish entirely.

8 **Q. You mentioned one in Washington. You say the**
9 **rest of the refineries there.**

10 **How many other independent refining companies**
11 **operate in the State of Washington?**

12 A. Well, you have the Tesoro facility, you have
13 Conoco-Phillips -- not Conoco-Phillips. It's now
14 Phillips 66, which is an independent refiner; Shell,
15 which we would consider a major -- (Court reporter
16 interruption.) Shell; and then U.S. Oil. So those
17 would be four of the independent.

18 **Q. And they would not have any --**

19 A. They have no call upon -- no automatic call upon
20 the source of ANS crude.

21 **Q. My next reminder is let me finish my question,**
22 **even though you anticipated it, but let me finish my**
23 **question before you continue or the court reporter will**
24 **look at us cranky. Next question.**

25 **Are there other factors which might impact the**

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1 reliability of the ANS supply over the life of the
2 Vancouver Energy Terminal project besides the declining
3 trend you just described?

4 A. One of the more problematic issues that we're
5 faced with on that pipeline is that we're -- especially
6 as we have gone below the 500 level, 500,000 barrels a
7 day, as we drift lower we're getting even slower and
8 slower velocities and that pipeline. The pipeline is
9 slowing down. And the low flow state that we're getting
10 close to becomes problematic.

11 I could put this in laymen's terms that when the
12 pipeline is flowing full, it's going about as fast as a
13 world-class marathoner. It's going about 12 miles an
14 hour, and that's about what a world-class marathoner
15 runs.

16 Today you can walk across Alaska faster than
17 that pipeline is flowing. So as it slows down and the
18 harsh environment of the cold and the various aspects of
19 where it's built, you have problems with the oil getting
20 too cold, you have some corrosion problems; a lot of
21 problems that start to create issues for reliability of
22 that pipeline, the lower and lower the flow gets. So as
23 that ANS crude declines, these low flow issues get to be
24 a bit more of a problem.

25 **Q. So have you or the industry or the energy**

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1 department sort of looked at this low flow issue and
2 made some predictions about what they think might be
3 happening?

4 A. The EIA has periodically looked at that. They
5 did a study in 2012 that specifically looked at this
6 problem five years ago, and we're anticipating what were
7 the conditions that might exist into the future. They
8 did an analysis of what the viability of what that
9 pipeline would be at a high-price environment. They did
10 a reference case, but they also did a low-price
11 environment case.

12 So what would the viability of that pipeline
13 look like in a low-price world? And in that study, in
14 2012, they concluded that there would come a critical
15 point around 2027, which is well within the VE project
16 window, where that pipeline was going to be faced with
17 significant challenges.

18 Now, I have to point out that that was the
19 low-price scenario that they did then, but we are
20 actually below that low-price scenario today. So it's a
21 very real problem in terms of what can happen with that
22 pipeline as it continues to get slower and slower and
23 slower. And that's a function of ANS production
24 declining.

25 Q. So you mentioned that was a 2012 study. Has EIA

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1 looked at this question since 2012?

2 A. Yes. They periodically update that and they
3 even update their price cases. They have actually moved
4 that date, what I'd call forward in time, closer to us,
5 they've moved it up to 2023, 2024, of when they show
6 that pipeline going to a de minimus or no flow.

7 **Q. So if that occurs, as the EIA says might occur,**
8 **what will that mean to the ANS supply to the Washington**
9 **refineries?**

10 A. The EIA is saying it might occur, which is
11 basically what I'm intimating too. It might occur.
12 There's actually probably three scenarios.

13 You have the best-case scenario is that
14 investment gets made, which is what would be needed to
15 make the pipeline viable, is you put more investment in.
16 You either put heaters into it or additional -- some
17 sort of -- I don't know if it would be looping or
18 whatever, but it helps that low flow situation continue.

19 So that's the best case is that investment gets
20 made and the pipeline continues. That does not remove
21 the trend of the production, right, but at least it
22 solves the problem of a disruption because of the pipe.

23 A more likely scenario is that some investment
24 gets made, but since it's unknown what that's going to
25 look like, what problems are really going to occur, it's

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1 going to take some time to get the problem solved
2 correctly. And in that case, the pipeline operation
3 could become very intermittent or face reliability
4 issues where a corrosion issue shuts it down for a time
5 or some icing up or whatever. So the pipeline as it
6 gets slower, as the most likely case, just becomes a bit
7 less reliable as a source.

8 Again, the decline is still continuing, but the
9 pipeline as a source of crude becomes a reliability
10 issue.

11 And then the worst case would be you get to that
12 low flow problem, investment can't fix it, and then
13 there's a disruptive event where the pipeline just
14 stops. And that means ANS would go away. Now, that's a
15 worst case. And we don't know exactly how that would
16 track, but it's tracking toward that type of decision.

17 **Q. Ever the optimist, I want to ask you one**
18 **follow-up question on the more likely scenario.**

19 **If the supply becomes more erratic, it sounds**
20 **like it may flow some days, it may not flow other days,**
21 **it may be shut down for maintenance, I believe you said,**
22 **how will that impact the Washington refineries' ability**
23 **to produce product?**

24 **A.** One of the things that was drilled into my head
25 when I was a refinery engineer was that it's all about

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1 reliability. Refineries run best when they run
2 constantly, and so reliability in supply, reliability in
3 operation, reliability in placement of product is the
4 underpinning that makes for a good refinery and a good
5 refinery run.

6 So if the supply becomes erratic, that becomes
7 problematic for the refiner to schedule correctly. It's
8 also very disruptive in the market for a crude to become
9 available and not be available and then be available.
10 So it's very disruptive to the market also.

11 **Q. Let me now go to the best-case scenario. So if**
12 **new investment is needed in the pipeline to address the**
13 **low flow situation, what will that mean for the price to**
14 **ship ANS crude to Washington refineries?**

15 A. Somebody has to pay for that investment, right?
16 So if investment is needed to resolve a situation like
17 the low flow property, typically you would try to recoup
18 that in the price of the product, which in this case is
19 Alaskan North Slope crude. But the market can value
20 Alaskan North Slope crude at a certain point, and it
21 will not pay above that.

22 Because if a producer tries to get significantly
23 more for their crude than its value to the refiner, then
24 the refiner just will choose a different alternative,
25 and that then effectively caps the value that a crude

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1 oil can attain in the marketplace. It's a very narrow
2 band that that crude could have in the marketplace.

3 If that's the case, then it's left to the
4 producers, the royalty owners or just the stakeholders
5 in the ANS crude production chain to determine if they
6 want to absorb the costs of those investments. If you
7 have a high-price environment, you can perhaps do that.
8 But if you're in a low-price environment, like we are
9 today, then there's much less room to make that type of
10 investment, and it forces that decision earlier.

11 And that's the situation that exists for the
12 low-price world and why the EIA is looking at that and
13 saying in about 2023 that gets to be very problematic.

14 The real issue here is that the pipeline has
15 existing costs already just to operate it. Now you're
16 layering on an additional layer of costs to fix the low
17 flow problem, but your production and the amount of
18 volume that you get to apply those costs to is shrinking
19 and shrinking and shrinking. So the cost per barrel is
20 starting to rapidly escalate as that goes down. And
21 that's the point that it gets to be problematic to keep
22 the pipeline running.

23 **Q. Based on your explanation of the state of the**
24 **Alaskan North Slope supply, what is your opinion about**
25 **whether Washington refineries will need crude oil from**

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1 the Vancouver Energy Terminal?

2 A. I think that the Washington refineries will
3 benefit from crude from the VE terminal, and it really
4 takes us to a couple of different situations. This
5 facility is actually well-positioned to provide benefit
6 in what we have seen to be two different worlds.

7 Two or three years ago crude oil was \$100 a
8 barrel to \$110. We were in that high-price world. In a
9 high-priced world, that incentivizes production in the
10 mid-continent of the United States and that provides the
11 source of an attractive, good, light sweet crude oil
12 that benefits the West Coast refiners and the Washington
13 refineries.

14 In a low-price world, you have a situation where
15 the source of your existing supply is increasingly
16 challenged because of that low-price world, and this
17 facility, this Vancouver Energy facility, serves as a
18 backstop for a potential eventuality, if I can say that,
19 for a real possible situation of an interruption or, at
20 best, a very unreliable source of that crude.

21 So it backstops the low-price world and it gives
22 incentive in a high-price world. So that's kind of a
23 unique opportunity in that regard.

24 **Q. And then does what you described as the low flow**
25 **problem and the first rights that are available to, I**

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1 think you said one refinery, does that add to that
2 complexity?

3 A. It adds to the complexity because now you've got
4 one -- if a person had that first call and could garner
5 the bulk of that supply for their own use and the rest
6 of the refiners like in the Washington state would have
7 to be scrambling, so to speak, for their supply of
8 crude, since that producer would be garnering all of
9 that.

10 **Q. I want to switch topics.**

11 I believe the second reason you mentioned is you
12 disagreed with Mr. Goodman's view of pipeline ability to
13 serve the Washington refineries. Can you explain what
14 you mean by that?

15 A. I disagreed with the emphasis that Mr. Goodman
16 put on the ability of Trans Mountain to provide
17 additional supply. The Trans Mountain pipeline is the
18 pipeline that brings oil from Edmonton down to the
19 Vancouver area and has a spur that comes into
20 Washington.

21 That facility -- I mean that pipeline runs full.
22 It's about a 300,000 barrel-a-day pipeline, and it's
23 full. About half of that branches off and supplies the
24 Washington refiners, but there's no additional volume to
25 be had from that pipeline. So that's not an additional

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1 source of volume.

2 They have proposed to expand that pipeline, but
3 that expansion, the project plans for that expansion are
4 quite uncertain. They're highly litigated and they're
5 not nearly secure enough to count as a planning basis.

6 Q. Let me just make sure I'm understanding the
7 point.

8 So the existing pipeline is operating full. Is
9 that what you said?

10 A. Correct.

11 Q. So if we experience the scenario you talked
12 about with ANS, we lose volume to the Washington
13 refineries, are you saying we can't look to the existing
14 pipeline to replace that supply?

15 A. No.

16 Q. I think the third reason you said you disagreed
17 is that Mr. Goodman was characterizing Washington
18 refineries as a single refinery. And I think you
19 mentioned characterizing them as a system and you might
20 have even said it optimizes a system.

21 Can you explain what you mean by that?

22 A. Yes, I can. In his testimony, Mr. Goodman
23 referred or referenced how a refinery will look at their
24 processing and optimize their facility. When we talk
25 about optimizing a refinery, we're looking at how the

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1 refinery was basically made, what it was designed for.
2 Can we get crude oil that matches that design crude?

3 And then we look at the market and say, what
4 does the market want? Does it want more gasoline? Does
5 it want more diesel? More jet fuel? And that's a
6 constantly evolving mixture of parameters.

7 So we run an optimization that tells us
8 continually what is the best combination of variables to
9 optimize so that we can make the most of the best
10 product. So that's an optimization.

11 And Mr. Goodman characterized that for how a
12 single refinery would do that type of optimization, but
13 he didn't extend it to the way it really works in most
14 of the systems on the West Coast. And that is because
15 the optimization that you get with a single refinery
16 will start to look different when you start adding
17 another refinery to the ability to optimize.

18 So you think about having two refineries that
19 can trade streams between each other. That then allows
20 one refinery who has a different design basis to
21 compensate for the weakness of the first refinery or the
22 other refinery. And it's a true example of synergy that
23 can happen between refineries that can optimize as a
24 system together as opposed to two refineries optimizing
25 separately.

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1 So that's a step that Mr. Goodman didn't take,
2 but it's relevant to this situation because several of
3 the refiners on the West Coast have multiple refineries.

4 **Q. You may have already just answered this**
5 **question.**

6 **So how does that work for Tesoro's refineries on**
7 **the West Coast?**

8 A. Tesoro has four refineries. We have a total of
9 738,000 barrels a day of capacity split between four
10 refineries: Kenai, Anacortes, the San Francisco Bay
11 area, and Los Angeles. So we have four refineries.

12 But we do not operate those four refineries as
13 four separate entities in their own little silo, each
14 one optimized for its own circumstance. Rather, we
15 consider that to be one refinery.

16 So one refinery unit that optimizes across that
17 whole set of refineries and capitalizes on the strengths
18 and compensates for the weaknesses of the other
19 refineries. So if you have, one of our refineries were
20 to go down, say something takes a unit down. The other
21 three are able to compensate for, to a degree, that
22 refinery that goes down.

23 But also if you're provided with the potential
24 new feed stock, maybe it's a new crude from the Far East
25 or something like that. You're able then not to have to

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1 place it to one refinery, but you can actually split the
2 benefit of that crude across the system to the
3 betterment of the whole system.

4 That's the situation that the Vancouver Energy
5 Terminal is feeding into when it makes available to our
6 refinery system a light sweet crude oil from the
7 mid-continent of the U.S. That's a crude that has some
8 benefits. It may have some benefit to each one, but as
9 a whole, now we can place the benefit to where it gets
10 the maximum impact on our operations. And as it does
11 that, all the refineries in that system benefit,
12 including the refinery in Washington.

13 So if I could extend that just a little bit, if
14 we get into the situation where ANS is declining, and we
15 have an appetite for that down in California and
16 Vancouver Energy is not there, then that creates an
17 issue of where do we place that. But if Vancouver
18 Energy then can bring in light sweet crude, we might
19 find that that is beneficial to take to California and
20 keep that ANS crude up in Washington. And it would only
21 do that if it was beneficial to the whole, and it would
22 be beneficial to the refinery in Washington at the same
23 time.

24 So because we operate our refineries not as
25 individual plants but as a system, we're able to gain

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1 additional value from projects like Vancouver Energy
2 that help deliver value to the system and not just to a
3 single refinery.

4 So I can have the situation where all -- I can
5 take Mr. Goodman's situation where all the molecules
6 flow to a California refinery. The only situation --
7 the only way that that would be done from a planning
8 basis was if that raised the value for the whole system
9 and all the refineries would benefit from that.

10 There are other market situations, could be from
11 a spec change or from a market price change or whatever
12 that might move those molecules to move up or down that
13 chain. So because of the systemic nature of the way we
14 run our plants, it's a different value proposition. It
15 makes it very hard to predict where those molecules will
16 go, but they benefit all the refineries in that mix.

17 **Q. And so that's Tesoro. You mentioned earlier**
18 **there are I think you said three other refiners in**
19 **Washington.**

20 **Does the same approach apply to those, as far as**
21 **you know?**

22 A. There are other refiners who have also multiple
23 facilities and would naturally operate their systems --
24 I mean operate their refineries as a system. It is a
25 strategic decision, but most refiners that I know make

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1 that decision because it is a stronger operating model.

2 So most refiners like you would have Phillips 66
3 refinery, you would have Shell refinery who have sister
4 plants or partner plants in other parts of the West
5 Coast would have the same phenomenon. So it's not a
6 Tesoro specific event. We just have the biggest system
7 and it's very applicable to us.

8 **Q. So I think to get to the nut of Mr. Goodman's**
9 **testimony, is he wrong when he states that none of the**
10 **crude oil passing through the Vancouver Energy Terminal**
11 **will go to Washington refineries?**

12 A. He is wrong. There's no way to -- there's
13 really no way to predict that over the lifetime of this
14 project. Over the lifetime we will see, as I testified
15 earlier, we're going to see a wide array of prices.
16 It's very, very hard to predict.

17 What's very interesting is that this project has
18 a function in both the high-price and the low-price
19 environment. But it also does something else, I think.
20 And that is, the Washington refineries have had four
21 decades of reliable crude supply available to you
22 consistently. It's reliable, it's plentiful, it's
23 economical.

24 Four decades that that has been there. But that
25 world is going away. Just from the math that I was

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1 going through earlier, that crude, irrespective of what
2 happens with the low flow thing, that crude oil is
3 diminishing.

4 So as you look at the Vancouver Energy project,
5 I would encourage you to look not so much at what the
6 value add may be as much as what the value preservation
7 is. It is preserving the capability that the Washington
8 refiners have had to access a reliable, stable amount of
9 crude from the home team. And that's what this project
10 portends to do is preserve that access.

11 **Q. So let me -- Mr. Goodman sort of at one point**
12 **wrapped up his testimony by basically explaining why the**
13 **terminal was a bad deal for Washington.**

14 **What is your response to that statement?**

15 A. I think that it's a good deal for Washington.
16 There's not many times when you will have a project that
17 can function for the community or for the economy in a
18 variety of cases like this one will do. Its ability to
19 bring value in a high case, its ability to be a backstop
20 in a low-price environment case, and it also provides
21 ostensibly a bridge to the future as other crudes may
22 become available, such as a crude like a biocrude or
23 something like that that the future may have in the
24 offering.

25 **Q. Switching gears just a little bit.**

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1 Mr. Goodman testified that crude-by-rail is one
2 of the most price sensitive activities in the petroleum
3 industry and that given current prices crude-by-rail
4 does not make sense.

5 Do you agree with that statement?

6 A. I disagree from the standpoint that establishing
7 decisions based upon what the costs of crude-by-rail
8 have been is problematic, from the standpoint that
9 crude-by-rail was just one part of a wide supply chain
10 that was associated with shale oil crude and the
11 revolution that occurred in shale oil crude from 2012
12 through even today.

13 There are not many segments of that supply chain
14 at that didn't have hyperinflation of costs, and some of
15 those costs have been locked in and they locked them in;
16 the providers locked them in as much as they could. And
17 I call that a period of irrational exuberance, to borrow
18 a phrase from our federal reserve chairman.

19 And a lot of the costs that were embedded in
20 that structure were established during that timeframe.
21 In using those costs, there's not much that does look
22 economic. But those costs are coming down, those costs
23 are declining.

24 And I think even Mr. Goodman in his testimony
25 conceded that those costs were coming down. So as those

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1 costs come down then we start to see that crude-by-rail
2 from the North Dakota area to the Pacific Northwest is
3 viable. In fact, we're getting to a period, we're
4 getting down on costs now to where the cost to rail
5 crude out to Washington is becoming comparable with what
6 it costs to get the marginal barrel out of North Dakota
7 and down to the Gulf Coast.

8 **Q. I want to just close with a couple of questions**
9 **that Mr. Goodman was asked by council in their**
10 **questioning.**

11 **First, Mr. Goodman was asked whether he would**
12 **expect the Vancouver Energy Terminal to become obsolete**
13 **in 20 years, life of the project, given the price of**
14 **crude and the fact that more cost effective pipeline**
15 **infrastructure is coming online to transport Bakken to**
16 **other refineries.**

17 **What's your thought on that?**

18 A. I do not see the terminal becoming obsolete for
19 at least three factors. One is its ability to operate
20 in the high-price environment, and to be valuable in
21 that world, to be able to bring that crude oil from
22 those sources to the West Coast.

23 I believe it would be functional in the
24 low-price world to stay -- to be the backstop for any
25 problems that occurred with the low flow case for the

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1 Alaskan North Slope crude which the low-price world
2 exacerbates.

3 And the third one I just referred to, I'd like
4 to expand just a little bit more, because it relates to
5 obsolescence. Most of the things that we talk about
6 that grow obsolete are because they are replaced by
7 something better. Technology, phones and things like
8 that are the best example, right?

9 The oil industry has been benefitted by
10 technology throughout its history. In fact, if you step
11 back and look at the oil industry itself, it is not so
12 much a grit-and-grime story as it is a technology-driven
13 story. Technology has enabled better, more productive,
14 more intelligent, more efficient ways of getting oil out
15 of the ground as a resource.

16 That technology growth is going to continue and
17 it's going to start opening up other avenues. And this
18 ties into what I was referring to a little bit earlier
19 as the potential to get to a world where biocrude is a
20 reality.

21 Even here in the State of Washington at the
22 Pacific Northwest National Laboratory, which is I think
23 a two- or three-hour drive from here toward the west
24 part of the state, they have been developing some very
25 promising technology there. It's called liquefaction of

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1 biomass, and that liquefaction takes biomass and moves
2 it towards being a biocrude.

3 So if the good people in South Dakota see that
4 technology and think we can apply that to our corncobs
5 and corn husks and we can start creating biocrude like
6 our brother to the north have been making shell crude,
7 then they can contribute that to the refining structure.
8 Or if the people in Kentucky decide they can take
9 bluegrass and make biocrude out of bluegrass.

10 It may seem like a facetious thing, but I'm
11 saying that for a purpose. Because if a facility like
12 Vancouver Energy can access a biocrude wherever that
13 technology were take hold because of the flexible nature
14 of the supply you can bring to a facility like Vancouver
15 Energy.

16 So we don't know where that technology is going
17 to take root. We expect it to take root. And over the
18 20-year timeframe, with the way technology is moving, I
19 could see that taking place during the life span of the
20 Vancouver Energy project, which gives it a very good
21 avenue for accessing that type of material wherever it
22 arises and bringing that to the refineries in Washington
23 state, which have some very real concerns about using
24 renewable fuels as a basis for the transportation fuels.

25 **Q. Mr. Goodman was also asked by counsel, and I**

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1 don't want to have you repeat everything you've said,
2 but he was basically asked what's the business case or
3 what's the angle for the Vancouver Energy Terminal.

4 Is there some or anything additional you'd like
5 to add for council to consider?

6 A. I think I've hit two or three angles. The angle
7 is basically you have a project here that has a life in
8 a high-price world, it has a life and a function in a
9 low-price world, and it does provide a bridge to the
10 energy future that we're headed toward.

11 **Q. Last question.**

12 **Can you briefly recap how you would compare your**
13 **view of the need for the Vancouver Energy Terminal**
14 **project with Mr. Goodman's view?**

15 A. I felt like Mr. Goodman's view was centered on
16 circumstances that were built around the near term, and
17 I take a long-term view looking across the performance
18 across the full 20 years of what's going to happen on a
19 variety of issues. Mr. Goodman was focused on where the
20 molecules would flow. I'm more focused on where the
21 benefits flow, given that we have a system that can
22 accommodate the -- a crude oil from this terminal in a
23 very systemic way to benefit all of those.

24 Mr. Goodman I felt like underplayed the
25 importance of the ANS decline, and I feel like I have a

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1 much longer term and more pragmatic view of how that
2 decline will look. And I would go so far as to say that
3 if the decline were to go the route of the low flow and
4 we suddenly get to a traumatic disruption in the
5 mid-2020s, then many people will look back and say,
6 Well, didn't we see this coming? And the answer is yes,
7 we do see the potential for that type of event coming.

8 All in all, I felt like Mr. Goodman's view is
9 taking a snapshot of what is going around us today and
10 making some assumptions on it, but not giving full
11 credence to what this project brings over a much longer
12 life span which it is intended to provide.

13 **Q. And I believe you mentioned a phrase earlier,**
14 **"the bridge to the energy future" when you referred**
15 **biocrudes.**

16 **Does that include Washington's energy future?**

17 A. It absolutely includes Washington's energy
18 future.

19 MR. DERR: Thank you. I have no further
20 questions.

21 JUDGE NOBLE: Cross-examination, Ms. Boyles?

22 CROSS-EXAMINATION

23 BY MS. BOYLES:

24 **Q. Thank you, Your Honor.**

25 **Mr. Roach, my name is Kristen Boyles. I believe**

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1 we spoke some weeks ago?

2 A. We met before.

3 Q. Just a few questions.

4 Your prefiled testimony focused on the total
5 PADD 5 supply needs as personified and then uses
6 examples and information by information about
7 California.

8 Are you withdraw that testimony now and
9 replacing it with your focus today on Alaskan North
10 Slope pipelines and biofuels?

11 A. No.

12 Q. Okay. Is the Alaskan North Slope still coming
13 in today?

14 A. Yes.

15 Q. And in this dramatically low-price environment;
16 is that correct?

17 A. Yes.

18 Q. Tesoro Savage has no commitments from non-Tesoro
19 refineries in Washington to use this terminal; is that
20 correct?

21 A. To the best of my knowledge, that is correct.

22 Q. When you discuss refineries working together,
23 you're speaking just within the Tesoro family?

24 A. Yes, because we would be thrown in jail if we
25 colluded, correct.

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1 Q. Thank you. I suspected that was the case.

2 Your ability to supply your multi-state
3 refineries to move oil where it needs to be benefits
4 Tesoro?

5 A. It does.

6 Q. In fact, I believe your testimony was you gain
7 additional value?

8 A. We do.

9 Q. Are you aware of the recent statistics about the
10 current decline in crude-by-rail in the United States?

11 A. Yes, I am.

12 Q. And are you familiar with the report that was
13 entered into the record yesterday with the testimony of
14 Dr. Barkan that showed a 22 percent decline in
15 crude-by-rail over the last year?

16 A. I did not see the document entered yesterday. I
17 saw the one that Mr. Goodman had put together sometime
18 ago.

19 Q. Well, let's just bring it up.

20 MS. BOYLES: Ms. Mastro, that's Exhibit 375
21 at Page 12.

22 BY MS. BOYLES:

23 Q. Would it surprise you if I said that decline
24 showed to be about 22 percent in the last year?

25 A. It would not surprise me that the aggregate for

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1 the U.S. --

2 **Q. The U.S., yes, indeed.**

3 MS. BOYLES: Thank you, Ms. Mastro. That's
4 all right.

5 BY MS. BOYLES:

6 **Q. And four of the five refineries in Washington**
7 **already directly receive crude-by-rail?**

8 A. They have the capacity to receive crude-by-rail,
9 correct.

10 MS. BOYLES: Thank you. I have nothing
11 further.

12 JUDGE NOBLE: You still have no other
13 questions?

14 MS. BOYLES: No, Your Honor. We worked it
15 out without the exhibit.

16 JUDGE NOBLE: Good. Any redirect?
17

18 REDIRECT EXAMINATION

19 BY MR. DERR:

20 **Q. Just one about the CBR decline.**

21 **What's your understanding of what contributes --**
22 **that's a nationwide decline; correct?**

23 A. Correct.

24 **Q. What's your understanding of what -- part of**
25 **what has contributed to that decline in CBR transport?**

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1 A. Well, when I looked into this issue, there was
2 an overall decline, as there has been a narrowing of the
3 crude differentials between the inland refiners and the
4 coastal --

5 **Q. Slow down.**

6 A. -- coastal refineries. But there's several
7 coasts involved. You have the West Coast, the East
8 Coast, and the Gulf Coast, and they all have separate
9 economics and they all have their own view of what the
10 supply of crude-by-rail means to those refineries. And
11 as those differentials have narrowed, the crude-by-rail
12 to the East Coast and the Gulf Coast did decline
13 substantially, whereas there has been some persistence
14 in the crude-by-rail to the West Coast.

15 So on an aggregate basis I'm not surprised that
16 that has declined. But the West Coast crude-by-rail has
17 been reasonably persistent in its volume.

18 MR. DERR: Thank you. Nothing further, Your
19 Honor.

20 JUDGE NOBLE: Council questions?

21 Mr. Stone?

22 MR. STONE: Good afternoon, Mr. Roach.

23 THE WITNESS: Good afternoon.

24 MR. STONE: Regarding the decline of Alaskan
25 North Slope crude and the supply issue that might cause

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1 for Washington refineries, that supply issue would be
2 the same for all West Coast refineries that now use
3 Alaskan North Slope crude; is that not correct?

4 THE WITNESS: It is correct.

5 MR. STONE: Okay. You mentioned that the
6 deficit and feed stock that might be caused by the
7 Alaskan North Slope crude for the Washington refineries
8 could be satisfied by one other source, and that was the
9 Trans Mountain pipeline, and you expressed some
10 reservations about the ability to do that.

11 But as counsel has just asked you about,
12 there's other possible sources for crude feed stock for
13 the Washington refineries that could make up that
14 deficit, including more crude-by-rail from mid-continent
15 crude with existing infrastructure as well as crude from
16 other domestic and foreign sources by ship; is that not
17 correct?

18 THE WITNESS: That is correct.

19 MR. STONE: And isn't it relatively
20 inexpensive to ship crude by ship?

21 THE WITNESS: That depends upon the price
22 environment that we're in, because the transportation
23 costs follow crude costs. So in a high-price crude
24 environment, shipping actually gets more expensive. In
25 a low crude price environment, the shipping gets

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1 cheaper. So there is some dependence upon that.

2 MR. STONE: Okay. I think that's it. Thank
3 you.

4 JUDGE NOBLE: Mr. Shafer?

5 MR. SHAFER: Mr. Roach, thank you for your
6 testimony today.

7 THE WITNESS: Thank you.

8 MR. SHAFER: If the Vancouver Energy
9 Terminal project is not built, will the North Dakota
10 Bakken crude, which I think is the primary source of
11 this project, will that crude oil make it to market?

12 THE WITNESS: The crude oil will make it to
13 market.

14 MR. SHAFER: If the terminal is built, can
15 you say definitively how much of the oil coming into
16 Washington will stay in Washington?

17 THE WITNESS: The oil that comes through
18 that facility could go a variety of directions. I could
19 not say definitively that that oil will stay in
20 Washington.

21 MR. SHAFER: Would it largely stay among one
22 of the four refineries that Tesoro owns?

23 THE WITNESS: We only have commitment for
24 60,000 barrels a day. So "largely" is a relative term.
25 Sixty out of the capacity of the facility is actually

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1 only one-sixth.

2 MR. SHAFER: Do you run demand-supply models
3 such that you can give the council with even a good
4 estimate of the percentage of oil coming into Washington
5 that would stay in Washington?

6 THE WITNESS: That's very market dependent,
7 and so I have to establish a market context for what
8 that would look like. Because that's what drives the
9 balance, and so that's why -- I'm not trying to hedge.
10 I'm just trying to explain that there are some
11 situations. And I referred to in my testimony some
12 potential specification changes that are pending that
13 have impact that could have a very pronounced impact on
14 where those molecules go.

15 I'll talk about it in terms of molecules,
16 where those molecules of oil go. And that's why I'm not
17 trying to dodge your question. I'm saying it's a
18 complex question.

19 You tell me a set of parameters and I might
20 be able to construct a balance. But then understand
21 that in a dynamic market like I have to watch all the
22 time here, it's a constantly changing picture. And I
23 can see times when this type of crude would be very
24 prominently headed to the Washington refineries.

25 MR. SHAFER: And I'm not at all in the

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1 industry, you would know far better than I, and maybe
2 this is too simplistic, but I would think you would have
3 to be watching continually the supply and demand for
4 each of your refineries and would at least have some
5 data in that regard that could be helpful to us which
6 would give some indication that if this product comes
7 into the State, where does it go? How much stays?
8 Where else does it go? Where is it needed? The basic
9 supply and demand models.

10 THE WITNESS: For the refineries themselves,
11 on like how much crude?

12 MR. SHAFER: Even relative to the product
13 that's coming in.

14 THE WITNESS: I'm trying to understand. The
15 supply and demand balance, you're asking for what's the
16 crude slate that we feed to these various refineries?

17 MR. SHAFER: As the product comes in, what's
18 the distribution model of that? Where does it go? Who
19 needs it?

20 THE WITNESS: I'm going to have to clarify
21 the question, because you're asking when the product
22 comes in, and I'm trying to understand, are you talking
23 about throughout the VE terminal?

24 MR. SHAFER: Yes.

25 THE WITNESS: Okay. That's crude oil.

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1 Product means something different to me, so I just want
2 to clarify.

3 You're saying if crude oil came in through
4 the VE terminal, if I could clarify where that might go.

5 MR. SHAFER: Exactly.

6 THE WITNESS: Right. I can if I have a
7 construct for what that market would look like. And
8 I'll refer again, if we're under the specification to
9 produce a low sulfur fuel oil out of our Washington
10 refineries, then there's a very good possibility --
11 probability that that oil will find a home directly
12 there because it really facilitates that production. If
13 we're not under that spec, that's a different market
14 situation. So that is truly a market-driven situation.

15 And that's why I took issue with
16 Mr. Goodman's basic premise that none of the oil's going
17 to go to Washington. Later in his testimony, he
18 acquiesced that yes, some of it could.

19 And it is truly the latter answer that's
20 correct, and that is it's a market-driven situation that
21 drives the value of that crude. And again, we're
22 turning to our system that we have. We are able to
23 place that to the best spot for the use of that, but
24 when we do that, it raises the value of our whole
25 system, and that includes our Washington refineries.

ROACH

1 In other words, if we bring the crude oil
2 in, it could go to Washington. We just say you have to
3 go to Washington, right? That sets a certain optimum
4 value.

5 If we said, okay, now we're going to open up
6 the gates and let it go where it's optimal to go, it
7 could go to California and raise everybody. So
8 Washington would benefit even if the molecule went to
9 California because the system works better to provide
10 the transportation fuels that are demanded.

11 So the Washington refiner could actually
12 benefit from California getting it and reshuffling a
13 better crude to Washington. So in the way I look at it,
14 that benefits Washington even if that molecule were to
15 go to a different state.

16 MR. SHAFER: All right. Thank you.

17 JUDGE NOBLE: Mr. Stohr?

18 MR. STOHR: Good afternoon.

19 THE WITNESS: Good afternoon.

20 MR. STOHR: I've got a couple of questions,
21 Mr. Roach. The first is just understanding the products
22 of the four refineries.

23 Is U.S. Oil is still solely used for jet
24 fuel production, for JBLM; is that true?

25 THE WITNESS: That's not my understanding of

ROACH

1 what they produce. I mean, as I understand, U.S. Oil
2 produces all products. They have a pronounced jet fuel,
3 but they produce all products.

4 MR. STOHR: Thanks. I wanted to check.
5 That may be old information or incorrect.

6 So the refineries have been looking at
7 Alaskan North Slope declines for some time. What kinds
8 of strategies were they considering anticipating that
9 prior to, say, 2009/2010 when the Bakken phenomena hit
10 the streets here, hit the rails?

11 THE WITNESS: I can't speak for the industry
12 in that regard. We're independent refiners and we don't
13 have much visibility upstream to make those changes.
14 That's producer issues.

15 But our due diligence on our part is to look
16 at that situation and go this could be a problem, what
17 is a viable solution for it, and that's where the
18 genesis of this project would come from. As an
19 independent refiner who is the recipient of oil that
20 flows from that production, that upstream environment,
21 that's about the limits of what we can do effectively,
22 not being a producer.

23 MR. STOHR: Do you know what Tesoro was
24 thinking of as they watched the decline in Alaskan North
25 Slope, assuming you didn't have Bakken?

ROACH

1 THE WITNESS: Assuming that the shale oil
2 revolution never happened? You raise an interesting
3 point, actually. Because what's happening there is what
4 we're faced with, because we have refineries in other
5 parts. Washington and Alaska are not our only ones.

6 So how do we feed Martinez? What do we do
7 with L.A.? We have to be out there competing with the
8 Chinese and a variety of other people who are going
9 after crude oil and consuming it in a very competitive
10 and aggressive market.

11 So this goes back to my comments about
12 what's going away for Washington. As that supply for
13 ANS goes away, that's going to expose those Washington
14 refineries more and more to that very competitive and
15 volatile crude oil market. So that's what I'm saying.

16 You actually have the benefit for decades of
17 a relatively stable supply. But that's diminishing and
18 right now there's not much that's going to change that.
19 So that's going to force those refiners to be -- not
20 that they're already not out there. I don't mean to
21 imply no one has seen this coming, but it's going to
22 exacerbate or amplify that situation.

23 These refiners are going to have to be
24 competing in the global market, and also, I have to say
25 that it sounds easy and it sounds like, hey, you can put

ROACH

1 it on a boat and get it. Those boats take a long time.
2 It takes a boat four months. You have to plan like four
3 months in advance to get some of these crudes purchased,
4 loaded and transported great distances around the world.

5 There's a big market exposure during that
6 time. If crude oil prices are rocking and rolling, then
7 you have a real market exposure on that transport. So
8 not only is it -- is there a cost to transport, which
9 was referred to earlier, but there's a market exposure
10 which can be a big cost in that decision too. So it's a
11 very complex decision and much more -- easier said than
12 done.

13 But that's what happened had the Eagle Ford
14 shale, the Bakken, the Niobrara, had they not come along
15 as our domestic crude continued to decline, we were
16 going to be more and more bringing in middle of foreign
17 crude oil.

18 MR. STOHR: So if Alaskan North Slope goes
19 away, the four refineries in the State would be looking
20 for a greater share of the Bakken oil, I'm hearing you
21 say that, and if that's the case, why would it make
22 sense to not just leave it on the train all the way up
23 to the refineries instead of bringing it here to
24 Vancouver and putting it in a tanker and driving it up
25 the coast?

ROACH

1 THE WITNESS: That's a good question. But
2 the capacity of those rail facilities is not sufficient
3 to cover that need fully. There's 180,000 barrels of
4 capacity today, I think. The working capacity tends to
5 be less. You know, you have a stated capacity, the
6 nameplate capacity, but because of inefficiencies and
7 issues, the operability, the operating level, the
8 working capacity tends to be below that. So you're
9 looking at at 150,000, maybe 160,000 barrels a day
10 working capacity.

11 That's just a portion of the overall crude
12 oil capacity and the need. Even when you factor in
13 Trans Mountain, you still have a couple thousand barrels
14 of demand that's got to come from somewhere.

15 MR. STOHR: Let's see, a couple more
16 questions.

17 You talked about the impacts to Alaskan
18 North Slope continuation in a low-priced world. I mean,
19 doesn't a low-price world imply that crude oil is
20 plentiful and cheap?

21 THE WITNESS: It implies that there is an
22 adequate supply -- it's two factors, and you have to
23 pardon the economist in me is coming out on this one.

24 Part of it is that there is a supply of
25 crude oil. Some of that is our own from the home team,

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1 but some of it, and the vast majority of it, is from
2 other places.

3 The other factor, the other thing that
4 factors in to that is just value of currency and
5 dollars. So some of what we see right now, the
6 low-price environment, is the foreign exchange rates and
7 the currency and things related to the strength of the
8 dollar. Some of it is crude oil fundamental of supply
9 and demand which you're referring to.

10 MR. STOHR: And then you talked about the
11 role for the facility in a high-price world. Could you
12 explain that to me again?

13 THE WITNESS: Yeah. I'm glad you asked that
14 from the standpoint of I wanted to make sure what I was
15 inferring there.

16 In a high-priced environment, I'll just say
17 you go back to the \$100 level, which is what we've seen,
18 then that incentivizes those producers in all those shale
19 oil places, and other places, to get back out there and
20 start drilling, and you start to see production go up.

21 We do have a good amount of infrastructure
22 that's been put in place in the mid-continent of the
23 United States to handle additional flow, and that
24 volume, though, as it goes back up, if it gets anywhere
25 near where we were and even goes beyond, which is what

ROACH

1 was expected by consultants, then you fill up that
2 volume or you fill up or you fill or partially fill that
3 infrastructure. And that starts to put pressure on the
4 differentials to widen out. Because it's always the
5 last barrel that clears through the next -- the least
6 efficient or less efficient route that sets -- that
7 makes the price differentials widen out.

8 So as those infrastructure facilities start
9 to fill up, some of them get fill. The efficient ones
10 fill up first and then the inefficient ones start to
11 fill, and they are the price setters.

12 And because of the proximity of the Pacific
13 Northwest to North Dakota, you have a geographic
14 advantage, basically. So even though rail is all we've
15 got, we don't have a pipeline, rail is what you've got,
16 because of the proximity of North Dakota to PNW, that
17 rail cost is the lesser of any of those other coasts.
18 So that's why it has some persistence in it. I'm not
19 sure if I'm answering your question.

20 MR. STOHR: I think you got it. I
21 understand. Thank you.

22 JUDGE NOBLE: Mr. Snodgrass?

23 MR. SNODGRASS: Just one question.

24 Does Tesoro Anacortes take crude-by-rail
25 currently from any non-Tesoro or Savage feedstock?

ROACH

1 THE WITNESS: I don't know the answer to
2 that.

3 MR. SNODGRASS: Okay. If they did -- okay,
4 I'm sorry. Go ahead.

5 THE WITNESS: I'm thinking that we do
6 occasionally pull distressed cargo from somewhere else.

7 MR. SNODGRASS: Okay. For not distressed
8 cargo, for mainstream in the industry of purchasing
9 crude from other company sources, when is that -- when
10 do you make that call? When do you -- when was oil
11 that's coming in to say any of the current -- crude oil
12 coming into any of the current Washington refineries
13 from a source different than themselves, when would they
14 have made that purchase? When would they have
15 contractually bought that oil?

16 THE WITNESS: That's a bit of an open
17 question because there's different -- and I'm not -- I'm
18 actually not on the contracting side of the business,
19 but you can have a term contract or you can have a spot.
20 It could be a spot deal.

21 So you may have set up a deal with somebody
22 that's long-standing to buy oil from them out of their
23 gathering system, that would be your contract, and
24 that's set up in advance and it's just driven if supply
25 becomes available. Or you may have either a distressed

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1 cargo or somebody just says, hey, I've got some oil for
2 sale and you do it on a spot basis.

3 MR. SNODGRASS: Not on the spot, but more on
4 the what I assume is the predominant sources, when would
5 that decision have been made to purchase that oil?
6 About? Is it a matter of a year? Six months? Two
7 years?

8 THE WITNESS: Well, the industry is
9 relatively new for one thing, so we can't go too far
10 back, right? But I'm going to have to say that I'm --
11 it's a little bit out of my domain from the standpoint
12 of contract management and the establishment of
13 contracts to that degree. I simply would be speaking
14 where I don't have the domain knowledge. I could give
15 impressions, but I don't know that that's what you're
16 wanting right now.

17 MR. SNODGRASS: Thank you.

18 JUDGE NOBLE: Mr. Moss?

19 MR. MOSS: Thank you.

20 Mr. Roach, did I hear correctly that you
21 said low-price world challenges Alaskan North Slope
22 production?

23 THE WITNESS: It does.

24 MR. MOSS: Doesn't it also challenge Bakken
25 production?

ROACH

1 THE WITNESS: It does.

2 MR. MOSS: It's expensive to produce the
3 shale oil, isn't it?

4 THE WITNESS: It's interesting that you ask
5 that. It has been, and when we first got into this
6 shale oil revolution a couple years ago, we were looking
7 at break-even costs of 60 bucks a barrel. If you go to
8 the Department of Mineral Resources in North Dakota now,
9 they're showing that's 40 bucks.

10 There's been a decline as these costs have
11 come down and gotten better. So we expect that trend to
12 continue, so those prices have come down.

13 MR. MOSS: You also talked about the cost of
14 transport. You said the cost of transport follows the
15 cost of crude.

16 THE WITNESS: On ships. Well, in rail too,
17 yes.

18 MR. MOSS: That's true across transportation
19 sectors, isn't it?

20 THE WITNESS: Correct.

21 MR. MOSS: Rail, pipeline, ships, barge,
22 whatever it may be; right?

23 THE WITNESS: Right.

24 MR. MOSS: Now, as I understand it, there
25 has been additional pipeline capacity coming into the

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1 Bakken and perhaps there's yet some more to come, and so
2 Bakken oil is also flowing to the Gulf Coast, isn't it?
3 Is it flowing to the East Coast?

4 THE WITNESS: Not by pipe.

5 MR. MOSS: Yeah, just in the Gulf Coast.

6 And so that oil that's flowing to the Gulf
7 Coast, the Bakken oil, that would be available to the
8 world market, wouldn't it?

9 THE WITNESS: It could be. The U.S. open --
10 the federal government opened up export so you can ship
11 any crude.

12 MR. MOSS: Right. In fact, I think the day
13 after that became the law the first two shipments went
14 out of the Houston ship canal overseas.

15 THE WITNESS: I was thinking it was from my
16 hometown of Corpus Christi, but it might have been
17 Houston.

18 MR. MOSS: It may have been Corpus. I'm not
19 sure.

20 And that oil that's going down to the Gulf
21 Coast by pipeline could also be put on a barge and
22 brought out to the West Coast, couldn't it?

23 THE WITNESS: It would have be to a Jones
24 Act ship.

25 MR. MOSS: Yes, it would.

ROACH

1 You're going to be using Jones Act ship for
2 this terminal, aren't you?

3 THE WITNESS: Over a significantly different
4 distance and time commitment.

5 MR. MOSS: It's a shorter distance to be
6 sure.

7 THE WITNESS: It's a substantially shorter
8 distance.

9 MR. MOSS: I'm trying to get at the question
10 of whether -- and maybe you haven't analyzed it to the
11 point where you can give an answer confidently, whether
12 that would be a viable option for the West Coast
13 refineries. If there were sufficient pipeline capacity
14 to move the Bakken crude, the producers might favor
15 using the pipelines because they can get their product
16 to market more cheaply, make it more competitive I guess
17 is the way to put it. But then if the West Coast
18 refineries have a strong need for this particular
19 product, crude -- I shouldn't say product, should I --
20 for this particular crude, then that is an option, isn't
21 it, to bring it out by barge, Jones Act barge or ship?

22 THE WITNESS: It is an option. It would
23 typically not be an economic option.

24 MR. MOSS: Well, that was what I was getting
25 at. So you don't think it would be an economic option?

ROACH

1 THE WITNESS: No, sir.

2 MR. MOSS: Okay. Tesoro has refineries
3 elsewhere in the United States, doesn't it?

4 THE WITNESS: We have the four that I
5 mentioned on the West Coast, and we have one in Salt
6 Lake City, we have one in Mandan and we just added a
7 small refinery next door to Mandan.

8 MR. MOSS: Okay. Thank you.

9 Do you optimize the activities of those
10 other refineries with those on the West Coast or is it
11 two cellular systems?

12 THE WITNESS: They're not conducted well
13 enough to be able to do that. If we could and to the
14 degree that the Salt Lake City refinery actually feeds
15 into a market that ostensibly one of our refineries do,
16 we would do some comparison there, but because they're
17 so geographically separate, we cannot operate those.
18 There's not the connective that you need between those
19 inland refineries and what we have on the West Coast.
20 With Jones Act barges, we can shuttle intermediates and
21 things around.

22 MR. MOSS: Are there other refineries -- and
23 you seem to have your finger on the pulse of this pretty
24 well in terms of national, international, so I'm trying
25 to ask you about some other places in the United States.

ROACH

1 And I'm wondering if refineries in the Gulf
2 or perhaps in New Jersey also have an appetite for light
3 sweet crude?

4 THE WITNESS: They do more predominantly in
5 the East Coast, and that's where we really saw the surge
6 of activity go because they did have an appetite there.
7 In the Gulf Coast, which is where my stomping grounds
8 were, they're really geared toward more heavy type
9 crude.

10 But the problem with the Gulf Coast is you
11 have the Eagle Ford shale sitting right on top of it.
12 So any need that they would have for light sweet crude,
13 the Eagle Ford shale is in the way of Bakken, as well as
14 Permian. So you've got all the light sweet crude that
15 you need for the Gulf Coast from areas much closer than
16 North Dakota.

17 MR. MOSS: Texas is still the king of oil?

18 THE WITNESS: North Dakota is making a run
19 at it.

20 MR. MOSS: I think that's all I had for you.
21 Thank you very much.

22 THE WITNESS: Thank you.

23 JUDGE NOBLE: Mr. Stephenson?

24 MR. STEPHENSON: Thank you.

25 Mr. Roach, is it fair to say that Washington

ROACH

1 state is a net exporter of refined product?

2 THE WITNESS: Refined products taken as a
3 whole? If you want to aggregate your high value and
4 your low value products together and put them in one
5 basket, yes.

6 MR. STEPHENSON: Thank you.

7 JUDGE NOBLE: Mr. Rossman?

8 MR. ROSSMAN: Following up on that, is
9 Washington a net exporter of high-value refined product?

10 THE WITNESS: Which high-valued product?

11 MR. ROSSMAN: Whatever you class as the
12 high-value products.

13 THE WITNESS: Well, we are a gasoline
14 intensive country. Gasoline is the fuel of the
15 consumer. Diesel is the fuel of commerce.

16 On a gasoline basis, you are actually
17 accessing -- I've got to get my numbers right. You have
18 to tell me what you think about the Oregonians.
19 (Laughter.)

20 MR. ROSSMAN: They're fine people, I'm sure.

21 THE WITNESS: Because --

22 MR. ROSSMAN: But I would consider them an
23 export market for Washington refined products.

24 THE WITNESS: If they're ex the market or --
25 or ex the envelope, then you export products, because

ROACH

1 the Olympic pipeline has a substantial volume of fuel
2 that is really one of their only sources.

3 MR. ROSSMAN: Does that -- and so if we were
4 to take the Oregon and Washington market together, is
5 there a net export of refined products?

6 THE WITNESS: If you take Washington and
7 Oregon together, because of the intricacies of what
8 comes in from PADD 4 that adds to this market, you have
9 some export that goes out, but you also have some that
10 comes up from California up into Oregon too. So it's a
11 little convoluted, but basically you have 300,000
12 barrels of demand in Washington and Oregon, and that's
13 easy to split. You have 200,000 barrels of demand in
14 Washington; 100,000 barrels in Oregon.

15 The refineries are producing about
16 235,000 barrels of gasoline. So that's more than
17 Washington, but it's less than Washington and Oregon.
18 So that's why I keep asking about the Oregonians.

19 But you have to then add about
20 30,000 barrels a day of ethanol, because that's another
21 that has to come in. You do have some volume coming in
22 from PADD 4. That's about 30,000 barrels a day from
23 PADD 4 that entered this market, so the refineries are
24 getting that extra. So there is a net 35 that leaves
25 that goes back down to California, so they kind of

ROACH

1 offset.

2 So again, really, when you get down to
3 supply-and-demand balances, you have to tell me where
4 you're going to draw the boundaries. But that's a bit
5 of the picture there.

6 MR. ROSSMAN: Turning to a bit of a
7 different subject, why is it more economical to bring
8 crude-by-rail to Vancouver and then barge it to
9 California than it would be to bring it directly to
10 California by rail?

11 THE WITNESS: It's a constraint issue; it's
12 not a cost issue. You don't have the facilities enough
13 to accomplish it by scale to do that. There's no
14 facilities of great capacity that are built right now.

15 MR. ROSSMAN: There are no present
16 facilities in Washington, either. You're proposing to
17 build a new facility. Why is it more economical --

18 THE WITNESS: We do have facility -- we do
19 have crude-by-rail facilities in Washington. So maybe I
20 misunderstood your question.

21 MR. ROSSMAN: Why is it more economical to
22 build a crude-by-rail facility in Vancouver and then
23 barge oil to California than it would be to build a
24 crude-by-rail terminal in California?

25 THE WITNESS: If we -- if you had the

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1 ability to execute a project in California, it may be
2 attractive, but if it's very limited to be able to do
3 that.

4 MR. ROSSMAN: What factors limit your
5 ability to do that?

6 THE WITNESS: There's a lot of pushback from
7 the public sentiment. There are also real estate
8 issues. I mean just having some of the refineries have
9 space issues to be able to do that, and then just
10 regulatory issues from the State.

11 MR. ROSSMAN: Okay.

12 JUDGE NOBLE: Mr. Rossman, do you have a lot
13 of questions, because the court reporter --

14 MR. ROSSMAN: I've got about three or four
15 more, but I'm --

16 JUDGE NOBLE: We should take a break now.
17 3:15 we'll be back on the record.

18 (Recess taken from 3:01 p.m. to 3:18 p.m.)

19 JUDGE NOBLE: Back on the record.

20 MR. ROSSMAN: Thank you.

21 JUDGE NOBLE: I was just going to say,
22 Mr. Rossman.

23 MR. ROSSMAN: My next questions are about
24 sort of what your sense of what future costs of crude
25 delivered via Vancouver Energy versus some other source,

ROACH

1 say international markets will be.

2 Do you have a sense of, will it be cheaper
3 to deliver to a refinery in California or Washington
4 from -- will it be cheaper for them to purchase a barrel
5 of light sweet crude via Vancouver Energy or via the
6 international market or don't know?

7 THE WITNESS: You have to characterize that
8 on where the availability of supplies of those are, and
9 there's two factors. One, what the source point is. So
10 if you're going to be bringing a light sweet crude from
11 West Africa, that's an expensive transit.

12 And then also the crude that you bring in
13 has -- can have a slightly different value within the
14 refinery itself. So even within light sweet crudes,
15 even within the category of light sweet crude, there can
16 be refining values that factor into that too.

17 So simply saying it's a multi-dimensional
18 decision, but to your question. If I'm going to bring
19 in a light sweet crude, I have to know where it's coming
20 from to know where what that transit cost is and the
21 type of vessel that it's going to come in. So help me
22 understand a little bit what your reference base is.

23 MR. ROSSMAN: Well, I guess I want to know
24 if I were a refiner seeking to source crude, whether I
25 would choose to do it in the future through Vancouver

ROACH

1 Energy's facility or through some other international
2 market. And I'm wondering what the price would be, what
3 the price difference would be.

4 THE WITNESS: The price difference for a
5 delivery from the North Dakota area, I'll use the Bakken
6 as the example, to the West Coast, obviously has a
7 specific cost. That specific cost may be higher and
8 probably is higher than getting that from a water
9 borne -- if you're going with the really big vessels,
10 right? But that's just part of the equation.

11 The other part is what are you able to
12 acquire the crude FOB, free on board? What's the price
13 you're going to be where you source that crude? And
14 that's what factors in to the equation then, along
15 within the value of that crude that I referred to
16 earlier.

17 That makes up the bigger economic question
18 that you're trying to solve. Am I able to land the
19 crude cheaper by accessing it in the mid-continent, you
20 know, from the home team in the mid-continent of the
21 U.S., putting it on a rail and bringing it to the same
22 refinery as if I'm buying a foreign barrel that is going
23 to take longer to get, got more exposure to the market.
24 It's on a boat so the actual per barrel cost may be
25 less, but the FOB price is going to be higher than that

ROACH

1 mid-continent price. So it's the landed cost can come
2 in higher. I don't know if that makes sense.

3 MR. ROSSMAN: It could come in higher.
4 Could it come in lower?

5 THE WITNESS: It depends upon the price
6 point for that crude over there, that foreign price, you
7 know, what they're asking for their crude. So it's the
8 differential between the inland market and the water
9 market. And that's what's one of the key drivers. And
10 that's why we're saying in a low-price environment, as
11 drilling has diminished for the time being, those
12 differentials have narrowed and it's made that situation
13 less attractive in a low-price environment with the cost
14 structures that we have right now.

15 To my point earlier, those cost structures
16 are now coming down to reestablish the norm that brings
17 those back into balance. That's a little bit of a
18 roundabout way, and I don't mean to -- but it's a
19 nuanced answer to a nuanced question, actually.

20 MR. ROSSMAN: I appreciate that. And I
21 guess, I mean I'm -- I'm struggling then to understand
22 whether the question is at any given time it will be
23 cheaper or more expensive or it's not possible to say
24 because there's going to be a variety of market factors,
25 the ones you just outlined, at that time in the future.

ROACH

1 THE WITNESS: I'll just go back to obviously
2 it was attractive before and that's because those
3 dislocations of the inland were so wide that it was
4 unquestionably attractive. And that's what led to the
5 rush and that was the whole rush in those shale oil
6 supply chain in general that led to all these high
7 costs. Some of those costs got locked in, but now as
8 the differentials have compressed and as the supply
9 chain has gotten some looseness in it, it's bringing
10 those costs back down to reestablish more of the norm to
11 clear the Bakken field.

12 That's what is the important part is to
13 clear the Bakken field. Somebody asked about will it go
14 to market. That crude will go to market and it'll go by
15 various channels. One of them is the refinery that we
16 have on the proximity of the Bakken field.

17 Another one would be rail to the Northwest,
18 which has a resilience to it, and then you have crude
19 pipelines that take the balance of that and move it out
20 of the Bakken field to other markets. So it's that
21 mechanism that helps establish the price then for
22 acquiring the crude at its origin point plus the
23 transportation equals what we have as the value when we
24 receive it at the refinery. That then has to compete
25 against acquiring a similar crude from a foreign market.

ROACH

1 MR. ROSSMAN: And is it possible to
2 determine which of those is going to be the better deal
3 at a particular point in the future for a particular
4 refinery in California or Washington?

5 THE WITNESS: If I have a forecast of what
6 that market looks like, the differentials that exist,
7 then we can determine it fairly readily from a forecast
8 what would be more economical. But that forecast
9 depends upon the supply and demand picture for that
10 region at that time.

11 Are the producers in the mid-continent, are
12 they back to producing full stream? That's going to
13 give you a different answer than if we go down to a
14 \$20 price world.

15 MR. ROSSMAN: In choosing to make a
16 long-term commitment for the purchase of 60,000 barrels,
17 is that a decision based on a belief that it's going to
18 be cheaper to source that oil here than some other
19 place?

20 THE WITNESS: It's a decision that that will
21 give us an attractive crude supply to our Washington --
22 or to our refineries on the West Coast, yes. And that
23 implies that it's going to be a better source of oil.
24 By the time it lands, it's going to be a better price
25 for that oil than could we get a similar grade from some

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1 other place.

2 MR. ROSSMAN: Would that calculus be
3 different if Tesoro didn't also happen to have a stake
4 in the terminal?

5 THE WITNESS: No. If we were -- we could
6 be -- this could be the XYJ terminal, and we would still
7 look at those rates and decide whether that would be
8 economic or not.

9 MR. ROSSMAN: Might have purchased those
10 60,000 barrels long-term capacity?

11 THE WITNESS: Uh-huh.

12 MR. ROSSMAN: I guess I'm interested in why
13 Tesoro has made that commitment but no other firms have
14 yet.

15 THE WITNESS: Well, it's not built yet. The
16 project has not gone to the fruition that people would
17 just be willing to necessarily sign up.

18 MR. ROSSMAN: I guess what I'm struggling to
19 get to is under what circumstances will it be beneficial
20 for a refinery to purchase via this rather than a
21 different source, and are those circumstances different
22 for Tesoro because it owns a piece of this terminal than
23 it would be for a different firm?

24 THE WITNESS: It will be more attractive if
25 we have a continued decline in ANS, and those barrels

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1 get competed for and their price goes high relative to
2 our ability to get crude oil from North Dakota at a
3 reasonable cost because the production is enough to
4 provide that differential there. Then that's a better
5 source and we're able to bring it and pay that
6 transportation cost, get it to Anacortes and be better
7 off than had we bought ANS. That's the type of
8 situation that it would be positive.

9 MR. ROSSMAN: Am I right that approximately
10 50 percent California's crude supply comes from
11 international markets at this point?

12 THE WITNESS: 50 percent of Washington's?

13 MR. ROSSMAN: California's.

14 THE WITNESS: Oh, California's. That's
15 reasonably close, yeah.

16 MR. ROSSMAN: And I think that same source
17 suggests that about 12 percent comes from ANS. Does
18 that sound about right?

19 THE WITNESS: I have to do some math, but
20 that sounds about right because 12 percent of 2 million
21 is about 250,000. That's about right.

22 MR. ROSSMAN: And all of that is coming via
23 boat or barge of some sort, so it would be the same in
24 terms of infrastructure needs down there in California
25 to receive a barrel of oil from Alaska or Vancouver

ROACH

1 Energy or from an international source.

2 THE WITNESS: That's a good point, because
3 those facilities already exist. So anything we do with
4 this facility leverages facilities that already exist
5 and you don't have any other site work that you have to
6 do like you would if other projects were pursued.

7 MR. ROSSMAN: Let's presume for a moment
8 that it was as economical for a California refinery or a
9 little bit cheaper for them to source from Vancouver
10 Energy than for them to increase purchase from an
11 international source after ANS declines.

12 What kind of a price premium would you
13 expect them to be able to receive in a scenario where it
14 were cheaper to source via Vancouver Energy, what's the
15 differential there if it's cheaper to source it from
16 Vancouver than to source it from somewhere else?

17 THE WITNESS: When you say the "price
18 premium," I'm not sure that -- price implies a sale, but
19 if you're bringing in crude to run, you just bought it
20 so you're not reselling it necessarily. You're bringing
21 it in to run.

22 So you would have a price benefit to do
23 that, right, not a premium, but you'd have a price
24 benefit over acquiring a crude off the water. And I
25 don't mean to be evasive or anything. I'm just saying

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1 there's so many market-driven components of that that
2 it's hard to have a discussion without defining some
3 parameters around that so that we're all talking on the
4 same page.

5 MR. ROSSMAN: Markets are efficient, are
6 they not?

7 THE WITNESS: Markets, competitive markets
8 compete to efficiency.

9 MR. ROSSMAN: Is it reasonable to assume
10 then that any price premium for sourcing from Vancouver
11 would be relatively small compared -- or benefit
12 sourcing from Vancouver would be relatively small
13 compared to the overall price of that barrel of oil?

14 In other words, you're not going to get a
15 \$30 barrel of oil that you sourced here where you have
16 to pay \$50 for it on the international market.

17 THE WITNESS: Right. We're talking in terms
18 of -- in the single -- I mean single digit dollar
19 differences at best. You're talking differentials that
20 are not directly related to the absolute price of oil.

21 MR. ROSSMAN: What portion of that price
22 benefit would translate into a lower price for the
23 purchaser of the refined product?

24 THE WITNESS: That's driven -- I mean, the
25 transportation costs tend to be relatively price sticky

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1 as we've seen, as I was referring to earlier. So that
2 benefit really depends upon the FOB price of that oil
3 where you source it. That's the key determinant. And
4 we have seen those numbers through the cycle that we
5 have gone through, we've seen those numbers be quite
6 high and we've seen them go negative to where it's not
7 economical at times to bring a shipment across. But
8 then there's been times when they've been profoundly
9 positive. That's driven by the market and the shale oil
10 revolution that has made all these things possible. So
11 it's hard for me to predict that, again, aside from an
12 established set of parameters that define the market
13 conditions.

14 MR. ROSSMAN: I guess I'm struggling then
15 once again, we had this conversation last time you were
16 here about what the benefit to Washington consumers
17 would be, and your testimony today really pertains to
18 the long-term decline and ANS supply. That was one of
19 the main factors and where the replacement of that
20 supply is going to come from.

21 And I guess what I'm trying to -- you've
22 described how it will be a flexible source for refiners
23 both in California and Washington potentially to have
24 access to this crude. And I guess I'm trying to
25 understand to what extent does that flexibility make it

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1 cheaper for them to do business relative to having to
2 source that crude from a different place, and if it
3 does, what amount of that will translate to consumers?

4 THE WITNESS: Okay. Thank you for
5 clarifying that.

6 This facility allows us to access advantage
7 crudes from the mid-continent U.S. You have a case
8 where the high-price environment incentivizes and helps
9 those differentials widen out to make that North Dakota
10 source more economical to bring to the coast. That
11 brings that back kind of to the world we were in two
12 years ago.

13 And that provides an economic benefit to the
14 user of that crude, the refiner, allows them to be very
15 competitive, and through the competitive marketplace
16 that is efficient -- to your point, in a competitive
17 marketplace that is efficient, that benefit ultimately
18 accrues to the consuming public in providing more cost
19 effective transportation fuels.

20 Now, in the other world where you're faced
21 with a low-price environment where those differentials
22 diminish, but you're faced with the disruption in the
23 Alaskan North Slope and now you don't have any crude to
24 acquire, so the cost or the price that refiner is going
25 to be willing to pay just went up because they need that

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1 crude to fill that void, one avenue is North Dakota.
2 And it will be able to provide oil that route and meet
3 that need and, again, provide a benefit to the consumer
4 by being competitive that direction.

5 I'm saying in those two different worlds
6 this facility helps keep that benefit of having domestic
7 crude available to local refiners in place for the
8 public, whereas if you don't do this in that
9 environment, then you're out -- if you have a disruption
10 of ANS float, now you're out on the open market just
11 trying to find crude where you can.

12 People say it's really adequate and it's
13 available. I'd like them to come work with us in our
14 crude trading because I get a different message from
15 crude trading, that it's actually a very competitive
16 world out there, looking for cost effective crudes for
17 these refineries that we can get and deliver to these
18 refineries.

19 MR. ROSSMAN: Is there any way to determine
20 the price differential to a refiner in California or
21 Washington in Scenario A where this is built and
22 Scenario B where it's not for delivering that? Or is
23 that not determinable because of the vagaries of the
24 market as you've described them and what will happen in
25 the future?

ROACH

1 THE WITNESS: Or delivery into -- you're
2 asking now about the delivery of an international barrel
3 in the case where it's not built?

4 MR. ROSSMAN: Correct, compared to a barrel
5 from the Bakken region if it is.

6 THE WITNESS: I would have to know which
7 crude, which location, what its differential is.
8 There's a variety of -- it's a nuanced answer. I
9 apologize it's nuanced, but I have to know those details
10 because it is a relatively narrow decision at times, but
11 because of the volumes involved, even a narrow decision
12 can have quite an impact on economics.

13 MR. ROSSMAN: How wide a price differential
14 would you expect under any reasonable scenario that you
15 can conceive of?

16 THE WITNESS: I'm going to have to back up.
17 Sorry. A price differential between what? I mean,
18 I'm --

19 MR. ROSSMAN: Let's presume that if the
20 terminal is built and a refiner in California can source
21 the oil that they want more cheaply from a different
22 source they won't purchase it via Vancouver Energy.
23 Let's presume that we're talking about a scenario where
24 that refiner is looking at an opportunity to purchase
25 either at the same or at a lower cost.

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1 How much lower could you conceive reasonably
2 of that cost being for that refiner in California or
3 Washington to purchase via Vancouver Energy than some
4 other international source?

5 THE WITNESS: All I know to say is it's a
6 market-driven phenomena. It can be as narrow as
7 breaking even or it can be as wide as -- if I'm
8 understanding your question, if I have a large-scale
9 production boom in the mid-con, it can widen that
10 differential out and it can be multiple dollars.

11 MR. ROSSMAN: All right. Thank you.

12 JUDGE NOBLE: Any other questions for
13 Mr. Roach?

14 Mr. Siemann?

15 MR. SIEMANN: Good afternoon. So do
16 Washington refiners currently buy foreign crude by water
17 now? And does Tesoro also buy foreign crude by oil
18 now -- sorry, by water now?

19 THE WITNESS: Yeah.

20 MR. SIEMANN: And you also buy ANS crude
21 currently, right?

22 THE WITNESS: Yes.

23 MR. SIEMANN: Is there a price differential
24 between those two typically at any given time?

25 THE WITNESS: Right now the Brent, which

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1 would be representative of a foreign barrel somewhat
2 akin to ANS, the Brent/ANS differential is about \$2; so
3 ANS is about \$2 less than Brent right now.

4 MR. SIEMANN: And is that the industry
5 standard or is there some times where Brent is cheaper
6 than ANS?

7 THE WITNESS: The answer is yes. In a cycle
8 of a year's time, you will see ANS be priced under
9 Brent, and during the maintenance season when ANS
10 declined flows -- I'm sorry, when ANS flow declines,
11 during the maintenance season of the summer oftentimes
12 you'll see a premium. It'll actually go above Brent.
13 It didn't do that this year, but it typically on a more
14 seasonal basis has demonstrated that type of
15 seasonality, so it can at times go above Brent depending
16 on the supply situation.

17 MR. SIEMANN: Okay. Another set of
18 questions.

19 Can you tell me what the 60,000 commitment
20 actually means? I understand it's 60,000 barrels per
21 day; is that correct?

22 THE WITNESS: The commitment to the
23 Vancouver terminal that Tesoro has made?

24 MR. SIEMANN: Yes.

25 THE WITNESS: That's my understanding, yes.

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1 MR. SIEMANN: Is that an actual per day
2 commitment or over is it over the course of a week,
3 month, year average?

4 THE WITNESS: I'm a little -- I'm a little
5 bit outside the details on that. My assumption is that
6 that would transpire over a period of time that would
7 allow averaging to be an average of 60,000 barrels a day
8 over a some period. I don't know if that's a month or a
9 quarter or a year.

10 MR. SIEMANN: And that commitment has been
11 entered into in a contract; is that correct?

12 THE WITNESS: That's my understanding.

13 MR. SIEMANN: Do you know what the time
14 period of that contract is?

15 THE WITNESS: I don't. I'm sorry. I don't
16 delve into the contract nature of our business.

17 MR. SIEMANN: Then my final set of
18 questions.

19 If the Canadian pipeline was built, so we
20 talked a little bit about the Canadian pipeline and you
21 said it was at capacity now but there are proposals to
22 increase or to add another pipe; is that correct?

23 THE WITNESS: It's an expansion. I think it
24 is a loop, which is a second pipe.

25 MR. SIEMANN: Although you said that's not

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1 dependable enough for planning, let's assume for a
2 moment that it was in fact built.

3 THE WITNESS: Uh-huh.

4 MR. SIEMANN: How would that affect the
5 demand for oil from the Vancouver Energy Terminal?

6 THE WITNESS: If that pipeline were built --
7 I'm going to speak to your assumption, which I think is
8 a stretch, but I'll speak from your assumption. Okay?

9 Then you would have a move from
10 300,000 barrels to close to 800,000 barrels a day on
11 that new pipeline, so you'd have an influx of
12 500,000 barrels a day. Depending on the grade of what
13 they try to flow and how they manage the pipeline to get
14 the return on their pipeline investment will have a big
15 impact on what gets ultimately delivered to the
16 Washington refineries, although we would be part of that
17 bid cycle, obviously.

18 Having said that, there would be an impact
19 for sure upon that part of the balance of supplying oil
20 to those refineries. But what I don't know is because
21 of the nature of the Canadian supply having a very heavy
22 component that they're really interested in moving out,
23 some of these refineries can't process that heavy
24 component directly.

25 And actually, to your point, it actually, in

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1 a counterintuitive way, makes Vancouver Energy in that
2 case more valuable because you can bring in a light
3 sweet crude that you can offset heavy crude with and run
4 in a refinery that's made to operate in the middle. So
5 there's some nuances in that that are possible.

6 On the surface, it would look like that
7 would remove the need for a terminal like this as far as
8 Washington goes. It would still have application for
9 California, but again, because of the nature of the
10 systems that we run and other refiners run, now you're
11 able to blend two different crudes to the betterment,
12 and you would potentially even find more application for
13 Vancouver to bring that light sweet in along with the
14 Canadian heavy to be an adequate blend.

15 MR. SIEMANN: That's all my questions.

16 Thank you.

17 THE WITNESS: Thank you.

18 JUDGE NOBLE: Mr. Lynch has a question.

19 MR. LYNCH: Thank you, Mr. Roach. It's been
20 a long time since you started your testimony and I'm
21 trying to think if you were the person who said this or
22 not.

23 But didn't you say that reliability is the
24 key for a refinery?

25 THE WITNESS: Yes, sir.

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1 MR. LYNCH: And this is a lot to do -- this
2 proposed terminal has a lot to do with reliability of
3 oil supply; is that correct?

4 THE WITNESS: It does.

5 MR. LYNCH: And even though somebody could
6 potentially purchase -- if this facility wasn't built,
7 Tesoro could potentially buy oil from different sources
8 but you've got to have people tracking down that oil at
9 any given amount of time, and it's not just any oil;
10 it's oil that would meet the particular needs of the
11 refinery.

12 THE WITNESS: Right.

13 MR. LYNCH: So when you have a particular
14 source committed that has certain characteristics over a
15 long-term, then, in fact, you're able to plan your
16 resources better, you're not having to devote other
17 sources trying to track down other oil; is that correct?

18 THE WITNESS: That is correct.

19 MR. LYNCH: Thank you.

20 THE WITNESS: Uniformity of supply is a
21 great benefit to refiners.

22 MR. LYNCH: A few dollars' difference in oil
23 at any given time is not a big factor to you.

24 THE WITNESS: A few dollars can be a big
25 factor, but there's a value on ratatability and

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1 reliability. I couldn't put a finger on it, but it does
2 really help refinery operation and efficiencies.

3 MR. LYNCH: I guess what I'm saying is if
4 you could locate a particular tanker out there where you
5 could get oil for a couple dollars cheaper, that
6 wouldn't be a major factor to you?

7 THE WITNESS: I can see situations where it
8 might work, but I can think of a hundred where it
9 wouldn't work. But reliability and the consistency of
10 supply is a very important aspect for refining.

11 MR. LYNCH: Thank you.

12 JUDGE NOBLE: Any other council questions?

13 Questions based on council questions?
14

15 RECROSS-EXAMINATION

16 BY MS. BOYLES:

17 Q. I want to follow up on a question Mr. Stohr
18 asked some time ago.

19 The Alaskan North Slope oil started to decline
20 around 1985; is that correct?

21 A. That sounds about right.

22 Q. And I'm off by a couple years here I think, but
23 the Bakken production really started after the year
24 2000; is that right?

25 A. Bakken was well after 2000.

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1 Q. Yeah, okay. That's what I thought.

2 So what was Tesoro's plan in 1990 for dealing
3 with the gradual decline of the Alaska North Slope?

4 A. I think I was working at a different company at
5 that time, and I'm not sure -- well, actually I guess
6 Tesoro did have some up there. I truthfully have no
7 idea what Tesoro's plans were back in 1990.

8 Q. Okay. Mr. Moss asked you some questions about
9 barges, I believe, or barging.

10 Are you aware of the current federal legal
11 barriers to bringing crude oil by tanker into Washington
12 waters like Puget Sound?

13 A. Magnuson Act?

14 Q. Magnuson Act, yes, sir.

15 A. Yes, I am. I'm familiar there is one there.
16 The details of it are a little bit sketchy in my mind.
17 Not sketchy, but they're a little bit muddled in my
18 mind.

19 Q. And I just want to confirm, in response to some
20 of Mr. Rossman's questions about gasoline export, is it
21 correct that gasoline for eastern Washington comes into
22 the State from the east?

23 A. I'm glad you brought that up, because I do want
24 to make note that in prior testimony I had unwittingly
25 omitted a small stream that comes via barge up the

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1 Columbia River from the western side. But the
2 predominant supply does come in from PADD 4 via
3 pipeline.

4 **Q. And again, to another one of Mr. Rossman's**
5 **questions, if you had other contracts in hand for using**
6 **this terminal, would you consider that evidence of need**
7 **for this project?**

8 A. It's a neutral answer to me. If I had
9 expressance (phonetic) of interest, then I would
10 understand that some people had seen in their planning
11 process where this terminal would fit in. Given that
12 there are some uncertainties about this, I don't take
13 the opposite view that having a lack of commitments is a
14 negative against the project. It's just the state of
15 where the project is factors in to me how committed it
16 is.

17 **Q. And then finally, I believe this is related to**
18 **Mr. Siemann's last set of questions.**

19 **The four refineries in Washington are already**
20 **able to process heavy crude; isn't that correct?**

21 A. Only one or two of them have the heavy upgrading
22 capacity. The other ones produce fuel oil as their
23 means of handling heavy crude. So by some token that's
24 not considered heavy upgrading capacity.

25 **Q. But all four in the northern part of Puget Sound**

DERR / ROACH

1 get the Canadian crude from the spur pipeline off the
2 current Trans Mountain pipeline; is that correct?

3 A. In some volume. But you can bring in a railcar
4 of heavy crude and be considered having taken heavy
5 crude, or you can bring in a tanker of heavy crude and
6 be considered taking heavy crude and those are
7 fundamentally different. So just because it shows on
8 the books that a refinery has actually brought in a
9 little heavy crude does not mean they have a diet for
10 heavy crude. That's the point.

11 MS. BOYLES: Thank you. Nothing further.

12 JUDGE NOBLE: Any other questions from you,
13 Mr. Derr?

14 MR. DERR: I'm just going to try one or two.

REDIRECT EXAMINATION

15
16 BY MR. DERR:

17 **Q. A question about the Trans Mountain pipeline.**

18 **Am I remembering from your testimony previously**
19 **that that pipeline includes a terminal in Canada that**
20 **will load some of that oil on to ships to go elsewhere?**

21 A. Yes. Yes. It's the Westridge dock in Canada --
22 (Court Reporter interruption.) Westridge.

23 **Q. So the volume you spoke about includes volumes**
24 **that would go to that project in Canada, not all volumes**
25 **that would go to Washington?**

DERR / ROACH

1 A. The 300,000 that fill that line includes volume
2 that goes to the Westridge dock, it includes crude oil
3 for the Burnaby Chevron refinery and includes about
4 50,000 barrels a day of refined products for some
5 terminals along the line in the Vancouver area.

6 **Q. If the Trans Mountain pipeline expansion project**
7 **were built, would that also include crude that would go**
8 **to the terminals in Canada?**

9 A. Yes.

10 MR. DERR: Thank you. I have no further
11 questions.

12 JUDGE NOBLE: Thank you very much for your
13 testimony this afternoon. You are excused as a witness.

14 THE WITNESS: Thank you.

15 JUDGE NOBLE: We appreciate you being here
16 so long.

17 I hesitate to say this, but on the clock,
18 given the division of time that I may -- I just want to
19 say in case it gets picked up later, the proponents are
20 out of time and the opponents have five hours left. But
21 I'm going to exercise my authority here and allow the
22 proponents to complete their case just because it would
23 be quite unfair, I think, not to. And I am hoping no
24 one will be objecting to that, but just for the sake of
25 truth, I'm 'fessing up.

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1 MS. BOYLES: We have no objection.

2 JUDGE NOBLE: Good. Thank you. You may
3 call your next witness.

4 MR. JOHNSON: Applicant recalls Jared
5 Larrabee.

6 JARED LARRABEE,
7 having been first duly sworn, testified as follows:

8 JUDGE NOBLE: You may proceed.

9 DIRECT EXAMINATION

10 BY MR. JOHNSON:

11 Q. Welcome back, Mr. Larrabee.

12 A. Thank you.

13 Q. Last witness of the last day of testimony,
14 almost the last hour.

15 MS. BRIMMER: Be still my heart.

16 MR. DERR: It's up to council how long it
17 goes.

18 BY MR. JOHNSON:

19 Q. I thought I was going to be able to say it's
20 come full circle. But I think Mr. Roach actually
21 started off this show five weeks ago. But you were up
22 there.

23 By the way of reminder, you're the general
24 manager for the Vancouver Energy project; is that right?

25 A. Yes, that's correct -- (Court Reporter

JOHNSON / LARRABEE

1 interruption.) Yes, I'm the general manager for the
2 facility.

3 Q. Okay. Thank you.

4 Have you been here for the entire five weeks of
5 this adjudication hearing?

6 A. The majority of it, yes.

7 Q. Okay. And at last count I think there were
8 about 70 witnesses, 77 if you count the rebuttal
9 witnesses, over 106 hours of testimony. So I just want
10 to make sure that you have either been here or had the
11 opportunity to review all of that testimony.

12 A. The vast majority of it. There were a few I'm
13 still getting caught up on.

14 Q. Okay. All right.

15 A. There was a time that I was working on the Army
16 Corps permit stuff, so...

17 Q. Okay. Similar to some questions that I posed to
18 Mr. Corpron this morning, at various points in the
19 testimony over the past several weeks there have been
20 questions raised by witnesses and testimony about the
21 adequacy of terminal design and operations and I want to
22 focus some specific questions about your response to
23 some of that testimony.

24 Have you had an opportunity to evaluate the
25 information presented and the various concerns that have

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1 been expressed by many of these witnesses?

2 A. So we certainly have been looking at a lot of
3 that, but I would say that in the timeframe of the
4 adjudication, I don't know that I would say that we've
5 had -- in fact I would say we have not had an
6 opportunity to evaluate that information completely, no.

7 **Q. Okay. And is that an ongoing process?**

8 A. Yes, absolutely it is an ongoing process.

9 **Q. And can you explain for the council how you
10 anticipate assessing the information that you've gained
11 as a result of this adjudication and how you might
12 review many of the concerns that have been expressed
13 through the testimony of these witnesses?**

14 A. Sure. Absolutely.

15 So we view this similar to, frankly, if you go
16 back to the process as we understand it, that the
17 adjudication is one element of the overall process and
18 the adjudication hearing in particular is one element of
19 that. The other elements of the process include the
20 application and, again, this is stuff that you guys
21 probably know better than me, but the adjudication, the
22 application process, and then the permits and associated
23 permits.

24 And through that -- and not to forget,
25 obviously, the SEPA process and the environmental impact

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1 statement. And through all of that the way that we've
2 understood and looked at this is that ultimately all
3 those things need to come together at the end and there
4 needs to be alignment among those items as it comes to
5 fruition.

6 **Q. As the general manager of the project, what**
7 **factors do you consider when determining what issues**
8 **that have been raised here merit further review or**
9 **perhaps even alterations of the terminal design?**

10 A. Sure. There actually are a number of factors,
11 and this is not just specific to this project. It's
12 similar to other projects that we've done or looked at
13 in the past.

14 But I know there were some discussion earlier
15 today from Mr. Corpron, cost is certainly an element
16 that comes into play --

17 **Q. I'm going to interrupt you just for a second.**
18 **Sorry. The court reporter is on her last hour too,**
19 **so --**

20 A. I apologize.

21 **Q. -- keep it slowed down if you could. Thanks.**

22 A. I apologize.

23 So cost is certainly one of the elements that is
24 considered. It is not always the overriding element
25 that we look at.

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1 Other factors that we regularly look at and that
2 we are required to look at are the safety obviously of
3 the facility, the employees, the assets, the community.
4 That needs to come into play.

5 We also need to look at the functionality of how
6 this fits into the system, the functionality and the
7 reliability as that comes into play. We look at the
8 integration with the overall system, so what are the
9 elements and how are those elements integrated with the
10 overall system and the overall design of that system.

11 We would also look at the, for lack of a better
12 term, the regulatory process and the regulatory
13 framework. Slow down. Okay. Let me take a drink.

14 So the regulatory process and the regulatory
15 framework that that fits into as well. All of those
16 elements would come into play.

17 And certainly another element, some of which
18 have been discussed here today, are the facts and
19 analysis that is done related to risk and risk
20 reduction, all of that. So that entire suite, I guess,
21 of items that you look at comes into play in how we look
22 at decisions and make decisions.

23 **Q. Okay. So are you prepared to respond to every**
24 **issue that's been raised during this last five weeks**
25 **today?**

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1 A. No. I would say we are not prepared to respond
2 to every issue that has been raised today. That also is
3 not our understanding of I guess, at least in this last
4 hour of this, it was not our understanding of what the
5 intention was of this to respond to every issue raised
6 today.

7 Q. Okay. With that understanding, I'd like to ask
8 just a few questions about some things maybe you have
9 had an opportunity to think through in the last several
10 weeks. And I'd like to start with the dock or the
11 marine loading facility.

12 There have been a number of witnesses,
13 Ms. Harvey being one, but a number of tribal witnesses
14 who have expressed concerns about spill impacts on the
15 river and one of the specific issues that's been
16 discussed related to possible spills is what some
17 consider to be the limited capacity, specifically a
18 limit of three barrels of containment at the dock, in
19 the event that a spill were to occur during
20 transloading.

21 Have you had an opportunity to consider how you
22 might respond to those concerns?

23 A. Yes, we have. And so that was an item that came
24 up very early on in the proceeding; I don't remember the
25 exact day. But I do remember it was early in the

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1 proceeding where that came up.

2 That was one where we were able to look at those
3 factors that I mentioned earlier, go back to that. The
4 three-barrel containment is actually a regulatory
5 standard for what is required, but we went back and
6 looked at that in addition to the pumping and pipe
7 valves that are out there and determined that we are
8 able to put in place some diversion piping and some
9 additional pump capacity, and, in doing that, can
10 effectively divert any crude in a shutdown situation and
11 also increase the capacity of that three-barrel
12 containment through additional pumping there. And we
13 are committing to do that.

14 **Q. And are there other measures with regard to**
15 **vessel safety that you've had an opportunity to further**
16 **evaluate and consider? And if so, could you explain**
17 **what those might be?**

18 A. So some of the other things that we obviously
19 look at are the safe and effective thresholds, and that
20 actually is in the application where we look at what are
21 the times when we would boom and what are the times when
22 we would stop the loading operations. And those
23 actually are already out there and described in the
24 application.

25 Another example actually, though, and this was

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1 already discussed and is out there, though, of going
2 through that full analysis is the tug escort that we
3 have commented on, and I believe Mr. Bayer in particular
4 commented on.

5 That certainly is not a decision that was based
6 on cost or any element in any way. There is a
7 significant cost to doing that. It is something that
8 is, when we looked at the study that was commissioned
9 and looked at the risk reduction that came along with
10 that, it was a commitment that we felt we needed to
11 make. And that's an example of looking at the overall
12 system and looking at those criteria in determining
13 what's the appropriate thing to do.

14 **Q. Okay. Again, try to back down the tempo just a**
15 **bit.**

16 A. Sorry.

17 **Q. Okay. Different category of issues or elements**
18 **of the facility, and that's transportation to the**
19 **facility. Again, a number of witnesses have testified**
20 **about their concerns and issues regarding emergency**
21 **response to potential rail or facility incidents.**

22 Is Vancouver Energy prepared to work with these
23 entities, those who have expressed concerns, including
24 the City of Vancouver, the Port, Clark County, local
25 fire agencies, tribal entities, is Vancouver Energy

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1 prepared to work with those entities to address the
2 concerns that have been articulated?

3 A. Yes. We absolutely are prepared to work with
4 them. I do recall one, I don't recall exactly who said
5 this, but I do remember and recall one of the tribal
6 witnesses that specifically indicated she had never been
7 invited to a tabletop training exercise.

8 What we would like to offer up are three
9 tabletop and training exercises, jointly tabletop and
10 training exercises. We will co-sponsor those or sponsor
11 those and bring the BNSF along and do that. We would
12 anticipate that we could do one of those in Vancouver,
13 one in Spokane, and one in the Gorge at a location to be
14 determined.

15 So we think that that helps to make sure that
16 everyone has an opportunity to participate. And my
17 understanding is that typically before you have a
18 facility, you actually are not required to do that type
19 of thing. So we're doing this obviously in advance of
20 having a facility and without having a facility. And we
21 would hope and would encourage all of the interested
22 parties to attend, whether that's Ecology, Department of
23 Natural Resources, the tribes or the communities that
24 would be involved with that.

25 **Q. And are you prepared to coordinate that kind of**

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1 an effort with the railroad?

2 A. Yes. Yes, we would coordinate with the
3 railroad.

4 Q. Also with regard to transportation of crude oil
5 to the facility, one of the areas that there's been a
6 lot of testimony about are railcars and design of
7 railcars and types of railcars.

8 And you may have touched on this in your earlier
9 testimony, but can you just remind the council what
10 commitments Vancouver Energy has made with regard to
11 railcars?

12 A. Yes. The commitment that we made to the
13 facility related to railcars was that we would only
14 accept the DOT-117 or better railcar into the facility,
15 and we would do that day 1 of facility operations. By
16 the way, that is another example of something that is
17 not necessarily a cost-based decision. That is based on
18 looking at the factors and all of those factors in
19 making a decision based on that.

20 Q. Okay. And then with regard to the facility
21 itself, do you recall Chief Molina's testimony and the
22 concerns he expressed about the Vancouver fire
23 department's ability to appropriately respond to a
24 potential rail or facility incident at the terminal
25 because of training shortfalls?

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1 A. Yes. If I recall, his particular concern was in
2 relation to the backfill and the ability to provide
3 backfill and to allow the individuals to go to training.

4 We do have an open invitation to the Vancouver
5 Fire Department and firefighters in that department to
6 attend that training. Typically what we have paid for
7 and supported them in is the transportation cost to the
8 training, all of the training, the lodging costs, and
9 the food costs. We would like to offer up to both the
10 Vancouver and the Clark County fire department that we
11 would also pay for the backfill costs for the
12 firefighters that they end up sending to that training.

13 **Q. Okay. Also with regard to the facility,**
14 **Mr. Clary expressed concerns about the need for**
15 **redundancy of water supply and potential water flow at**
16 **the terminal site. Mr. Corpron also testified this**
17 **morning about some of the engineering solutions related**
18 **to that, including looping.**

19 **How is Vancouver Energy prepared to address that**
20 **issue?**

21 A. So looping was actually one of the things that
22 we looked at a while back, and if I recall correctly, at
23 one point in time we had or were close to having an
24 agreement in place both with the Port and the City to do
25 cost sharing on the looping of the waterline and to make

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1 sure that that was in place and ready to go.

2 We are prepared to move forward in relation to
3 the permitting of this and go ahead and work with the
4 Port on doing the looping and make sure that that gets
5 done appropriately without expecting the City to incur
6 any costs related to that. So we certainly would need
7 the City's approval to connect into the system and to
8 work on that.

9 **Q. All right. I'm shifting to a different topic.**

10 **There have been a number of witnesses who have**
11 **also testified about concerns and issues related to**
12 **current and the ability of emergency responders to**
13 **contain crude in the event of a spill in the river**
14 **because of the river current and how that's distinct**
15 **from, for instance, an event that might occur in open**
16 **waters in the ocean.**

17 **Can you discuss your response to that testimony**
18 **in general? And again, specifically understanding you**
19 **haven't thought through every particular issue, any**
20 **conclusions you've drawn about how Vancouver Energy**
21 **might be able to address those concerns?**

22 **A. Sure. So, and I actually think there was a**
23 **council question specific to where the Current Buster**
24 **booms were located, and I think that that really is what**
25 **comes into play here both the location and the training**

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1 related to that.

2 So today we have two of the Current Busters that
3 we have purchased. One of them is in Vancouver and the
4 other one is in Portland. We know that one of the OSROs
5 that we use, the oil spill response organizations, I
6 apologize, one of the OSROs has one down in Astoria, and
7 another one of the oil spill response organizations is
8 looking at purchasing one for Portland.

9 It has always been our intent actually is as
10 that one is in place, that we would move the one that is
11 ours that is in Portland today, we would move that up to
12 Pasco, Washington. So there would be one located in
13 Pasco, two in the Portland area and one down in Astoria.

14 **Q. And how about commitments with regard to booming**
15 **in and around the terminal itself?**

16 A. So we have talked, I believe our other experts
17 have talked specifically about booming and the things
18 that we would do in booming, but what I'm not sure was
19 fully clear was the fact that we will have a boom boat
20 that is on the water, any time there is a vessel there
21 loading, that is out there all the time, so watching the
22 operations and making sure that's happening and able to
23 respond at all times.

24 **Q. Okay. And then there's also been a good bit of**
25 **testimony about generally additional safety measures to**

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1 reduce risk at the facility, whether those safety
2 measures relate to the labor force there, the public at
3 large.

4 And again, understanding that you haven't been
5 able to work through everything, can you just discuss
6 what some of the measures are that Vancouver Energy may
7 be committed to implementing to limit facility risks?

8 A. Sure. And I think that for me, this one is
9 actually of particular importance. As someone who will
10 work at the facility, I certainly have an interest in
11 this.

12 And the way that we view this and that I view
13 this is anything we do for safety and protection of our
14 employees translates into additional safety and
15 protection of the people who are outside of the facility
16 as well.

17 And Dr. Thomas, in particular, I think he
18 brought up the FN curves and talked about those
19 particular ones. I believe there was a question by one
20 of the council members about how for the onsite
21 populations, what things you do to bring that curve down
22 below that lower limit there. And he mentioned a number
23 of things.

24 All of those are things that we plan to do and
25 have already planned to do at the facility, including

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1 the gas alarms or the LEL alarms at the facility, which
2 are actually tied to an automatic shutoff. If those are
3 detected, then the facility shuts down. They also have
4 the opportunity to, for lack of a better word, hit the
5 big red button manually if the system is not working
6 appropriately.

7 We have an emergency response plan in place,
8 which is another one of those items that he identified.
9 We would also have evacuation plans in place. Again,
10 another thing he identified. And FRCs, or fire
11 retardant clothing, that is standard in facilities like
12 this.

13 So all of those things, in addition to the
14 personal monitors that the individuals wear, are all
15 things that would be done and will continue to be done
16 to bring that risk down. And again, I do think
17 generally in looking at that, I see that as obviously
18 very important for benefit generally for the employees,
19 but putting that in context of, again, the data and the
20 analysis that was presented by Dr. Thomas and the low
21 risk that is already identified for offsite populations,
22 we think that assists in bringing that down even further
23 for offsite populations as well.

24 MR. JOHNSON: Thank you, Mr. Larrabee. I
25 don't have any further questions, but I would ask one

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1 thing of you, and that is in responding to Ms. Brimmer's
2 questions or questions from the council just back that
3 tempo off.

4 THE WITNESS: Slow down. Okay.

5 MR. JOHNSON: Thank you.

6 THE WITNESS: Are you going to have
7 questions for me?

8 MS. BRIMMER: Uh-huh.

9 THE WITNESS: Somehow I thought that might
10 be the case.

11 JUDGE NOBLE: Cross-examination.

12 MS. BRIMMER: Thank you, Your Honor.

13 CROSS-EXAMINATION

14 BY MS. BRIMMER:

15 Q. So Mr. Larrabee, Mr. Corpron earlier today
16 invited a question of you concerning the storage tanks,
17 and I understand from your counsel's questions that
18 maybe you haven't looked at all of the issues that have
19 come up here, but can you tell me, is Vancouver Energy
20 willing to install vapor capture on the storage tanks?

21 A. So I actually want to go back to my first --
22 earlier on when I was talking about the overall process.

23 One of the processes that is built into this
24 overall process is the air permit process. That
25 particular item falls within the air permit and the

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1 structure of the air permit as well as the standards of
2 the air permit and the regulations of the air permit, so
3 we believe that that is the appropriate forum for all of
4 that to be looked at and addressed, is to make sure that
5 that process is thorough, to make sure that the data is
6 in that process to make sure that it's looking at those
7 types of things in the right way. And that is an
8 ongoing process that we have worked with EFSEC staff on
9 and will continue to work with EFSEC staff on.

10 **Q. So regardless of where that is an enforceable**
11 **requirement, are you willing to do that or not, or you**
12 **don't know?**

13 A. I'm not suggesting that we are or we aren't
14 willing to do that. I'm suggesting that the process
15 will determine the appropriate way to address that, and
16 then coming through that process, we can have that
17 discussion.

18 **Q. So what happens in that process that determines**
19 **that then?**

20 A. Again, part of the reason I'm suggesting that
21 you go through that process simply is because the
22 experts in air, the experts from Ecology that work on
23 those processes can actually look at that and can
24 determine what the appropriate conditions and measures
25 should be to mitigate anything that they feel is

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1 appropriate there.

2 **Q. Okay. So just so I understand your**
3 **understanding, is that if Ecology determines that you**
4 **should include vapor capture on the storage tanks, you**
5 **would commit to that in the permit? Is that the answer**
6 **you just gave?**

7 A. The answer that I'm giving is that the
8 permitting process is the mechanism to go about looking
9 at that and that through that permitting process, if
10 there were items that are identified that need to be
11 looked at, then we certainly need to look at those and
12 determine how to proceed on those items; so whether it's
13 this particular item or other items.

14 **Q. Let's move to booming.**

15 **In your responses today to Mr. Johnson**
16 **committing to stop loading at the terminal if conditions**
17 **prevent booming?**

18 A. We actually -- that is one of those items that
19 we have not -- we have -- let me back up.

20 So we have in our application specific
21 conditions when we would not boom and specific
22 conditions of when we would stop loading altogether. We
23 also have in there when we would use the -- or the
24 commitment around use of the boom boat 24/7. That's all
25 what's in there already today.

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1 It's also one of the items that we are taking a
2 broader look at and a holistic look, based on all those
3 criteria we outlined before and will continue to look at
4 one and determine if other additional measures are
5 needed.

6 **Q. What else do you need to know to determine if
7 you're willing to commit to that?**

8 A. Well, that's one of the reasons we need to do
9 that analysis and look a little bit further is so that
10 we know what we don't know today and we need to know.

11 **Q. Moving to railcars. And in fact, some of the
12 things that you've just described, I believe you had
13 already committed to before this process, railcars being
14 one of them; right?**

15 A. The railcars, the DOT-117 railcars was something
16 that we committed to before adjudication but not before
17 the process, the overall EFSEC process began.

18 **Q. Thank you for the clarification.**

19 I think you also testified you've already had an
20 outstanding invitation to Chief Molina; right?

21 A. That is correct.

22 **Q. And you'd already done some of the looping work,
23 so that was a commitment before hearing the evidence in
24 the adjudication as well?**

25 A. No. We have not done the looping work, and that

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1 is something new that we are saying that we would be
2 paying for that looping work.

3 Q. Okay. So let's go to the railcars.

4 My understanding of the commitment that came out
5 in the testimony during the adjudication is that the
6 facility had committed to DOT-117s or better, which is
7 consistent with what you said here, but that that
8 included 117Rs, the retrofit; correct?

9 A. Yes, that is correct.

10 Q. Are you willing to exclude the retrofits and
11 have only DOT-117s as your commitment?

12 A. That is not something that we've analyzed or
13 looked at at this point in time, so I don't know that
14 that is something that I could answer or respond to
15 directly today.

16 Q. Okay. You also talked about the Current Buster
17 booms in that the OSRO, O-S-R-O, is going to purchase
18 one to put in Portland and then the facility would move
19 theirs to Pasco.

20 That's an OSRO purchase cost and commitment;
21 right?

22 A. Yes. The OSROs are supported by the industry
23 that relies on them, including us.

24 Q. Right, but that's a lot of other entities as
25 well; right?

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1 A. Yes.

2 **Q. And in fact, the OSRO could do that regardless**
3 **of what the facility commits to; right?**

4 A. That's right. They could do that regardless of
5 what the facility commits to do. What that does allow,
6 though, is us to move ours upriver to Pasco and still
7 provide the same coverage down in this area while also
8 providing upriver coverage.

9 **Q. With the added financial help of other entities?**

10 A. Well, I think the way I would look at this is,
11 we were the first party to bring those boom busters to
12 the -- excuse me, Current Busters to the area. Before
13 we had brought those here, they actually were not in the
14 area.

15 We weren't able to test those with the oil spill
16 response organizations and prove out their functionality
17 and their ability to be used. And based on that, those
18 have now started to come into the area.

19 We actually think that the commitment has helped
20 to elevate the response in general in the area. And
21 again, we don't have a facility today that we're
22 operating. We did that without having a facility.

23 **Q. Turning to your testimony that the facility was**
24 **going to do, was it all of the recommendations by**
25 **Dr. Thomas.**

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1 Is that a correct understanding?

2 A. Yes, all of the recommendations that he talked
3 about in relation to reducing the risk for flash fire
4 and bringing that onsite curve down.

5 **Q. And I think you also included protective gear
6 for employees?**

7 A. That is correct.

8 **Q. What about the ILWU workers that have to work
9 inside the rail loop? Are you going to include
10 protective gear for them?**

11 A. So I would go back to Dr. Thomas's study and the
12 facts that were included in that study. Part of what he
13 looked at was offsite workers. Offsite workers includes
14 the workers inside of the rail loop and the risk for
15 those workers is significantly lower.

16 So that is we, as we've looked at that, believe
17 that it is safe to operate around the facility and it is
18 safe to operate in the facility. And again, I'll come
19 back to my point.

20 I will be there in the facility. I feel like I
21 need to feel safe as well, so I don't think that -- I
22 don't believe that the facts and analysis demonstrates
23 that the ILWU are at risk being inside the facility --
24 or excuse me, being inside the rail loop.

25 **Q. So they're inside the facility, but they're**

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1 offsite workers; is that right?

2 A. No, they are not inside the facility.

3 **Q. So let me just make sure I'm understanding.**

4 **So your answer is no, the facility will not be**
5 **willing to provide protective gear to those workers?**

6 A. No. I think that's actually a
7 mischaracterization of my testimony. It's that we don't
8 believe as we've looked at the analysis and at the other
9 facilities that we operate around the country that there
10 is a risk to those workers where they actually need to
11 have that in place.

12 We have a facility in North Dakota where we have
13 a rail yard right next door to the facility. Those
14 workers have different protective equipment requirements
15 than the facility, the ones that are working inside the
16 facility, and they are right next door to each other.
17 So we believe this is actually very similar type of a
18 structure.

19 **Q. Well, I guess I didn't ask you about the risk.**
20 **That's your reasoning. I asked you about your**
21 **willingness to commit to provide the protective gear to**
22 **the ILWU workers, and I think your answer is no; is that**
23 **right?**

24 A. My answer would be if there was analysis that
25 supported a need for that, then it's certainly something

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1 we would look at.

2 **Q. My last question is for those things that you**
3 **have expressed a willingness to commit to here today,**
4 **what is the enforceable document, if any, that would**
5 **include the terms to ensure those things happen?**

6 A. There were a number of different ones, but I
7 would suggest that the fact that it's on record here is
8 a document or a record that would suggest that we are
9 committing to doing that and that this council can
10 follow up with us through staff or through others to
11 ensure that we follow through on those commitments.

12 **Q. You said there are a number of documents where**
13 **you think it might be an enforceable commitment. What**
14 **are those documents?**

15 A. If I said a number of documents, that's not what
16 I meant to say. I said there's a number of commitments
17 and they're on record here through this proceeding.

18 **Q. So your testimony right here would be what you**
19 **consider the end of those commitments. In other words,**
20 **because you said it here, that's good to go?**

21 A. I believe that this is a record and that this
22 council holds us accountable to the record that we are
23 making here today.

24 MS. BRIMMER: Thank you. I have nothing
25 further.

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1 JUDGE NOBLE: Redirect?

2 REDIRECT EXAMINATION

3 BY MR. JOHNSON:

4 Q. Mr. Larrabee, with regard to those specific
5 items you've discussed today, the commitments you've
6 discussed, if this council were to include those as
7 permit conditions as a condition of the permit, would
8 that be binding on Vancouver Energy?

9 A. Yes.

10 MR. JOHNSON: Nothing further.

11 THE WITNESS: That's my understanding.

12 MR. JOHNSON: Nothing further.

13 JUDGE NOBLE: Council questions?

14 Mr. Siemann?

15 MR. SIEMANN: Thanks.

16 I don't want to belabor this too much, but I
17 was intrigued by your offer to have a boom boat in
18 operation while a vessel is at the Port. And if I
19 understand correctly, a vessel is -- well, let me ask
20 you.

21 How many hours per day is a vessel likely to
22 be at Port?

23 THE WITNESS: So is your question about how
24 many hours a vessel will be at the Port or is it about
25 how often the boom boat will be?

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1 MR. SIEMANN: Well, my question is -- my
2 phone is ringing here -- my question is, you said the
3 boom boat would be in operation 24/7; is that correct?

4 THE WITNESS: Yes.

5 MR. SIEMANN: But my understanding is that a
6 vessel will be at dock only about 18 hours per day.

7 THE WITNESS: Well, so that depends on the
8 vessel that is there. Essentially, what we're
9 committing is we will have the boat ready to be manned
10 and be manned and there ready to go every time there is
11 a vessel there. So we will have 24/7 operations of that
12 boom boat to allow it to be there.

13 MR. SIEMANN: Can you elaborate more on what
14 you mean by a "boom boat," what that means? Is it
15 actually floating in the water or is it just at dock
16 unmanned? Are there people sitting on that boat 24/7?
17 That's what I'm trying to get at.

18 THE WITNESS: Okay. And again, the
19 specifics and other members of my team can get deeper
20 into the specifics of that if needed.

21 But that would mean there's a boat there
22 with a dock meaning that it's stationed there at the
23 facility and a team that can get on that boat and can be
24 there all the time. So it will be in the water. When
25 there's a vessel there, it is in the water, out in the

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1 water operating around the vessel the entire time.

2 MR. SIEMANN: So you're saying that 18 -- so
3 assuming that a vessel is operating -- is at dock
4 loading for 18 hours, that there will be a boom vessel
5 floating, not attached to the dock, with people on it
6 for 18 hours.

7 THE WITNESS: Correct. Now, they would
8 probably have to come back and do a shift change in that
9 18 hour period, but yes, there would be somebody out
10 there all the time.

11 MR. SIEMANN: Is that in all weather
12 conditions and in all current and river conditions?

13 THE WITNESS: To my knowledge, yes, that is.

14 MR. SIEMANN: Okay. Thanks.

15 JUDGE NOBLE: Mr. Stone?

16 MR. STONE: Good afternoon, Mr. Larrabee. I
17 want to have you clarify what you said about tugs.

18 Some of the previous witnesses stated that
19 they felt that tugs were necessary as an increased
20 measure of safety for outgoing transit of marine vessels
21 to help prevent collisions and groundings.

22 Are you saying that Vancouver Energy is now
23 considering that and may incorporate that into your
24 planning, the use of tugs on the outgoing transit?

25 THE WITNESS: Yes. Not only are we

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1 considering it, yes, we have committed that we will do
2 that.

3 MR. STONE: All the way past the bar?

4 THE WITNESS: I'm trying to think back on
5 the specifics of what it is. The tug would be with the
6 vessel to the bar and then would stand as a sentinel tug
7 at the bar to access and while it crosses the bar.
8 That's based on feedback from the experts on the river
9 that that is a more appropriate way for that to be
10 handled.

11 MR. STONE: Okay. Thank you.

12 JUDGE NOBLE: Mr. Snodgrass?

13 MR. SNODGRASS: Just one question.

14 It would seem many of the impacts or
15 potential impacts with the facility and the
16 transportation are we're talking about future incidents,
17 but some of the dispute over what -- I'm forgetting my
18 terms here, but what the classification of the air
19 permit would be relates to continuous activity and
20 theoretically should be verifiable by monitoring onsite.

21 Would you be willing to provide or allow for
22 monitoring onsite to determine if those emissions stay
23 within the threshold as you've asserted of the
24 Category 1, I believe it was, and if they don't, then
25 to, within a reasonable timeframe, minimizing

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1 disruption, retrofit to Category 2 if that's what the
2 monitoring shows?

3 THE WITNESS: Yeah. This is a perfect
4 example of something that fits within the air permit and
5 I believe that that's where all of that would come about
6 if any of those things were required and needed to be
7 done.

8 I know that one of the items that we did
9 include in the air permit was an LDAR program, leak
10 detection and repair program. That is something that is
11 above and beyond what is required to do, and those types
12 of programs include monitoring, they include reporting
13 and they include a defined timeframe for when you need
14 to repair leaks and verify that they are repaired.

15 So I believe that we've included an element
16 of that already. And if there's other things through
17 that permitting process that are needed or evaluated,
18 then that's certainly something we would look at.

19 MR. SNODGRASS: Thank you.

20 JUDGE NOBLE: Other council questions?

21 Mr. Rossman?

22 MR. ROSSMAN: Just one.

23 Are you intending to do any further analysis
24 as to what it would take to bring the building up to a
25 standard that would meet the ASCE risk Category 3 for

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1 the entire facility?

2 THE WITNESS: So is this in relation to the
3 testimony and the discussion with Mr. Corpron?

4 MR. ROSSMAN: Yeah, and several other
5 witnesses, but particularly related to the seismic
6 design factor 1.25 as opposed to 1. That difference.

7 THE WITNESS: So all of the specifics of
8 that discussion and everything that went on there is not
9 necessarily something that I can speak to today. But
10 what we can do is provide the analysis that we went
11 through and have the experts in that area look into that
12 and provide the analysis of why we came up with the
13 criteria and where it came up to the rating we are.

14 I have full confidence in our design team
15 and design engineers that they built that and designed
16 that within the code and within the requirements that
17 are laid out, and that they have solid, logical reason
18 and they certainly would never willfully do something
19 that was opposed to what they would do. So we certainly
20 can provide the analysis and data to show you what was
21 done and why it was done that way.

22 JUDGE NOBLE: Any other council questions at
23 all?

24 Questions based on council questions for
25 Mr. Larrabee?

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1 MS. BRIMMER: Just one. Thank you.

2 RECROSS EXAMINATION

3 BY MR. BRIMMER:

4 Q. Mr. Larrabee, in response to a question from
5 Council Member Snodgrass, you said that the facility has
6 committed to LDAR, which is leak detection monitoring.
7 Do you recall that?

8 A. Yes.

9 Q. In fact, that would be required if you were
10 getting a major source Clean Air Act permit, wouldn't
11 it?

12 A. I'm not familiar with what the major source
13 requirements are, but it is something that we
14 voluntarily committed to do.

15 MS. BRIMMER: Thank you.

16 JUDGE NOBLE: Mr. Johnson?

17 MR. JOHNSON: Nothing further.

18 JUDGE NOBLE: Mr. Larrabee, thank you for
19 your testimony, then and now. You're excused as a
20 witness.

21 THE WITNESS: You're welcome. If I might
22 just add, we appreciate, as the applicant and on behalf
23 of the applicant, I do want to thank you, Judge Noble,
24 and the council members. I know like us you've been
25 away from your family for a fair amount of time, you've

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1 asked thorough and thoughtful questions. We appreciate
2 that and we know that you will have a thorough and
3 in-depth discussion ahead. We appreciate that in
4 advance. Thank you for your time.

5 JUDGE NOBLE: You will indeed have that, but
6 thank you for your graciousness.

7 I want the parties to know that I still have
8 a long list of exhibits that haven't been dealt with and
9 I'd like to, tomorrow morning quickly go through those.
10 We could do it this afternoon. The council could leave
11 and we could take care of that this afternoon, or wait
12 for tomorrow morning, which would be more awkward
13 because you'll be ready for closings in the morning.

14 MS. BOYLES: I would suggest we do it now.

15 MR. JOHNSON: I'm fine with that.

16 JUDGE NOBLE: That's good. So other than
17 that, is there anything else that we need to do on the
18 record with the council here? All right. Then we'll be
19 in recess just for five minutes to allow them to pick up
20 their stuff. Thank you.

21 (Recess taken from 4:35 p.m. to 4:44 p.m.)

22 JUDGE NOBLE: All right. We're ready to go.
23 We got a few more admitted today. We are back on the
24 record. And the last thing we have to do today is deal
25 with the last of the exhibits.

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1 Do you all have a list of the remaining
2 exhibits?

3 MR. JOHNSON: I have a list of -- that was
4 given to us with just our exhibits, so not all the
5 remaining exhibits.

6 MS. BOYLES: I don't need a list.

7 JUDGE NOBLE: You don't have a list at all?

8 MS. BOYLES: Nor do I need a list.

9 JUDGE NOBLE: All right.

10 MR. JOHNSON: I think we can probably walk
11 through without it.

12 JUDGE NOBLE: We can muddle through with
13 just the numbers. And I'm pretty sure my list is
14 complete, because I have faith in staff. Then a few
15 were admitted today.

16 The first one is Exhibit 0186, a map of four
17 treaty tribes adjudicated, usual and accustomed area.

18 Is there an objection to the admission of
19 that?

20 MR. JOHNSON: We're withdrawing it.

21 JUDGE NOBLE: Withdrawing the exhibit?

22 MR. JOHNSON: My understanding is if it was
23 not admitted, you want us to withdraw. Is that right,
24 Your Honor?

25 JUDGE NOBLE: No. There's a chance to admit

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1 and I think -- actually, that exhibit would be helpful
2 to the council, but I don't know who the party -- we
3 have a party objecting, which would be the county and --

4 MS. BOYLES: Yes, Your Honor, we did object
5 to these. They did not come in with the witnesses.

6 Mr. Johnson is saying they are -- we believe they are
7 actually factually incorrect and they are representing
8 tribal treaty areas which are not -- without some
9 foundation for what this map is, there is no way it
10 should come in.

11 JUDGE NOBLE: I see. I see. Because it's
12 adjudicated.

13 MS. BOYLES: Indeed.

14 JUDGE NOBLE: I got it. I'll accept your
15 withdrawal then.

16 MR. JOHNSON: Okay. I've never had to do it
17 that way, so...

18 JUDGE NOBLE: Well, this is a unique
19 process. All right.

20 And 0187, is there the same objection?

21 MR. JOHNSON: We're withdrawing that one
22 too, Your Honor.

23 JUDGE NOBLE: 0189?

24 MR. JOHNSON: Withdrawn.

25 JUDGE NOBLE: 0192?

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1 MR. JOHNSON: Withdrawn.
2 JUDGE NOBLE: 0193?
3 MR. JOHNSON: Withdrawn.
4 JUDGE NOBLE: 0210?
5 MR. JOHNSON: Withdrawn.
6 JUDGE NOBLE: 0211?
7 MR. JOHNSON: Withdrawn.
8 JUDGE NOBLE: Do we have a range of
9 withdrawals here?
10 MR. JOHNSON: They're not consecutively
11 numbered.
12 JUDGE NOBLE: So, 0212?
13 MR. JOHNSON: Withdrawn.
14 JUDGE NOBLE: 0213?
15 MR. JOHNSON: Withdrawn.
16 JUDGE NOBLE: 0214?
17 MR. JOHNSON: Withdrawn.
18 JUDGE NOBLE: 0215?
19 MR. JOHNSON: Withdrawn.
20 JUDGE NOBLE: 0217?
21 MR. JOHNSON: Withdrawn.
22 JUDGE NOBLE: 0231?
23 MR. JOHNSON: Withdrawn.
24 JUDGE NOBLE: 0232?
25 MR. JOHNSON: Withdrawn.

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1 JUDGE NOBLE: 0249 was admitted.

2 MR. JOHNSON: Okay. Good, because we
3 thought it had been.

4 JUDGE NOBLE: And 0252?

5 MR. JOHNSON: Withdrawn.

6 JUDGE NOBLE: 0257?

7 MR. JOHNSON: Withdrawn.

8 JUDGE NOBLE: 0314? You can try.

9 MR. JOHNSON: No. Withdrawn.

10 MS. BOYLES: I'm sorry. I've lost our
11 numbers. Where are we?

12 MR. JOHNSON: 0314.

13 JUDGE NOBLE: 0314, the DEIS comments.

14 MR. JOHNSON: So we withdrew 314, Your
15 Honor?

16 JUDGE NOBLE: Yes. And 373, 374, 375 and
17 376 were all admitted. 3023?

18 MS. REED: Withdrawn.

19 JUDGE NOBLE: 3025?

20 MS. REED: Withdrawn.

21 JUDGE NOBLE: 3027?

22 MS. REED: Withdrawn.

23 JUDGE NOBLE: 3031?

24 MS. REED: Withdrawn.

25 MS. BOYLES: 3034?

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1 MS. REED: Withdrawn.
2 JUDGE NOBLE: 3035?
3 MS. REED: Withdrawn.
4 JUDGE NOBLE: 3036?
5 MS. REED: Withdrawn.
6 JUDGE NOBLE: 3037?
7 MS. REED: Withdrawn.
8 JUDGE NOBLE: 3038?
9 MS. REED: Withdrawn.
10 JUDGE NOBLE: 3040?
11 MS. REED: Withdrawn.
12 JUDGE NOBLE: 3050 is withdrawn, right?
13 MS. REED: Withdrawn.
14 JUDGE NOBLE: Thank you. 3080?
15 MS. REED: Withdrawn.
16 JUDGE NOBLE: 3081?
17 MS. REED: Withdrawn.
18 JUDGE NOBLE: 3112?
19 MS. REED: Withdrawn.
20 JUDGE NOBLE: 3114?
21 MS. REED: Withdrawn.
22 JUDGE NOBLE: 3115?
23 MS. REED: Withdrawn.
24 JUDGE NOBLE: 5631?
25 MS. BOYLES: If that's mine, it's withdrawn.

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1 JUDGE NOBLE: Thank you. I think we have
2 dealt with all of the exhibits in this matter.

3 Does anybody disagree?

4 MR. JOHNSON: No, Your Honor.

5 JUDGE NOBLE: Thank you very much for
6 staying late to get this done. Anything else we need to
7 do on the record before we adjourn until tomorrow
8 morning?

9 MR. JOHNSON: Not from the applicant.

10 JUDGE NOBLE: I just need to say that
11 tomorrow afternoon starting at 1:00 we will have the
12 public argument following the parties' arguments in the
13 morning. All argument of the public will have to be
14 restricted to the record in this adjudication and people
15 will have to assure the council that they have followed
16 this adjudication and the evidence that has been
17 admitted.

18 Parties will be limited in the amount --
19 excuse me, the commenters, arguers, public arguers will
20 be limited in the amount of time that they have to argue
21 before the council because there are numerous people
22 that wish to weigh in. And a certain people have agreed
23 to appoint a spokesperson to give comment. The groups
24 that have done that, their spokespeople will be allowed
25 to speak first. We will alternate between proponents

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1 and opponents. When those groups' spokespeople are
2 done, then other individuals who still wish to speak
3 will be allowed to speak.

4 The amount of time -- they will also be
5 alternated proceed opponents and opponents. The amount
6 of time that each person will have to speak, I will
7 announce tomorrow at the beginning of the argument,
8 public argument period, but I won't be able to do that
9 until I know how many people wish to speak.

10 So I think given that, we're done for the
11 day and we are off the record. Thank you. We're
12 adjourned until tomorrow morning.

13 (Proceedings adjourned at 4:51 p.m.)
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