

1 BEFORE THE PUBLIC SERVICE COMMISSION
2 OF THE STATE OF NORTH DAKOTA

3
4 IN RE THE MATTER INVOLVING: CASE NO: PU-19-204
5 DAKOTA ACCESS, LLC,
6 DAKOTA ACCESS PIPELINE PUMP
7 STATION - EMMONS COUNTY
8 SITING APPLICATION

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11 HEARING TAKEN BEFORE THE HONORABLE
12 ADMINISTRATIVE LAW JUDGE TIM DAWSON

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16 AUDIO TRANSCRIPTION

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ORIGINAL
CERTIFIED TRANSCRIPT

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93 PU-19-204 Filed 12/30/2019 Pages: 548
Attachment A - Transcript of Hearing
Dakota Access, LLC
Lawrence Bender-Fredrikson & Byron P. A.

21

22 TRANSCRIBED BY: Alexandria Kaan

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P R O C E E D I N G S

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ADMINISTRATIVE LAW JUDGE DAWSON: I'm

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Timothy Dawson, an Administrative Law Judge designated

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by the Office of Administrative Hearings upon the

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request of the Public Service Commission to serve as

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hearing officer for this hearing. This is North Dakota

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Public Service Commission Case No. PU-19-204. Before we

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begin, I warn you to turn off your cellphones or silence

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them, and there should be an attendance sheet going

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around; Mr. Fawn (phonetic) will be passing it out. On

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that attendance sheet it asks you to circle the best

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description that is you here today. So if you represent

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a governmental entity, circle that; if you're nearby

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landowner, circle that; if you're a County resident,

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again, circle that. There's "group representative",

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that means if you're here in a capacity representing a

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group officially; and then there's "interested person"

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and "other".

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This is a hearing on the application of

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Dakota Access LLC regarding an application for amended

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certificate of corridor compatibility 179 and an amended

1 route permit 191 for the addition of a pump station to
2 the existing Dakota Access Pipeline. In addition, this
3 hearing is on the waiver of procedures and time
4 schedules. The pump station will consist of five 6,000
5 horsepower electrically-driven motors and pumps,
6 allowing for the transportation of 1,100,000 barrels of
7 crude oil per day.

8 Let the record show that it is November 13th
9 and it is 9 a.m. We are at the Emmons County Courthouse
10 Auditorium in Linton, North Dakota. This is the time,
11 date, and place set by the notice of hearing issued by
12 the North Dakota Public Service Commission on August
13 21st, 2019. The notice of filing and notice of hearing
14 for this hearing specified the following issues to be
15 considered and determined at this hearing. These are
16 the issues or questions. These are the reason that the
17 Commission is here today. The Commission is here to
18 receive testimony on these issues and the testimony will
19 be limited to these issues. The issues to be considered
20 as specified on the application for waiver of procedures
21 and time schedules are:

22 Number one: Are the proposed facilities of

1 such length, design, location, or purpose that they will
2 produce minimal adverse effects, and that adherence to
3 applicable procedures in time schedules may be waived?

4 Number two: Is it appropriate for the
5 Commission to waive any procedures and time schedules as
6 requested in the application?

7 The issues to be considered in the
8 application for certificate of corridor compatibility
9 and route permit are:

10 Number one: Will the location and operation
11 of the proposed facilities produce minimal adverse
12 effects on the environment and upon the welfare of the
13 citizens of North Dakota? Are the proposed facilities
14 compatible with the environmental preservation and
15 efficient use of resources?

16 And number three: Will the proposed
17 facility locations minimize adverse human and
18 environment impact while ensuring continuing system
19 reliability and integrity, and ensuring that the energy
20 needs are met and fulfilled in an orderly and timely
21 manner.

22 It is now time for the parties to make their

1 appearance. Mr. Bender, would you introduce yourself
2 and the people at the table with you?

3 MR. BENDER: Thank you, Your Honor.

4 Lawrence Bender, PO Box 1855, Bismarck, North Dakota,
5 appearing here on behalf of the applicant Dakota Access
6 LLC. To my immediate right is Mr. Keegan Pieper. Mr.
7 Pieper is in-house counsel with Dakota Access. Next to
8 Mr. Pieper is Brent Dublinske. Mr. Dublinske is a
9 lawyer with Fredrikson and Byron in our Iowa office.
10 Next to Mr. Dublinske is Brant Leonard. Mr. Leonard is
11 also a lawyer with Fredrikson and Byron in our Iowa
12 office. And then finally, at the end of the table is
13 Mr. John Godfrey. Mr. Godfrey is a consultant of Dakota
14 Access LLC in this matter.

15 ADMINISTRATIVE LAW JUDGE DAWSON:

16 I previously received a pro hoc VJ motion for Mr.
17 Leonard and Mr. Dublinske and approved that and so
18 they'll be able to participate today.

19 Mr. Pelham, please state your appearance for
20 the record.

21 MR. PELHAM: Good morning, Your Honor.

22 Zachary Pelham, Special Assistant Attorney general on

1 behalf of the Public Service Commission. To my left is
2 Public Utilities Director Patrick Fawn. Mr. Fawn may
3 have questions during the hearing and we ask that he be
4 permitted to ask them. Thank you.

5 MR. BENDER: No objection.

6 ADMINISTRATIVE LAW JUDGE DAWSON:

7 And then we have the Intervenor. Mr.
8 Purdon, please introduce yourself who is with you today.

9 MR. PURDON: Thank you, ALJ Dawson. My name
10 is Tim Purdon. I'm with the law firm of Robins Kaplan
11 in Bismarck. I represent the Intervenor, the Standing
12 Rock Sioux Tribe. To my left is the Chairman of
13 Standing Rock, Michael Faith.

14 ADMINISTRATIVE LAW JUDGE DAWSON:

15 Thank you. By a show of hands in the
16 audience today, Is there anyone that wishes to testify
17 today just to get a little feel for it? Okay. There is
18 a sheet going around that you can sign up on and you can
19 put down whether you want to testify or not. You can
20 change your mind and come up later. We don't hold you
21 to it, but it just gives us a general idea of what's
22 going to happen. Your testimony will be taken after the

1 completion of the presentations by Dakota Access and the
2 Standing Rock Sioux Tribe. I expect that to be
3 mid-afternoon maybe three-sh, but it could be later.
4 We hope to finish the hearing by 11 p.m. Tonight, but we
5 will make a decision around 8 p.m. tonight, but we will
6 make a decision around 8 p.m. tonight whether we'll come
7 back tomorrow or not.

8 I want to encourage everyone here to come
9 forward and say something if they have something to say,
10 because that's why we came out here today. But I'd also
11 like you to limit your testimony to the construction and
12 effect of the pump station. I'd like you also not to
13 repeat testimony that has been previously given. If the
14 point has been made; the Commission will consider it.
15 The goal today is to have a safe and orderly hearing in
16 which many voices will be given the opportunity to be
17 heard. It's now time for statements by the
18 Commissioners. We have Commissioner Fedorchak,
19 Commissioner Kroshus, and Commissioner Christmann.
20 Commissioner Fedorchak goes first in these matters
21 because she holds the portfolio for pipelines, and
22 she'll be followed by Commissioner Kroshus to my left

1 because he is the Chairman of the Public Service
2 Commission. And that leaves Commissioner Christmann.
3 Commissioner Fedorchak.

4 COMMISSIONER FEDORCHAK: We saved the best
5 for last. Right, Randy?

6 Well, good morning, everybody and welcome.
7 It's great to see such a nice strong crowd for this
8 hearing. It's not -- I'm not surprised, but it's good
9 to see everybody here. First of all, I thank Judge
10 Dawson for his work on this, and all the law
11 enforcement, sheriffs; everybody else who helped set
12 this up, make sure that it's orderly, and make sure that
13 we're able to just forget about everything else and do
14 the important business of the day. Which is to hear the
15 facts on this case, hear the input from others, hear the
16 intervenor's side, and get all the facts that we can and
17 a very thorough record so that we can make the best
18 decision possible.

19 So ultimately we're here for one reason.
20 And that reason is that North Dakota has been extremely
21 blessed. We have incredible resources, lots of them.
22 One of those categories is energy resources: Wind,

1 we've got oil, gas, coal. We've got incredible energy
2 resources. We also have incredible agriculture
3 resources, wildlife resources for fishing, hunting,
4 recreation, and have incredible people resources. And
5 let's be honest. I think we probably have the best
6 people resources of any place in the country. And that
7 includes our native people, the people that were here
8 first; it includes all the immigrants; my family, others
9 like those who settled in this Linton area. It includes
10 a new immigrants.

11 We have an incredible population of people,
12 and ultimately we are pragmatic. North Dakotans are
13 pragmatic. That's why -- one of the reasons why I'm so
14 proud to be a North Dakotan and to work and serve here.
15 Because we don't just celebrate problems, we look for
16 solutions. And that's really why we're here today and
17 the law, the Siting law that the legislature has
18 established is very pragmatic. It establishes two
19 things. It basically recognizes North Dakota has energy
20 resources. So how are we going to go about developing
21 those resources in a way that balances the value of
22 those resources with also protecting the environment in

1 the people living near them? It's a delicate balancing
2 act and it's something that ultimately this process is
3 all about.

4 We use a standard of minimal impact that's
5 straight from the law. You heard the judge talk about
6 that at the beginning, that the goal of the Siting Act
7 is to develop the resources we have in an orderly
8 fashion with minimal impact. It's important to note
9 that that isn't "no impact"; its "minimal impact". And
10 so bulk of the hearing today will be focused on getting
11 information into the record so that we can make the best
12 decision to ultimately determine whether this project is
13 going to be developed in a way that has minimal impact
14 and allows North Dakota to continue developing the
15 resources we have, allowing for reliable energy
16 resources for our state and the nation while also
17 minimizing the impact to the environment and to the
18 people. So thank you for being here, because you're an
19 important part of us trying to reach that important
20 balance, and I look forward to hearing from many of you.
21 It feels very formal once you take the witness stand.
22 Just think about just you're just talking to us. I

1 mean, ultimately the three of us are those people that
2 will be making the decision, so you're just sharing your
3 thoughts, your ideas, your concerns with us. And that's
4 all it is. It doesn't have to be a formal process in
5 that regard. So thank you for being here. Looking
6 forward to a productive hearing.

7 ADMINISTRATIVE LAW JUDGE DAWSON:

8 Commissioner Kroshus.

9 COMMISSIONER KROSHUS: Well, good morning,
10 everyone. Thank you for being here as well. I'm
11 looking forward to a constructive day, a productive day
12 in terms of the information that will be presented. And
13 if you look at this from the eyes of a Commissioner,
14 what we're doing is we are listening to the various
15 Witnesses that will step forth today to provide
16 testimony, and we'll be gathering information. As we go
17 will we be asking a lot of questions. And what we're
18 really trying to do is to have the appropriate amount of
19 information to be able to go back to Bismarck and do our
20 work at the state capital in terms of what happens after
21 the hearing. And what happens after the hearing, there
22 are a number of work sessions that will likely be held,

1 and we'll go through everything that we heard today, as
2 well as the application that's on file, as well as the
3 information already provided by the Intervenor in the
4 case, Standing Rock. And obviously, with the company
5 and the public which is one of the most important
6 aspects of why we conduct these hearings.

7 It is part of statute that we conduct these
8 hearings in the county in which the facility will be
9 located. That is Emmons County, that's why we're here.
10 That's in law and that's why the location was chosen.
11 So I know a lot of you traveled a considerable distance
12 to get here. It is a work day for everyone. This
13 happens to be my job, but you're apart from your job
14 today in many cases. So thank you for taking the time
15 to be here with us. So again, I just want to emphasize
16 that I think leading up to this, I've had good
17 conversations with a number of people, and I've been
18 asked, "What do you think the day is going to be like?"
19 And I told them I'm very optimistic and I look forward
20 to a really good day. And I truly do, so if that
21 happens then everyone's heard; and everyone is heard
22 effectively and that's an incredibly important part of

1 the process. So thank you to law enforcement for
2 everything that you've done today. Greatly appreciate
3 that, and our staff has done a tremendous amount of
4 heavy lifting behind the scenes. A lot of times we're
5 the ones that are interviewed and get to talk. But in
6 addition to the work we do, really the backbone of the
7 Commission, regardless of who the three Commissioners
8 are, is the staff day in and day out. They just do a
9 fantastic job and I want to give them a big shout-out as
10 well.

11 So I look forward to hearing from all of you
12 as we progress through the day and thank you for being
13 here.

14 ADMINISTRATIVE LAW JUDGE DAWSON:

15 Commissioner Christmann.

16 COMMISSIONER CHRISTMANN: Most things, I
17 guess, have probably been said already, but maybe to
18 just reframe a couple things from my perspective. First
19 of all, I want to notice Representative Jeff Magrum from
20 right here in the 28th legislative district is here. I
21 usually, as a former legislator, like to introduce the
22 legislators that are in the room. But we're usually in

1 a smaller room, and so if I'm not seeing someone I
2 apologize for that. But thank you for being here, Jeff.

3 We really value your testimony, and I want
4 to emphasize that when I say that, I say "testimony" for
5 a reason not just using the word "opinion". Because if
6 you have opinions, but you don't testify, you can't
7 really use them in the case. So I know it might seem
8 intimidating to come up on that stage and subject
9 yourself to cross-examination. But the fact of the
10 matter is: If you have opinions and you wait until
11 there's a restroom break and catch us there, or call us
12 this evening, or something like that, we can't take
13 testimony that way. And so it is important that you
14 voice your opinions through testimony.

15 I'm pointed out -- I don't see you, but I
16 understand Representative Pete Silbernagel, former
17 Representative is here somewhere. So thank you, Peter,
18 for being here. And thank you for pointing that out.

19 The testimony that we receive, it's
20 important that it be on point and is the Judge said, not
21 so repetitive. You know, if you want to talk about the
22 occurrences of several years ago when the original

1 pipeline was built, that's really not what we're here
2 about today. If you want to talk about climate change,
3 it's really not what we're here about today. If you
4 have a point, but numerous other people have already
5 made it, just taking more time re-emphasizing the same
6 point over and over again uses the state's resources,
7 that uses your county's resources to keep things orderly
8 here. And and so that's just not really helpful. So it
9 is important that you testify and voice your opinions as
10 emphasizing when you have something new and useful for
11 us.

12 And lastly, I want to point out that when
13 the Judge read the things that we consider -- and I'm
14 just going to not read the whole things but a couple of
15 lines out of there. We talk about "minimal adverse
16 effects on the environment and the citizens in North
17 Dakota and minimizing adverse human and environmental
18 impact". Not eliminating those things but minimizing
19 them. This is life; we're humans; we can't eliminate
20 all risk. But we minimize it; we make those choices
21 day-to-day. Do you take the super highway where you
22 have a wider road, there's also more traffic? Or do you

1 take the smaller highway with less traffic, but it's not
2 as wide of a road? You make a decision when you do that
3 and you minimize the risk. But if it's important that
4 you get somewhere, then you have to choose one of those.
5 And you choose the one that you think minimizes --
6 because also in there is our responsibility to make sure
7 that the energy needs are fulfilled in an orderly And
8 timely fashion. So that is just as important as
9 minimizing those risks. And so we weigh those; ensure
10 that energy needs are met orderly and timely, but
11 minimizing the risks.

12 And so, I look forward to the hearing. We
13 come here so that it's as convenient as possible for the
14 people, and here in Emmons County where it's going to be
15 built, because we do want to hear from you. And that's
16 the thing I most want to emphasize. Thank you.

17 ADMINISTRATIVE LAW JUDGE DAWSON:

18 Commissioner Fedorchak.

19 COMMISSIONER FEDORCHAK: I want to do one
20 more and that is -- Thank you for that introduction.

21 And that is a special welcome to Chairman Faith and the
22 Tribal Council. I know that your whole council is here

1 and appreciate the government-to-government interaction
2 and your stepping forward as Intervenor in this
3 process. It means a lot to the process, and your
4 people, and to North Dakota as well. And then I also
5 want to take a moment to recognize that all of our
6 Congressional offices in DC have also sent
7 Representatives. We have representatives from the
8 Senator Hoeven's office and Senator Cramer's office and
9 Representative Armstrong's office. So everyone's fully
10 represented here and engaged in this process and paying
11 close attention. So thank you for taking the time to be
12 here.

13 ADMINISTRATIVE LAW JUDGE DAWSON:

14 It's now time for preliminary matters. I
15 have a motion before me to Strike the testimony from the
16 Intervenor and to -- another based upon relevancy and a
17 protective order. I did not receive the response for it
18 until this morning, so I was unable to provide a written
19 response. I'm able to respond verbally now. I would
20 have preferred to do it in writing to save the time
21 though. So I'm going to go ahead with that. As to
22 relevancy -- Well, let me start over again.

1 I do have this motion before me from Dakota
2 Access to strike testimony provided by the witnesses of
3 the Intervenor because of relevance. And in the case of
4 Mr. Holstrom (phonetic), due to a protective order in
5 Federal District Court. And in addition to this
6 relevancy concern again, as to the relevancy, some of
7 the testimony does have a tenuous relationship to the
8 issues to be considered by the Commission, but some has
9 a stronger relationship. I think because there is
10 little or no risk of the Commission confusing the
11 issues, I'm going to allow the evidence in over the
12 relevancy objection. The Commission is the expert in
13 this area and are able to sort out the relevant
14 information as it relates to their jurisdiction. As to
15 the protective order, it applies to protected
16 information and the parties and qualified persons. It
17 does not apply to me or the Commission. It's also
18 impossible for us to decide whether something is
19 protected information; because it's protected we can't
20 see it.

21 So as such, the enforcement is through the
22 Federal District Court at the parties and qualified

1 persons. Those people, the applicant and the
2 Intervenor, are subject to the punishments from that
3 Federal District Court. The testimony of Mr. Holstrom
4 is already on the PSC website, so any violation that has
5 occurred to date has already occurred and we can't put
6 that genie back in the bottle. So as we go forward
7 today if there is something that is protected under the
8 protective order, some sort of protected information, I
9 will need some sort of state-law basis to keep that from
10 being public. So in short, the motion is denied.

11 Are there any other preliminary matters or
12 motions? Mr. Bender?

13 MR. BENDER: Yes, Your Honor. As you know,
14 the Public Service Commission will in these sorts of
15 matters always provide the applicant with a certificate
16 -- excuse me -- a certification relating to order
17 provisions. That document was submitted to us; It was
18 reviewed by Dakota Access. Dakota Access feels that
19 there should be some changes to the certification. We
20 have agreed to those changes. But what we would like to
21 do is submit this for the record today, but then after
22 the hearing, Dakota Access and the Commission staff will

1 get together and put together a more formal document
2 that will, rather than crossing out items, actually
3 delete those items from the document. And I believe Mr.
4 Pelham is in agreement to this.

5 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.
6 Pelham.

7 MR. PELHAM: Thank you, Your Honor. I'm in
8 agreement with Mr. Bender's statements. And just so the
9 Commissioners are aware, the certification is largely
10 intact. There are several items, however, that relate
11 to what would ordinarily be easement situations with
12 landowners that are private landowners. In this
13 proposed -- in this application the company has
14 indicated that it owns the land in fee. So there are
15 certain certification provisions that would relate to
16 the land itself which are not applicable, and those have
17 effectively been agreed to be taken out of the
18 certification. I want to make one thing clear though,
19 however. The original certification in the original
20 application and PU 14842 is still binding and valid in
21 this case. This is effectively an amendment to the
22 certificate that was awarded to Dakota Access in the

1 original matter PU 14842. So I just want to make that
2 clear: This pertains to this amended application only.
3 Thank you.

4 MR. BENDER: And one other item.

5 ADMINISTRATIVE LAW JUDGE DAWSON: Yes.

6 MR. BENDER: Your Honor, we'd like the
7 certification to be marked as Exhibit 12 and we offer it
8 for admission.

9 ADMINISTRATIVE LAW JUDGE DAWSON: Okay. And
10 it is the "tentative" -- or how would you -- what word
11 would you use to memorialize it?

12 MR. BENDER: I think it is "the
13 certification" until we substitute it with a more formal
14 version. Is it okay with you, Mr. Pelham?

15 MR. PELHAM: I would agree with that. It is
16 the certification relating to order provisions as agreed
17 to. I would note the tree/shrub mitigation plan is not
18 included. It's my understanding from the application
19 that there are no trees and shrubs on this land, making
20 it not relevant. Either in the past the Commission, the
21 Commissioners, we have allowed for that to be omitted in
22 prior certifications related to order provisions.

1 ADMINISTRATIVE LAW JUDGE DAWSON: So I have
2 before me Exhibit number 12, which is so marked unless I
3 hear an objection admitted.

4 UNIDENTIFIED SPEAKER: Well, I haven't had a
5 chance to review it, so I don't know if I have an
6 objection or not. But I don't think that that probably
7 matters so I'll pass it down.

8 ADMINISTRATIVE LAW JUDGE DAWSON: We'll move
9 along and I'll hold on to admitting it for a few
10 seconds. I understand that the parties have a
11 stipulation as to the other exhibits? Mr. Bender?

12 MR. BENDER: Yes, Your Honor. We pre-filed
13 with the Commission, Exhibits 1 through 11. And of
14 course now, that'll be 12. And most of the exhibits
15 that are on the exhibit list of being 1 through 11 are
16 matters that were previously filed with the Commission.
17 For example, the application itself, a pre-filed witness
18 sheet, which was indicated the -- excuse me -- the
19 Commission indicated that they wanted that filed ahead
20 of time. We did that. There's the Emmons County
21 conditional use permit; there's a map relative to the
22 pump station and nearby structures; there is the SHIPO

1 concurrence letter; and then there's an agency
2 consultant matrix. And for those of you who aren't as
3 familiar with this procedure is I or some of the other
4 people on the stage, one of the requirements for making
5 an application under the Siting Act is that you have to
6 make consultation with various agencies in the state of
7 North Dakota. That agency consultation matrix, lists
8 all the agencies that were contacted, and if there was
9 any response.

10 Other Exhibits 8, 9, 10, and 11 are the
11 pre-filed written testimony of the four witnesses that
12 Dakota Access plans to call in its case in chief. We
13 agreed ahead of time, Your Honor, that we might be able
14 to save some time if we pre-filed that testimony. And
15 so that is what constitutes those four exhibits. Okay.

16 ADMINISTRATIVE LAW JUDGE DAWSON: And
17 there's an agreement as to your exhibits as well?

18 MR. BENDER: Yeah, I believe so.

19 MR. PURDON: I believe so, Your Honor. We
20 will be filing today the three -- the pre-filed
21 testimony from Mr. Kuprewicz, Mr. Holstrom, and Mr. John
22 Eagle. A couple of those exhibits have pre-filed

1 testimony with a resume or CV attached and those have
2 been pre filed with the Commission, they're on the
3 docket. We would be offering those today into evidence
4 as well. Okay?

5 ADMINISTRATIVE LAW JUDGE DAWSON:

6 If there's no objection, I'm going to admit Exhibits 1
7 through 12.

8 MR. PURDON: I still haven't had a chance to
9 look at it, Your Honor.

10 ADMINISTRATIVE LAW JUDGE DAWSON: Okay,
11 we'll hold on. 1 through 11. And we will admit
12 I-number as I-1 through I-3 for Intervenor 1 through
13 Intervenor 3 for you, Mr. Purdon.

14 MR. PURDON: Thank you.

15 ADMINISTRATIVE LAW JUDGE DAWSON: Are there
16 any other matters, motions, or items that need to be
17 brought before me before we begin today?

18 Mr. Bender?

19 MR. BENDER: Nothing further.

20 ADMINISTRATION LAW JUDGE DAWSON:

21 Mr. Purdon?

22 MR. PURDON: I will -- I wonder if I could

1 at a break talk to Mr. Pelham about some of the markings
2 here. I'm not sure I understand exactly what's going
3 on. Maybe in a break we could do that and come back to
4 this. I don't anticipate an objection by like to know
5 what I'm looking at first.

6 ADMINISTRATIVE LAW JUDGE DAWSON:

7 Understood. Anything else? Mr. Pelham?

8 MR. PELHAM: Nothing further, Your Honor.

9 ADMINISTRATIVE LAW JUDGE DAWSON:

10 Then we can begin. Mr. Bender, you may call
11 your first witness.

12 MR. BENDER: Thank you, Your Honor. The
13 applicant intends to call. Dr. Jeff Makholm. Excuse
14 me, Makholm.

15 ADMINISTRATIVE LAW JUDGE DAWSON:

16 Mr. Makholm, please come to the table up here on the
17 stage. Is it Makholm or Makholm?

18 WITNESS: Makholm.

19 ADMINISTRATIVE LAW JUDGE DAWSON: Makholm.

20 MR. BENDER: I apologize. I got everybody
21 started the wrong way.

22 ADMINISTRATIVE LAW JUDGE DAWSON:

1 Mr. Makholm, before you begin today, I'm required by law
2 to tell you the penalties for perjury in this state.
3 Perjury is a class C felony punishable by a fine of up
4 to \$10,000 or a term of imprisonment of up to five years
5 or both. Do you understand what perjury is and the
6 penalties for it?

7 WITNESS: Yes.

8 ADMINISTRATIVE LAW JUDGE DAWSON:
9 Understanding so, do you promise or swear that the
10 testimony that you're about to give will be the truth,
11 the whole truth, and nothing but the truth?

12 WITNESS: Yes.

13 ADMINISTRATIVE LAW JUDGE DAWSON:

14 You may begin.

15 MR. BENDER:

16 Thank you. Your Honor, before we began just
17 to make it a little bit easier for everyone. I have
18 given the Intervenor as well as Commission staff a copy
19 of exhibit 10, which is Mr. Makholm's testimony, and I
20 gave you a copy of the original. I could give these
21 three for the Commissioners. I think that may be
22 helpful.

1 ADMINISTRATIVE LAW JUDGE DAWSON: We filed.

2 You may begin.

3 EXAMINATION

4 BY MR. BENDER:

5 Q. Dr. Makholm.

6 A. Good morning.

7 Q. Good morning. I apologize for mispronouncing
8 your name earlier.

9 A. That's a common occurrence.

10 Q. Could you please state your full name for the
11 record, please?

12 A. Yes. Jeff, middle initial D, Makholm,
13 M-A-K-H-O-L-M.

14 Q. And what is your business address?

15 A. 99 High Street, Boston, Massachusetts.

16 MR. BENDER: And just to remind the
17 Commission, even though we've submitted written
18 testimony, We have to spend a few moments authenticating
19 that testimony. And in this case, Mr. Makholm is an
20 expert. We may spend a little time talking about his
21 specific background so that it's clear that he has
22 expertise in the area in which he has given written

1 testimony.

2 BY MR. BENDER:

3 Q. With that in mind, Mr. Makholm -- With that in
4 mind, Dr. Makholm, I've given to you what's been
5 previously marked as Exhibit 10. Is that your written
6 testimony?

7 A. Yes.

8 Q. And Dr. Makholm, was that written testimony
9 prepared by you or under your control and supervision?

10 A. Yes.

11 Q. And Dr. Makholm, when you prepared that testimony
12 was it true and correct?

13 A. Yes.

14 Q. And Dr. Makholm, as you sit here today is it true
15 and correct? There's been no changes in any of the
16 evidence or comments that you have in the written
17 comments, is there?

18 A. It is true and correct. There have been no
19 changes.

20 Q. Now, Dr. Makholm, there are some exhibits
21 attached to your testimony. Is that correct?

22 A. Yes, there are three.

1 Q. Let's start with the first exhibit, Exhibit A.
2 And in looking at Exhibit A, can you briefly describe
3 for us your educational background and work experience?

4 A. Yes. I have a BA and MA in economics from the
5 University of Wisconsin at Milwaukee, and a further
6 master's degree and a PhD in economics, dated 1986, from
7 the University of Wisconsin at Madison. And on the
8 academic sphere, I've also been an adjunct professor in
9 the Graduate business school at Northeastern University
10 in Boston, Massachusetts.

11 Q. And further, with respect to your background and
12 experience, do you have any specific work that you can
13 discuss for us that you have in the area of pipelines?

14 A. Yes. Since my joining NERA in 1986. I have
15 worked with pipelines in six continents around the
16 world; North and South America, Africa, Asia, Europe,
17 and Australia, and New Zealand. I have seen in terms of
18 privatization regulation, tariff-making, development,
19 and ownership, every major oil-and-gas-pipeline system
20 in the world. And that constitutes -- among the other
21 tasks that I have in my duties is the co-chair of the
22 energy practice at NERA, the oldest and largest firm of

1 consulting economists in the world. A rather complete
2 picture of the world's pipelines.

3 Q. And before we move on to Exhibit B, can you
4 summarize for us any noteworthy cases you may have been
5 involved in?

6 A. Yes. I would like to draw attention to one or
7 two in particular. First, in 2011 it was the last time
8 I dealt with the issue of pump stations on a major crude
9 oil pipeline. I was retained by the state of Alaska to
10 oppose positions of the Trans-Alaska Pipeline owners,
11 which the majors of which are BP, Conoco, and Exxon on a
12 proposal by those companies to upgrade the various pump
13 stations on that pipeline to electrify. And through a
14 unwise engineering project, the state and some other oil
15 companies who used that pipeline as shippers objected to
16 the costs of that electrification. And we were
17 successful in getting the Federal Energy Regulatory
18 Commission and the Commission in Alaska to approve the
19 disallowance of \$550,000,000 of pump station upgrade
20 costs, which to -- in my understanding is the largest
21 disallowance of costs for imprudence in the FERC
22 history.

1 Q. And Dr. Makholm, let's turn next to the Exhibit

2 B. Was Exhibit B prepared by you?

3 A. Exhibit B was prepared by Mr. Justin Kringstad,
4 the geological engineer and director of the North Dakota
5 Pipeline Authority. I included it as my Exhibit B
6 because it usefully pictures what's going on in the
7 content of number of things in my testimony.

8 Q. And then let's go on to -- well, Can you just
9 very briefly, very, very briefly, discuss how Exhibit B,
10 Mr. Kringstad's exhibit of your document that he
11 prepared for another matter. How does that summarize
12 your testimony?

13 A. Thank you. Exhibit B contains information that I
14 already know from other sources, but it presents it in a
15 useful way. I know the position of the Bakken field in
16 the Williston Basin and I know from various sources the
17 way in which -- the various projections which are in the
18 market in from other sources about what this Basin can
19 produce? However, Mr. Kringstad put together the
20 historical production from this Basin, the tenfold
21 increase based on history and projections of oil
22 production from this Basin. And shows also the various

1 modes of moving that oil to market, either pipelines or
2 rail. And particularly with respect to this case and to
3 this pipeline, Dakota Access, it shows the increase in
4 pipe capacity, starting in June of 2017. And it also
5 shows the role that the optimization project will play
6 in further moving oil out of this Basin in a bullet line
7 to Patoka and south, on Dakota Access and its affiliates
8 lines to the major refining areas in the Gulf.

9 Q. Okay. Let's go to Exhibit C. Is that an exhibit
10 that you prepared?

11 A. That's an exhibit that was also prepared by Mr.
12 Kringstad of the Pipeline Authority here in North
13 Dakota.

14 Q. And what's the takeaway for the PSC on Exhibit C?

15 A. Exhibit C shows rail shipments out of this region
16 for North Dakota oil. And to a certain extent, that's
17 information that's also contained in Exhibit B, because
18 rail shipments are also apparent under that exhibit.
19 And what it -- two things that it shows that I think are
20 useful: One is the extent to which rail -- which is an
21 expensive, more dirty, less safe route for oil out of
22 North Dakota -- has dropped precipitously from the

1 2014/15 era. But it also shows an uptick in rail
2 shipments out of North Dakota starting in late 2017 and
3 early 2018, which flipping back to Exhibit B, you can
4 see as an excess demand for shipping out of this region
5 that the pipelines existing at that date could not
6 serve. So the drop in oil through rail and the increase
7 in oil through rail on that exhibit, I thought were
8 useful to highlight in my testimony.

9 Q. And then finally, Dr. Makholm, in your opinion is
10 the pipeline optimization a good idea?

11 A. Yes. I think it's a very good idea and I would
12 put it two ways. I -- and the first has to do with the
13 role of Bakken which is unique in the world. The
14 tenfold increase in Bakken oil production, that Mr.
15 Kringstad shows Exhibit 2 that I provide, is the
16 consequence of America's long-standing, meticulous, and
17 useful Federal interstate Regulation of our oil and gas
18 pipelines. We have a much longer history of regulating
19 these kinds of transportation routes than any other
20 country in the world. And we do it exceedingly well,
21 and to the extent that we provide for reliable and
22 low-cost pipeline transport, we facilitate the

1 monetization of resources like the Bakken field. We've
2 known since the 1970's that there's a great deal of oil
3 there, but it was always out of reach technologically;
4 it was too far from market; and it was too hard to
5 extract. But because we are so good in this country at
6 planning and routing safe transport access through
7 pipelines, we've facilitated the monetization of the
8 Bakken field. That's a reflection of the way in which
9 we regulate pipelines effectively at the Federal and
10 State level, and the role in The Bakken field is unique
11 in the world in that respect. It's a pillar of new oil
12 industry production, made possible by the meticulous
13 regulation of the pipeline that we do in this country as
14 opposed to any other country.

15 Second -- that's just Bakken and pipelines, but
16 this particular pipeline, Dakota Access and the
17 optimization, provide a new route, a bullet to Patoka,
18 Illinois and south. Patoka is one of America's great
19 oil-industry hubs. It advised with Cushing as one of
20 the two great places where oil transport has happened in
21 the United States for more than a century. To provide a
22 bullet access of efficient pipeline transport to Patoka

1 with its great resources in the upper Midwest, including
2 refineries, provides benefits, not just to the upper
3 Midwest, but to everybody along this route as it heads
4 in the most direct way to market for North Dakota oil.
5 This route and the efficiency of it provides for a
6 higher price in North Dakota; more money for those who
7 produce North Dakota oil; greater tax revenues in North
8 Dakota. And a greater access to everybody along the
9 line, including in Illinois and the refineries in the
10 upper Midwest as a result of this original pipeline and
11 the optimization.

12 MR. BENDER: I've no further questions. We
13 will tender the witness for cross-examination.

14 ADMINISTRATIVE LAW JUDGE DAWSON:

15 Mr. Purdon.

16 MR. PURDON: Thank you, ALG Dawson.

17 EXAMINATION

18 BY MR. PURDON:

19 Q. Mr. Makholm, good morning. Dr. Makholm, good
20 morning. I just had a few questions. I don't think
21 very lengthy from me with you this morning. We're here
22 because the PSC is determining whether or not to grant

1 this amendment to build this pump house here in Emmons
2 County, but also a result of that will be the increased
3 capacity from 570,000 barrels a day to 1.1 million
4 barrels per day. That's your understanding of why we're
5 here today. Correct?

6 **A. Correct.**

7 Q. And as I take your pre-file testimony, and your
8 testimony here this morning that this expansion of
9 capacity is needed because of future -- there's a future
10 need for this because of increases in oil production in
11 the Bakken?

12 **A. The need relates to the market for oil and the**
13 **demand for this kind of oil along that kind of route,**
14 **that this pipe and expansion will serve, yes.**

15 Q. Right. Right, but just to be clear, if there
16 wasn't going to be more oil to move to market, we
17 wouldn't need to expand the capacity of the pipeline.
18 Correct?

19 **A. Let me Parse your question just for a second, Mr.**
20 **Purdon. You use the word "need" in there. The need**
21 **that we are satisfying here is the market's demand that**
22 **provides the incentive. That's the need that -- the way**

1 I'm using it. You use the need in another context. Let
2 me just say that moving oil through pipelines in the
3 United States is a private concern with private investor
4 funds; and the risk that those funds will be usefully
5 put in place and pipelines will pay for themselves is a
6 function of the private decisions of those who will sign
7 up for the oil transport and use those facilities. And
8 so, with the with the commitments that are already in
9 place, and with the prospect for increased oil
10 production in this region, which is a widespread known
11 set of projections. And the demand for processing and
12 refining that in the Gulf and in the upper Midwest where
13 the refineries are, this pipeline and the expansion
14 meets that need.

15 Q. So I was using need, as you suggested, slightly
16 differently. The pipeline is here requesting the
17 Commission to act because they feel they need more
18 capacity on the pipeline. That's what I'm talking
19 about; that the capacity is currently at 570,000 barrels
20 per day is or is going to be insufficient in the future,
21 to ship all the oil that they might be asked to ship.
22 Do you agree with that?

1 A. I don't agree with the way you put it. The
2 pipeline is serving the market --

3 Q. Sure --

4 A. -- and the need comes from the producers and the
5 users of oil. And the pipeline company builds its
6 facilities to meet that need. They don't need to build
7 a pipeline; they're simply serving the market in a way
8 that they think is useful.

9 Q. Fair enough. Would you agree that the Commission
10 is engaged in some long-term planning here, that whether
11 or not this capacity will be used? You've come forward
12 with some suggestions from some shippers; we're going to
13 talk about that. But the Commission is charged with
14 weighing the safety versus the need to secure the energy
15 capacity that the Chairman -- or Commissioner Christmann
16 was talking about if to balance that. And my question
17 is: This isn't a part of the long-term planning for the
18 Bakken region is an issue before the Commission today.

19 A. I think the Commission well knows the context of
20 the word "need", it goes into their decision-making.
21 And I agree with you that this Commission, like any
22 other, has to be cognizant of what these capital

1 facilities -- what in the market they'll serve. And
2 they have to be and do plan to be cognizant of the
3 resources in the area and the extent to which those
4 resources can be modified -- monetized for the benefit
5 of North Dakota.

6 Q. And your testimony here today is intended to
7 assist them in that planning, the Commissioners?

8 A. It's intended to put context associated with how
9 this pipeline meets that market need.

10 Q. Right. To assist them in the way that they plan
11 for the future of the energy infrastructure in North
12 Dakota. Correct?

13 A. I think you're going beyond the content of my
14 testimony. I'm here to exist -- to help them with it
15 with the question they have before them.

16 Q. That's fair. That's fair. So, when did when did
17 the Bakken -- excuse me -- the DAPL pipeline go online,
18 begin pumping oil? Ballpark?

19 A. June 2017.

20 Q. And this has been in operation about two and a
21 half years. Correct?

22 A. Correct.

1 Q. And from your testimony in the exhibits and
2 things that you've shown, I understand that oil
3 transported by rail during that period of time has gone
4 down.

5 **A. Yes.**

6 Q. Okay. I am a North Dakotan. I live in Bismarck.
7 I talk to folks in the oil business and around town, and
8 what I hear is an estimate -- I think it's back of the
9 envelope -- but an estimate that transporting a barrel
10 of Bakken oil by the DAPL pipeline versus by rail
11 results in a transportation-to-market savings around
12 \$7.00 per barrel. Have you heard that? Does that sound
13 right to you?

14 **A. That exact number? No, but that kind of number.**
15 **I'm familiar with oil by rail, both the history of it in**
16 **this country to write about in my book in other places.**
17 **And generally I would not be surprised at that number.**

18 Q. Okay. And with that reduction in cost of
19 transportation, that reduces the cost. Excuse me, that
20 --

21 **A. That reduces the discount in North Dakota.**

22 Q. That's exactly what I was going to say. Thank

1 you. Reduces the discount. That actually has the
2 effect -- has a couple of effects. One of the effects
3 is it encourages the people to keep drilling here.
4 Right?

5 **A. Yes, it means more money for North Dakotan**
6 **landowners and more tax revenues for North Dakota.**

7 Q. As a result of more oil wells being drilled.
8 Correct?

9 **A. As the result of less money paid in shipping.**

10 Q. Right. But my question is the next step on that.
11 Does that also encourage development here in North
12 Dakota as another -- I think the folks over there would
13 say -- as another positive?

14 **A. Of course.**

15 Q. And that increases the total production from The
16 Bakken field?

17 **A. To the extent that oil is more direct. The oil**
18 **route is more direct and low cost to market, yes. As in**
19 **the production of any commodity that has to pay for the**
20 **shipping. It means that those producing the commodity,**
21 **whether a hard commodity like oil and gas or a soft**
22 **commodity like grain, the local price will go up.**

1 Q. Just so we're clear, I wasn't talking about the
2 price though; I'm talking about the amount of barrels
3 produced. The price goes up which leads to more
4 production, more barrels produced in the Bakken. I
5 think you agree with that.

6 **A. I answered that. I said of course.**

7 Q. I'm on Page 6 of your testimony. There's, you
8 know, there's any pre-file testimony, there's some
9 windup, but to kind of get to the meat of the issue of
10 your testimony. On Page 6, I believe, there's a
11 question on line 7 "current daily" -- "Is the current
12 daily throughput sufficient to meet shipper demand for
13 the pipeline's transportation services." Do you see
14 that? And in your answer here I counted in the first
15 paragraph -- or in the first sentence of the second
16 paragraph, you use a qualifier here three times in a
17 row, "I understand." "I understand" -- do you see that
18 at the beginning of that paragraph? "I understand at
19 the time of the original application shippers had
20 entered into contracts for a certain number of barrels."
21 Do you see that?

22 **A. Yes.**

1 Q. Is the source of your understanding information
2 that you received from Energy Transfer Partners?

3 A. Not exclusively. I'm generally familiar with the
4 development of this field and how oil gets out of this
5 field, so it's both information I get from the company
6 and information I know to be true from other sources.

7 Q. And is that the same true in the middle of that
8 paragraph? "I understand that Dakota Access has
9 experienced a substantial increase in demand for
10 transportation." Do you see that?

11 A. Yes.

12 Q. Now, that one seems a little bit different. Is
13 that "I understand" based more -- is that something you
14 know generally, or is it something that you learned from
15 Energy Transfer Partners?

16 A. Both.

17 Q. Okay. Okay, and in the final first sentence of
18 the next paragraph: "I understand from discussions with
19 company representatives that seven new shippers
20 participated in the December 2018 open season." You see
21 that?

22 A. I do.

1 Q. Is that understanding solely from information
2 from Energy Transfer Partners?

3 A. Yes. That's why I put it differently.

4 Q. Understood. Thank you. So you've relied on some
5 publicly available information, some conversations with
6 Dakota Access to reach some of the conclusions in your
7 experience -- to reach some of the conclusions in your
8 pre-file testimony?

9 A. To reach all of the conclusions in my pre-file
10 testimony.

11 Q. Even better. I want to direct you now to --
12 besides your CV you also included two other exhibits and
13 Mr. Bender asked about them, Exhibit B and Exhibit C.
14 And these are not exhibits you prepared; you testified
15 they're from the Pipeline Authority, Mr. Kringstad. And
16 you chose to include these two exhibits.

17 A. Yes.

18 Q. That was your choice.

19 A. Yes.

20 Q. And you did so because you thought they were
21 important and you wanted to share them with the
22 Commission.

1 **A. Yes.**

2 Q. I want to turn you to Exhibit B, as you talked
3 about this. This has couple different types of
4 information on it -- the black line. Well, let's start
5 with the red line. There's a red line that is kind of
6 the top straight line and that is based on some sort of
7 projection of Williston Basin project projection over
8 the next -- I don't know 20-- 15 years. Does that sound
9 right?

10 **A. 25 years.**

11 Q. 25 years. If I was like a do math, I'd be a
12 doctor. Right?

13 **A. We struggle too.**

14 Q. All right. So that is a -- back to my point
15 which is that is a projection of Bakken production over
16 the next 25 years?

17 **A. Correct.**

18 Q. And then the black line is a secondary second
19 case projection of less production, but still increased
20 production. Correct?

21 **A. Yes.**

22 Q. And the point of your chart here is to show how

1 the various modes of transmission of that oil to market
2 meet that projected demand?

3 A. Yes, it's as I described it before. That comes
4 under the -- in the context of what I've already
5 described.

6 Q. Absolutely. Can you read for me the italic
7 portion underneath the dates on the bottom that was put
8 in the original document by the Pipeline Authority?

9 A. Yes. "Production forecast is for visual
10 demonstration purposes only and should not be considered
11 accurate for any near-or-long-term planning."

12 MR. PURDON: No further questions.

13 ADMINISTRATIVE LAW JUDGE DAWSON:

14 Mr. Pelham.

15 MR. PELHAM: Thank you.

16 EXAMINATION

17 BY MR. PELHAM:

18 Q. Good morning, Doctor. I don't have a lot of
19 questions for you. I think that your testimony summed
20 up the purpose for your testimony, and that one of the
21 aspects that the Commission analyzes, and in determining
22 questions before it on applications is establishing the

1 need for the proposed facility. Am I correct in
2 understanding that your testimony is primarily based on
3 that? On that aspect of, for the need for the proposed
4 pump stations in this case?

5 **A. That's correct, Mr. Pelham.**

6 Q. And I think I know the answer to the question,
7 but I just want to establish it for the record. What's
8 your opinion on the need for the proposed pump station?

9 **A. In the context of need, the way Regulators in**
10 **this nation deal with that term "need", there's a need**
11 **for this pipeline.**

12 Q. All right. Thank you, Sir, I don't have any
13 other questions for you.

14 ADMINISTRATIVE LAW JUDGE DAWSON:
15 Commissioner Fedorchak.

16 COMMISSIONER FEDORCHAK: I don't have any
17 questions for this witness.

18 ADMINISTRATIVE LAW JUDGE DAWSON: Thank you.
19 Commissioner Kroshus.

20 EXAMINATION

21 BY COMMISSIONER KROSHUS:

22 Q. I just have a couple of questions. So you have

1 quite a depth of experience in this area obviously, and
2 you in your testimony referred to that it is safer and
3 more efficient to move crude oil by pipeline versus
4 rail. But from your experience -- and this is a
5 question that I grapple with often -- how safe is safe?
6 So it's safer than an alternative method of moving the
7 crude, but at what point is it truly safer? What's the
8 ultimate goal?

9 **A. We have a useful history in this country of more**
10 **than a century in dealing with interstate-oil-and-gas**
11 **transport. We do both. We do oil and gas a little bit**
12 **differently under two different Federal statutes. But**
13 **with all of that interstate transport of oil and gas, we**
14 **have a meticulous, and exacting, and well-developed**
15 **series of Institutions to promote safety. Both with**
16 **Federal agencies to deal with the safety; with the Army**
17 **Corps of Engineers to help with siting; with the**
18 **Environmental Protection Agency to deal with -- to deal**
19 **with issues associated with the environment; and the**
20 **Federal Energy Regulatory Commission which inherited oil**
21 **pipelines from the interstate Commerce Commission in**
22 **1978 to deal with need and rates and other issues**

1 associated with the commerce of interstate pipelines.

2 That collection of institutions and agencies is
3 the world's best collection for assessing the safety of
4 this kind of interstate transport. Its -- we devote no
5 less Federal and state attention to safety in this
6 transport as we do to road and air transport and rail
7 transport and any other. And so there's no absolute
8 litmus test for safety, but there is a desire to balance
9 the public need for safe and adequate service against
10 the public need to develop resources, and resources like
11 the Bakken. And that balance takes place with good
12 legislation and responsible Federal and state agencies
13 to look over that, and end to make sure that legislation
14 is being carried out to make for safe interstate
15 transport. And as far as I see the agencies like the
16 ones that I just described do provide for comprehensive
17 assessments with are uniquely long history in America of
18 dealing with safe and adequate pipeline access, for the
19 monetization of the resources that we have. There's no
20 bright line where something is unsafe on one side and
21 safe on the other, but it's the dedication of many
22 different agencies and resources and talented

1 individuals to make sure that we keep our
2 interstate-transport modes safe.

3 I hope that's not a -- I hope that doesn't seem
4 like a long answer to a short question. But interstate
5 transport is a highly technical governmental public
6 affair, and it's a difficult thing for governments to
7 manage. We in this country have been building
8 investor-owned pipelines since the 19th century
9 successfully. Nobody else in the world was building
10 private pipelines before the 1960's because of the
11 difficulty in government's actually regulating
12 investor-owned pipeline capital. In that respect, we
13 have the longest-and-best-developed series of
14 safety-and-environmental regulations than any place
15 else. And I think that they are well-tuned for the task
16 at hand, and I think they work effectively.

17 COMMISSIONER KROSHUS: No other questions,
18 Your Honor.

19 ADMINISTRATIVE LAW JUDGE DAWSON:
20 Commissioner Christmann.

21 EXAMINATION

22 BY COMMISSIONER CHRISTMANN:

1 Q. I want to go back to the chart that Mr. Purdon
2 was asking you about from Pipeline Authority. The rail
3 capacity, it says on here, is capped at about 850,000
4 barrels per day. Do see that line?

5 **A. Are you -- excuse me, Commissioner. Are you**
6 **talking about C or B?**

7 Q. The one in your left hand.

8 **A. Okay.**

9 Q. I don't have them labeled B and C, so. It's the
10 rail capacity would be capped at about 850,000 barrels
11 per day. Right?

12 **A. That -- looking over at the far right-hand side,**
13 **that looks like about 850, yes. If you start with about**
14 **two and find out where it winds up, It's about 850.**

15 Q. I think in the middle of the page that legend
16 though.

17 **A. Even better. Thank you.**

18 Q. And so as you're talking about need, whichever
19 definition you want to use, is there another potential
20 enhancement of need that hasn't been discussed in that
21 -- my understanding here, and you can just correct me
22 where I'm wrong. My understanding is that much of

1 what's railed out currently, instead of going to Patoka
2 or Cushing, and then to the Gulf Coast for process,
3 refining, or shipping, much of what's railed out
4 actually goes west to the West Coast for shipping. And
5 although I personally hope it doesn't happen, there is a
6 threat get from the state of Washington into being able
7 to ship oil westerly. Is that correct?

8 **A. I know that some rail traffic goes west in the**
9 **direction of Spokane where I once lived, and further**
10 **west. And I'm familiar with issues associated with**
11 **Washington, state of Washington. So I confirm your**
12 **understanding that some of the rail shipment goes in**
13 **that direction where pipelines do not go.**

14 **Q. So if they were successful in prohibiting**
15 **shipments that way, it would perhaps add to the pressure**
16 **of --**

17 **A. If they prohibited --**

18 **Q. -- to move oil south and east. Correct?**

19 **A. Perhaps. If they prohibited in Washington --**
20 **well, by rail -- then that would facilitate oil into the**
21 **state by some other means. Either from the north from**
22 **Alberta or British Columbia, or from the water, or**

1 through, perhaps, a pipeline to displace what currently
2 is taking place by rail.

3 Q. If I would ask you this afterwards, somebody
4 would think it's some ex parte discussion. This really
5 isn't about the case, but you mentioned a book. Do you
6 care to share the name of it?

7 A. A book I published at the University of Chicago
8 Press in 2012, a book entitled "The Political Economy of
9 Pipelines. A Century of" -- the subtitle wasn't mine,
10 they wrote it at the Press: "A Century of
11 something-something Institutional Development". And
12 that reflected my experience around the world with
13 pipelines. And because pipelines are so far upstream
14 and so far unseen, and because pipeline development in
15 different countries -- pipelines are very simple.
16 They're just tubular steel objects. They just sit there
17 with some pumps and some compressions along the way, but
18 they hide a great deal of economics and governmental
19 activity that surrounds them. And they -- it's hard to
20 study pipelines because they use different terminology
21 and different laws in every different country. Even in
22 the US and Canada have quite different statutes with

1 respect to pipes. So I took my experience and I
2 convinced the University of Chicago Press, which is the
3 oldest and largest of the country's scholarly presses,
4 to publish that book. And it's the only book existing
5 on the economics of pipelines written in the last 40
6 years.

7 Q. Thank you. No other questions.

8 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.
9 Bender, any redirect?

10 MR. Bender: Just a few questions, Your
11 Honor.

12 EXAMINATION

13 BY MR. BENDER:

14 Q. Doctor, I'm going to redirect your attention to
15 Exhibit B. In preparation for today's hearing, have you
16 made any -- excuse me. Strike that.

17 In preparation for today's hearing, have you done
18 an evaluation of production-and-transportation needs for
19 Bakken crude out of the state of North Dakota?

20 A. Yes.

21 Q. And what did you determine?

22 A. I determined that the production is increasing

1 from various sources, not just Mr. Kringstad, but also
2 from various other public sources like the Energy
3 Information Administration or private forecasting
4 sources like BP or Wells Fargo. In -- to reacquaint
5 myself with what I generally know to be true about the
6 Bakken, I consulted all those sources.

7 Q. Okay. And based on all those sources in your
8 testimony here today, you believe that Bakken production
9 is going to increase in the near future and extend out
10 for a period of time before it starts declining. Is
11 that correct?

12 A. Yes. I conclude that those forecasts of
13 increasing production, particularly to the extent that
14 as we've talked about it and Mr. Purdon brought up, the
15 confidence that producers have of a bullet line to
16 Patoka and south will give them more confidence to
17 develop more resources in North Dakota. That the Dakota
18 Access line and its optimization will tend toward the
19 red line and not the black line as we go forward --
20 because of the nature of that access to market.

21 Q. And Doctor, you've also made a independent
22 determination beyond what Mr. Kringstad has pointed out

1 in his Exhibit B, that there's going to be a need for
2 further transportation. Is that correct?

3 A. Yes. Need in terms of the way that we've defined
4 it this morning.

5 Q. Okay. So the fact that Exhibit B has some
6 cautioning language on it with respect to its accuracy,
7 you have independently confirmed that Mr. Kringstad's
8 exhibit pretty much agrees with what you think is going
9 to happen. Is that a fair statement?

10 A. I think that the cautionary note at the bottom is
11 like -- the cautionary note we see on nautical charts
12 printed as place-mats when we eat lunch in Boston, the
13 saying, "Please do not use for navigation". No one's
14 intending to use place-mats for navigation, but
15 sometimes we use them anyway to sort of dead-reckon
16 where we're going to sail. And this statement at the
17 bottom of his chart is his, I believe, his way of
18 usefully saying that you're not supposed to make
19 projections of cost benefits or Investments using this
20 chart. Well, that's not what I'm using it for. I'm
21 using it to get useful, broad, qualitative and
22 quantitative on -- draw useful and broad

1 **qualitative-and-quantitative conclusions about what's**
2 **going on in the Bakken in the recent past and in the**
3 **near future. And for that -- that statement at the**
4 **bottom about "don't use it for planning: Doesn't apply**
5 **to me.**

6 MR. BENDER: I don't have any other
7 questions.

8 ADMINISTRATIVE LAW JUDGE DAWSON:
9 Mr. Purdon.

10 EXAMINATION

11 BY MR. PURDON:

12 Q. Very briefly. Just follow up on one of your
13 answers to Mr. Bender's question Bakken production is
14 forecast to increase; that's a baseline fact that you're
15 willing to agree with me on. Right?

16 A. Well, it hasn't happened yet, but it's a
17 **consensus forecast.**

18 Q. My question is that the -- scratch that.

19 Just finally, with respect to Exhibit B and the
20 disclaimer, these three folks are navigating here today.
21 Correct? They're determining whether or not this
22 pipeline is going to double in capacity. Correct?

1 A. Of -- their job today is, I think they have
2 stated, is different than that. They want to determine
3 whether or not there's a useful need for these new
4 facilities to increase the pumping and allow the
5 capacity to go up to 1.1 million barrels a day. That's
6 what they've said to us is their task today. And to the
7 extent that my testimony, the rest of the company's
8 testimony, and this chart helps them put that in
9 context, I would think that would be helpful for them.

10 MR. PURDON: No further questions.

11 ADMINISTRATIVE LAW JUDGE DAWSON:

12 Mr. Pelham?

13 MR. PELHAM: I don't have any other
14 questions. Thank you.

15 ADMINISTRATIVE LAW JUDGE DAWSON:

16 Commissioner Fedorchak?

17 COMMISSIONER FEDORCHAK: No more questions.

18 ADMINISTRATIVE LAW JUDGE DAWSON: If there
19 are no further questions for this witness, you may step
20 down.

21 And I think we'll call a 10-minute break at
22 this time till a quarter after and we'll start sharply

1 then. And this time, Mr. Pelham and Mr. Purdon, please
2 discuss the certification. Have you had a chance to
3 discuss the certification? No objection. Then it will
4 be admitted and marked as Exhibit 12.

5 (Whereupon Exhibit No. 12 is marked for identification.)

6 I've also been informed that lunch for the
7 people at the table up here will be ready at noon. And
8 so noon and a little bit thereafter, I'll start looking
9 at you for some advice as to whether we go on or break
10 at that moment.

11 Mr. Bender, do you have another witness?

12 MR. BENDER: I do, Your Honor. Charles
13 Frey.

14 ADMINISTRATIVE LAW JUDGE DAWSON:

15 Mr. Frey, were you here for my previous
16 warnings as to perjury?

17 MR. FREY: Yes, Sir.

18 ADMINISTRATIVE LAW JUDGE DAWSON: So you
19 understand what perjury is and the penalties for it?

20 MR. FREY: Yes, Sir.

21 ADMINISTRATIVE LAW JUDGE DAWSON: And
22 understanding so, do you promise or swear that the

1 testimony that you're about to give will be the truth,
2 the whole truth, and nothing but the truth?

3 MR. FREY: Yes, Sir.

4 ADMINISTRATIVE LAW JUDGE DAWSON:

5 You may begin, Mr. Bender.

6 MR. BENDER: Thank you, Your Honor.

7 EXAMINATION

8 BY MR. BENDER:

9 Q. Mr. Frey, would you state your full name for the
10 record, please?

11 A. **Charles A. Frey Jr.**

12 Q. And Mr. Frey, What is your business address?

13 A. **1300 Main Street, Houston, Texas, 77002.**

14 Q. And by whom are you employed?

15 A. **Energy Transfer.**

16 Q. In what capacity?

17 A. **Vice president of engineering.**

18 Q. And in preparation for today's hearing have you
19 prepared or had prepared under your control and
20 supervision some written testimony?

21 A. **Yes.**

22 Q. And did you satisfy yourself as to the accuracy

1 of that testimony when you prepared it?

2 **A. Yes.**

3 Q. And is that testimony true and accurate here
4 today?

5 **A. There's one item that needs to be updated, and**
6 **that is the status of the tract of land, the 20.8 acre**
7 **tract of land --**

8 Q. And before you go any further, how was that
9 identified in the original testimony in terms of
10 ownership? I assume that's the change you're making.

11 **A. Yes. It was identified as -- we had an option**
12 **for that tract of land at that time.**

13 Q. And how is that changed today?

14 **A. The option has been exercised and we have closed**
15 **on that tract of land, and so we are the fee owner of**
16 **that tract of land -- or DAPL is the fee owner that**
17 **tract of land now.**

18 MR. BENDER: No other questions, so I tender
19 the witness.

20 ADMINISTRATIVE LAW JUDGE DAWSON:

21 Mr. Purdon.

22 MR. PURDON: Thank you.

1 EXAMINATION

2 BY MR. PURDON:

3 Q. Good morning, Mr. Fray [sic].

4 A. Good morning. It's Frey.

5 Q. I'm sorry. Good morning, Mr. Frey, and I'm going
6 to get it right, my apologies. One of the risks of a
7 pipeline is that it might spill or leak. Is that
8 correct?

9 A. Yes.

10 Q. And the Public Service Commission today is going
11 to determine whether or not the risk of the expansion of
12 the existing DAPL pipeline from 570,000 barrels per day
13 to 1.1 million barrels per day, whether or not any risk
14 associated with that capacity expansion or not -- that's
15 acceptable. That's the one of the issues they have to
16 determine. Correct?

17 A. Yes. That's one of the one of the issues.

18 MR. BENDER: For Your Honor and Mr. Purdon,
19 We're going to have another witness who's going to be
20 talking about operations, and some of the questions
21 you're proposing may be more appropriate for the next
22 witness, Mr. Stamm. Okay?

1 BY MR. PURDON:

2 Q. And your understanding today here for the for the
3 PSC is the standard that they're to use is whether or
4 not the proposed changes here will have a minimal impact
5 on the environment and the citizens of North Dakota.
6 You're familiar with that standard?

7 MR. BENDER: I'm going to object. It calls
8 for a legal conclusion.

9 ADMINISTRATION LAW JUDGE DAWSON: Mr.
10 Purdon?

11 MR. PURDON: I'm just asking him if he is
12 aware of the standard of the PSC. I'm not asking to say
13 whether he's met or not met it. It's just is he aware
14 of the standard here today?

15 ADMINISTRATIVE LAW JUDGE DAWSON: I'll allow
16 the question.

17 A. I'm generally aware of the standard. I'm not
18 aware of the specific wording of the standard.

19 BY MR. PURDON:

20 Q. And as we consider risk in relation to a
21 pipeline, I want to see if you agree with me how I think
22 about it. There's the risk of a spill or leak that

1 we've talked about, the occurrence risk. That that's
2 one type of risk. Correct?

3 **A. As was stated, the questions about leak to risk**
4 **could be directed to our operations VP, but -- What was**
5 **the question again?**

6 Q. Is that one type of risk associated with the
7 pipeline, that it may have a negative occurrence, a
8 spill or leak?

9 **A. Leak is a risk of a pipeline.**

10 Q. And the other risk associated with it is the size
11 of any spill or leak. Right? That's a separate or
12 consequence-type risk. Are you familiar with that
13 concept?

14 **A. I'm familiar with spills. But again, the**
15 **questions about spills should be directed to our**
16 **operations VP who is responsible for that activity.**

17 Q. Can I ask you -- you are the, however though, the
18 vice president of engineering at Energy Transfer
19 Partners LP. Correct?

20 **A. That's correct.**

21 Q. When the -- why didn't Energy Transfer Partners
22 ask for a capacity of 1.1 million barrels per day in the

1 original application for the DAPL pipeline that's in the
2 ground now?

3 **A. That question would be better directed to our**
4 **commercial representative.**

5 Q. When you say your "commercial representative",
6 what do you mean? Who are you thinking of when you said
7 "commercial representative"?

8 **A. I was thinking of Glenn Emery.**

9 Q. Is he scheduled to testify here today? Okay.
10 All right.

11 **A. I can I can tell you that the energy -- or the**
12 **engineering group -- was never tasked with looking at**
13 **that throughput as far as the development. Or the**
14 **number that we were tasked with looking at, it was our**
15 **commercial group at the time that came up with that**
16 **number.**

17 Q. Is there anything that would prevent Energy
18 Transfer Partners from coming back a year from now and
19 asking to further increase the capacity of the DAPL
20 pipeline?

21 **A. I don't know that there would be anything that**
22 **would keep us from making further applications to the**

1 **Board.**

2 Q. What is the maximum amount of barrels per day
3 that can go through this pipeline?

4 A. It would depend upon how much -- how many pump
5 stations how much horsepower was added to it.

6 Q. I don't know the -- do you have an answer? Do
7 you know a number?

8 A. We have never tried to design an ultimate
9 capacity of the pipeline. So no, I do not know.

10 Q. Do you agree that the ultimate capacity is
11 greater than 1.1 million barrels per day?

12 A. Again, we haven't looked at it, so I don't know.

13 Q. I want to be respectful, and I've got questions
14 and maybe they are for the other witness. But I'm going
15 to ask you these. Maybe you're the guy, maybe you're
16 not. I mean, I did -- took from your title as vice
17 president of engineering that some of these would be for
18 you. I can certainly ask someone else, but let's start
19 with this: When you increase the capacity of a pipeline
20 as you're proposing to do here, you're increasing the
21 number of barrels per day going through the pipeline.
22 That's what we're talking about. Right?

1 **A. Yes.**

2 Q. Other things increase then as well. Correct?

3 Such as velocity?

4 **A. The velocity is -- yes. Velocity is directly**
5 **related to the flow rate.**

6 Q. So when you increase capacity, you're increasing
7 velocity and flow rate.

8 **A. Yes.**

9 Q. You're also increasing the pressure in the
10 pipeline. Correct?

11 **A. No, the know the Maximum Operating Pressure does**
12 **not increase.**

13 Q. The Maximum Operating Pressure of a pipeline is
14 set. It's a set standard. It never changes. Right?

15 **A. It does not. Not changing in this case now.**
16 **Right.**

17 Q. I'm not talking about the Maximum Operating
18 Pressure. I'm talking about the pressure in that
19 pipeline. In portions of that pipeline, the pressure is
20 going to go up, isn't it?

21 **A. The actual operating pressure of the pipeline**
22 **after the optimization project is complete, some**

1 segments of the pipeline will see higher pressures;
2 other sections of the pipeline will see lower pressures.

3 Q. Completely understand that it's not a full
4 constant increase in pressure. My question to you I
5 think was maybe not qualified, so let me qualify it.
6 What I'm saying, is that at certain points in that
7 pipeline, when you double the capacity, the pressure is
8 going to go up, not along the whole line. Not along the
9 whole line, but in certain portions of the pipeline.
10 Correct?

11 MR. BENDER: And I just -- I guess I'm going
12 to object. Well, I don't -- I'm not going to object and
13 just going to point out to you, Mr. Purdon, as I pointed
14 out earlier, we're going to have a witness who's going
15 to talk about operations of the pipeline, and you are
16 asking a lot of questions that have to do with
17 operations.

18 MR. PURDON: Yeah, I appreciate that. He
19 seems to know some of the answers and I'm going to keep
20 going. I appreciate the comment.

21 BY MR. PURDON:

22 Q. Back to my question. You increase the capacity,

1 the pressure is going to increase in portions of the
2 pipeline.

3 A. The hydraulic profile is going to change on the
4 pipeline. And so again, about half of the pipeline has
5 lower pressure, half of the pipeline higher pressure
6 than it currently sees in operations. And again, the
7 Maximum Operating Pressure of the pipeline does not
8 change.

9 Q. So you talked about hydraulic profiles. They've
10 been done at the 570 flow rate?

11 A. Yes.

12 Q. They've been done now at the 1.1 million barrels
13 per day flow rate?

14 A. Yes.

15 Q. They've been shared with the North Dakota Public
16 Service Commission?

17 A. No.

18 Q. In those areas where in -- where your
19 hydraulic -- what did you call those -- hydraulic
20 profiles show an increase in pressure, we have a Maximum
21 Operating Pressure of the pipeline, and then we have the
22 pressure that shown by the hydraulic profile. Accept

1 that as a concept. You understand what I'm saying.

2 Right?

3 **A. I understand what a hydraulic profile is.**

4 Q. Yeah. So we have a Maximum Operating Pressure
5 and we have pressure at any -- at some point in the
6 pipeline. Those are two numbers that you can measure.
7 Correct?

8 **A. Yes.**

9 Q. And when the pressure increases due to capacity
10 expansion, the margin of safety between the Maximum
11 Operating Pressure and the pressure at a given point, if
12 that pressure rises that margin of safety shrinks,
13 doesn't it?

14 **A. That's not how the safety factors are established**
15 **on pipelines. The safety factors on pipelines are**
16 **established against the Maximum Operating Pressure. In**
17 **this case, the Maximum Operating Pressure of the**
18 **pipeline is 1,440 pounds, which does not change. The**
19 **pipeline in its construction was hydrostatically tested**
20 **to 1,800 pounds, 25 percent higher than the Maximum**
21 **Operating Pressure. And the maximum pressure due to the**
22 **yield strength of the pipe is 2,000 pounds. And those**

1 **are the numbers. The safety factors are established.**

2 Q. Are the hydraulic profiles part of that analysis?

3 **A. In establishing those pressures, no. Those**
4 **pressures are established by the type of material in the**
5 **pipe.**

6 Q. So back to my question. And I just want to make
7 sure I understand that you're not willing to agree with
8 me that if we have a Maximum Operating Pressure, which
9 is a set, steady -- based on the size of the pipe, what
10 the pipe's made of, that's what establishes the max
11 operating pressure. Correct?

12 **A. Yes.**

13 Q. We have that -- it's a fixed number for this
14 pipeline. Correct?

15 **A. Yes.**

16 Q. And we've talked about the increased capacity
17 increasing the pressure in the pipe line in certain
18 spots. Would you agree that the margin between the
19 Maximum Operating Pressure and the pressure of pipeline,
20 that that margin could reasonably be called a margin of
21 safety?

22 **A. No, I don't agree with it, the way you're using**

1 the term. That the safety factors are established by
2 the Federal code as I explained.

3 Q. Are you aware of the concept of surge in a
4 pipeline?

5 A. I am.

6 Q. Does the risk of surge go up when you increase
7 the capacity of a pipeline as we're doing in this case?

8 A. Not necessarily. The design of the pipeline
9 system considers surge -- takes surge into account and
10 has equipment installed to manage surge.

11 Q. Before we get into surge, let me just ask this
12 final question. So we've talked about the things that
13 go up when you increase the capacity. You agreed with
14 velocity flow rate, and you agreed in certain spots
15 pressure goes up. You didn't agree about the margin of
16 safety. That's fine. I'm going to ask you this
17 question: Increasing the capacity from 570,000 barrels
18 a day to 1.1 million barrels a day, does that increase
19 the risk of a spill or leak? Does it increase the
20 occurrence risk?

21 A. No.

22 Q. Does it decrease the occurrence risk?

1 **A. No.**

2 Q. Your testimony is the risk of this pipeline
3 spilling or leaking remains exactly the same regardless
4 of how much oil we're putting through it.

5 **A. The risk on a pipeline is not, in my knowledge,**
6 **related to flow rate or velocity in pipelines.**

7 Q. Has no impact on the risk of an incident?

8 **A. No.**

9 Q. Let's talk about surge. You agree that surge
10 refers to the change in pressure in liquid pipelines
11 caused by a major change in flow. Can we agree on that
12 as a definition?

13 **A. I believe that's a definition for surge, yes.**

14 Q. Okay. And what that means is a major change in
15 flow in a pipeline can result from things like a pump
16 shutdown or startup, or an inadvertent mainline valve.
17 Is that correct?

18 **A. Yes. Those are items that can create surge**
19 **events.**

20 Q. Right. And those incidents are shutdown or
21 startup, inadvertent valve closure, those happen when
22 you're running a pipeline. Right?

1 **A. I would qualify significantly between the two.**

2 **Inadvertent valve closures are extremely rare; pump**

3 **shutdowns are done in the course of operation of the**

4 **pipeline. And those are generally planned. Unplanned**

5 **pump shutdowns are much less common.**

6 Q. Well, there was an unplanned pump shutdown on the

7 Keystone Pipeline near Edinburg, Edinburg, North Dakota,

8 in the last couple weeks. Correct?

9 **A. I have seen in the news something about Keystone**

10 **Pipeline.**

11 Q. So if I mean, like you said the mainline valve

12 closure is -- I don't know what word you said -- rare or

13 uncommon. I don't -- whatever word you used is fine

14 with me. But they do happen. It happens.

15 **A. It's possible for it to happen. In the over two**

16 **and a half years this pipeline has been in operation and**

17 **has never have any.**

18 Q. If a mainline valve inadvertently closes and the

19 oil, you would agree that the oil -- well, scratch that.

20 If one of these events, a pump shutdown or a mainline

21 valve inadvertently closing, that that can -- we've

22 talked about this -- that can cause surge back upstream

1 due to the flow disruption.

2 **A. That's right. Surge can be triggered. In this**
3 **case the in our pipeline, we have measures/designs in**
4 **place to ensure that the surge does not exceed the**
5 **limits established by regulations.**

6 Q. Is that in the transient surge analysis, done for
7 this pipeline?

8 **A. Yes.**

9 Q. When -- was that transient surge analysis
10 completed in October of this year?

11 **A. I believe it was.**

12 Q. So was completed after you submitted your
13 application to amend to the North Dakota Public Service
14 Commission. Correct?

15 **A. Yes.**

16 Q. Was it completed after Mr. Richard Kuprewicz
17 (phonetic) filed his opinion -- or pre-filed testimony
18 in front of the Illinois Commerce Commission, pointing
19 out the risk of surge?

20 **A. I don't know when Mr. Kuprewicz filed his**
21 **testimony.**

22 Q. October 1st.

1 **A. I don't -- we got the report sometime in October**
2 **from Dr. Hein with Fluid Flow Consultants. I don't know**
3 **the exact date.**

4 Q. Dr. Hein has pre-filed testimony in front of the
5 Illinois Commerce Commission on this issue. Correct?

6 **A. I believe he is going to file testimony there.**

7 Q. And that transient surge report has been
8 supplied, albeit confidentially under seal, to the
9 Illinois Commerce Commission. Correct?

10 **A. Yes.**

11 Q. Has it been provided to the North Dakota Public
12 Service Commission?

13 **A. No.**

14 Q. Is it true that surge pressure can increase --
15 surge pressure increases can occur within a
16 large-diameter liquid pipeline -- hydrocarbon pipeline
17 -- in microseconds?

18 **A. I don't follow exactly what Mr. Kuprewicz means**
19 **by that. In our case the closure time for the valves on**
20 **the mainline is anywhere between three minutes and three**
21 **point nine minutes. And so the surge event pressure**
22 **wave initiation begins as the valve starts to close.**

1 But there's -- as far as the surge itself, there's no
2 microsecond increase, you know, significant increase in
3 pressure.

4 Q. You disagree with that testimony? The pre-file
5 testimony from Mr. Kuprewicz.

6 A. I don't understand Mr. Kuprewicz's references to
7 -- if what he's saying occurs in microseconds.

8 Q. Fair enough. Let's talk about velocity under
9 this expansion. If the DAPL pipeline's expansion -- if
10 the expansion is granted and the flows move up to 1.1
11 million barrels per day, the actual flow velocities
12 within the 30-inch mainline pipeline will exceed 15 feet
13 per second. Is that correct? Do you agree with that?

14 A. Yes.

15 Q. Would you agree that 15 feet per second is a high
16 velocity for a crude oil pipeline?

17 A. No.

18 Q. Are you aware that the Keystone XL -- or excuse
19 me -- the Keystone Pipeline that had an incident near
20 Edinburg had velocities in the range of 10 feet per
21 second?

22 A. No.

1 Q. Can you name a pipeline for me that operates -- a
2 crude oil pipeline that operates at 15 feet per second?

3 A. I'm aware of pipelines that operate in the range
4 of 15 feet per second that Energy Transfer has.

5 Q. Are you aware of any pipelines not owned by
6 Energy Transfer Partners that operate at 15 feet per
7 second?

8 A. I don't know the operating velocity of any
9 pipelines operated by other people.

10 Q. They can be easily -- The velocity can be easily
11 calculated from publicly-available information on
12 pipelines. Correct?

13 A. Not necessarily.

14 Q. We've talked a little bit about the surge in the
15 velocity and those things, and I would characterize
16 those as "occurrence risk", a risk of an incident. And
17 I want to talk on the pipeline about the consequence
18 risk. The risk of -- if there is a spill or leak, how
19 big will it be? So I'm shifting topics.

20 A. Okay.

21 Q. Would you -- you would agree with me that when we
22 increase the capacity of the Dakota Access Pipeline from

1 570,000 barrels a day to 1.1 million barrels per day
2 that you are increasing the consequence risk. The
3 amount of oil that will spill if there is a spill or
4 leak will be more because of the increase in the
5 capacity. Correct?

6 MR. BENDER: Objection. Objection. It goes
7 beyond the scope of his direct, and as I've indicated
8 several times, we're going to have a witness who's going
9 to be able to answer those questions, And all we're
10 doing is wasting time.

11 MR. PURDON: Is your witness you're talking
12 about Mr. Stamm?

13 MR. BENDER: Yes.

14 MR. PURDON: Okay.

15 ADMINISTRATION LAW JUDGE DAWSON:

16 Mr. Purdon? Any response?

17 MR. PURDON: I don't know that that's
18 unfair. I'm going to think about it. To the extent he
19 objected if you give me a second to look at my notes,
20 I'll think about it. I may withdraw the question.

21 I'll withdraw that question and maybe just
22 to parse this -- I'm with you. If this is the wrong

1 witness, that's fine. But let me just probe a little
2 bit on a slightly related matter.

3 BY MR. PURDON:

4 Q. Are you familiar with the concept of worst-case
5 discharge?

6 A. I am familiar with the term, but Mr. Stamm our VP
7 of operations is the appropriate witness to answer
8 questions about it.

9 Q. All right. Well, that's going to shorten your
10 cross-examination, but it's going to lengthen. Mr.
11 Stamm's. I just have a few more questions, Mr. Frey. I
12 believe you've conceded that the transient surge
13 analysis and recommended mitigation measures that you
14 provided the Illinois Commerce Commission in October
15 have not been provided the PSC. Is that correct?

16 A. No, it's not generally common to provide detailed
17 design information related to Federal Regulations to
18 states as we make application.

19 Q. You gave it to the Illinois Commerce Commission
20 though. Correct?

21 A. It was filed with the Illinois Commerce
22 Commission, yes.

1 Q. And we've talked a little bit about the risk of
2 surge today. Correct?

3 A. Yes.

4 Q. If I was to make a determination on whether or
5 not a pipeline expansion had a minimal adverse effect on
6 the environment and the people of the citizens of North
7 Dakota, making sure that transient surge risk was
8 properly dealt with would be a relevant inquiry.
9 Correct?

10 MR. BENDER: I'm going to object. Calls for
11 a legal conclusion.

12 MR. PURDON: I think it's a fair question.

13 A. Restate your question again.

14 BY MR. PURDON:

15 Q. If I was going to determine whether or not
16 pipeline expansion of this scope, nearly double, 570,000
17 barrels today to 1.1 million barrels per day. If I was
18 trying to make a determination whether or not that
19 expansion was producing a minimal adverse effect on the
20 environment in the city and the citizens of North
21 Dakota, I might -- it would be reasonable for me to want
22 to understand the transient surge risk analysis here,

1 and how the increased risk of surge is being dealt with,
2 vis-a-vis this expansion.

3 MR. BENDER: Same objection. Plus I think
4 he's what he's asking is he wants this witness to speak
5 for the Commission, which is entirely inappropriate.

6 MR. PURDON: I think that's wrong. I think
7 I'm asking about whether or not the transient surge
8 analysis is relevant evidence for the determination that
9 the Commission is going to make. That's my question.

10 MR. BENDER: Same objection.

11 ADMINISTRATIVE LAW JUDGE DAWSON:
12 Well, I'll allow you to answer the question, but you can
13 limit it to that of an engineer.

14 WITNESS: Okay.

15 UNIDENTIFIED SPEAKER: If the Commission
16 makes a request of DAPL or any document that will
17 respond to that, and I'm sure that DAPL and the
18 Commission will be able to come to a satisfactory
19 agreement on what needs to be provided.

20 BY MR. PURDON:

21 Q. It's fantastic because I've got a list of
22 questions here about information that hasn't -- that I

1 don't believe has been provided. And I want to talk to
2 you about that. We talked about the hydraulic profiles
3 of the 30-inch pipe line here. Those have not been
4 provided to the Commission at this point. Correct?

5 **A. No, they have not.**

6 Q. Have you provided identification of all
7 high-consequence areas by milepost within North Dakota,
8 and your plans for periodic reassessing the integrity of
9 the pipeline, to the PSC?

10 **A. Some of that delves into operations and should be**
11 **questions to our VP of operations. But in general to**
12 **your questions, as I mentioned if the Commission wishes**
13 **to ask about any of those things, we will respond to the**
14 **Commission's request. I don't know that I need to speak**
15 **for the Commission.**

16 Q. I appreciate completely what you're saying. I'm
17 merely trying to establish what's been provided and what
18 hasn't. I think these are yes or no questions. Have
19 you given this information? That's all I'm getting at.
20 Okay? I'm just trying to establish a record of items
21 that may or may not have been turned over. Okay?

22 UNIDENTIFIED SPEAKER:

1 So if I may interrupt, Mr. Purdon. Anything provided to
2 the Commission in this matter has been docketed with the
3 Commission and is on the docket. So I don't know if
4 that helps you out at all.

5 BY MR. PURDON:

6 Q. I've no further questions, Mr. Frey.

7 ADMINISTRATIVE LAW JUDGE DAWSON:

8 Mr. Pelham.

9 MR. PELHAM: Thank you, Your Honor.

10 Examination

11 BY MR. PELHAM:

12 Q. Mr. Frey, Is Mr. Stamm the witness to ask about
13 the -- to anticipate emergency response plans?

14 A. Yes, he is. Right.

15 MR. PELHAM: Mr. Bender, interrupt me if Mr.
16 Stamm is the better witness on some of these.

17 BY MR. PELHAM:

18 Q. Are you able to talk about the anticipated plans
19 for construction of the facility?

20 A. Construction plans for the -- yes.

21 Q. Okay. Can you take us through the process of
22 what Dakota Access is planning for this particular pump

1 station in Emmons County?

2 A. Yes. We are going to install a building that
3 will house the pumps and motors. It'll be insulated
4 with sound-attenuating material to manage any noise from
5 the facility. There also will be a building that --
6 it's called the motor control center, that has the
7 electrical gear that is used to run the motors.
8 There'll be a electrical substation that provides the
9 power for the facility as part of the surge management
10 system. There will be a tank, I don't remember the
11 exact size, somewhere between 12,000 and 15,000 barrels.
12 And that's the major components of what will be
13 installed at the site.

14 Q. Do you know, Sir, who is supplying the power?

15 A. It's the local utility, but other than that, no.

16 Q. Kem Electric Cooperative here in Emmons County or
17 if it's NPU?

18 A. I'm not certain who are --

19 Q. Right. Fair enough.

20 A. Is the power supply or --

21 Q. Right. Do you know, Sir, if there's any backup
22 to generation for power for this proposed facility.

1 **A. We will not be installing backup generation.**

2 **There will be backup battery power for communications at**
3 **the site.**

4 Q. And during the construction process it's my
5 understanding from reviewing the application that there
6 will be a company representative; someone employed by
7 Dakota Access will be present on site?

8 **A. Yes.**

9 Q. Tell us more about that person and their role.

10 **A. Well, there will be several people on site to**
11 **represent Dakota Access. So there will be an**
12 **environmental inspector for one, and they'll be there to**
13 **make sure that all of the environmental controls are**
14 **properly in place and being properly maintained during**
15 **the construction. There'll also be craft inspectors and**
16 **they'll be a construction manager or chief inspector.**
17 **They're all representing the company, and then the**
18 **contractor will have their workers and supervision.**

19 Q. Has a contractor been selected for the proposed
20 project.

21 **A. Not yet.**

22 Q. It's my understanding, Sir -- and you correct me

1 if I'm wrong -- that Mr. Bender pointed out and you
2 clarified, that this property where the proposed
3 facilities located is owned by fee, is owned in fee by
4 the company. My question is general. Were there any
5 particular or specific issues that were encountered by
6 Dakota Access in the acquiring of that property? In
7 other words, were landowners expressing displeasure as
8 to the particular location?

9 **A. No. On that, in acquiring the property, we**
10 **talked to the this landowner because of the power**
11 **availability at the site, and we reached a voluntary**
12 **agreement with the landowner. There was one nearby**
13 **landowner who expressed concern about potential noise,**
14 **and we actually arranged for that landowner to visit a**
15 **almost identical site in Redfield, South Dakota. And**
16 **after his visit to that site, he was satisfied that his**
17 **noise concerns were satisfied.**

18 **Q. Fair enough. And let's talk a little bit about**
19 **the noise. And I believe that one of the exhibits, a**
20 **letter regarding anticipated noise levels. It looks**
21 **like Exhibit 2. Are you familiar with that document,**
22 **Sir?**

1 **A. No.**

2 Q. Okay. Is there a witness, Sir, that is familiar
3 with that particular exhibit? I don't know if maybe
4 that's your environmental person that plans to testify?

5 **A. I don't know what that exhibit is.**

6 Q. Yeah, it relates to a question that was posed, I
7 believe, by Commission staff related to the anticipated
8 level of noise immediately adjacent to the noise
9 generator or the fence line of the facility and at the
10 nearest residence or business.

11 **A. I mean, I can respond to the question, sure.**

12 Q. Well, In the exhibit, Sir, it talks about an
13 average day/night decibel level, and what I'm wondering
14 Sir, and if you're not the right witness you let me
15 know. But what the actual highest decibel level during
16 the day is, and what the highest decibel level during
17 the night is, rather than just an average?

18 **A. Okay.**

19 Q. If you know.

20 MR. PELHAM: Mr. Bender? Thank you, Mr.
21 Bender.

22 **A. Okay. The actual design parameters that we have**

1 in place with the acoustical engineering firm that we've
2 hired to model this, is to limit the decibel levels to
3 55 at the fence line at any point in time day or night.
4 So the 55 decibels would be the design parameter for the
5 facility, again, at any time.

6 Q. And you mentioned that this has been modeled by a
7 third party?

8 A. Yes. The design -- the design is in process
9 still. One of the entities that we've engaged is an
10 acoustical engineering firm and they use a 3D acoustical
11 model. So they can look at the relationship of the
12 different sound-generating devices at a site, and input
13 the information relative to each of them, and that
14 generates a model that would show what the decibel
15 levels are inside our fence line at our fence line
16 immediately outside. And that's how we design and get
17 the right equipment and controls in place to be able to
18 limit the decibel levels to 55.

19 Q. And that would be an average. Right?

20 A. Well, we're looking to that to be the maximum,
21 yes.

22 Q. Okay. Well, and that's just a little bit

1 different and I don't mean to argue with you, Sir. But
2 the Exhibit 2 indicates it's an average day/night
3 decibel level, and that's what I'm wondering about.
4 Would there be any objection for the company if it
5 agreed to provide that that noise analysis after the
6 modeling is completed to the Commission to review?

7 **A. The Commission would request to see our 3D model**
8 **of the noise --**

9 Q. With a conclusion as to whether or not the
10 analyst indicates that the maximum decibel level is
11 going to be 55 decibels at the fence line, or whatever
12 it may be?

13 **A. Yes.**

14 Q. Okay. Because one of my questions also, Sir,
15 along those lines was, you know, while it's my
16 understanding there's an unoccupied residence that's
17 owned by the landowner who sold the land to Dakota
18 Access, there is another landowner where is an occupied
19 residence a little bit further away. What happens --
20 the Commission is concerned, you know -- what happens
21 after if, you know, this project goes forward; it's
22 built; and the decibel level is 65 decibels; and it's a

1 problem for that landowner. What would you anticipate
2 the company do in that hypothetical instance?

3 A. Okay. I'm going to answer a couple of -- first
4 give a one commented and it's to put the 55 decibels
5 into context --

6 Q. Fair enough.

7 A. So as we're here talking a conversation between
8 two people at normal tone would register about 60
9 decibels. So that gives you a context of what 55
10 decibels is. But if there were to be an exceedance
11 [sic] of that 55 decibels, then we would engage people
12 who could do additional sound engineering for us, and we
13 would install additional sound controls to bring the
14 decibel levels down to the 55.

15 Q. Understood. Thank you, Sir. Are you familiar
16 with the -- and I'm going to butcher the name -- but the
17 Kruszewski's (phonetic), Charles and Donna Kruszewski?
18 Are you familiar with those folks?

19 A. Are they the landowners who live three or four
20 miles away from the facility?

21 Q. You know, I'm not exactly sure where they live
22 but it may be of help. They did file a petition to

1 intervene. I don't know if you're familiar with that,
2 and that petition was denied. I'm just wondering if
3 you're familiar with them at all and their concerns?

4 **A. Yes.**

5 MR. BENDER: Let me help a little bit there.
6 Those are the only couple that showed up at the
7 conditional use permit hearing.

8 BY MR. PELHAM:

9 Q. Okay. Are you familiar then with that help from
10 Mr. Bender?

11 **A. Yes.**

12 Q. Okay. And as my understanding -- of course, I'm
13 paraphrasing, and they may be here for all I know and
14 they may have some public testimony aspect, but it
15 seemed that their concern is related to Beaver Creek.
16 Are you familiar with Beaver Creek or --

17 **A. Yes.**

18 Q. All right. And my under my understanding of
19 their concerns is that their concern of, in the event of
20 an anticipated release of crude from this particular
21 facility, the pump station that's proposed here, that
22 there would be the potential for that to flow into

1 Beaver Creek, which then flows into the Missouri River.
2 Are you able to comment as to that that aspect of their
3 concern at all, Sir?

4 A. I can comment about the pump station -- release
5 at the pump station, a couple of things to keep in mind.
6 There is a berm around the storage tank or the surge
7 tank that'll be there that's sized for a hundred percent
8 of the capacity of the tank along with a freeboard
9 amount, I'm not sure of for rain events. So the
10 building itself where the pumps and motors are housed,
11 the foundation is a curb, and so any release of the from
12 the piping or the pumps and motors, the piping in the
13 pond building would be contained in the building
14 initially. And there's leak detection associated with
15 that so that we would have -- our control room would
16 have an immediate indication of a release, and the
17 facility would be shut down. The natural drainage from
18 the pump station is not being changed. We're not
19 changing entry and exit points for drainage. We are on
20 the north side of, I don't know if it's State or County
21 Road 13, but the Highway 13. Beaver Creek is to the
22 south of Highway 13, So highway 13 serves as a natural

1 **berm or control device between the pump station and**
2 **Beaver Creek. It would -- any runoff or release from**
3 **the station would run along the road. Eventually, it**
4 **would come to a culvert where it could traverse to the**
5 **south side. That culvert empties into a cultivated**
6 **field. So there's no direct path for any event at the**
7 **pump station to follow to get to Beaver Creek.**

8 Q. And as you said, the berm around the facility
9 that's planned -- what can you tell us? Can you be more
10 specific as to that particular design facet?

11 **A. I said the road would serve as a berm --**

12 Q. Oh, I understand. I understand that. But before
13 you had said that there's a berm, I believe, around the
14 facility itself. Am I mistaken?

15 **A. No. The berm is around the storage tank.**

16 Q. Understood. Okay. So the storage tank is how
17 many -- what's the storage capacity, if you know?

18 **A. It is in the 12-to-15,000-barrel range, but I**
19 **don't remember the exact number.**

20 Q. And your testimony, Sir, is that the berm around
21 the storage tank is sufficient to contain -- in the
22 event of an anticipated release of that storage tank --

1 to contain that product.

2 **A. Yes. A hundred percent of the capacity of**
3 **storage tank.**

4 Q. And I know it's, too, in the application. It's
5 noted that, you know, obviously in, you know, from the
6 company's perspective it no more wants any type of leak
7 or spill than anyone else. Fair to say?

8 **A. Probably more so, yes. We are very invested in**
9 **safe operation.**

10 Q. And the facilities -- it's noted in the
11 application that the facilities that where leaks or
12 spills occur are more oftentimes and not occurring in
13 facilities. Would the facility here that's being
14 proposed a pump station be one of those facilities where
15 a potential leak is perhaps having an increased risk?

16 **A. No. No. I'll ask you to direct that question to**
17 **Mr. Stamm again. He's our VP of operations and is**
18 **responsible for all the spill-planning and operations.**

19 Q. Fair enough. Fair enough. It's noted in the
20 application as use of citizen coordinating committees,
21 and having meetings to keep residents in the local area
22 here in Emmons County, apprised of what's going on.

1 What what can you tell me that Dakota Access has been
2 doing to have these meetings.

3 A. Well, we -- like I said we did have took one
4 concerned citizen down to an existing facility to
5 observe, and be satisfied themselves as to the noise
6 from the facility. As part of the permanent condition
7 in Emmons County, once construction activity begins, we
8 have agreed to have a representative at their monthly
9 Commissioners meeting to give an update on the progress
10 of the construction activity at the site.

11 Q. And approximately how long is that anticipated
12 that representative would be present at the Commission
13 -- County Commission meetings.

14 A. We expect the construction activity to be an
15 eight-to-ten-month process.

16 Q. That was one of my questions. It's
17 anticipated -- I believe there was some testimony in
18 your pre-file testimony indicating that anticipated
19 in-service data is third quarter 2020, but no later than
20 first quarter 2021. Is that correct?

21 A. That would still be our general time frame, yes.

22 Q. And the reason I ask is because I think that the

1 application indicated that it was anticipated the first
2 quarter of 2021. So there may be some anticipation to
3 have it completed sooner than first quarter of 2021?

4 **A. Yes, there is. It's pending all the appropriate**
5 **approvals being in place, but we would want to start**
6 **construction in the spring of 2020.**

7 Q. Fair enough. And it's also mentioned in the
8 application, Sir, at page 11 related to a migratory bird
9 conservation, a compliance plan. I understand you're
10 not the environmental expert here, and you have another
11 witness that is, but there is a there is a statement
12 that if a timeline on the proposed planned construction
13 changes, that that migratory bird plan would need to be
14 done. It's not done now because it's not anticipated
15 that the construction would take place during that
16 period of time, but if this construction changed -- if
17 the construction timeline changed, and it would be
18 needed, that plan, would the company commit to providing
19 that plan to the Commission.

20 **A. Yes.**

21 Q. As to the location of the proposed pump station,
22 Sir, were other locations considered along the Dakota

1 Access line in North Dakota?

2 A. We -- to establish where the pump station's
3 needed, you do your hydraulic model and that shows, you
4 know, an approximate location. We take that and then
5 look at along the pipeline. Obviously, It has to be
6 route -- or sited on top of the pipeline for available
7 commercial power; for access to public road; for a
8 suitable site for building activity to take place. And
9 we found that on the property we've acquired, and then
10 we approached landowner. And since the landowner was
11 willing to talk to us and eventually reached an
12 agreement to sell the property, that's what led to the
13 selection of that tract of land.

14 Q. It's noted in the applications, Sir, that there's
15 some ephemeral drainage. And again, I know it's an
16 environmental aspect that's addressed in the Wetland
17 Delineation Report. But I'm wondering, Sir, if you
18 could comment at all as far as the potential impact of
19 the ephemeral drainage would have on the possibility of
20 a unanticipated release of product from the facility?

21 A. Right now I can tell you we've -- our
22 construction, our planning of the facility, design of

1 the facility has a 50-foot setback from any construction
2 activity to that ephemeral drainage. But if you need
3 more detailed than that you may need to talk to our
4 environmental.

5 Q. Okay, and I can I can certainly do that. So
6 you're saying that there's a 50-foot setback. Is there
7 anything in between the setback, to your knowledge,
8 between that ephemeral drainage that's been noted in the
9 application and the facility?

10 A. No. And I will note the facility is still under
11 design. So the design is not complete.

12 Q. Any issues with Emmons County? I understand you
13 have conditional use permit from Emmons County.
14 Correct?

15 A. We do.

16 Q. And you're in -- to your knowledge you're in full
17 compliance with any requirements that the County may
18 require of the Dakota Access for this proposed facility.

19 A. Yes.

20 Q. Mr. Stamm is the person to talk to about
21 drag-reducing agent?

22 A. I can speak to drag-reducing agent.

1 Q. Okay. It's my understanding that drag -- I'll
2 call it DRA if we call it that, is going to be utilized.
3 Could you just explain that to the Commission, and what
4 its use is; what its purpose is; what its use; and then
5 any potential risk factors that you -- that Dakota
6 Access as analyzed.

7 A. Okay. Drag-reducing agent is something that's
8 commonly used in the industry, has been for decades.
9 What it does is it reduces the turbulence and effective
10 friction as the fluid moves within the pipeline, and
11 therefore it allows more fluid to be moved at lower
12 pressure, than without drag-reducing agent. Drag
13 reducing agent is for its safety data sheet non-toxic
14 material. And like I said, it's been commonly used
15 within the industry for decades. It doesn't have any
16 impact on the pipe itself.

17 Q. Is this something that is added? Where is it
18 added? Or is it a one-time application? Could you talk
19 a little bit more about it?

20 A. We add it at the pump stations. The material if
21 it goes through something like a pump, is rendered
22 ineffective. So we generally inject it on the

1 **downstream side of pump stations.**

2 Q. And it's my understanding that there are more
3 than one pump stations proposed for the Dakota Access is
4 calling the "optimization", and the Intervenor has been
5 calling "increased capacity". So I'm not going to get
6 into that fight on the on what we're calling it. But
7 the increase in throughput of the pipeline, I think we
8 can all agree on. Are there other pump facilities then
9 -- pump station facilities that would be adding this DRA
10 along the line?

11 **A. Yes.**

12 Q. And the -- those who will be adding it, those who
13 will be operating the proposed pump stations, they
14 receive what type of training for the addition of the
15 DRA?

16 **A. That would be a better question for Mr. Stamm.**

17 Q. Fair enough. Do you know whether or not PHMSA
18 regulates drag-reducing-agent application?

19 **A. Not to my knowledge, no.**

20 Q. Is that something that Dakota Access has brought
21 to the attention of PHMSA? The use of DRA on this
22 proposed increasing capacity?

1 A. I don't know if it's a topic that come up. Like
2 I said, it's very common within the industry. We
3 designed the system used DRA, and we've used DRA in the
4 system since its initial placement into service.

5 Q. Okay. And I'm going to -- I'm going to skip some
6 questions here that you've indicated, and your attorney
7 is indicated, maybe more appropriate for Mr. Stamm,
8 related to some of the questions that Mr. Purdon has
9 asked that I had some of the similar questions on. But
10 let me ask just a general question. The Commission has
11 -- and I'm not going to ask you about the legalities of
12 it -- but has as an application parameters. The company
13 has filed this application. My understanding though is
14 the Federal Regulatory Agency for interstate pipelines
15 is PHMSA. Correct?

16 A. Yes.

17 Q. Pipeline Hazardous Materials and Safety
18 Administration.

19 A. Yes.

20 Q. It's US Department of Transportation. Within
21 that. Right?

22 A. Yes.

1 Q. And there are certain regulations that Dakota
2 Access must comply with on the Federal statutory side.
3 Correct?

4 A. Yes.

5 Q. As you sit here, Sir, today, are there any
6 regulations under Federal law that Dakota Access has not
7 been -- has not complied with for this planned increase
8 in throughput through the Dakota Access Pipeline?

9 A. No, not to my knowledge. No.

10 Q. If there was a regulation that had been missed
11 and hypothetical, of course, I'm not saying if there was
12 or there wasn't; would Dakota Access file the required
13 information with the PHMSA, of the Federal Regulatory
14 Agency on interstate pipelines?

15 A. We would if we found in your hypothetical any
16 area we would find that's not in compliance, we would
17 bring into compliance.

18 Q. There is a -- and I think that this is probably
19 mostly perfunctory -- but there is a mention on page 12
20 of the application, related to a weed-management plan.
21 And there's an indication that Dakota Access would
22 comply with the previously submitted weed-management

1 plan. And I believe what is meant there is the
2 weed-management plan that was submitted on the original
3 application in PU 14842. Is that what was intended
4 there, Sir?

5 **A. I believe that's what was intended, yes.**

6 **Q. Okay.**

7 **MR. PELHAM:** Thank you, Lawrence -- Mr.
8 Bender. I'm reviewing my notes because I think that
9 there's some questions that are probably better for
10 others.

11 **BY MR. PELHAM:**

12 **Q. Do you know whether or not the hydraulic profiles**
13 **have been provided to PHMSA for its review?**

14 **A. My knowledge PHMSA doesn't usually review the**
15 **hydraulic profiles.**

16 **Q. What is your knowledge, Sir? To the best of your**
17 **knowledge, what is it that PHMSA does require for a line**
18 **that is to have a increased throughput -- substantial**
19 **increase, what I would consider substantial -- and in**
20 **reviewing that plan by company?**

21 **A. PHMSA doesn't regulate throughput or flow rates.**
22 **And so most of PHMSA safety requirements and regulations**

1 are around pressures. And they just -- again the
2 regulations don't address velocity or throughput in
3 pipeline systems.

4 Q. So the transient surge analysis that's been
5 recently completed; is that something that is reviewed
6 with PHMSA? If you know.

7 A. It's not reviewed with PHMSA. The reason we
8 would do a surge analysis is to comply with the parts of
9 the Federal Regulation that require operators not to
10 exceed certain maximum pressures. In the event of surge
11 or abnormal operation PHMSA's requirement or the POT
12 part 195 requirement, is that the abnormal operating
13 pressure not exceed 110 percent of the Maximum Operating
14 Pressure of the pipeline. And in our surge model we
15 have directed Fluid Flow Consultants to use 105 percent
16 of the MOP as the target design, in order to provide a
17 margin of safety in regards to that that model. And
18 that information we have to have available if PHMSA
19 wants to look at it, but it's not supplied to PHMSA for
20 their approval.

21 Q. And the -- and I believe this is noted in Mr.
22 Stamm's testimony, so I wouldn't necessarily expect you

1 to say much about it. But the facility-response plan is
2 something that would be provided to PHMSA. Correct?

3 **A. Yes. Mr. Stamm can speak in detail to it. But**
4 **you have to -- your facility-response plan has to be**
5 **current.**

6 Q. Any plans to increase the throughput of the
7 Dakota Access Pipeline beyond what is the amendment of
8 the certification at this time?

9 **A. Right now we have no plans other than the**
10 **application amendment that's before the Board as we**
11 **speak.**

12 Q. Thank you, Sir. I don't have any other questions
13 for you at this time.

14 ADMINISTRATIVE LAW JUDGE DAWSON:

15 Mr. Fawn?

16 Examination

17 BY MR. FAWN:

18 Q. I just have one question. Good morning, Sir.

19 **A. Good morning.**

20 Q. Hey, you talked about equipment and measures that
21 can be implemented to deal with surge?

22 **A. Yes, Sir.**

1 Q. And could you expand on that a little bit?

2 A. Yes. I can speak to what has been recommended in
3 the surge model we've had done, and what we intend to
4 install based on those recommendations. And that would
5 be a surge-relief valve at each of the pump stations on
6 DAPL, and a surge-relief tank tied to that, again, at
7 each of the pump stations. They vary in size a little
8 bit; they're in the 12-to-15,000-barrel range each,
9 depending on the location. In addition to that, each of
10 the mainline block valves and all of our mainline block
11 valves have motor operators on them to allow for a very
12 timely response if we need to close the valve. If there
13 were an inadvertent closure that valve, as soon as the
14 SCADA system had an indication that the valve was -- had
15 a command to go closed or it started to go closed, it
16 would shut down all of the upstream pump stations.

17 Q. So it is the closing of valves -- is that part of
18 the surge protection?

19 A. Well, the closing of the valve would -- in the
20 mainline -- would be what would initiate the surge
21 event, and shutting down the pump stations is what
22 mitigates the surge or reduces the pressure that would

1 **result from the valve being closed.**

2 Q. So, measures that you are implementing to deal
3 with surge may not always handle it?

4 A. No, they are designed -- Dr. Hein's report and
5 Fluid Flow Consultant's report -- again, we hired them
6 because of their expertise. They've got 30-plus years
7 experience in the industry. They do this modeling for
8 lots of pipeline companies, probably 50-plus. And so
9 what they have provided to us is their -- what they've
10 modeled is the worst-case situation for surge. And so
11 we have mitigated measures for the worst-case surge.

12 Q. That's all I have. Thank you.

13 ADMINISTRATIVE LAW JUDGE DAWSON:

14 Commissioner Fedorchak.

15 Examination

16 BY COMMISSIONER FEDORCHAK:

17 Q. Thank you, Mr. Frey. Is it safe to say you're
18 trying to stay out of the fray this morning? Sorry.

19 A. It's quite all right.

20 Q. Okay. Can't resist, have to have a little fun.
21 Okay, so I'd like to just start with -- because I'm a
22 little confused with your answering some questions

1 related to safety and operations and not all of them.
2 So can you just explain to me the difference between
3 your job as VP of engineering and Mr. Stamm's job as VP
4 of liquid operations?

5 A. Sure. I'm responsible for the engineering and
6 construction of the pipeline or related facilities. Mr.
7 Stamm is responsible for the operations and maintenance
8 of those facilities. It's probably a more clear-cut
9 distinction when you're building a pipeline new that
10 doesn't exist. When you're going in and adding to an
11 existing pipeline system the -- becomes not as distinct.
12 But I was answering the questions in regards to surge,
13 because that's part of the design consideration for the
14 expansion. Whereas the questions regarding the spill
15 modeling have to do with the operation of the facility.

16 Q. Okay, very good. Hopefully I won't -- I'll
17 direct -- I'll try my best to direct you to the
18 appropriate questions, and I can be redirected as
19 necessary. But for starters, what kind of issues have
20 you heard from landowners related to this project?

21 A. The -- I won't try to say the name but the
22 landowners who live a little bit down the Beaver Creek

1 and, you know, we know that they did send the letter to
2 the Commission. I know we did try to contact the
3 landowners to see if we could provide them with some
4 additional information, and we were unsuccessful in
5 their attempts to contact the landowners to be able to
6 directly respond to their concerns.

7 Q. They are here today if you want to visit with
8 them, and during a break I have talked to them already.

9 A. Okay. And as previously mentioned there was a
10 landowner who was concerned about noise. And so we
11 talked to that landowner, and again, we arranged for him
12 to go down to an existing facility, an operation pump
13 station near Redfield, South Dakota. He made that visit
14 and again, that satisfied his concerns. Or he expressed
15 us at that satisfied his concerns.

16 Q. Okay. And those are the only two issues directly
17 from landowners through the local zoning and permitting
18 process. Nothing substantial?

19 A. No, I -- we met with the Emmons County
20 Commissioners. I don't remember everything that might
21 have been asked at the hearing for the conditional use
22 permit, but they granted us the conditional use permit

1 **to build the facility.**

2 Q. Okay. Talked about the decibel level at the
3 fence line. Do you happen to know how far away is the
4 nearest occupied residence approximately?

5 A. **No. I know the 1580 feet is the unoccupied but I**
6 **don't know the nearest occupied.**

7 Q. So any suspicion of what the noise level would be
8 at the nearest occupied residence?

9 A. **No, I don't know what the attenuation of the**
10 **noise would be at that kind of distance.**

11 Q. 1,580, okay. You haven't heard any concerns from
12 that residence or is that the is that the person it came
13 out and visited yours facility?

14 A. **I'm not certain. I will make this comment: We**
15 **have three almost identical facilities to this one with**
16 **the same 55=decibel limitation that have been in service**
17 **for over two and a half years. Actually, one's up near**
18 **Johnson Corner in North Dakota; one's near Redfield,**
19 **South Dakota one near Cambridge, Iowa. And I'm not**
20 **aware that we've had any noise complaints about any of**
21 **those facilities either from adjacent landowners or from**
22 **any of the regulatory bodies or agencies or governmental**

1 entities that might have responsibilities for industrial
2 sites. So we believe the acoustical engineering we're
3 doing is very good at controlling the noise and does --
4 and as I mentioned 55 decibels is a pretty strong
5 standard given that our conversation here is 60
6 decibels.

7 Q. Okay. So you mentioned that there isn't any
8 backup power that you have planned for this project.
9 What happens to the pipeline operation in the case of a
10 power outage, say, at that pumping station?

11 A. Yeah, I'll clarify we don't have backup power to
12 run the pumps; we have backup power for our
13 instrumentation and monitoring controls our SCADA
14 system. If there were commercial power outage at any
15 facility along the pipeline, obviously that station is
16 going to go down and our pipeline-control group would
17 have to look at the -- how that would affect the
18 throughput. And so the line would probably continue to
19 operate but at a lower throughput.

20 Q. Okay. And when power comes back on do you have
21 to have special operations procedures established with
22 the power provider to alert you to those sorts of

1 things?

2 A. No. The instrumentation and controls would let
3 -- they would see that commercial power was back
4 available at the facility. And I'll let Mr. Stamm
5 answer to any, you know, specifics of what they would do
6 to bring that facility back online.

7 Q. So the PHMSA says that you need to prepare for
8 abnormal events that do not exceed a hundred ten percent
9 of the Maximum Operating Pressure. Correct? And you're
10 planning to 105 percent.

11 A. Yes. They require that we have control devices,
12 procedures in place that limit an abnormal pressure to
13 110 percent of MOP. Again, we've used a design standard
14 of 105 percent to provide an extra margin of safety.

15 Q. Okay. What causes an abnormal event and how
16 often are do they happen?

17 A. They're extremely infrequent. As I mentioned,
18 the cause of an event here that would be, you know, one
19 of the worst cases that we modeled is the closure of a
20 mainline block valve, an unplanned closure from the
21 mainline block valve. It's never happened in two and a
22 half years on this system. There are some other systems

1 we have with motor-operated valves, the ones I'm
2 familiar with. It has not occurred on them. It would
3 be a very rare event for a valve to go closed without
4 being issued a command by the control center.

5 Q. Okay. So in "very infrequent", that would be not
6 once a month? Or would it be once a year, an abnormal
7 event?

8 A. I wouldn't expect it even to that frequency.

9 Q. Okay. What else causes surges?

10 A. Pump station shutdown can cause a surge, ann
11 unplanned pump station shutdown can cause a surge. And
12 then again, we have the relief valves at each of the
13 pump stations that can immediately address anything that
14 occurs at that pump station.

15 Q. All right. How do you calculate the maximum
16 capacity of a pipeline?

17 A. Well, in the case of the -- I mean, we do a
18 hydraulic model of it, and it's an iterative process.
19 If you're looking watch you're going to design for,
20 typically we would have some direction from the
21 commercial group that, I would say that they're, you
22 know are looking for a capacity of whatever it might be,

1 in this case 1.1 million barrels. And we start looking
2 at what would be required to achieve that throughput,
3 and you continue to adjust your model you put your pump
4 stations closer together or further apart until you have
5 a system that functions to provide the throughput that
6 you want to get out of that pipeline system.

7 Q. So it's not something that in the engineering and
8 design states you will get, like this one will
9 ultimately have millions of barrels --

10 A. No.

11 Q. -- sequentially as you as you develop and see
12 demand?

13 A. If you're going back to the original DAPL, it we
14 designed that for 600,000 -- or 570,000 because that was
15 you know, what the commercial group at the time, you
16 know, believed the growth potential was to that. And
17 they were correct, they just underestimated it a little
18 bit. And so we designed the pipeline system to be able
19 to accomplish movement of that 570,000 barrels a day,
20 but at the time we weren't designing to anything higher.

21 Q. You said previously that PHMSA -- and for the
22 audience who doesn't follow this stuff real closely on a

1 daily basis, PHMSA is -- so that PH is like PH in phone:
2 Pipeline Hazardous Materials and Safety Administration,
3 that's PHMSA. That's the Federal agency that provides
4 all the safety standards and enforces them for pipelines
5 throughout the country. So you said previously that
6 PHMSA doesn't regulate velocity or look at it. Why? Do
7 you think they don't factor that into their safety
8 calculations?

9 **A. Because a wide variety of velocities can be**
10 **safely accommodated in the design of a pipeline system.**
11 **So again, velocity itself is not a risk factor in the**
12 **pipeline. As I mentioned in the surge modeling, it has**
13 **to be accounted for in a surge model or in selection of**
14 **other equipment like your pumps. But it's not something**
15 **that's regulated.**

16 **Q. Okay. Does it have any factor in terms of**
17 **longevity of a pipe, wear and tear, or anything like**
18 **that? Does velocity impact it in any way?**

19 **A. Not at the 15-feet per second that we would be**
20 **operating at. The only time that velocity would be a**
21 **factor in the longevity of a part of a steel pipe would**
22 **be at much higher velocities where there would be a risk**

1 of erosion inside the pipeline.

2 Q. Can you -- is it possible for you to provide any
3 sort of a visual for me to understand what 15-feet per
4 second looks like or feels like? Like what -- how fast
5 is the water moving coming out of a faucet?

6 A. Well, if I'm -- I hope I'm remembering this
7 correctly. I think 88 feet per second is 60 miles per
8 hour, if that helps in being able to work the math
9 backwards.

10 Q. I have to work on that tonight. I'm not good
11 enough with numbers to do that one on the fly. So say
12 it again -- 88 feet per second.

13 A. I believe 88 feet per second is 60 miles per
14 hour.

15 Q. Okay. Let's see. The surge report, etcetera,
16 all the surge-related and hydraulic profiles, are those
17 better directed to Mr. Stamm?

18 A. I can answer questions about the surge part.

19 Q. Okay. You did talk some about this with Mr.
20 Pelham, but what's included into the surge report; who
21 asked for it and reviews it; and how is it helpful to
22 you again?

1 A. What it's used for is for us to see what control
2 devices that need to be included in the design of our
3 overall pipeline system, including the pump stations, to
4 ensure that the pressure does not exceed what is allowed
5 in the PHMSA regulations.

6 Q. On the valves? Or on the MOP, the maximum --

7 A. Yeah, on the MOP, the abnormal operation of the
8 hundred and ten percent limit.

9 Q. Okay, and that's something that you do as a
10 pipeline operator; PHMSA doesn't require it.

11 A. Well, PHMSA requires us to, you know, build,
12 install, operate our pipeline to ensure that we don't
13 exceed that pressure. And so the only way we can do
14 that is to model an -- the abnormal events, the
15 worst-case events, so that we can be sure that we are
16 designing appropriately, installing the appropriate
17 equipment, have the appropriate procedures to avoid any
18 overpressure.

19 Q. Is it expensive to conduct those surge models --
20 that surge modeling? Is that a time-intensive costly
21 endeavor?

22 A. I don't know what it costs. It uses pretty -- a

1 lot of computing power to generate the model.

2 Q. What -- is there risk if you don't do it
3 correctly?

4 A. If you modeled -- somebody modeled things
5 incorrectly, the pressure might not be what the model
6 shows. And that's a reason -- one of the reasons we use
7 Fluid Flow Consultants is because of their recognized
8 expertise in the field; Dr. Hein has been doing this for
9 over 30 years. They provide -- provided modeling for us
10 in other systems in the past and they've done work for,
11 I think, 50 to 60 other pipeline companies. So they're
12 well-recognized, they have an excellent reputation.

13 Q. But as a company if you get it wrong, what
14 happens? What could happen if you cut corners on this
15 work and get it wrong?

16 A. Well, I will assure the Commission we plan to cut
17 no corners on this work. And again, that's why we're
18 hiring what we believe are the people with the best
19 expertise and track record in the field to come up with
20 the recommendations to mitigate any surge pressure -- or
21 surge overpressure.

22 Q. Okay. And PHMSA. What kind of reports do you

1 provide to PHMSA in terms of annually, when they review
2 the line related to surge. How do they see how often
3 these are happening and whether you're staying within
4 those limits?

5 A. Well, they would see that if we were to have an
6 event where -- our records when they audit they see
7 those as specific to the reporting of something with
8 PHMSA. I'm going to defer that to Mr. Stamm because
9 operations would have that responsibility. And I will
10 note that PHMSA has done audits. I mean, they started
11 auditing DAPL while it was under construction. They did
12 multiple construction audits of DAPL while it was being
13 constructed; they have performed audit since we've been
14 in operation.

15 Q. So -- and this is my final question on that. I'm
16 trying to understand the motivation for not doing a
17 proper surge report what you might gain from doing that.
18 Can you push more product through the line? Would it
19 save you money to not have to do the reports? Would it
20 --

21 A. I can't imagine any prudent operator trying to,
22 you know -- not wanting to have appropriate surge

1 mitigation in place.

2 Q. Okay. Are there any downsides operationally to
3 having surge-protection measures in place?

4 A. No.

5 Q. It doesn't slow you down?

6 A. No.

7 Q. Is it costly to install them -- surge protection
8 measures?

9 A. I mean, whatever it's going to cost to build the
10 tanks and put in the relief valves and run the relief
11 lines.

12 Q. Okay. All right. And the High-Consequence Area,
13 those would be more to Mr. Stamm?

14 A. Yes.

15 Q. Okay. Oh, and one more thing.

16 I think that's it for me for now. Thank you, Mr.
17 Frey.

18 ADMINISTRATIVE LAW JUDGE DAWSON:

19 Commissioner Kroshus.

20 COMMISSIONER KROSHUS: Thank you, Your

21 Honor.

22 Just for those of you, obviously watching

1 both present today and then who might be watching the
2 video as we go through these various witnesses, it
3 becomes increasingly more challenging for the people who
4 ask questions after. Because if you looked at my notes
5 right now, you would see x's on questions that have been
6 asked, then you add more and you bounce around a little
7 bit. So I feel really bad for Commissioner Christmann
8 who follows myself. But in terms -- you know, the
9 question was asked in terms of how fast is the oil
10 flowing through the pipe. And for every foot per
11 second, it's .682 miles per hour which equates to 10.23
12 miles per hour if it's going at 15 feet per second. So
13 we've got that one figured out for the day. Right?

14 EXAMINATION

15 BY COMMISSIONER KROSHUS:

16 Q. Can you tell -- does every pump station have a
17 block valve just upstream? Or is it just downstream?
18 How do you usually design a system?

19 A. Well, there are valves at each pump station.

20 Q. So that is in effect the valve at the same time.
21 What's the sequence of events if there is a problem, for
22 example, with this pump station? When you go working

1 back upstream does the pressure begin to increase if the
2 station is shut down because now you have a backflow of
3 oil that's being put into the system upstream? Can you
4 just walk me through? What's the sequence of events on
5 shutting the system down?

6 A. If -- I'm trying to get the -- are you saying if
7 the pipeline operator shuts down the system in a planned
8 event or --

9 Q. Unexpected. Unexpected manner. If there was an
10 issue at the Linton, the pump station west of town here,
11 oil is still -- at least for a few seconds or a few
12 minutes -- oil is still being put -- pumped into the
13 system. Correct? Stream?

14 A. Yes. And that's why one of the mitigation
15 measures is the relief valves in the tank at the pump
16 station and the -- whether they would be triggered or
17 not would have to do with whether there was a valve
18 closure associated with the pump shutdown or not. But
19 either way the relief valves that are there would
20 protect and take any excess pressure that might try to
21 be created by the shutdown and relieve it into the surge
22 tank.

1 Q. So then that tank is 12 to 15,000 barrels, I
2 believe you indicated?

3 A. Yes.

4 Q. And the bermed [sic] area would hold the contents
5 of the tank? Would hold more than that?

6 A. It holds a little bit more than that. It's
7 designed for -- I don't remember the amount, but some
8 freeboard in case you have rain events.

9 Q. How closely do you work with -- You have an
10 engineering degree. Correct?

11 A. Yes.

12 Q. And Mr. Stamm, I believe, has an engineering
13 degree as well?

14 A. I believe so.

15 Q. So do you do the analysis from -- for -- because
16 I think you deferred to Mr. Stamm on some of the
17 safety-related questions, if something were to happen
18 with the system, that from an operational standpoint
19 he'd be better to answer that. Is that correct?

20 A. Yes.

21 Q. Okay. So how closely do you work with him? Does
22 he have to do his own engineering in terms of what

1 happens if the pipeline is compromised? Or do you
2 assist with that as well from an engineering standpoint
3 on the design side?

4 A. Well, on the design side, as I mentioned, the
5 engineering and construction group handles the design of
6 the facilities and the installation of the facilities.
7 Once those facilities are placed in service, Mr. Stamm
8 has the responsibility for the operations and
9 maintenance of those facilities. In the design process,
10 operations is engaged as having input into the design
11 process.

12 Q. Okay, so you would do the calculations on
13 worst-case scenario, for example, if the pipeline was
14 compromised?

15 A. Yeah. If we're talking about the surge model the
16 engineering and construction group is who has, I guess,
17 arranged for the surge modeling to be done, because
18 that's part of the design process of the pipeline
19 system.

20 Q. So essentially after the design. Well, at some
21 point you're handing that duty or offer that --

22 A. Correct. In the equipment that's installed as

1 part -- just like everything else, it's installed, will
2 be handed off to operations group to operate it and
3 maintain it.

4 Q. On the DRA, what happens if it's not added? Does
5 that increased pressure then along the line? Or is it
6 not discernible?

7 A. It would -- what would occur if you stopped
8 injecting DRA, is the friction losses from the
9 throughput would essentially slow the line down. So you
10 just run it at a lower rate or the same pressures would
11 result in a lower flow rate in the pipeline.

12 Q. So pressure doesn't change but flow rate does?

13 A. No.

14 Q. Going back to the -- Well, it might be similar
15 then, in terms of loss of power, you have backup power
16 that would be able to shut the system down at that
17 particular site but --

18 A. Well, if --

19 Q. -- enough backup to do that. Correct?

20 A. Well, if we lose power at the site, we lose all
21 of the pumps and the motors go down. So there is
22 nothing to shut down, because it got shut down when it

1 lost power.

2 Q. The SCADA system --

3 A. The SCADA system shuts it down. We have -- well,
4 it -- again, the pumps shut down because they have no
5 more power to the motors. And so the motors shut down
6 because they've lost power. The SCADA system that's
7 there are the controls and communication is powered by a
8 battery backup, what we call a UPS system,
9 Uninterruptible Power Supply. And so there would be
10 eight to nine hours of communications that could
11 continue even if commercial power did not return in that
12 timeframe.

13 Q. These are both electronic valves, but they can be
14 manually operated as well if needed?

15 A. Well, all the valves can be manually operated.
16 If we lost power at the site we would not be able to
17 open and close the valves. There would there would be
18 no need to open and close the valves if the station went
19 down.

20 Q. Is the pressure in that particular point of the
21 line right before the pump station, is that -- that
22 would be where the pressure is lower than right after --

1 it was beyond the pump station, then it's repressurized?

2 A. At the pump station is where the pressure is
3 added to the pipeline system. So the suction side of
4 the pump station is lower than the discharge side of the
5 pump station.

6 Q. That profile may vary up and down the line?

7 A. It varies a little bit. The discharge pressure
8 is not exactly the same in every pump station.

9 Q. Just a point to clarify -- if you could clarify
10 for me when you're talking about 50, and I'm going to
11 the noise --

12 A. Yes, Sir.

13 Q. -- at the pump station, the 55 DB from the fence
14 line; is that from the fence line of the station itself
15 or from the property fence line?

16 A. That would be that would be our property fence
17 line.

18 Q. Okay. So that that is the perimeter of the land.

19 A. Yes.

20 Q. And one thing -- and I was I was writing a note
21 when I thought you had -- I heard -- maybe in fact I
22 probably just caught the tail end of it. But you had

1 said something to the effect of design, is the design
2 wasn't complete. Do you recall what that was?

3 A. Yes. It is still in the process of being
4 designed and including specification of the equipment.
5 The 3D acoustical model, sound model for design, is
6 still being looked at to ensure that we meet that
7 55-decibel limit.

8 Q. Okay. That's related to the sound --

9 A. Yes.

10 Q. -- aspect, and just the sound aspect in terms of
11 the type as the pumps are put in?

12 A. I mean, we know -- the pumps are designed -- we
13 know what type pumps are being installed. The pumps are
14 on order, but the -- exactly, again, what that sound
15 model might tell us is that we need to move the building
16 a few foot north or south or east or west. And so that
17 kind of final design is what's still being looked at.

18 Q. Okay. I think that concludes my questioning for
19 now. I have to go through my notes and make sure I
20 didn't miss anything. Thank you.

21 COMMISSIONER KROSHUS: Finished, Your Honor.

22 ADMINISTRATIVE LAW JUDGE DAWSON:

1 Commissioner Christmann.

2 COMMISSIONER CHRISTMANN: Thanks, Your
3 Honor. And I only have one thing I want to explore yet
4 with Mr. Frey, so if I could have a point of personal
5 privilege. We sometimes lose some people over lunch
6 hour, and still before anyone would depart our presence,
7 I want to kind of commend them. I sit up here and I
8 know that this is a project that people have strong
9 feelings about. And I look at those veterans over on
10 the wall, who sacrificed their lives for our freedom it
11 says. Only two days beyond Veterans Day, and I have to
12 think that we're not facing all kinds of disruptions or
13 anything like that. We've had an orderly process this
14 morning, and I bet you those veterans are awful proud of
15 the way that we're exercising the freedoms that they
16 sacrifice their lives for. So I want to thank everybody
17 for doing that.

18 BY COMMISSIONER KROSHUS:

19 Q. Page 3 of your testimony, you mention terminals
20 near Stanley in Montrail County; one each near Tioga,
21 Epping, and Trenton in Williams County; and one each
22 near Watford City and Johnson Corner in McKenzie County.

1 That sound familiar?

2 **A. Yes. I think I was describing the original DAPL**
3 **project.**

4 Q. Is that just a sample list of some of the
5 terminals? Or is that all of the terminals?

6 **A. That is all the terminals.**

7 Q. And those three counties are in northwest North
8 Dakota in the heart of the Bakken field. So that would
9 sound like it's Bakken oil going through here. Correct?

10 **A. Yes, it is Bakken crude oil. The system was**
11 **designed to move light crude oil, Bakken light crude**
12 **oil, and the tariffs are written to only move Bakken**
13 **light crude oil.**

14 Q. Okay. So I just -- and I wouldn't bring this up
15 if it was one or two people that said something like
16 this; but we received thousands, many thousands of
17 requests for this hearing when there was the notice of
18 opportunity, using the exact same language and I quote:
19 "According to E and E News tar-sand crude such as that
20 flowing through the Dakota Access Pipeline represents an
21 unusually perilous threat." You don't get thousands and
22 thousands of people using this exact language, it's

1 clearly something organizational using that language.
2 Were those people misled in that? Or am I
3 misunderstanding these terminals and that this is in
4 fact doing tar-sand crude?

5 A. They were significantly misled. There has never
6 been any heavy crude oil of any sort in this pipeline.
7 It was not designed to handle or move heavy crude oil.
8 None of our terminals have ever had any heavy crude oil
9 in them. We have no plans to move heavy crude oil. So
10 I don't now where that came from, but it's completely
11 erroneous and has no basis in any facts I'm aware of.

12 COMMISSIONER KROSHUS: Thank you for
13 clarifying other questions, Your Honor.

14 ADMINISTRATIVE LAW JUDGE DAWSON:

15 Mr. Bender?

16 MR. BENDER: Yes, it is.

17 ADMINISTRATIVE LAW JUDGE DAWSON:

18 Commissioner Fedorchak.

19 EXAMINATION

20 BY COMMISSIONER FEDORCHAK:

21 Q. Sorry, there's a couple more I need to ask you.
22 I want to ask you some things that were stated in the

1 testimony from the Intervenors. Particularly, Richard
2 Kuprewicz. With the last name of Fedorchak, I do try
3 not to put your last names.

4 So, Mr. Frey, on page 10 of his testimony -- I'll
5 read it to you, you don't need to pull it out. He says:
6 "The issue is not that the DAPL capacity expansion will
7 alter DAPL's Maximum Operating Pressure. The issue is
8 that the DAPL capacity expansion will, one, increase the
9 risk that surge overpressure is greater than a hundred
10 ten percent of DAPL's Maximum Operating Pressure will
11 occur." Is that true? That there's a higher risk at --

12 **A. No, because --**

13 MR. BENDER: Commissioner Fedorchak, we're
14 going to be calling a witness who's going to
15 specifically address the surge issue.

16 COMMISSIONER FEDORCHAK: All right. I won't
17 ask that then. Sorry.

18 MR. BENDER: No need to apologize.

19 BY COMMISSIONER FEDORCHAK:

20 Q. Okay. So we've talked about this so I do want
21 you to speak to this. And again, based on this expert's
22 testimony, he says: "Based on my extensive experience,

1 surge-protection equipment place only at pump stations
2 is inadequate to prevent surge overpressures on the main
3 pipeline additional surge overpressure safety equipment
4 must be installed on the mainline valves in order to
5 adequately mitigate surge overpressure risks." What's
6 your opinion of that?

7 MR. BENDER: Once again, Commissioner, we're
8 going to have a rebuttal witness. But certainly he can
9 answer it.

10 A. My statement to that is we believe that Fluid
11 Flow Consultants and Dr. Hein have vastly more expertise
12 in this area than Mr. Kuprewicz, and we would defer to
13 their recommendations.

14 Q. So you're following the recommendations of this
15 Fluid Flow Consultants, which you believe is the best in
16 the industry?

17 A. Yes, Ma'am.

18 Q. Doing what they say to reduce the risk of surge?

19 A. To keep the -- any pressure increases from
20 abnormal operations from exceeding the PHMSA limits.

21 Q. Okay. Alright, and then I just also want to
22 confirm that all the discussion about the

1 high-consequence areas is better directed towards Mr.
2 Stamm as an operational issue or not?

3 **A. Yes.**

4 Q. Okay, then I don't have any more questions.

5 ADMINISTRATIVE LAW JUDGE DAWSON: How long
6 do you think you'll be?

7 MR. BENDER: Couple minutes.

8 ADMINISTRATIVE LAW JUDGE DAWSON: Okay, you
9 may continue.

10 EXAMINATION

11 BY MR. BENDER:

12 Q. Mr. Frey, I'm going to jump around here a little
13 bit, try to redirect you on a few things. You testified
14 that Dakota Access had not selected a contractor at this
15 point in time. But it's true, is it not, that DAPL has
16 committed to hiring union labor?

17 **A. Yes. We will be selecting a contractor that**
18 **utilizes union labor force.**

19 Q. And in response to some questions about sound
20 studies that have been done. Would you agree to have a
21 condition in the order that would require Dakota Access
22 to do a sound study after the facility is built, and if

1 it doesn't meet the requirements that you've stated here
2 today or in the application, that you'll install
3 mitigating equipment to meet those requirements?

4 **A. Yes.**

5 Q. And there was some questioning, I believe, was by
6 the Intervenors. I believe it's sort of suggested that
7 the reason Dakota Access did a surge study was because
8 Mr. Kuprewicz had filed some prepared testimony in
9 Illinois. Do you know if Dr. Hein had started working
10 on the surge study before that testimony was filed?

11 **A. I don't know the exact timing. I believe he had,**
12 **because it takes a period of time to produce these**
13 **studies.**

14 Q. And some questioning from Commissioner Fedorchak,
15 you talked about a hundred ten percent of a MOP, and
16 then you started talking about 105 percent of a MOP.
17 Can you just spend a little bit more time explaining
18 just what you meant when 110 percent of MOP comes into
19 play and win the hundred and five percent of MOP comes
20 into play?

21 **A. Yes. The 110 percent of MOP is the maximum**
22 **pressure that that a pipeline can experience during an**

1 **abnormal event. And that is part of the DOT part 195**
2 **regulations. What we tasked Fluid Flow Consultants and**
3 **Dr. Hein was that they do their modeling and make their**
4 **recommendations in such a manner as to limit that**
5 **abnormal event pressure to no more than 105 percent of**
6 **the MOP of the pipeline.**

7 Q. And there's been a lot of discussion here today
8 about a surge report, hydraulic profiles. Are you aware
9 of any rule, regulation, statute, or order of the
10 Commission that would require Dakota Access Pipeline to
11 file those reports with the Commission?

12 A. No, it's not generally something that's requested
13 of utility commissions by utility commissions.

14 Q. If the Commission requested it, would Dakota
15 Access file those reports with the Commission even
16 though there's no requirement to do so?

17 A. We have -- we work with the Commission and just
18 satisfy their information requests.

19 Q. And then just one last thing having to do with
20 the no backup power at the pump station. It's my
21 understanding that there is backup power for the CPM
22 system. Is that also your understanding as well?

1 A. Yes. Yes, all the instrumentation that's in the
2 SCADA system is -- works off the UPS or Uninterruptible
3 Power Supply, the battery backup that gives eight to
4 nine hours of backup.

5 Q. I don't have any other questions.

6 ADMINISTRATIVE LAW JUDGE DAWSON: I take it
7 you have a few questions?

8 UNIDENTIFIED SPEAKER: Just very briefly,
9 though.

10 ADMINISTRATION LAW JUDGE DAWSON: I'll allow
11 it If it's going to be five minutes.

12 UNIDENTIFIED SPEAKER: Less than.

13 ADMINISTRATIVE LAW JUDGE DAWSON: Okay.

14 BY UNIDENTIFIED SPEAKER:

15 Q. Mr. Frey, I just want to try and sort this out
16 because I truly don't understand the timeline here.

17 The optimization -- your optimization plan,
18 setting aside the decibels, the audible standards for
19 the pump house -- with the optimization plan for the
20 increase in the capacity. Is that design complete?

21 A. At this point in time, the individual facilities
22 that are being installed as part of the optimization

1 **plan are being designed.**

2 Q. So the -- okay. That helps me. Thank you.

3 You've talked about various design features that can
4 help address surge, surge relief valves, surgical relief
5 tanks, mainline block valves. I don't know if I wrote
6 those down fast enough to -- are those designs features
7 that are to address the possibility of surge? Do I have
8 that correct?

9 A. The surge relief valves and the surge tanks are
10 there to -- one of the recommendations and items that
11 are being installed to keep the surge pressure below the
12 limits in PHMSA, the mainline valves, they don't protect
13 against surge. Inadvertent closure of a valve could be
14 something that triggers a surge event. Our controls
15 system would shut down all upstream pump stations if any
16 mainline valve starts to go closed.

17 Q. Are these -- are these surge protection designs
18 that you've just talked about, are those passive
19 systems, failsafe systems, or are they
20 SCADA-or-software-dependent systems?

21 A. Surge relief valves and the surge tanks are a
22 passive self-contained system.

1 Q. Were those surge relief valves and surge relief
2 tanks, were they part of the design of this optimization
3 before Fluid Flow Consultants completed their transient
4 surge analysis?

5 A. Because we have them installed at the existing
6 facilities and they were part of the surge mitigation
7 for the original DAPL, we believed we were going to need
8 to enhance them for the expansion of DAPL. So the
9 expectation was that that something similar to what the
10 recommendations were would need to be installed.

11 Q. Just to understand what you said: You saw this,
12 you understood this issue, but it was the Fluid Flow
13 Consultants report, which is -- again, just from a
14 couple of weeks ago in October that that has recommended
15 certain surge relief protections. Do I have that right?

16 A. We again are in -- you said we're in the design
17 process and so the report done by Fluid Flow Consultants
18 was part of the design process for the optimization
19 project.

20 Q. So the design process is ongoing at least of
21 October of 2019?

22 A. Yes.

1 Q. No further questions.

2 ADMINISTRATIVE LAW JUDGE DAWSON:

3 Mr. Pelham?

4 EXAMINATION

5 BY MR. PELHAM:

6 Q. Just briefly we've heard Dr. Hein mentioned and
7 Fluid Flow Consultants. Fluid Flow Consultants, is that
8 and entity that Dr. Hein works for?

9 A. Yes. That's the company through which Dr. Hein
10 works.

11 Q. Okay. And Dr. Hein is doing what analyses for
12 Dakota Access for this planned increase in throughput?

13 A. He is the author of the surge report/surge
14 analysis, so he's doing the computer modeling to
15 indicate what this surge might be, and then he's putting
16 control devices into his model in order to be able to
17 make the recommendation for how to mitigate any abnormal
18 operating pressures.

19 Q. And the analyses done by Dr. Hein, are they
20 accepted fully by Dakota Access? What he recommends is
21 what you're doing? Or are there some back and forth
22 with him?

1 **A. No. We're fully following the recommendations in**
2 **the report by Fluid Flow Consultants and Dr. Hein.**

3 Q. And he's in no way -- I mean, aside from being a
4 third-party consultant obviously, being paid by Dakota
5 Access for services of course. He's not an employee of
6 Energy Transfer or Dakota Access. Is that correct?

7 **A. No, he is an independent third party.**

8 Q. Thank you. I don't have any other questions for
9 you.

10 ADMINISTRATIVE LAW JUDGE DAWSON:

11 Mr. Fawn? Commissioner Fedorchak?

12 Questions? Commissioner Kroshus? Thank you.

13 Seeing no further questions you may step
14 down and we'll take a 45-minute break for lunch, coming
15 back at approximately 45 minutes after the hour.

16 (Whereupon the proceeding is off the
17 record.)

18 And it is approximately 10 to 1 p.m. And we
19 are still with the applicant. You may call your next
20 witness, Mr. Bender.

21

22 MR. BENDER: Thank your, Your Honor. The

1 Applicant calls Todd Stamm.

2 ADMINISTRATIVE LAW JUDGE DAWSON: Mr. Stamm,
3 were you here for my previous warnings as to perjury?

4 WITNESS: Yes, Sir.

5 ADMINISTRATIVE LAW JUDGE DAWSON: So you
6 understand what perjury is and the penalties for it?

7 TODD STAMM,
8 having been called forth as a witness, was sworn
9 to tell the truth and testifies as follows:

10 ADMINISTRATIVE LAW JUDGE DAWSON: You may
11 begin.

12 MR. BENDER: Thank you.

13 EXAMINATION

14 BY MR. BENDER:

15 Q. Todd, would you state your full name for the
16 record, please?

17 A. **Todd Michael Stamm.**

18 Q. And what's your business address?

19 A. **1300 Main Street, Houston, Texas.**

20 Q. And by whom are you employed?

21 A. **Energy Transfer.**

22 Q. In what capacity?

1 **A. I'm the vice-president of crude and liquid**
2 **pipeline operations.**

3 Q. I'm going to direct your attention to what's been
4 previously marked as Exhibit 9. Is that direct
5 testimony that was prepared either by you or under your
6 control and supervision?

7 **A. Yes, Sir.**

8 Q. And was that testimony true and correct when you
9 prepared it?

10 **A. Yes.**

11 Q. And to your knowledge, is that testimony true and
12 correct today?

13 **A. Yes, Sir.**

14 MR. BENDER: Tender the witness for cross
15 examination.

16 EXAMINATION

17 BY MR. PURDON:

18 Q. Good afternoon, Mr. Stamm.

19 **A. Good afternoon.**

20 Q. A couple of areas I'd like to cover with you.

21 First, I just want to see if you agree with some facts
22 on the record here. You concur, I think, somebody said

1 that the Dakota Access Pipeline went on line in June of
2 2017?

3 **A. Yes, Sir.**

4 Q. About two and a half years ago?

5 **A. Sure.**

6 Q. In that time -- well, between the time it went
7 on line and December 3rd of 2018, the pipeline itself
8 had experienced 12 spills. Is that correct?

9 **A. The Dakota Access Pipeline itself has experienced**
10 **zero spills. The Dakota Access Pipeline has**
11 **experienced, I believe that number is seven spills**
12 **within facilities.**

13 Q. So the PHMSA database lists the incidents whether
14 their we're in the pipeline or -- your point is fair:
15 The pipeline versus the facilities; I understand that.
16 Speaking of the project itself including pumping the
17 stations and facilities, the PHMSA database identifies
18 12 spills in the time period I've set out. Do you
19 disagree with that?

20 **A. I don't. I believe the other five spills that**
21 **you're likely referencing were on the -- on ECHO assets**
22 **within ECHO facilities. That's the piece of pipe from**

1 **Patoka itself.**

2 Q. Is that the pipeline which is part of the Dakota
3 Access Pipeline? Is that what you're saying?

4 **A. Two separate, yes.**

5 Q. And the extent of those spills is over 6,000
6 gallons of crude oil. Is that correct? According to
7 PHMSA?

8 **A. Yes, I believe that to be correct, for the twelve**
9 **releases you've identified.**

10 Q. And at least one of these releases was in a
11 High-Consequence Area. Do you agree with that?

12 **A. I believe so. I didn't specifically look at**
13 **that.**

14 Q. Would you agree with me that the plan to increase
15 the capacity of the Dakota Access Pipeline from 570,000
16 barrels per day to 1.1 million barrels per day, that
17 increase in volume, it will increase the negative impact
18 that would result from any spill or leak from the
19 pipeline or pipeline facilities. Do you agree with
20 that?

21 **A. I do not.**

22 Q. You put a just under twice amount of oil into a

1 pipeline, and you're telling me that that will not
2 increase the amount of oil released in a spill or a
3 leak?

4 **A. It may, but it may not.**

5 Q. Will putting more oil into the pipeline decrease
6 the amount of oil that leaks or spills if there's an
7 incident?

8 **A. It could.**

9 Q. You're familiar with the Facility Response Plan
10 for the Dakota Access Pipeline?

11 **A. Yes, Sir.**

12 Q. And that is a plan that's required under Federal
13 Regulations. Correct?

14 **A. That is correct.**

15 Q. And what it does is it sets up a plan for a
16 company as to how it will respond to a spill or leak.
17 Correct?

18 **A. Essentially, yes. I mean, there's certainly a
19 lot more to the plan.**

20 Q. Sure. But it does nitty-gritty things like
21 making sure that booms are pre-positioned near where
22 water leaks may occur, things like that? Correct?

1 **A. It gives locations where you could deploy booms,**
2 **provides you available contractors within various**
3 **geographic ranges or areas. It provides you HCA**
4 **information; it provides a whole lot of information.**

5 Q. And in part of determining putting together this
6 facility's response plan, part of doing that is making a
7 determination on what the worst-case scenario for a
8 spill or leak would be. Correct?

9 **A. That's correct. There's specific criteria in**
10 **calculating a worst-case discharge.**

11 Q. In the capacity expansion that we're talking
12 about from 570,000 per day to 1.1 million barrels per
13 day, that will increase the worst-case-scenario spill
14 from the Dakota Access Pipeline. Correct?

15 **A. For the Facility Response Plan that you're asking**
16 **about, it will not.**

17 Q. So we're going to put almost twice as much oil
18 through the same pipeline, and you're telling me it's
19 not going to increase the worst-case scenario or a leak
20 or a spill from the pipeline or its facilities?

21 **A. You specifically asked the question whether it**
22 **would increase the worst-case discharge calculated in**

1 the FRP, and I answered that it would not.

2 Q. I'm going to get to the worst-case discharge.

3 I'm talking about something different: A worst-case

4 scenario. I know what a worst-case discharge is, and

5 we're going to walk through that. And your answer is

6 the same: You double the amount of oil through the

7 pipeline and the worst-case scenario here does not get

8 any worse. That's your testimony?

9 A. I'm not aware of -- you're making up a

10 hypothetical situation that I can't comment on. I think

11 it's important for the Commission that the FRP, which is

12 as indicated, mandated by Federal Regulation, has a

13 specific way in which you calculate the worst-case

14 discharge. The importance of that is to make sure that

15 you have adequate resources to manage a spill of that

16 magnitude. It's a very conservative calculation; it's

17 the calculation that's set up to make sure there's

18 consistency across the industry so you don't have

19 operators sort of picking and choosing the criteria to

20 make the calculation better or worse, whatever they may

21 want to do. And once again, with the proposed increase

22 in capacity, the worst-case discharge will not change

1 **for this Facility Response Plan.**

2 Q. Okay. Thank you. I do want to ask you about the
3 worst-case-discharge analysis. I've got a couple of
4 pages of questions on it, that's where I was headed.
5 But first I wanted to get your general take on the
6 worse-case scenario, which is what I was asking, but
7 that's fine. Let's cut through some of this: The
8 worst-case-discharge analysis you talked about that, the
9 metric is set for sound oil-spill response planning.
10 Correct?

11 **A. Yes, Sir. It's the criteria for establishing the**
12 **resources.**

13 Q. Exactly. It's the starting point for development
14 of your oil-field response plan under Federal Regs.
15 Right?

16 **A. Yes.**

17 Q. And it consists of -- in measuring and
18 determining the worst-case discharge number, it's a
19 number that's expressed in barrels of oil. Correct?

20 **A. That's correct.**

21 Q. I think you said there are a number of factors
22 that are mandated to be used. Correct?

1 **A. That's correct.**

2 Q. Worst-case detection time is one of those.

3 Right?

4 **A. You have to provide a detection time. Correct.**

5 Q. So you're going to provide the best-case
6 detection time or you're going to provide the worst-case
7 detection time?

8 **A. You're going to provide what you think is a**
9 **reasonable detection time in a worst-case-discharge**
10 **scenario.**

11 Q. And there is currently a worst-case-discharge
12 analysis on the Dakota Access Pipeline at 570K barrels
13 per day. Right? That exists?

14 **A. Correct.**

15 Q. Has there been a worst-case-discharge analysis
16 done on the projected expansion to 1.1 million barrels a
17 day?

18 **A. Not as of yet. But as I indicated, I anticipate**
19 **there will be no increase in the worst-case discharge.**

20 Q. When I asked you if the worst-case discharge was
21 going to be higher because you're going from 570 to 1.1
22 million, you said no. And now you're telling me you

1 haven't even done that math yet. Is that fair what I
2 understand?

3 A. Yeah, I think it's fair to help answer your
4 question before the Commission, that the worst-case
5 discharge, once again, looks at that -- those assets,
6 and in the case of this Facility Response Plan the
7 worst-case discharge is the discharge of a tank, which
8 has a significantly greater volume than that of the
9 pipeline. Hence, my comment that the worst-case
10 discharge for this FRP will not change.

11 Q. So, let's go back to the four components of the
12 worst-case-discharge analysis. You're got detection
13 time. Correct?

14 A. Correct.

15 MR. BENDER: Objection. We're getting into
16 an area. It's clear that this Commission cannot get
17 into this regulation because it's preempted by Federal
18 Regulation. And beyond that, a lot of these questions
19 have already been answered.

20 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.
21 Purdon?

22 MR. PURDON: Let me take the second part

1 first. I was told when I was questioning Mr. Frey, when
2 we get into this, that this was the witness to answer my
3 question. So I don't think they've been answered. And
4 secondly, the Commission's task is not necessarily to
5 determine whether or not Federal Regs have been
6 followed; they are a floor. The issue before the
7 Commission is whether or not this is going to have a
8 minimal adverse impact on the environment and people of
9 North Dakota. And I would think the Commission might
10 want to know how do they figure out the worst-case
11 discharge here? What does that look like: How do they
12 do that? And that might be relevant to their eventual
13 determination.

14 MR. BENDER: What Mr. Purdon is trying to do
15 is he's trying to get this witness to admit that the
16 worst-case discharge is going to change because the
17 volume is going to go from 570,000 barrels a day to 1.1
18 million barrels a day. And Mr. Stamm has already
19 answered that question; he said it will not change. Mr.
20 Purdon continues to try to get him to change his mind.

21 MR. PURDON: He also said he hasn't done the
22 math yet.

1 ADMINISTRATIVE LAW JUDGE DAWSON:

2 Mr. Pelham, do you have any comment as to the
3 jurisdiction of the service Commission?

4 MR. PELHAM: I think in this hearing the
5 Commission has the jurisdiction as set by statute, which
6 includes analysis as to whether or not the proposed
7 facilities will have a minimum adverse impact on the
8 environment, as well as for the citizens of the State of
9 North Dakota. Whether or not the interplay of Federal
10 Regulations may or may not apply in the ultimate
11 application is not the question here I don't think. But
12 I think that the questions can be asked and they should
13 be answered so that Commission can make a decision.

14 ADMINISTRATIVE LAW JUDGE DAWSON: I'm going
15 to allow the questions. But avoid redundancy at best.

16 MR. PURDON: Of course. Thank you.

17 BY MR. PURDON:

18 Q. Four factors I think. Detection time goes into
19 the worst-case discharge?

20 A. Yes, Sir.

21 Q. That's the time to detect a leak or spill because
22 while you're detecting it it's leaking or spilling.

1 Right?

2 A. Correct.

3 Q. Time to shut down the pipeline --

4 A. I'm sorry.

5 Q. Okay. Go ahead.

6 A. Unless you detected it essentially
7 instantaneously, correct. I don't want to make an
8 assumption that it's been leaking for some amount of
9 time.

10 Q. So when you say "instantaneously", you mean
11 literally instantaneously?

12 A. I think within seconds on a worst-case discharge
13 that is used to calculate in the instance of, say a
14 rupture or something, I think -- not "think", I believe
15 your leak-detection system would pick that up
16 immediately, yes. In seconds.

17 Q. Four factors. First one is detection time.
18 We've talked about that. Right?

19 A. Yes.

20 Q. Second factor is time to shut down the pipeline.
21 Right?

22 A. Yes.

1 Q. I can see that's a factor, because until you shut
2 down the pipeline, oil is still flowing, and it may
3 spilling and may be leaking. Correct?

4 A. Correct.

5 Q. The third is you multiply that by the maximum
6 flow rate. Correct?

7 A. The timing, yes. The flow rate comes into the
8 calculation, yes.

9 Q. And that flow rate, I believe Mr. Frey testified,
10 will go up because of the proposed increase in capacity
11 in this pipeline from 570 to 1.1 million. Is that
12 correct?

13 A. Correct.

14 Q. The fourth factor is the drain-down volume.
15 Correct?

16 A. Correct.

17 Q. And that's where you get the gate shut --
18 whatever -- laymen's term, you get the gate shut,
19 whatever oil is in between the gates on the pipeline and
20 where the leak or spill is, may drain out?

21 A. Correct. And once again, for the modeling
22 purposes, you assume that everything between those two

1 gates' valves will drain, when in facts it does not even
2 take into account consideration for elimination. It's
3 highly unlikely that all of that would drain.

4 Q. So detection time; shut down the pipe line; drain
5 down volumes. Those are three of the factors. The
6 fourth one was maximum flow rate. And you agree that's
7 going up in this case. Correct?

8 A. I did.

9 Q. And you multiply the worst-case discharge by the
10 maximum flow rate. Correct?

11 A. Yes.

12 Q. And the number you use to calculate the
13 worst-case discharge at 570, the flow rate there is less
14 than the flow rate at 1.1 million. Correct?

15 A. Correct. I think you've unfortunately ignored
16 the fact that the worst-case discharge is from a tank
17 with a significantly greater volume. You establish
18 sufficient resources to respond to that volume. Even
19 though the worst-case discharge either today or what it
20 may be most optimization will be less than that that
21 you've already previously calculated.

22 Q. Are you telling me that the worst-case discharge

1 you did at 570 was based on a discharge tank, and not
2 from a pipeline itself? Is that what you're telling me?

3 **A. I'm telling you that per Federal guideline and**
4 **how to complete your Facility Response Plan, you**
5 **calculate your worst-case discharge is the greatest**
6 **volume you would lose from that asset.**

7 Q. So what you're saying is: You haven't calculated
8 a worst-case discharge from a leak or a spill that
9 results from, say, a rupture or a pinhole leak from the
10 pipeline itself. That hasn't been calculated to date.

11 **A. Part of your Facility Response Plan looks at all**
12 **various locations on the line, and you'd simply take the**
13 **greatest to include that in your Facility Response Plan.**

14 Q. So let me see if we can agree on something here:
15 I understand what you're saying about the tank, I do.
16 But the point I'm trying to make, and I don't think it's
17 controversial, is that when you nearly double the flow
18 of oil through a pipeline and there is, god forbid, a
19 spill or a leak, on the pipeline itself -- not on a
20 facility, not on the tank -- but on the pipeline itself,
21 and you've doubled the capacity, you are going to
22 increase the amount of oil that goes into the ground or

1 the water if that happens. Is that correct?

2 **A. I'm sorry, I'm not trying to be controversial.**

3 **And I believe you asked the question previously, and my**
4 **statement was that -- you asked it would increase, and I**
5 **said "Not necessarily."**

6 Q. Permian Express 2 pipeline, is that a pipeline
7 that is owned or controlled by the corporate parent of
8 the Dakota Access Pipeline?

9 **A. It is today.**

10 Q. That pipeline had a leak in 2016. Correct?

11 **A. That is correct. It was not under the control of**
12 **Energy Transfer at that time.**

13 Q. Sure. That leaked 361,000 gallons of crude oil
14 spilled. Correct?

15 **A. That is correct.**

16 Q. It took the operator 12 days to detect that spill
17 and shut down the pipeline. Correct?

18 **A. Incorrect.**

19 Q. How long did it take them?

20 **A. I don't have an exact -- if we're talking about**
21 **seconds, as you indicated previously. But the leak**
22 **detection system gave an indication that there was a**

1 potential issue very early in the process. The pipeline
2 was shut down and various actions were taken in an
3 effort to verify what the issue may have been.

4 Q. Did it leak for 12 days? Or am I wrong about
5 that?

6 A. No. You're not wrong.

7 Q. In your worst-case-discharge analysis that's been
8 done on the 570K flow rate, the existing
9 worst-case-discharge analysis -- are you with me?

10 A. Yeah.

11 Q. You use a timeframe to establish that number, I
12 think the total is 12.9 minutes. Is that correct?

13 A. That's correct.

14 Q. And that is nine minutes for mainline shut down,
15 mainline pump shut down. Correct?

16 A. Nine minutes to detect or evaluate,
17 assess/evaluate, and shut the pumps down. Correct.

18 Q. How long does it take to shut the pumps down?
19 Nine minutes?

20 A. No. The pumps will shut down more quickly than
21 that, so I would say -- I don't have the exact number
22 for you. But half or more of that number is the

1 assessment, evaluation, decision to shut it down. The
2 system does not already shut itself down automatically,
3 the pumps will wind down in a minute. The conservative
4 factor is you're sort of sequentially shutting them
5 down.

6 Q. Okay. And that plan that we're talking about is
7 the only one that currently exists -- sorry, "plan" is
8 the wrong word. That worst-case-discharge analysis at
9 570 is the only one that currently exists for this
10 pipeline because you haven't run the numbers yet at 1.1
11 million?

12 A. I have not seen nor am aware that we ran the
13 numbers at 1.1 million.

14 Q. Given that, we were talking earlier about what's
15 called the facility's response plan. Right? Remember
16 that?

17 A. That is your plan. Yeah, right.

18 Q. We talked about repositioning booms and supplies
19 and personnel, all sorts of that planning. Right?

20 A. Yes.

21 Q. The facility's response plan has not yet been
22 updated to deal with the nearly -- the increase in the

1 capacity to 1.1 million barrels per day. Correct? That
2 has not been done yet?

3 A. You're correct. It has not been done yet. So
4 Federal Regulation requires it to be submitted within 30
5 days of after going into operation. But I think more
6 importantly as I've indicated to you previously, while
7 certainly there will be updates to the FRP to recognize
8 the new pump station and other factors, you know, the
9 critical aspect of what it's developed for, the
10 worst-case discharge and adequate response personnel and
11 equipment to respond to that worst-case discharge, will
12 not change as we've talked about.

13 Q. I want to see if I can clarify something: We got
14 caught up earlier in this in the back and forth with the
15 worst-case discharge from a tank versus the line, and
16 you're saying it's not changing. Are you referring to
17 the worst-case-discharge analysis that's been done for
18 the state of South Dakota when you're talking -- for the
19 pipeline in South Dakota, when you're talking about a
20 leak from a tank? Is that right? Is that what you're
21 talking about?

22 A. The FRP that you're referencing covers the states

1 of North and South Dakota. It's the North's response
2 plan for the DAPL system. And the worst-case discharge
3 that we're discussing for that plan is from a tank in
4 North Dakota.

5 Q. Is there a separate worst-case-discharge analysis
6 that's been done for the crossing at Lake Oahe?

7 A. I think if I can clarify with respect to Lake
8 Oahe. A geographic response plan has been provided to
9 the Army Corps of Engineers. The Army Corps of
10 Engineers has granted us our easement for the crossing
11 of Lake Oahe. And we continue to work with the Army
12 Corps, but to my knowledge there's been no request to
13 update that. But the geographic response plan, I think
14 to the point you're getting to, does include a spill
15 volume. I would not -- that --

16 Q. Has the US Army Corps of Engineers granted their
17 easement for the post increasing the capacity to 1.1
18 million?

19 MR. BENDER: I would object. We're starting
20 to get into issues that are subject to the protective
21 order under the DC litigation.

22 MR. PURDON: I don't know that that's true.

1 I can tell you that's my last question. And I think an
2 answer is legitimate.

3 ADMINISTRATIVE LAW JUDGE DAWSON: And I
4 think he has a legitimate answer that he can't answer
5 because of the DC litigation. But besides, if he has
6 that as his answer, that's his answer, and I'm going to
7 take it.

8 But you can answer the question.

9 WITNESS: I can't answer it.

10 BY MR. PURDON:

11 Q. All right. One more question. Is there a
12 separate worst-case-discharge analysis for the pipeline
13 as opposed to the tanks, in the FRP?

14 **A. There is only one worst-case discharge for FRP.**

15 MR. PURDON: I have no further questions.

16 ADMINISTRATIVE LAW JUDGE DAWSON:

17 Mr. Pelham?

18 MR. PELHAM: Thank you.

19 EXAMINATION

20 BY MR. PELHAM:

21 Q. Thank you. Good afternoon, Mr. Stamm. I have
22 some questions about any updates that Dakota Access has

1 as to emergency response plans for the potential
2 discharge of unanticipated discharge of crude at this
3 particular proposed facility. Can you provide an update
4 to the Commission on that, please?

5 A. I'm sorry, can you restate the beginning of your
6 question, just so I can answer it thoroughly?

7 Q. Emergency response plan.

8 A. Yes, Sir.

9 Q. What is it for this proposed site?

10 A. Once again we follow our FRP, I'll just give a
11 few items. Mr. Frey certainly provided some of the
12 additional safety features that are an employed from a
13 leak-prevention-standpoint design perspective. That
14 there are other things that we do, from a leak
15 prevention perspective which I think is critical.
16 Obviously, we'll talk about leak response. But we've
17 got a comprehensive Integrity-Management Plan; we fly
18 the line once per week, whether pending we have people
19 that are out on the right-of-way; we certainly
20 participate in the 811; we do a lot of public outreach;
21 we do emergency-responder outreach and training with
22 them. So there are a large number of things that we do.

1 Q. I understand that. That seems to me that's being
2 done regardless of whether or not we have the expansion
3 of this -- this proposed expansion. Correct?

4 A. Sure. Right.

5 Q. Is there anything different that -- is there any
6 update, is really my question?

7 A. Absolutely. Thank you. As part of the proposed
8 optimization, we will stage additional emergency
9 response equipment at the pump station. We will be
10 adding resources, at least one or more, that will be
11 located at or near the pump station to also help
12 facilitate not just, obviously, in the day-to-day
13 operations, but as you indicated, for any unintended
14 release we'd be able to respond as well.

15 Q. Would this be included in an updated FRP to be
16 provided to PHMSA?

17 A. The additional -- to be honest with you, the
18 additional head-counter resources, I'm uncertain. The
19 availability and location of equipment would be.

20 Q. But it's true that what is required by PHMSA will
21 be done by Dakota Access. Is that correct?

22 A. Without question.

1 Q. And the PHMSA regulations. Are the PHMSA
2 regulations, you are expected to comply the PHMSA
3 regulations. Correct?

4 A. That is correct.

5 Q. And can you be more specific as far as the
6 additional resources. What are we talking specifically,
7 if you know?

8 A. We have not yet developed the -- as far as the
9 operating resource needs, but as I once again just
10 indicated, we would be adding either on or two full-time
11 personnel that would be located at or near the facility,
12 more than likely at the facility. The only
13 qualification is whether you had them in very close
14 proximity.

15 Q. I wouldn't think it would be -- unless they're
16 going to rent out that hunting cabin that's out there.
17 I mean, they're not going to be at the facility. I
18 mean, are we talking in Winton or are we talking in
19 Bismarck? If you know?

20 A. The additional resources would be located at the
21 proposed pump station physically.

22 Q. I misunderstood you, Sir, I apologize. I was

1 thinking you were saying that there would be additional
2 personnel as well? Am I incorrect on that?

3 A. Yeah, I think we're probably saying the same
4 thing. We'll be adding personnel slash resources. I
5 meant them to be -- I'm sorry to confuse you -- company
6 resources.

7 Q. Well, that's why we're here. Let's talk
8 personnel then. How many additional personnel, and if
9 you know where would they be located, Sir?

10 A. At least one or maybe more than one, and it would
11 be located, once again, at or in the immediate proximity
12 of the proposed pump station. That would be their
13 reporting location.

14 Q. What about plans, if any, the company has for
15 coordinating potential emergency response for local
16 first responders? What's the company's plan as to that
17 as to this proposed update to this line?

18 A. Excellent question. If I can just go back for a
19 second. The Dakota Access Pipeline, prior into going
20 into service, reached out to each county. When I say
21 "reached out", went to each county and did an outreach/a
22 review of the operation, the response, what the

1 expectations are, if any additional training was
2 provided. We did that twice across all 50 counties that
3 Dakota Access crosses; once again twice prior to the
4 line going into service; and we plan to do that again
5 prior to the optimization. So I don't have a date for
6 you, but sometime let's say spring of next year.

7 Q. And what would that specifically entail, though?
8 Are you going to call them up and say, "Hey, this is
9 happening", or are you going to say, "We're going to
10 have a training"? What do you envision that being
11 specifically?

12 A. No, Sir. We specifically contact them; we set up
13 a date and a time; we attempt to try to bring everybody
14 in for an actual training session face-to-face in front
15 of those folks.

16 Q. And approximately how often would that be done,
17 Sir?

18 A. As mentioned, we've done it twice already. And
19 I'd say in two and a half years. That's not fair
20 because it goes back prior to it going into service.
21 And we would do it once more here coming up. There's no
22 set schedule for that.

1 Q. Is there any training that is offered to local
2 first responders? Specific training like a drill or
3 something like that?

4 A. Well, when we conduct drills -- and once again
5 depending on location -- we often invite emergency
6 responders to participate in our drills. When we do the
7 training that we're speaking of -- there is training
8 that's provided. And it's important to understand that,
9 you know, the first responders are, you know, public
10 environmental health and safety sort of keeping, as far
11 as the operation of the pipeline, closing valves, the
12 sort of physical response deployment of those assets.
13 That's really the companies and their contract
14 resources.

15 Q. Can you talk a little bit about the SCADA system?
16 I mean, the Commission is aware that exists, it's in
17 existence right now in the existing line. My question,
18 I guess, is the SCADA -- what, if anything, is going to
19 be done differently with the proposed increase in
20 capacity for this line, SCADA specifically?

21 A. So hopefully everyone knows, but the SCADA system
22 gathers data and brings it into our control center. The

1 control center is located in Houston, Texas. That
2 control center monitors 24/7/365. There is a dedicated
3 console to the Dakota Access Pipeline, so there's a
4 dedicated team of operators who understand that system
5 and operate that system. As far as post-optimization,
6 the additional data points that Mr. Frey has indicated,
7 pressures; flows; vapor detection; fire detection, some
8 of those things, would be brought back into that system.
9 And that all becomes part of your leak-detection system
10 that's configured.

11 Q. And there was some testimony, I believe, in some
12 of the Intervenor's pretrial testimony as far as the
13 lower end, I would characterize, of detection of a leak
14 and spill. I'm wondering if you can comment on the
15 ability of a SCADA system to detect a leak in a line.

16 A. Sure. We've provided that the leak-detection
17 system can detect down to one percent of flow in one
18 hour. Typically -- we were talking earlier about
19 worst-case discharges, ruptures, things like that.
20 Leak-detector systems from my perspective are excellent
21 at picking up those types of things. Sorry. I lost my
22 train of thought.

1 Q. That's okay. Does PHMSA regulate the detection
2 threshold for SCADA systems on interstate pipelines?

3 A. They do not.

4 Can I complete my thought on the last one?

5 Q. I'm sorry. I thought you had completed your --

6 A. I did. Only because I forgot.

7 Q. Understood. I do that all the time,
8 unfortunately.

9 A. I think what is important is when we talk about
10 it and -- the thought that the leak-detection system is
11 certainly not the only thing that we rely on to
12 potentially identify leaks. We talked a little bit
13 earlier about all our leak-prevention efforts. But when
14 we talk about some of the leak-detection efforts, that's
15 really the driver behind our public awareness programs;
16 and our aerial patrol; and our walking the line. And
17 all of those things that we do it is really I'll say a
18 multi-pronged approach to leak detection, and once
19 again, and more importantly, leak prevention.

20 Q. I asked Mr. Frey about the ephemeral drainage
21 that was noted in the Wetland Delineation Report. You
22 were here for Mr. Frey's testimony. Right, Sir?

1 **A. I was.**

2 **Q. Was there anything that you would add to Mr.**
3 **Frey's statement as to the potential, or not having**
4 **potential, for ephemeral drainage to potentially drain**
5 **into a source that would find its way into the Missouri**
6 **River?**

7 **A. I don't remember -- not that I don't remember,**
8 **but I don't recall word-for-word Mr. Frey's testimony.**
9 **I think if I can rephrase or paraphrase that: I think**
10 **it's very unlikely that any unintended release from the**
11 **pump station would find its way, based on the things**
12 **that he's indicated, to Beaver Creek.**

13 **Q. What do you make of the Intervenor's engineer's**
14 **pre-file testimony? It seems to be a focus on increased**
15 **potential for a surge because of increased speed of flow**
16 **in a line potentially causing a leak within, quote,**
17 **microseconds. What do you make of that assessment, Sir?**

18 **A. I think Mr. Bryant -- well, I don't think. I**
19 **think the velocity is well within normal -- or the**
20 **proposed velocity is well within normal operating**
21 **parameters. And I don't believe that just because**
22 **you've increased the velocity or the flow rate that that**

1 **increases the risk of a surge.**

2 Q. I'll just be honest, the part that got me was
3 "within microseconds". Right? Because microseconds is
4 snap. Right? I mean, and it's going to happen. That's
5 what I want to see what your specific opinion is, because
6 it seems that there's a great difference of opinion
7 between an individual -- and I'm going to try to say his
8 name, but...

9 **A. Kuprewicz.**

10 Q. Mr. Kuprewicz, who's an engineer and from his
11 resumé it appears that he's got operational experience,
12 and he's going to testify today so we'll hear from him
13 later I suppose. But you've seen him pre-file
14 testimony. Correct?

15 **A. I have.**

16 Q. And you've read the "within microseconds"
17 portion, and I've heard Mr. Frey and you, Sir, say,
18 "Well, it's not going to be within microseconds." What
19 are we missing here then? Why is there such a large
20 discrepancy in opinion on that particular issue?

21 **A. I think that's a fair question. I think Mr. Frey**
22 **referenced it as well. To get to the -- I'll call it**

1 primary surge event -- if you start to close a valve you
2 will start to see an increase in pressure as that valve
3 starts to close, depending on the characteristics of
4 that valve. But once again, that's why we have the
5 protective measures in place to mitigate that surge.
6 Once that valve gets to a certain point -- certainly
7 when it completely closes -- and I'm not -- I don't have
8 an engineering degree, I'm not an engineer. You know,
9 whatever that percentage is -- and you create sort of
10 that -- once again, I wouldn't call it a hammer effect,
11 but often in surge modeling you see a hammer effect.
12 The surge itself can move quickly, but once again we've
13 done quite a new things to mitigate that and have a lot
14 of time before you get to that point.

15 Q. So "within microseconds", and if that's the case
16 then are you saying -- if you're not saying this, you
17 correct me, because I'm a layman in these terms -- but
18 if it's within microseconds, are you saying that the
19 mitigative controls that are in place such as the
20 additional tank is then able to mitigate that surge?
21 No?

22 A. No. I'm sorry, I probably didn't do the best job

1 describing it. I think -- I can't speak for
2 Mr. Kuprewicz. The microseconds reference I think is
3 sort of the very tail-end of after -- if you're using a
4 valve closure, as an example, that valve starts to
5 close. If you did nothing at all; you did not react;
6 you did not have controls in place/a system in place;
7 and you let it go the whole way closed, once you create
8 that surge the surge can move down the line. But once
9 again we've got 3.9 minutes of time related to a valve
10 closure; we've got logic that if any valve for any
11 reason is either commanded closed -- someone for any
12 reason tries to manually close a valve, it automatically
13 shuts down the upstream pump stations.

14 Q. As part of the application there's a mention of
15 hydraulic balance? What analysis for hydraulic balance
16 has been performed by Dakota Access for this proposed
17 optimization.

18 A. I'm sorry, I'm not aware of the hydraulic balance
19 reference.

20 Q. I don't know if you have a copy of the
21 application, or maybe Mr. Bender can get you a copy.
22 It's Exhibit 1, I believe. If you'd turn to page 6 on

1 that for me, please. At the very bottom under 2.1.3,
2 it's that last sentence there in that last paragraph,
3 starting with "Additionally".

4 **A. I see it. Can you restate the question then?**

5 Q. I'm wondering what it is specifically that was
6 done to analyze the hydraulic balance of the pipeline,
7 if you know?

8 **A. I don't have an answer for you.**

9 Q. Do you know what hydraulic balancing is?

10 **A. I understand hydraulics. I would have to make an**
11 **assumption of the reference to hydraulic balance. Once**
12 **again, it's an engineering and design item. It's just**
13 **simply not my area of expertise.**

14 Q. All right. Mr. Frey talked about control
15 aspects, mitigation aspects that are planned for the
16 proposed pump facility. Is there anything additional
17 that Mr. Frey has not talked about, that you're aware
18 of, that Dakota Access plans to implement a mitigation
19 of potential release, unanticipated release?

20 **A. Not that Mr. Frey has not already discussed.**

21 Q. Okay. And I just wanted to make sure if there
22 was anything else. We just wanted to make sure we

1 covered everything.

2 The Facility Response Plan, when is that
3 anticipated to be completed, the updated Facility
4 Response Plan?

5 **A. The requirement is that the updated plan is**
6 **submitted to PHMSA 30 days after going into service.**

7 Q. Sure. And I understand that, Sir. And in your
8 testimony at page 5 you do indicate and you cite to 49
9 CFR 194.121. And I agree with you that it says, "Within
10 30 days of making such a change, submit the change to
11 PHMSA." But it also indicates, "The operator must
12 immediately modify its response plan to address such a
13 change." Is that in the works then? I mean, because
14 you're going to have the submit it, the FRP, to PHMSA
15 within 30 days of it going on line. Are you going to
16 have it go on line and then within those 30 days come up
17 with the plan and then submit it? Or are you going to
18 have the plan before you, you know, start pumping
19 additional, you know, product through the line?

20 **A. No. Absolutely a great question. It has not**
21 **been started at this moment, to my awareness. But**
22 **absolutely it would be completed as part of the ongoing,**

1 **you know, design construction process in preparation for**
2 **that submission to PHMSA.**

3 Q. And to be absolutely clear, Sir, your testimony
4 is that Dakota Access will comply with this component of
5 the Federal Regulations, to have this FRP update in
6 place prior to any implementation or going on line of
7 the optimization plan. Is that correct?

8 **A. Absolutely.**

9 Q. You mentioned the Integrity-Management Plan. Is
10 that something that is required by PHMSA?

11 **A. Yes.**

12 Q. All right. And I'll ask you this, Sir: Is that
13 something that the company is going to be updating to
14 PHMSA for this proposed facility?

15 **A. The Integrity-Management Plan will be updated as**
16 **required, absolutely.**

17 Q. And that will be submitted to PHMSA. Correct?

18 **A. It will. My apologies, I just don't know what**
19 **the submission protocol or timing is with respect to the**
20 **Integrity-Management Plan.**

21 Q. And you would agree with me, you can't operate
22 the line without having done that. Is that fair to say?

1 The Integrity-Management Plan being in place and
2 updated?

3 **A. Absolutely. We have an Integrity-Management Plan**
4 **and we'll update the Integrity-Management Plan as**
5 **required.**

6 Q. You were asked -- I don't intend to spend a lot
7 of time on this, but because it's your coordination with
8 the US Army Corps of Engineers: It's fair to say the
9 company is going to comply with what the US Army Corps
10 of Engineers requires it to do as to the WCD for
11 crossing at Lake Oahe?

12 **A. I'm not part of those sort of discussions or**
13 **negotiations, but I certainly anticipate we'll certainly**
14 **work with the Army Corps of Engineers and meet whatever**
15 **is required.**

16 Q. Well, let's say the worst-case discharge, the US
17 Army Corps of Engineers requires Dakota Access to do
18 something that maybe you don't necessarily agree with,
19 but will ultimately Dakota Access comply with those
20 Corps of Engineers requirements?

21 MR. BENDER: I'm going to have to object to
22 that. I think we're starting to get into an area again

1 that is object to the Federal litigation and protective
2 order. So I'm going to instruct the witness not to
3 answer.

4 MR. PURDON: I want to reserve the right to
5 sue him.

6 MR. BENDER: I don't think we need those
7 kinds of remarks, Tim.

8 MR. PELHAM: And really all that I'm asking
9 here, Mr. Bender, is: Will the company commit to
10 complying with --

11 BY MR. PELHAM:

12 Q. Well, Let me ask you this: Will the company
13 commit to the ultimate, final, non-appealable judgment
14 decision of the US Army Corps of Engineers related to
15 the worst-case-discharge act?

16 A. Of course.

17 Q. At Lake Oahe?

18 A. Of course.

19 MR. BENDER: Of course.

20 MR. PELHAM: I just wanted to understand
21 that and get it on the record. Thank you. And I
22 understand and appreciate your objection, Mr. Bender.

1 And I'm not trying to be difficult either. I just want
2 to --

3 MR. BENDER: I don't take it that way at
4 all.

5 MR. PELHAM: -- just get all of this on the
6 record so we have it.

7 BY MR. PELHAM:

8 Q. Thank you, Mr. Stamm. I don't have any other
9 questions for you at this time.

10 Administrative Law Judge Dawson Mr. Fawn?

11 MR. FAWN: No questions, thank you.

12 ADMINISTRATIVE LAW JUDGE DAWSON:
13 Commissioner Fedorchak?

14 COMMISSIONER FEDORCHAK: I want to consult
15 with Zach really quickly, just a second. Okay. Very
16 good, thank you.

17 EXAMINATION

18 BY COMMISSIONER FEDORCHAK:

19 Q. Mr. Stamm, let's see where to start. I think
20 I'll talk about the emergency preparedness first.
21 There's a few different categories that I want to
22 discuss with you, but we'll start with that.

1 So you had some give-and-take with Mr. Purdon,
2 and I want to go back to some of the things that you
3 guys discussed, and ask some maybe simpler questions.
4 So what are the factors that determine the volume of oil
5 that spills in a leak? And I recognize there's a bunch
6 of them, but can you talk through some of those maybe
7 from the highest or the most important factors to the
8 least important factors that impact how much oil
9 ultimately leaks from a pipe.

10 **A. Sure.**

11 **Q. I know you guys prepared for that.**

12 **A. Yes. Well, I think once again when you look at a**
13 **release, it's really -- and once again, I don't want to**
14 **claim to be an expert -- but you're looking at the, I'll**
15 **say the diameter or whatever the feature may be that's**
16 **leaking, and what the size, we'll say, of what that**
17 **anomaly or feature is. Once again when that's in a**
18 **pipeline, whether that's at a facility, whatever it may**
19 **be. And you look at the corresponding pressure related**
20 **to that at that location, and essentially you can**
21 **calculate a volume. Obviously, you have to consider**
22 **then, as we talked about, the detection time and the**

1 time to shut it down as well, as part of that overall
2 sort of calculation, if you will.

3 Q. Okay. So you've done the calculation, the
4 worst-case scenario calculation, that shows in North
5 Dakota that there's a tank -- which makes sense because
6 some of those tanks are enormous. Aside from that, tell
7 me what you've done on the line itself to identify where
8 are the areas that have the -- where you'd have like a
9 worst-case scenario on actual pipeline. What have you
10 done to identify those areas in order to feed your
11 response plan so you have the proper equipment in place
12 -- in the right places -- to address those kinds of
13 scenarios on the actual line itself, beyond the tanks?

14 A. Sure. We look at segments of the pipeline and we
15 calculate so that we can determine ultimately what is
16 the worst-case discharge. We calculate the potential
17 release volume. And really I think that answers your
18 question, or I hope it answers your question.

19 Q. So you do those calculations throughout the
20 pipeline?

21 A. Various segments of the pipeline.

22 Q. So in -- throughout the whole pipeline, say,

1 every 20 miles you do one, or every 30 miles? How do
2 you decide where to do them?

3 **A. I recall from this Facility Response Plan we've**
4 **used basically valve-to-valve.**

5 Q. So the entire line you're looking and identifying
6 where between each valve would be worst-case scenario
7 basically? Or what would happen if something happened
8 between this line and this line, how would we respond or
9 relocate the valve?

10 **A. The maximum volume that would be released within**
11 **that segment.**

12 Q. All right. Remind me, because this is a number
13 of years ago: How many valves are located along this
14 line?

15 **A. I guess I can't take us back to Chuck, but I want**
16 **to say 400 plus or minus.**

17 Q. Not in North Dakota, though? That's the entire
18 line?

19 **A. Correct. I'm sorry, I don't have a number for**
20 **North Dakota.**

21 Q. So I want to talk about: So you use those
22 calculations from valve-to-valve, and you stage your

1 equipment; your personnel; your contract; etcetera;
2 contract workers or services for responding to a spill,
3 accordingly throughout the line. Is that what you're
4 telling me?

5 A. I am. But I think once again, what's important
6 is strictly from an FRP and from a Federal-guidance
7 standpoint. So I understand and certainly understand
8 the distinction between the tank and the pipeline. But
9 even though you may get a number that's less on the
10 pipeline, we've got the responsibility to make sure
11 there are adequate resources to respond to a release of
12 that magnitude, even though the calculation supports
13 nothing near that number. So yes, we look at along the
14 pipeline system where available resources are; whether
15 they're inhouse resources, whether they're contract
16 resources -- that could be human resources or equipment
17 -- and make certain that we have the appropriate
18 resources to respond.

19 Q. And so I'm making some deductions here based on
20 what you've said previously, so correct me if I'm wrong.
21 But because the worst-case scenario is from a tank that
22 holds way more than what the increased -- like the

1 optimization level will be -- is it the company's
2 position that you're already prepared for this increased
3 flow? Because you've already prepared for that
4 worst-case scenario? Or how are those related or
5 different?

6 A. I think that's an adequate summary. I think I
7 would rephrase it a little bit to say I don't want to
8 assume that we have adequate resources that are
9 available, but we'll reevaluate once we recalculate and
10 make certain that nothing has changed. You know, but
11 for all intents and purposes, if the worst-case
12 discharge does not change then the available resources
13 or resource need or identification of where those
14 resources are, may not necessarily change.

15 Now, I would also like to something additional,
16 to say that we will additional resources, meaning human
17 resources, as discussed. I'm sorry, you asked me the
18 question -- as well as emergency response equipment will
19 be added. So the RFP will be updated, additional
20 equipment will be added. But is it sufficient today to
21 handle what a worst-case discharge will be in the new
22 FRP? More than likely.

1 Q. In there, in Mr. Holstrom's pre-file testimony,
2 he criticizes the company's calculations that you use in
3 determining kind of your response and says, and I'm
4 quoting here.

5 On page 6 of his testimony, he basically says:
6 "You guys assume that the incident is discovered as
7 quickly as physically possible; the correct detection
8 response time is immediately initiated; and all
9 equipment such as control sensors, pumps, and valves
10 function as intended." Is that how you're making your
11 calculations? And why would you assume things are going
12 perfectly?

13 A. I don't believe that's a correct interpretation.
14 The -- once again, in the event of a worst-case
15 discharge the assumption that you have to make is that
16 the line has essentially been severed in half; it is
17 completely essentially separated; and you have complete
18 flow from that pipeline now is coming out of that
19 location. I'm hard-pressed to think in my 28-plus years
20 of experience, of an event -- although I'm not sure if
21 there has been, so I'm not going to go on the record and
22 say there has been. But a complete severing of a line

1 and all of that coming out, so. In that case your leak
2 detection -- our leak-detection system will almost
3 instantaneously pick up the dynamics that are created by
4 that, what's called separation or that rupture. So I
5 would argue that in a rupture scenario that the nine
6 minutes that we've put in to the worst-case discharge to
7 detect, evaluate, shut the pumps down, and then the
8 other 3.9 minutes is to isolate the valves, I think it's
9 a conservative estimate. Once again, I think that
10 detection-assessment time would be much greater than
11 that. And one more point to add, I'm sorry for the long
12 answer:

13 In a rupture scenario, it is highly likely that
14 the system will take itself down. The controls will
15 simply take it down with that significant of a change in
16 the parameters.

17 Q. I want to come back to discussing the worst
18 scenario, which is a slow leak, because that seems to be
19 the most problematic. But we'll come back to that in a
20 minute, because I think that gets to integrity
21 management, which I don't want to talk about.

22 I do you want to discuss the crossing of the

1 Missouri River, there's two crossings in North Dakota.
2 How do you determine the resources you need to have on
3 hand at those locations near the water crossings, in
4 terms of full responding? How do you determine those?
5 I don't know if you've done calculations on those,
6 potential worst-case scenarios at the river crossings,
7 or how do you do it?

8 A. Once again, as indicated as far as the FRP, we
9 look at the various segments, the segments that would
10 include those locations; we look at -- once again, in
11 that case it's not over land-spill modeling. And where
12 it moves to help you and your facility respond if it
13 ends up in a waterway and moves that way. And then once
14 again, you look at that contractors you have available
15 and the timeframes required for them to respond to that
16 release. Does that make sense?

17 Q. How would you characterize the resources you have
18 on hand today to respond to a leak in the Missouri
19 River?

20 A. Well, once again I would say they're more than
21 adequate based on the assumptions that we talked about
22 earlier that we've designed for -- or provided resources

1 to respond to a much larger release, based on our
2 discussions regarding the response plan and the
3 worst-case discharge.

4 Q. How often do you reevaluate those plans, using --
5 you know, recognizing that there's new technologies
6 available? Maybe you would use the wood chips that are
7 produced by Carbon Tech in Bismarck, and have those on
8 hand. And there's always new technologies for
9 responding to spills how often do you update these
10 plans?

11 A. I don't know if it's a plan update. There may be
12 plan updates, and please correct me if I'm wrong, the
13 references -- we have an emergency response team that
14 works with our operations. So different types of
15 technologies that may be available to respond to
16 releases we continuously evaluate. We also drill and do
17 a lot of drills; we've done drills in North Dakota to
18 prepare in the event there was some type of release to
19 make sure we can adequately respond. A lot of those
20 drills include regulators, emergency responders. Here
21 we go. It's a terrible problem to have.

22 Q. I think you covered it. Let's see. I'll move

1 over to a different category. Let's talk a little bit
2 about integrity management, and my view is that's the
3 company's work to prevent and detect leaks. This may or
4 may not be what this expert was referencing on page 4 of
5 his testimony, Mr. Holstrom again, but he says: "The
6 applicant's pipeline risk management approach" -- I'm
7 reading that as integrity management -- "is seriously
8 dated in the fact that it does not incorporate the
9 latest approaches from pipeline industry Best Practices
10 that have been developed specifically to address
11 concerns related to the number and magnitude of pipeline
12 releases over the last few years." Does he make a good
13 point? Do you agree or disagree? Please explain, if
14 you disagree, in what way is he wrong?

15 A. Well, I think there's -- at least I see it as two
16 parts. I'm not sure, I'd have to read the latter
17 reference to the number of spills or whatever the
18 reference that you just made -- I don't have in front of
19 me. But I think there's several sort of flaws there,
20 and I disagree very much so. We do -- well, let me back
21 up. There are recommended practices that I believe are
22 being referenced; energy -- they are not unless

1 incorporated by reference, regulation. Regardless,
2 Energy Transfer looks at all recommended practices, and
3 to my knowledge -- certainly there's probably exceptions
4 -- adopts a large number of the major components of
5 those recommended practices, and specifically with
6 respect to integrity management plans has done the same.

7 Q. Okay. How would you characterize your integrity
8 management efforts? Are you an industry leader? Are
9 you always out there trying to adopt new things? Are
10 you middle of the road? Where are you?

11 A. I have not compared our Integrity-Management Plan
12 to those of the rest of the industry. So I'm sorry, I
13 can't provide that comparison to you. But I believe
14 we've got a very strong Integrity-Management Plan.
15 There's multiple things that we do, either as part of
16 the Integrity-Management Plan, as part of the design of
17 the system/operation of the system, where we go above
18 and beyond the Federal Regulation, all in the obvious
19 spirit of leak prevention for safe operation.

20 Q. I want to talk a little bit about
21 high-consequence areas? The high-consequence areas,
22 have those changed or will they change with an increased

1 flow? Maybe you can just give some examples of
2 high-consequence areas, and then go into how they might
3 be impacted, if at all, by the increased flow.

4 A. So first, I'm not an expert on high-consequence
5 areas. But I mean, high-consequence areas, you
6 establish them with -- there's various criteria that
7 look at population, ability to affect water bodies.
8 There's a large number of factors that ultimately are
9 considered, ultimately defines the HCA's. They can
10 change over time with various population changes. And
11 those HCA's are updated periodically. I believe it's
12 annually, but I don't know that for certain. But we
13 certainly, whatever the requirement is, we update those
14 HCA's.

15 I think what's also important since it's in
16 reference or on the heels of the Integrity-Management
17 Plan question: We run in-line inspection tools. We
18 don't treat the HCA's versus non-HCA's differently. We
19 continue to run the tools. Our cathodic protection
20 efforts -- we handle everything the same. Really, the
21 only difference inside and outside of an HCA is the
22 timeframe that is essentially required to respond to

1 anything that you may have outside of an HCA. And once
2 again, while there's not a regulatory requirement
3 attached or a timeframe attached to that within the IMP,
4 for all intent and purposes we respond the same way.

5 Q. So whether it's an important area as deemed by
6 PHMSA or an area that isn't important as deemed by
7 PHMSA, because in North Dakota, there's lots of areas
8 that would be deemed unimportant, because we just don't
9 have enough people living there. You're saying you
10 operate the pipe and the integrity management the same?

11 A. Yes, we do. Just to be careful so there's
12 clarification, I'm sure someone else may ask. The
13 Integrity-Management Plan is the reference to HCA's. So
14 I'm just telling you that for all practical purposes we
15 handle them the same way. But the Integrity-Management
16 Plan as it's written is to address HCA's per the Federal
17 Regulation.

18 Q. So when you and update this new plan -- plan?
19 No.

20 Is it response plan or the Integrity-Management
21 Plan that is affected by the HCA's?

22 A. Both. Well, both could be.

1 Q. So you will be updating both with the new flows?

2 A. We update the HCA's -- as far as the HCA's are
3 included within the FRP to define them. So we would
4 update where the HCA's are. So, yes.

5 Q. Okay. All right. Can you tell me about
6 hydraulic profiles? What they show? Why they're
7 important?

8 A. It --

9 Q. I can relate.

10 A. Yeah, so can I.

11 Q. Hydraulic profiles.

12 A. My only hesitation -- once again, maybe there
13 wasn't something that Mr. Frey didn't answer. As far as
14 hydraulic profiles modeling, things like that are really
15 engineering and design questions. So I have a basic
16 knowledge of pipeline hydraulics, but I guess I'm just
17 -- it's a question -- can you provide --

18 Q. Well, with all due respect, I did attempt to ask
19 this to Mr. Frey and was told to ask you. So I'm happy
20 to ask him if you guys want to break it up.

21 A. No, no. You can ask me. Please restate the
22 question, I may be able -- I thought it was more

1 **general.**

2 Q. It is general. Most pipe questions are general.

3 A. **No problem.**

4 Q. I want to better understand hydraulic profiles,
5 what they show and why they're important?

6 A. **Sure. A hydraulic profile will essentially show**
7 **you what the operating pressures are along the pipeline**
8 **system at various flow rates. And obviously, you make**
9 **assumptions as to what your discharge pressure would be;**
10 **what your suction pressure would be, at the next pump**
11 **station. And so it's an important part of the surge**
12 **modeling that Mr. Frey talked about. That's really the**
13 **basis, and hopefully it helped.**

14 Q. So close to the pump station then the pressure
15 would be higher, I'm assuming, and then they decrease
16 along the line?

17 A. **That's correct. So if you had a perfectly flat**
18 **elevation, no hills, no change in elevation, at pump**
19 **station A you had a pressure of 1,000 pounds and you had**
20 **a pressure of 100 pounds at the downstream pump station**
21 **100 miles away, your hydraulic profile will essentially**
22 **look like a straight line from 1,000 pounds down to 100**

1 **pounds.**

2 Q. And then elevation has a significant effect on
3 that, obviously?

4 A. **It can, yeah. Yes.**

5 Q. And then, in terms of how they relate to surges,
6 surge calculations, just walk through that real briefly.

7 A. **So when you look at your surge calculation,**
8 **depending on where you initiate that surge in your**
9 **modeling -- we talked about a closure of a valve -- you**
10 **initiate the closure. And obviously, depending on what**
11 **the pressure is at that location at that time is sort of**
12 **the starting point, if you will, for your surge event.**

13 Q. So PHMSA doesn't necessarily look at your
14 hydraulic profiles. You use them to calculate your
15 surge response?

16 A. **PHMSA will look at hydraulic profiles with**
17 **respect to questions regarding MOP, and when they -- and**
18 **we are monitored, we do have periodic inspections from**
19 **PHMSA. They will ask to look at pressures on the**
20 **pipeline. So once again, the pressures they're looking**
21 **at are predominately at key points in the pipeline pump**
22 **stations. But once again you can sort of interpret from**

1 there what the hydraulic profile would look like.

2 Q. And how are the surge pressures detected? Is
3 that through your SCADA system? Or where do you get the
4 data to show PHMSA?

5 A. So we spoke and I provided you or someone an
6 estimate of the number of valves on the system. Very
7 unique to this system. I'm personally not aware of
8 another system that's been designed the same way. All
9 of these valves have motor-operated valves; all of them
10 have pressure, both upstream and downstream of those
11 valves, which is very unique on a pipeline system. That
12 does two things: It allows you to monitor the pressure
13 at an infinitely -- not "infinitely" -- a much larger
14 percentage of points along the line. Because you've got
15 400 more locations where you can monitor pressure both
16 upstream and downstream. The importance of that is that
17 if the valve should start to close for any reason,
18 either commanded or un-commanded or someone was trying
19 to close it manually, you could start to see the
20 pressure build at that location. That data comes back
21 into the control room, and once again the leak-detection
22 system is constantly, every few seconds sort of

1 rerunning itself to see what changes are taking place
2 and are those changes, I'll say, part of a normal
3 operation. Someone mentioned earlier we just shut down
4 a pump. Or is it inconsistent with what the model is
5 anticipating. You know, so from those normal
6 operations.

7 Q. Then my last question I wanted to come back to is
8 more of: How do you detect a slower leak in a line like
9 this where you're going to be putting more oil through
10 it? You're proposing that. Would it correlate that
11 even in a slower leak you'd have more oil escaping
12 because you've got more capacity going through the line
13 at any given time?

14 A. Once again, I think -- I'm trying to think here.
15 The question was asked earlier about more flow equals
16 more oil out in a potential release scenario. I think
17 -- and maybe I didn't link the two together very well.
18 You had asked me the question - or someone else asked me
19 the question -- about what are the most important
20 components of estimating or calculating a release at a
21 given point. And I said that it was pressure and the
22 size of the anomaly that you were talking, not flow

1 rate. So sorry. Can you ask me the question again?

2 Q. So if you have a slow leak but you have more oil
3 going through, doesn't it stand to reason that you're
4 going to have more oil escape?

5 A. It does not. I mean, there are certainly -- the
6 answer is it could if -- when we talked about the
7 worst-case-discharge scenario. And a key component of
8 that worst-case-discharge scenario is the calculation of
9 -- assuming the whole thing is opened up. Then once
10 again your pressure is essentially effectively zero at
11 that point. And now that's why that calculation is so
12 important in using the flow rate as a key component to
13 that calculation. When you're looking at a smaller
14 release, as you suggested, or the example we're using,
15 once again it's -- the flow rate is not changing the
16 dynamics of the system or the release. Now, we talked
17 about the ability to -- the leak-detection capabilities,
18 and I did provide that as a percentage of flow. But
19 otherwise -- I think -- hopefully that answers the
20 question.

21 Q. Well, it still doesn't make sense to me, though.

22 A. Okay.

1 Q. That you've got more in the pipeline and there
2 isn't a higher risk in a slow-leak scenario that you're
3 going to have more escape.

4 A. Can I provide an example?

5 Q. Yes, please.

6 A. Okay, sure. We talked about the hydraulic
7 profile, if I can use the simple example of going from a
8 1,000 pounds down to 100 pounds. If we put in a new
9 pump station, which is effectively what we're talking
10 about doing here, you now have that profile cut in half.
11 So now you're going from 1,000 down to 100, back up to
12 1,000 down to 100. If that leak, or assumed leak,
13 hypothetical leak we're talking about, is happening at a
14 location where the pressure is significantly less --
15 because once again I can't draw it -- probably doesn't
16 do a good job trying to do this stuff -- but if it is at
17 a location where the pressure is less, then the volume
18 that would be released -- all other things being equal
19 -- would be less.

20 That was the example of -- it will not
21 necessarily be more just because the flow rate is more.
22 Part of the challenge is jumping back and forth between

1 a worst-case-discharge scenario and a smaller release.
2 In a pipe-rupture scenario and you're calculating the
3 volume out if the complete pipe is severed or ruptured,
4 then yes, I would agree with you that the additional
5 flow/additional oil would be out.

6 Q. So the pressure is the biggest issue, determining
7 how much flow gets out?

8 A. Pressure and the size of the anomaly for the
9 smaller releases that I believe you're hypothetically
10 discussing.

11 Q. All right. And you talked through the integrity
12 management, like the level of detection that you can,
13 you know -- your system can detect leaks -- with Zach.
14 So I'm going to go into that anymore. So I think that's
15 it for me. Thank you.

16 WITNESS: Excuse me. Can I ask for a water?
17 Sorry.

18 COMMISSIONER FEDORCHAK: Water for the
19 witness.

20 WITNESS: I'm sorry. Thank you.

21 ADMINISTRATIVE LAW JUDGE DAWSON: Go ahead
22 and take a drink.

1 WITNESS: I'm good. I'm ready for the next.

2 ADMINISTRATIVE LAW JUDGE DAWSON: You're
3 ready. Okay.

4 BY UNIDENTIFIED COMMISSIONER:

5 Q. You had talked earlier about training with local
6 responders?

7 A. Yes, Sir.

8 Q. As part of one of the practices that you
9 implement, but I believe you used that you "invite them
10 to attend". So does that imply they don't always attend
11 those training exercises, the drills that you were
12 referring to?

13 A. Typically, the location -- when I say "invite", I
14 mean we coordinate the outreach session, the training
15 session. Typically, that is at one of the emergency
16 responder locations. I mean, sometimes it could be at
17 one of our locations as well, you know, at a pump
18 station or something. We do everything possible to make
19 sure that there's good attendance there, obviously, the
20 importance of having that. But I can't tell you that
21 one hundred percent attendance from of all those
22 emergency responders, we have that.

1 Q. Would you have an estimate, a ballpark? Half of
2 the time? Two-thirds of the time? The vast majority?
3 Would you know? I'm looking at participation rate.

4 A. Absolutely, I understand. I think what I can say
5 is we certainly -- if we got an indication, either as
6 part of the planning of that event, or if we got to the
7 event and realized that we've only got 20/30 percent of
8 the people here, we would simply go back and redo the
9 event. I mean, that's not going to be an effective
10 event if we're hitting that small of a population. It's
11 important to us to make sure that we've got that
12 relationship or touch-point with the emergency
13 responders.

14 Q. Thank you. You answered the second part in terms
15 of not being able to effectively respond unless the
16 participation is very high. It takes local responders
17 as well for an event to occur.

18 A. Absolutely.

19 Q. This is just a question that has crossed my mind,
20 both as a Commissioner and as a citizen, and that is:
21 You have essentially a brand-new system in the ground,
22 state-of-the-art, and yet albeit contained releases --

1 we'll go with the seven from the origin -- upstream
2 origin to Patoka. I believe that you referred to seven
3 releases within that stretch?

4 A. Yes, Sir.

5 Q. So if I just bumped into you on the street -- of
6 course, that's not the case here but -- and I said,
7 "Well, how could you have a brand-new pipeline with
8 seven releases already?" What would the answer be?

9 A. That's a fair question. When we talk about the
10 facility releases I think, once again, I have to -- the
11 facility it be -- or some of the releases that we've
12 had, they're typically, I'll say, equipment-type
13 failures. A lot of it is getting through the sort of
14 initial commissioning of the line. So there may have
15 been a -- once again, not to get into it details, I
16 don't have all the details with me. But, you know, a
17 component that, you know, may have failed; a cracked
18 valve for one reason -- or a fitting due to some type of
19 excessive vibration that may not have been appropriately
20 identified during the design. So I hate to sort of -- I
21 think any leak is too big, so I hate to say "small" or
22 "large". But, you know, working through some of those,

1 I think that's the -- you know, if you're asking me
2 about the seven, and how could that happen on a new
3 pipeline system, that's the primary cause.

4 Q. Has the line ever been shut down as a
5 precautionary measure, that no one would really know
6 that it was shut down except you as an operator? Have
7 you ever spotted something? Or the individuals at the
8 SCADA center, the control center I believe you said in
9 Houston -- have they ever spotted something and just
10 shut the line down as a precautionary measure?

11 A. Well, let me put it this way: As far as the
12 controllers in the control center, they have the
13 absolute authority; they can shut the line down for any
14 reason. If they see anything whatsoever that raises a
15 concern there is no requirement to get any type of
16 management approval or otherwise. They have the ability
17 to shut that system down. And at that point we would,
18 you know, look at whatever question/concern that they
19 had raised. I'm not aware of shutting the system down
20 due to something that a controller may have seen; that
21 doesn't mean it may not have happened. As you suggest,
22 somebody would take them down to see something and then

1 they could bring the system back up.

2 If we receive calls, you know, our aerial patrol,
3 one of our employees, if there was something that was
4 seen -- we've had calls on other systems. I'm not sure
5 about the Dakota Access system, but someone could say,
6 "Hey, I've spotted something in this water body or
7 here", we'd take a precautionary measure to shut that
8 system down and investigate -- immediately investigate
9 -- and then bring the system back up.

10 Q. So you have a dedicated team for the DAPL? You
11 said a dedicated group that are in the control room?

12 A. Yes, we have, obviously, dedicated operations and
13 employees that work physically on the system. And then
14 we have dedicated what we call consoles, but one console
15 that is dedicated to the Dakota Access Pipeline.

16 Q. What type of qualifications do you have to have
17 to effectively interpret what the system is telling you
18 at any given time? Does it take an engineering degree?
19 Does it take anything special? Or do they just have to
20 go through a lot of training?

21 A. Effectively, it's significant amount of training
22 that our operators go through to ultimately be qualified

1 to operate on a console. In going through -- and I
2 don't have a timeframe for you -- but going through
3 those, sort of that training and qualification if you
4 will. They have folks who've already operated the
5 system, and are very knowledgeable about the system,
6 sort of shadow them and look over them. So I would say
7 it's a comprehensive training-and-qualification process
8 to get to that point.

9 Q. So do the individuals that they're shadowing --
10 or doing the shadowing -- they're the backstop against,
11 say, high turn-over, for example? And maybe there isn't
12 high turn-over, but if there were high turn-over, you
13 would constantly have new individuals coming in.
14 There's enough of a back stop to ensure that?

15 A. Yeah, I don't have a turn-over rate. But we have
16 experienced controllers. There's a large number of
17 controllers because obviously, it's more than the -- the
18 control center has all the pipeline systems that they
19 operate. And while there are primary controllers for
20 that system, there are also additional controllers who
21 understand the system, and can sort of come in and
22 backfill. And then you have sort of the supervisory

1 level that has that knowledge and experience who can
2 also provide that same level of backup, if you will.

3 Q. It's addressed. I'm asking these questions to
4 address a concern I have, and that is related to
5 operator error, in the control room, for example,
6 misinterpreting data. Because we've seen examples where
7 something has gone wrong with the pipeline, other
8 pipelines. And the data was there; everything was
9 there; the line should have been shut down but it
10 wasn't.

11 So the system can be state-of-the-art, the best
12 available on the market, but obviously you have to have
13 the right people looking over it or it's a moot point.

14 A. Sure. I think that's a very fair question. And
15 once again, I think the two things we do to mitigate
16 against any potential risk that you're sort of alluding
17 to, is the training of the controllers which we just
18 spoke about. And I think also -- and Mr. Frey
19 referenced this as well -- the level of automation
20 that's tied to this system is significant. So we're not
21 relying necessarily on the controller solely to make
22 those decisions in all circumstances.

1 Q. Now, you had talked about -- you've been asked
2 quite a few questions on worst-case scenario, the volume
3 of oil that could potentially spill if there was a leak.
4 And I just want to make sure I'm getting
5 this/understanding this correctly. I thought you had
6 said earlier valve-to-valve is how you ascertain just
7 the volume that could potentially leak?

8 A. Looking valve, we segment the system and within
9 those segments we calculate the volume, and then the
10 largest volume becomes the worst-case discharge to then
11 define your resource leaks -- for any point on that
12 pipeline, even the remaining segments that are less.

13 Q. So is that a yes on valve-to-valve, in terms of
14 the worst -- the maximum volume that you feel could
15 leak?

16 A. So when they do the calculation -- we talked
17 about the various factors that go into calculating. And
18 so once again using the -- and once again this is all
19 prescribed, the same calculation as the worst-case
20 discharge -- you assume the same criteria that I believe
21 we spoke of earlier, the 12.9 minutes and sort of that
22 calculation of the maximum volume that could come out of

1 **that particular segment.**

2 Q. So that was the next part. The 12.9 minutes, the
3 nine minutes/up to nine minutes to evaluate, the 3.9
4 minutes to shut the line down. Obviously, oil is still
5 flowing, albeit at a lower volume conceivably. But not
6 necessarily, because upstream it's still being pushed at
7 the same rate. Correct?

8 A. No. If I can just quickly hopefully help with
9 that. I'll try to do a good job. So of the 12.9
10 minutes, there's nine minutes built in for a sort of
11 detection and time to initiate the shut down and shut
12 down the system, meaning to shut the actual pumps down.
13 So at the end of that nine minutes the pumps are down,
14 and that includes all of the pumps. So the energy
15 that's in that system or being put into that system from
16 the pump stations is now gone. The energy that remains
17 in the system is the hydraulic head of the product. And
18 for this case and the worst-case-discharge scenario
19 case, we assume that everything between those two valves
20 then drains out while we're shutting the valves down,
21 so.

22 Q. So it's that, plus what is valve-to-valve?

1 A. Let me restate that to make sure. I probably
2 confused you. So after the nine minutes you're now
3 closing the two valves, and when you close those two
4 valves now you're at 12.9 minutes. So at that point the
5 energy from that section is gone; the only thing that
6 can happen at that point is volume within that
7 particular segment can still drain to your point. And
8 that's the comment I made earlier, is that we don't take
9 elevation profile into consideration. We just assume
10 that everything barrel within that segment is gone.

11 Q. There's one black valve every 30 miles
12 approximately miles on the line?

13 A. No. Once again I think we can get that
14 information for you. It's much smaller than that on the
15 system, we've got 400. And once again they're not 400
16 equally-spaced valves, because they take into
17 consideration your high-consequence areas and things
18 like that. So there's valves that are -- I don't know
19 what the minimum spacing is, but there may be some that
20 are, you know, four miles apart, and then there may be
21 some that are 10 or 15 miles apart.

22 Q. Okay. We talked a lot about emergency response,

1 and cleaning, and sometimes cleaning a spill up after it
2 should occur, and doing that. But would you agree that
3 the first line of defense is making sure that it's
4 constructed properly?

5 **A. I think the first line of defense is making sure**
6 **it's engineered/constructed properly, and obviously**
7 **operated properly.**

8 Q. Fair enough. I would agree with that, the
9 additions to that statement. And I think earlier it was
10 -- who's going to -- you have a contractor, and who'll
11 be doing the work? Is that -- are those people that --

12 **A. I'm sorry, I don't have those details. I believe**
13 **Mr. Frey answered them. My apologies. Other than**
14 **working with Chuck, I don't deal with the construction**
15 **side of it.**

16 Q. I'll admit as we've gone through this there seems
17 to be a little bit of bouncing back and forth on who I
18 think I'm supposed to be asking the question to. And
19 then it seems to bounce back to the person who --

20 **A. Hopefully, I didn't bounce it back. I thought it**
21 **was answered. But I'm sorry.**

22 MR. BENDER: Mr. Chairman, if there are some

1 additional questions you'd like to ask Mr. Frey, we'd be
2 happy to recall him.

3 UNIDENTIFIED COMMISSIONER: I think that
4 concludes my questions for now. Thank you.

5 ADMINISTRATIVE LAW JUDGE DAWSON: Thank you.
6 Commissioner Christmann.

7 EXAMINATION

8 BY COMMISSIONER CHRISTMANN:

9 Q. Are the closest existing pump stations up and
10 downstream at Johnson Corner and Redfield, South Dakota?

11 A. Correct.

12 Q. But in between are these mini-valves you talked
13 about, and those are motor-controlled valves. Correct?

14 A. That's correct. Which ultimately we classify
15 them, as far as the Federal definition of an EFRD, which
16 is an Emergency Flow Restriction Device, which simply
17 means versus -- in the event of a -- in an emergency
18 event, you don't need to rely on your filed personnel to
19 close. You can close those immediately in Houston,
20 Texas.

21 Q. You just took care of my next two questions. So
22 those Emergency Flow Restrictor [sic] Devices then, when

1 they're controlled from the SCADA center, it's done
2 electronically. Correct?

3 **A. Correct. Through communications, through**
4 **cellular or satellite communications, yeah.**

5 Q. This is where I never felt like I quite reached
6 clarity with Mr. Frey's testimony. Actually, I had
7 written this down as a question for the VP with the
8 pipeline operations, so I just decided to wait and try
9 again with a different person.

10 I understood at one point in Mr. Frey's
11 testimony, that there was backup power for the controls
12 and communications. And then I was thinking controls
13 would be the valves. But then at another point it
14 sounded to me like, no, the valves don't have backup
15 power. So I need to know which is it. If there's a
16 power outage, do you have control of all these valves
17 along the pipeline?

18 **A. Well, and if I may? If you have a power outage,**
19 **not that it couldn't affect certainly multiple valves**
20 **depending on the magnitude of the outage. But you won't**
21 **lose -- and I don't think you're implying that you would**
22 **lose all control of all valves across the line. So if**

1 you were to lose power to an individual valve, the
2 system will basically send a signal that, "I have lost
3 power." Mr. Frey's references that we still have the
4 ability to see. Right? We can still see the pressure,
5 the flow; we can still see the valve; we can still see
6 the status of that valve. We don't have the ability to
7 control that valve at that moment in time. Typically,
8 power outages are quite short, however, they do generate
9 an immediate call-out from our control center. We
10 immediately respond, my team, to that valve to determine
11 what the issue is. If power has not been restored, we
12 can make the determination to provide backup power
13 through a generator or some other source of power, or we
14 can make the decision to manually sort of man or tend
15 that valve.

16 Q. Thank you for clarifying that. There's a group
17 -- I don't know if I have the name exactly right. I
18 forgot to write it down earlier in preparation, and then
19 I was just trying to remember -- I think it's something
20 like the Sakakawea Spill Response Team. It's a group of
21 various companies that have oil-related activities
22 around Lake Sakakawea that have just gotten together

1 voluntarily to merge their assets to prepare for a spill
2 response, if necessary. Is ETP or DAPL part of that?

3 A. I'm sorry. While someone within our organization
4 may be aware of the organization or group, I'm not aware
5 of it. I'm sorry.

6 Q. Okay. Mr. Holstrom's testimony says that: "ETP
7 acknowledges a spill would remain on the surface of Lake
8 Oahe only for a few hours before becoming immersed in a
9 water column, yet ETP has developed a response plan
10 based on surface, not water-column cleanup." Respond to
11 that?

12 MR. BENDER: It's not for someone else.
13 It's a problem because we're getting into an area now
14 once again, that's governed by the lawsuit in DC.

15 So I'm going to have to instruct him not to
16 answer. I apologize.

17 COMMISSIONER CHRISTMANN: So just to be
18 clear, Mr. Bender, you're instructing the witness not to
19 answer this question.

20 MR. BENDER: That's correct.

21 COMMISSIONER CHRISTMANN: Based on the
22 protective order?

1 MR. BENDER: Protective order, of the DC
2 circuit.

3 COMMISSIONER CHRISTMANN: We specifically
4 allowed the company to provide the information if it
5 believes it can, does it not?

6 MR. BENDER: It allows us to provide the
7 information to the Corps, and we'd be happy to provide
8 the information to the Commission. But if we provided
9 it to the Commission, we would want it to be an in
10 camera review. We would not want to enter into a
11 protective order because those don't work too well for
12 us.

13 ADMINISTRATIVE LAW JUDGE DAWSON: Well, I
14 highlighted the order, and it says, "Nothing contained
15 in this protective order shall preclude any party from
16 using the protected information in any manner it sees
17 fit without the prior consent of any party or the
18 Court." So how does that order prevent Dakota Access
19 from voluntarily providing it to the Commission?

20 MR. BENDER: Because we're in a public forum
21 now, and if we give it to you we give it to everybody.

22 ADMINISTRATIVE LAW JUDGE DAWSON: Well, I

1 think your witness would be answering the question, so I
2 don't know that anything is being provided other than a
3 response to the question, which I think can be tailored.

4 MR. BENDER: But I think answering the
5 question as the question has been phrased so far, will
6 require him to provide you with information that is
7 covered by the protective order.

8 ADMINISTRATIVE LAW JUDGE DAWSON: So then
9 the position of Dakota Access is it's not willing to
10 provide the information to the Commission?

11 MR. BENDER: As I said a few moments ago,
12 we're willing to provide it to the Commission if it's an
13 in-camera review. We will not enter into any sort of
14 protective order.

15 ADMINISTRATIVE LAW JUDGE DAWSON: I think,
16 Mr. Bender, you're aware of the procedures in place that
17 the Commission has for trade-secret information. Is
18 that sufficient to satisfy your concerns?

19 MR. BENDER: It's been awhile since I looked
20 at that, so I don't want to commit totally to that. But
21 my recollection is it probably will provide the
22 protection that we require. But I'd want to take a

1 quick look at it before I confirm that.

2 UNIDENTIFIED SPEAKER: If it's possible to
3 provide that under the trade-secret protection, I'd be
4 happy with that.

5 ADMINISTRATIVE LAW JUDGE DAWSON:
6 Mr. Purdon?

7 MR. PURDON: I'm not saying anything to
8 waive any rights to ask the Intervenor have access to
9 that as well. We'd have to obviously litigate that or
10 discuss that later. But I don't want you to take my
11 silence to mean acquiescence that something filed in
12 this proceeding means that we don't have access to the
13 interview. Put that on the record.

14 ADMINISTRATIVE LAW JUDGE DAWSON: What are
15 you looking for?

16 MR. BENDER: I think we at least have solved
17 this for now.

18 Continue on with your questions,
19 Commissioner.

20 COMMISSIONER CHRISTMANN: That was my last
21 one.

22 ADMINISTRATIVE LAW JUDGE DAWSON: Thank you.

1 Do you have many questions?

2 MR. BENDER: Just a moment.

3 ADMINISTRATIVE LAW JUDGE DAWSON: I'm
4 looking forward to taking a break right now.

5 MR. BENDER: We don't have any questions,
6 Your Honor.

7 MR. PURDON: No questions, Your Honor.

8 ADMINISTRATIVE LAW JUDGE DAWSON:
9 Commissioner Fedorchak?

10 COMMISSIONER FEDORCHAK: Hopefully this
11 isn't within the protective order, too, because I think
12 it's good information to get out there for us and others
13 who might be interested in this issue.

14 EXAMINATION

15 BY COMMISSIONER FEDORCHAK:

16 Q. But Mr. Holstrom said on page 5 of his testimony
17 that: "The applicant failed to develop a valid WCD,
18 worst-case discharge, for a discharge on Lake Oahe." So
19 we've talked about this already a little bit, and that
20 that it's sufficient to prevent sound oil-field response
21 planning efforts to minimize DAPL's adverse effects on
22 that critical resource.

1 So tell us how you are prepared to address a
2 spill on Lake Oahe, and the planning that you've done
3 for it or the models you've used to estimate and prepare
4 for that.

5 A. Sure. And apologies -- it probably sounds
6 repetitive. A couple of key items we talked about, the
7 easement that we have with the Corps and that we did
8 provide a volume to the Corps for a spill on Lake Oahe.
9 Back to the Facility Response Plan, which is really the
10 key item that drives -- and Lake Oahe is encompassed
11 within that Facility Response Plan. We looked at the
12 maximum volume as we talked about and made sure that we
13 have adequate resources to address or respond to and
14 remediate a spill for the maximum volume. Even though
15 that maximum volume is not at Lake Oahe, we still make
16 sure that we have adequate resources to handle that
17 worst-case discharge or that volume that's indicated
18 anywhere that FRP covers.

19 Q. So you've prepared -- I'm just going to use
20 common terms -- for a spill the size of one of your
21 tanks releasing if that were to happen at Lake Oahe?

22 A. Well, I don't believe it physically can. But the

1 **FRP and the Federal Regulation requires you to establish**
2 **resources essentially. And that's the way the FRP is**
3 **developed. I don't control that.**

4 Q. So any place along the line, you have to be
5 prepared for a release the size of at equivalent to your
6 worst-case discharge that would come from one of your
7 tanks?

8 A. Yes. It's just another way of building an
9 **additional factor of safety, if you will, within the**
10 **FRP.**

11 Q. So you have those resources staged in the
12 easement area with the Corps. Is that where those
13 things are staged?

14 A. When you say "resources"?

15 Q. Your response resources, like equipment trucks,
16 booms, all that sort of stuff.

17 A. So the FRP will provide you with various
18 **response, contractors, resources, once again, people and**
19 **equipment where they're available and where it's**
20 **available, that could be available anywhere. Right?**
21 **And how far it is away. It literally walks you through**
22 **-- and I don't have it in front of me, my apologies --**

1 but it could be something we have readily available. I
2 think more to your point, at Lake Oahe we have emergency
3 response and emergency response equipment. We have
4 employees in the immediate vicinity that can respond.
5 And then when we -- as you step out in your FRP, there
6 are additional resources that are available to you that
7 you can essentially scale up. So those resources may be
8 an hour away, it might be two hours away, and just
9 continues to build on where those resources can come
10 from. It's sort of a scalable model.

11 Q. All right. So their claim that that you
12 significantly underestimated the potential consequences
13 of a worst-case discharge in Lake Oahe, what would you
14 say to that? That It's wrong because you've prepared
15 for one far greater?

16 A. No. I completely disagree.

17 Q. Well, then they will be up here so we can ask
18 them about that as well. Thank you. That will be it
19 for me.

20 ADMINISTRATIVE LAW JUDGE DAWSON:
21 Commissioner Christmann.

22 COMMISSIONER CHRISTMANN: Thank you. Just

1 one more thing.

2 EXAMINATION

3 BY COMMISSIONER CHRISTMANN:

4 Q. Because I think it's such an important and
5 excellent group, it becomes all the more important and
6 excellent by getting additional membership, would you
7 make sure that whoever does know the answer to whether
8 or not you're a member of that Sakakawea Spill Response
9 Team let me know whether you are or not? And if you are
10 or not, whether there is consideration that you may be?

11 A. Yes, Sir.

12 ADMINISTRATIVE LAW JUDGE DAWSON: If there's
13 no further questions, and seeing none, we're going to
14 take a 15-minute break and come back here at 2:45 p.m.

15 (Whereupon a short recess is taken.)

16 ADMINISTRATIVE LAW JUDGE DAWSON: And it is
17 approximately 2:48 p.m.

18 Mr. Bender, do you have any further
19 witnesses?

20 MR. BENDER: I do, Your Honor. Dakota
21 Access will call Dennis Woods. Mr. Woods.

22 ADMINISTRATIVE LAW JUDGE DAWSON: Before Mr.

1 Woods begins, I have put a sign-in sheet on the podium
2 up there. If you haven't signed in yet, please come up
3 and grab it and sign in. That's for everyone here
4 today, not just merely the presenters.

5 Mr. Woods, were you here for my previous
6 admonitions on perjury?

7 MR. WOODS: I was.

8 ADMINISTRATIVE LAW JUDGE DAWSON: So you
9 understand what perjury is and the penalties for it?

10 MR. WOODS: I do.

11 ADMINISTRATIVE LAW JUDGE DAWSON:
12 Understanding so, do you promise or swear that the
13 testimony that you're about to give will be the truth,
14 the whole truth, and nothing but the truth?

15 MR. WOODS: I do.

16 ADMINISTRATIVE LAW JUDGE DAWSON: You may
17 begin, Mr. Bender.

18 MR. BENDER: Thank you.

19 EXAMINATION

20 BY MR. BENDER:

21 Q. Dennis, would you state your full name for the
22 record, please?

1 **A. Dennis J. Woods.**

2 Q. And what's your business address?

3 **A. 13100 Northwest Freeway, Houston, Texas.**

4 Q. And by whom are you employed?

5 **A. Perennial Environmental Services.**

6 Q. What capacity?

7 **A. I am the president.**

8 Q. And in your capacity as president of Perennial,
9 have you been retained by Dakota Access LLC?

10 **A. I have.**

11 Q. And you were retained to do some environmental
12 surveys and other surveys at the proposed site of the
13 Emmons County pump station?

14 **A. Correct. Primarily the regulations and the**
15 **surveys around the National Environmental Policy Act**
16 **compliance. So biological and cultural resources.**

17 Q. Okay. I'm going to direct your attention to
18 what's been previously marked as Exhibit 11. It's in
19 front of you. Does that exhibit contain some written
20 testimony that was either prepared by you or under your
21 control and supervision?

22 **A. It does.**

1 Q. And was it accurate at the time you prepared it?

2 A. It was.

3 Q. And is it accurate as you sit here today?

4 A. Yes.

5 Q. And as the other witness did with respect to some
6 exhibits that you were attached, can you just very, very
7 briefly tell us Exhibit A is?

8 A. Exhibit A is the original environmental survey
9 corridor for the original pipeline construction along
10 the DAPL system. As you can see it bisects the proposed
11 site.

12 Q. And the proposed site is that yellow square sort
13 of in the center of Exhibit A. Is that a fair
14 statement?

15 A. Correct.

16 Q. Okay. And then let's go to Exhibit B. Can you
17 tell me what Exhibit B is?

18 A. Exhibit B is our consultation letter with the
19 State Historical Society of North Dakota, the SHIPO.

20 Q. Okay. And you were in the room earlier when I
21 was talking about a letter that goes out to the various
22 parties. This is what we're talking about. Is that

1 correct?

2 **A. Correct. That's an example of one of them.**

3 Q. Okay. And attached to Exhibit B is a map. Is
4 that correct?

5 **A. Yes.**

6 Q. Okay. And was that map -- did that map go with
7 the consultation letter?

8 **A. It did.**

9 Q. And there's another sheet right after the map.
10 Can you tell us what that is?

11 **A. The redacted sheet?**

12 Q. Yes.

13 **A. Yes. So the cultural material is confidential**
14 **and privileged, so it's not out in the general public**
15 **and that's just a standard thing. So when we submitted**
16 **this to the Commission, we added a fly sheet for the**
17 **redaction.**

18 Q. And that's a document that's submitted to the
19 SHIPO. Is that correct?

20 **A. That's correct.**

21 Q. And you don't submit it to the Public Service
22 Commission because you don't want it made public. Is

1 that correct?

2 **A. Correct. SHIPO has the ability to inform the**
3 **Commission on anything that they see fit, but it's not**
4 **our general information release, it's theirs.**

5 Q. And then Exhibit C. Can you tell us what that
6 is?

7 **A. That is per of the Commission's regulations.**
8 **That's the list of all the agencies that were informed**
9 **and or consulted on the project.**

10 Q. So a lot of letters were sent out, not that many
11 responses. Is that a fair statement?

12 **A. Correct.**

13 Q. And do you know when this response matrix was
14 prepared?

15 **A. On or about November 1st, I sent that to you.**

16 Q. Do you know if there's been any changes with
17 respect to additional responses that have come back
18 since that time?

19 **A. We have not one. I've been here since Sunday,**
20 **but I haven't seen any responses since then.**

21 MR. BENDER: Your Honor, that's all the
22 questions I have for this witness with respect to

1 Exhibit 11. We tender the witness for
2 cross-examination.

3 ADMINISTRATIVE LAW JUDGE DAWSON:

4 Mr. Purdon.

5 EXAMINATION

6 BY MR. PURDON:

7 Q. Could You speak into your microphone? Sorry
8 about that. Sorry everybody. Mr. Woods, good
9 afternoon. I'm just going to have very few questions.
10 The Exhibit B, which is the letter you sent out to the
11 various entities that are listed on Exhibit C. This is
12 the letter. Right? This is a sample of the letter you
13 sent out?

14 A. It's an example, yeah. I mean, the cultural one
15 specifically is tailored a little bit differently.

16 Q. You're aware that the -- just so I understand.
17 You're aware that the proposed capacity expansion here
18 will increase the barrels per day in the Dakota Access
19 Pipeline from 570,000 barrels per day to 1.1 million.
20 You're aware of that. Correct?

21 A. I'm aware.

22 Q. In your letter here, Exhibit B, you do tell

1 whoever -- again, as I understand this is an exemplar --
2 whoever the address -- the letter is addressed to, you
3 talk about the optimization in the first paragraph.

4 "The optimization will allow Dakota Access to add
5 capacity to the existing pipeline." Right?

6 **A. Correct.**

7 Q. And you say that's to meet increased demand for
8 transportation of crude oil from the Williston Basin.
9 Correct?

10 **A. Correct.**

11 Q. But you don't specifically indicate in the latter
12 that it's from 570,000 barrels a day nearly doubling it
13 to 1.1 million. Is that correct?

14 **A. That's correct. I don't specifically say that.**
15 **It refers them to the administrative code and to the PSC**
16 **process.**

17 Q. Did anybody -- any of these limited number of
18 responses that you have -- did anybody inquire as to
19 what -- how big the capacity increase would be?

20 **A. Not to my knowledge, no.**

21 Q. No further questions.

22 ADMINISTRATIVE LAW JUDGE DAWSON:

1 Mr. Pelham.

2 EXAMINATION

3 BY MR. PELHAM:

4 Q. Good afternoon, Sir. I was wondering about the
5 natural drainage on the site and how the evaluation of
6 that took place.

7 A. We had a team of two biologists out there that
8 conducted a wetland-and-water-body survey for the Corps
9 of Engineers guidelines, in that they picked up the
10 drainage that you've referenced a few times today. It's
11 an ephemeral drainage without a lot of defined channel
12 on it. So it's really a conveyance down to the cattle
13 pond on the adjacent property now. So as far as
14 elevation/ grading plans, those are still being
15 developed. But in consultation with Dakota Access, you
16 know, I've been informed that there won't be any change
17 to the site drainage pattern, that they will still flow
18 in the same general direction.

19 Q. Okay. I think you just said it, but just to be
20 clear: The location of the plan facility itself, the
21 buildings will not impact the natural drainage on this
22 property. Is that what you're saying?

1 **A. Correct. It's my understanding, and I haven't**
2 **seen the final grade plan, but the elevations are**
3 **moderate. That was one of the selection criteria for**
4 **the property, and it won't require a considerable amount**
5 **of grading.**

6 Q. Where are -- and maybe if you could get the map,
7 I think it's Exhibit B on your testimony. Where is the
8 drainage specifically at? It looks like it's actually
9 Exhibit A. I'm sorry.

10 **A. In general terms, it comes into probably the**
11 **bottom of that pipeline corridor, the existing survey**
12 **quarter that you see here. It almost clips that and**
13 **it's coming out of that active agricultural field.**

14 Q. So you're talking the southeast corner of the
15 yellow box indicating the optimization property
16 boundary?

17 **A. Yeah, so it's -- it has been filed with the**
18 **Commission. It's just not in this packet here, it's not**
19 **in my provided direct testimony, just within the Wetland**
20 **delineation document.**

21 Q. Mr. Fawn has a couple questions. I don't have
22 any more questions for you. Thank you, Sir.

1 ADMINISTRATIVE LAW JUDGE DAWSON:

2 Mr. Fawn.

3 EXAMINATION

4 BY MR. FAWN:

5 Q. Good afternoon.

6 A. **Good afternoon.**

7 Q. What is the natural drainage at the site?

8 A. **What is it?**

9 Q. What direction is it?

10 A. **It generally goes to the southwest.**

11 Q. The southwest.

12 A. **Yeah, it goes back down to the road there.**

13 Q. Okay. That's all I have. Thank you.

14 ADMINISTRATIVE LAW JUDGE DAWSON:

15 Commissioner Fedorchak.

16 COMMISSIONER FEDORCHAK: I don't have any
17 questions, Judge. Thank you.

18 ADMINISTRATIVE LAW JUDGE DAWSON:

19 Mr. Kroshus.

20 MR. KROSHUS: I don't have any questions. I
21 just -- for a point of clarification in terms of how we
22 go through this particular part of the process. We are

1 looking at the 20.8 Acres that at the pump station would
2 be constructed on. So I think when people think Dakota
3 Access they think the entire pipeline which would be a
4 normal thought, but for the purposes of this
5 application, we're looking at the 20.8 acres. And then
6 as a part of that we rely on different entities
7 including North Dakota Game and Fish, for example, State
8 Historic Preservation office and a number of others to
9 act as our experts to help evaluate the permit
10 application, whether or not there is in fact an issue
11 that -- or a concerned they may want to raise. So this
12 is about the 20.8 acres, and again, I don't have any
13 questions.

14 ADMINISTRATIVE LAW JUDGE DAWSON:

15 Commissioner Christmann.

16 COMMISSIONER CHRISTMANN: No other
17 questions, Your Honor.

18 ADMINISTRATIVE LAW JUDGE DAWSON: If there
19 are no further questions, you may step down. Thank you.
20 Have any further witnesses, Mr. Bender?

21 MR. BENDER: Your Honor, we don't have any
22 further witnesses other than we would like to reserve

1 our right to call a rebuttal witness if necessary.

2 ADMINISTRATIVE LAW JUDGE DAWSON: Certainly.

3 Mr. Purdon?

4 MR. PURDON: Yes, the Standing Rock Tribe
5 will call Richard Kuprewicz.

6 ADMINISTRATIVE LAW JUDGE DAWSON:

7 Mr. Kuprewicz, Good afternoon. Were you
8 here for my previous admonitions on perjury?

9 MR. Kuprewicz: Yes, Sir.

10 ADMINISTRATIVE LAW JUDGE DAWSON: So you
11 know what perjury is and --

12 WITNESS: Yes, I do.

13 You're getting ahead of me.

14 Understanding so, do you promise or swear
15 that the testimony that you're about to give will be the
16 truth, the whole truth, and nothing but the truth?

17 WITNESS: Yes, Sir.

18 ADMINISTRATIVE LAW JUDGE DAWSON: You may
19 begin, Mr. Purdon.

20 EXAMINATION

21 BY MR. PURDON:

22 Q. Mr. Kuprewicz, I have a few questions here before

1 I tender your written re-file testimony, but just you
2 know, as an expert, can you tell the PSC just a little
3 bit about your background what you've been doing over
4 the last 20/30 years and how it relates to the issues
5 here today?

6 **A. Last 20 years I've been president of**
7 **Accufacts Incorporated. We basically assist mainly**
8 **governments, public utilities, commissions for various**
9 **states and NGO's and many citizens about issues related**
10 **to Pipelines. We do a lot of pipeline investigations;**
11 **I've investigated some of the most major pipeline**
12 **ruptures in US And Canada in the last 20 years.**

13 **Q. Before you worked at Accufacts, you worked in the**
14 **oil and pipeline industry. Is that correct?**

15 **A. Yes, it is, Sir.**

16 **Q. Could you tell us a couple of companies you**
17 **worked for?**

18 **A. Mainly Arco for almost -- over 20 years, and then**
19 **an engineering firm in Alaska when we moved up there for**
20 **the Trans-Alaska Pipeline after the Exxon Valdez**
21 **incident.**

22 **Q. So a couple questions about your pre-filed**

1 testimony. You pre-filed testimony, I think, on
2 November 1st. You recall that?

3 **A. Yes, I do.**

4 Q. And the testimony that you wrote out, it was
5 accurate on November 1st. Correct?

6 **A. Yes.**

7 Q. It is accurate here today?

8 **A. Yes, it is. I stand by it as it is.**

9 Q. Before I tender, I just, you know, obviously in
10 addition to putting on our direct evidence here, we're
11 going to respond a little bit to the evidence has been
12 put on this morning. Mr. Kuprewicz, did you sit through
13 the testimony of the four witnesses that were called by
14 the pipeline this morning/this afternoon?

15 **A. Yes.**

16 MR. BENDER: We need to repeat that or did
17 you -- okay.

18 I'm going to object because what Standing
19 Rock is attempting to do here is add to their direct
20 testimony. The whole idea of submitting direct
21 testimony was twofold. One, It was to save some time,
22 and second of all, it was to provide the other party

1 with an idea of just what was going to be presenting.

2 And now Standing Rock is trying to change the rules in
3 midstream and submit some additional direct testimony.

4 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.
5 Purdon, any response?

6 MR. PURDON: Well, we filed direct testimony
7 as well, and they're going to call a rebuttal witness.
8 I'm going to ask him a couple of questions and if
9 there's anything that's come up this morning that he
10 disagrees with, or he feels the issues the Commission
11 introduced that he could address. If it's in the nature
12 of rebuttal testimony as to what happened this morning,
13 then I'll tender and we'll go to cross. And I won't
14 take very long.

15 MR. BENDER: No, I think it'd be more
16 appropriate if he were to just call a, you know, a
17 Sur-reply witness after we put on our rebuttal witness,
18 or do it in redirect.

19 ADMINISTRATIVE LAW JUDGE DAWSON: The
20 general procedure here, I think, is we offer a little
21 bit of leeway. Is that the case, Mr. Pelham? Just to
22 save on time?

1 MR. PELHAM: I don't think the intent of
2 doing pre-filed testimony was ever to prevent any
3 witness from being able to be questioned on what a party
4 attorney wishes to question them on. So while I
5 appreciate Mr. Bender's point, I don't think that the
6 intent of doing pre-file testimony was quite what his is
7 being advocated for. So I don't have any issue with
8 questions that were related. I note that questions were
9 asked by Dakota Access witnesses that were not
10 necessarily included in the in the pre-filed testimony
11 either.

12 ADMINISTRATIVE LAW JUDGE DAWSON: Well, I do
13 appreciate your formality, but I think it's probably
14 undo for this setting. So I'm going to allow you to ask
15 your questions.

16 MR. PURDON: Thank you.

17 BY MR. PURDON:

18 Q. Mr. Kuprewicz, as I said, you sat through the
19 testimony of the four witnesses that were called already
20 in this proceeding. Is that correct?

21 A. Yes.

22 Q. Was there an issue or two -- we had a chance to

1 talk -- is there an issue or two that you'd like to
2 respond to or address it? Can you give me a couple of
3 topics you might want to talk about?

4 A. Yes. I'd say on the issue of surge. They're
5 still in some confusion about that. I can't get into
6 certain details. You can assume I've seen the, quote,
7 transient surgeon report, but I'm under a nondisclosure
8 protective order. So I'm not going to discuss any
9 details about that, but I will say this: My testimony
10 related to surge issues in my written testimony, some of
11 you have cited today is dead on.

12 Q. Was there another issue that came up that you
13 wanted to --

14 A. Well, I'm a little -- I'm a little puzzled by the
15 -- and again, I'm the last person -- commission's a
16 tough job. Right? PHMSA's got a tough job; FERC's got
17 a tough job. But don't make it any tougher by creating
18 a rosy picture that like PHMSA can do certain things or
19 FERC can do something. Pipeline safety, FERC has no
20 jurisdiction on pipeline safety, and I'm speaking from
21 over almost, you know, 40 years experience. PHMSA has a
22 an obligation to ensure compliance with the minimum

1 Federal Regulations, and I have a lot of respect for
2 those people. I've been on advisory committees helping
3 them write regulation for advancement, and try to
4 brainstorm, and try to get it through the lobbying
5 efforts and whatever. And some places will agree, and
6 some places will disagree. But I want to respect them,
7 but again, those are minimum standards. Pipelines that
8 are doing the right thing will have no problem pointing
9 out areas where they're exceeding those minimum
10 standards. The last thing I want to hear from a
11 pipeline operator -- in over 20 years of major
12 investigation, and I can't get into the criminal cases.
13 All right? I don't need the business. Is that we're
14 just meeting minimum Federal Regulations.

15 Q. With that, those couple of issues sort of teed up
16 and highlighted, I would tender the pre-filed testimony,
17 which I believe has been marked as I-1 perhaps. And I
18 would tender that. And to the witness for cross
19 examination.

20 ADMINISTRATIVE LAW JUDGE DAWSON:

21 Mr. Bender, could you introduce the -- you're going to
22 take lead at this time, I take it?

1 Introduce yourself again.

2 MR. DUBLINSKE: I'd be happy to.

3 EXAMINATION

4 BY MR. DUBLINSKE:

5 Q. Mr. Kuprewicz, Bret Dublinske on behalf of Dakota
6 Access. Good afternoon.

7 A. Good afternoon, Sir. You may begin.

8 Q. Thank you. Mr. Kuprewicz, can you tell me which
9 North Dakota regulations govern pump stations or the
10 siting of pump stations?

11 A. No, I can't.

12 Q. You say you were asked to review the potential
13 impacts of increasing flow capacity. Were you asked to
14 review the potential impacts of the physical
15 construction of a new pump station in Emmons County?

16 A. Not -- no, I have not done that.

17 Q. Does your testimony compare the impacts of the
18 optimization to increase trailer/truck transport?

19 A. No, it does not.

20 Q. Does your testimony compare the optimization to
21 the impacts of an additional pipeline?

22 A. No.

1 Q. Mr. Kuprewicz, I have -- and I hope you're duly
2 flattered by this -- I have read a fair amount of your
3 work these last few weeks for West Goshen, for Alliance
4 3 and 9 B, and an interview that you did with the
5 Journal. And of course, the cases you cited in your CV.
6 And I get the impression that you have rarely seen a
7 pipeline that you didn't want to make additional
8 recommendations for. Is that fair?

9 A. Let me think about that a second. I've seen a
10 lot of pipelines and I'm an old guy. I don't forget
11 anything but the recall slows down.

12 No. That's -- that's not a fair
13 characterization. There are some and I can't get into
14 the details on them. There are certain things that -- I
15 sign many non-disclosure agreements and I take them very
16 seriously.

17 Q. Well, let -- I want to take at least one and
18 hopefully we can avoid going through a lot of them. But
19 I think that one of your West Goshen ones highlights a
20 lot of the things that you often point out. Can we get
21 out what will be marked as Exhibit -- Dakota Access
22 Exhibit 13?

1 **A. Thank you.**

2 Q. Mr. Kuprewicz, can you agree that this is in fact
3 a report that you prepared on behalf of Accufacts for
4 the -- in your work for the Township of West Goshen?

5 **A. That's correct.**

6 Q. And you had just mentioned that one of the things
7 that you really don't like is when companies say that
8 they just are looking to follow the minimum
9 requirements. Correct?

10 **A. That's correct.**

11 Q. Okay. And in this case, and I will say I've
12 noticed some themes in some of the things that you
13 highlight is positive things in your various reports. I
14 think most of them in this are in this, we can go
15 through more if we need to. But if we turn to page 2 of
16 this report, we see basically what you just testified
17 to. Right? "Accufacts finds that Sunoco has
18 incorporated additional processes in excess of minimum
19 Federal pipeline safety regulations that should assure
20 the safety of this proposal across the township."
21 Correct?

22 **A. That's correct. And let me -- for the record,**

1 **this is on the, I believe -- and tell me if I've missed,**
2 **because of there's several of these out there in various**
3 **years. This is on the 20-inch Mariner East 2 Pipeline**
4 **that's going to be moving at least part of it is already**
5 **-- hazardous fault two liquids. Correct?**

6 Q. Correct.

7 A. For the town of West Goshen, a segment of
8 **Township of which this is being crossed.**

9 Q. This is the January 6, 2017, and as you know,
10 this is a different product, and I will be asking you in
11 some of these whether you would change your position on
12 it. You go on to say on page 4 that: "Having
13 manufacturing, inspection, and transportation quality
14 control for new pipe meant that this project did not
15 present certain cracked threats." Is that correct?

16 A. Yes, it is. This is new pipe that's being
17 **produced.**

18 Q. So that would be true, presumably, for an oil
19 pipeline as well. Correct?

20 A. Not all oil. There's a lot of oil pipelines that
21 **have cracked thread, but not Dakota Access Pipeline, if**
22 **I'm guessing where you're going.**

1 Q. Well, basically what I'm asking is that there are
2 some of these practices like having quality control for
3 your inspection transportation, that you consider would
4 minimize the effects, the potential effects of a
5 pipeline project on people in the environment. Correct?

6 A. That's correct, but you got to put in
7 characterization of the particular pipeline and what are
8 those some of the details. So I think back to your
9 comment earlier, there's a certain process I use but it
10 might get tweaked depending on the type of pipe or
11 pipeline.

12 Q. I think that's a fair point, but nonetheless, at
13 least for this one, all things equal having those
14 protocols for manufacturing and transportation
15 inspection, tends to minimize the effects of the
16 pipeline.

17 A. That's correct.

18 Q. And are you aware that Dakota Access Pipeline is
19 specified to API 5L PLS 2 standards?

20 A. Yes, I believe that's correct from my memory.

21 Q. And that standard includes both metallurgical and
22 quality-assurance-process requirements. Correct?

1 **A. Yes.**

2 Q. Are you aware that Dakota Access inspected all
3 pipe mills for quality assurance and testing before they
4 were allowed to bid?

5 **A. I think that's correct from my recollection.**

6 Q. And you would agree -- I believe we just went
7 through this -- that the higher pipe standard would
8 increase the safety of the line?

9 **A. Oh, I'd put that a little differently. The**
10 **higher pipe standard if properly implemented with the**
11 **QA/QC procedures would provide a level of safety for**
12 **certain types of threats that might enter into a**
13 **pipeline operation.**

14 Q. And in this piece, as well as some other pieces
15 of your work, I've read you encourage non-destructive
16 testing of all girth welds. Correct?

17 **A. Yes, I do.**

18 Q. And are you aware that Dakota Access had NDT
19 inspection on 100 percent of the girth welds?

20 **A. Yes. I usually look for that as an exceeding a**
21 **Federal requirement.**

22 Q. Indeed, the Federal Regulation requires NDT of

1 only 10 percent of the girths.

2 **A. That's correct.**

3 Q. And you also spoke highly of Sunoco allowing
4 control room operators direct authority to shut down and
5 isolate the line without supervisory approval. Correct?

6 **A. That's correct.**

7 Q. And you heard Mr. Stamm testify that that's also
8 true at Dakota Access. Correct?

9 **A. I believe I did.**

10 Q. In an interview that you gave you said that
11 regarding cracking and corrosion you encourage
12 fusion-bonded epoxy, bonded epoxy coating and the use of
13 stress risers. Is that true?

14 **A. I'm not recalling the stress riser but the**
15 **fusion-bonded epoxy coating I -- I certain want more**
16 **modern generation because there's various different**
17 **generations leads to superior external corrosion**
18 **protection.**

19 Q. And you are aware that Dakota Access has
20 fusion-bonded --

21 **A. I believe they do, yes.**

22 Q. The stress risers, in regard to transportation

1 protocol and trying to avoid damage to the pipe the --

2 **A. Oh, I see what you mean about -- I'm sorry,**
3 **you're --**

4 Q. You're blending two concepts together there.
5 Let's split them apart: Stress risers are also a
6 positive thing for safety. Correct?

7 **A. The elimination of stress risers, yeah.**

8 Q. And you are aware the transportation protocol for
9 Dakota Access also followed that recommendation of
10 yours. Correct?

11 **A. Yes, it did.**

12 Q. Couple of things that I know you have said, or
13 not sort of absolute panaceas, but Federal Regulations
14 on hydro-testing for a line like Dakota Access, require
15 125 percent MOP for four hours and a 110 percent for an
16 additional four hours. Correct?

17 **A. That's right. For new modern pipe construction.**

18 Q. And are you aware that Dakota Access tested at a
19 125 percent MOP for the full eight hours?

20 **A. I believe they did.**

21 Q. And that they also tested above-ground equipment
22 valves at 125 percent?

1 **A. I believe they did, yes.**

2 Q. And that exceeds the Minimum Federal
3 Requirements.

4 **A. I would not disagree with that.**

5 Q. What's that?

6 **A. I would not disagree with that.**

7 Q. It took me a second to work through the double
8 negative. Appreciate it. I would not disagree --

9 **A. Apologize for that.**

10 Q. In several of your reports you appear to favor
11 more frequent and remote actuated valves to reduce the
12 size of inventory available for a draw to drain down in
13 a release event. Is that a fair --

14 **A. It's more than drain-down, but it's going to be**
15 **driven by other factors like the hydraulic profile, but**
16 **-- more can be better, but I'm not an advocate of**
17 **putting a lot of mainline valves, because there is this**
18 **issue of surge you have to deal with.**

19 Q. Sure. Obviously, that's a subject we'll get to.

20 **A. Okay.**

21 Q. And you're aware that a hundred percent of the
22 mainline valves on Dakota Access EFRD's?

1 **A. That's correct.**

2 Q. And do you have an opinion on what average
3 mainline-valve spacing is for a pipeline like Dakota
4 Access?

5 **A. Liquid pipelines are -- you're talking liquid.**

6 Q. Yeah.

7 **A. I have no opinion -- might in fact -- I've gone**
8 **on record trying to help PHMSA, because they were**
9 **ordered by Congress to write some sort of regulation**
10 **regarding a placement and actuation of valves, and it's**
11 **pipeline specific than fairness. That's the science.**
12 **Depends on the elevation profile, the hydraulic profile.**

13 Q. Sure. For purposes -- and we've talked a lot
14 about various discharge calculations today -- for
15 purposes of minimizing the drain-down, a relatively
16 short segment between valves is beneficial. Would you
17 agree with that?

18 **A. I'm not trying to be cute here. As an engineer,**
19 **it depends on the elevation profile. A short may be**
20 **good and it may not be.**

21 Q. And you've talked some in your work about in-line
22 inspection and integrity reassessments, and I believe

1 you said that doing those ahead of schedule is a
2 beneficial thing.

3 **A. Yes, it is if you do them right.**

4 Q. And so if I told you that one hundred percent of
5 the 30-inch mainline in North Dakota will have undergone
6 its initial integrity reassessment prior to the
7 implementation of the optimization, that would be a
8 positive for safety in minimizing effects.

9 **A. Yeah. To be fair to all the parties I'd ask for**
10 **certain details, but I'd say that that is a good sign.**
11 **And the devil would be in the detail because just**
12 **running a smart pig doesn't necessarily make it smart.**

13 Q. Sure.

14 **A. And you can have a smart pig, dumb people; dumb**
15 **pig, smart people. Outcome's still the same. So you**
16 **got to -- how you use the tool and whether it applies to**
17 **what you need it for.**

18 Q. I believe you said that the willingness to do
19 that at least sends a message in the right direction.

20 **A. That's a positive sign, Sir.**

21 Q. Okay. And you would agree that all the things
22 we've talked about are above and beyond what is

1 minimally required by Federal Regulations.

2 **A. Yes, I agree with that.**

3 Q. And we agree that because a certain amount of
4 pipeline incidents are caused by third-party strike
5 damage; augers, bass and buckets, that depth of cover in
6 excess of minimum requirements is also a positive thing.

7 **A. Yes, it is, Sir.**

8 Q. And are you aware that both Dakota Access is
9 spacing from other things like drain tile and its depth
10 of cover exceed the Minimum Federal Requirements.

11 **A. I believe they do. Don't know the exact number**
12 **in every location, but I believe they do.**

13 Q. So we can agree that Dakota Access Pipeline is
14 manufactured in excess of the minimum required Federal
15 standards.

16 **A. I would think that would be a fair**
17 **characterization.**

18 Q. And that is true even at the increased transport
19 capacity post optimization.

20 **A. It should be.**

21 Q. Okay. Let me to turn to line --

22 **A. Let me characterize. It should be but it depends**

1 on the on the threat, what threat shows up.

2 Q. Turn now to line 164 of your testimony.

3 A. 164? Page 8?

4 Q. Yes. And you say that this will result in oil
5 being pumped with DAPL at extremely high velocities.

6 Mr. Kuprewicz, there is no Federal pipeline safety
7 regulation that prohibits velocities of 16 feet per
8 second for crude oil, is there?

9 A. At 16 feet per second? No, there is not. You,
10 you, you -- I think you said 16, but you meant 15, the
11 answer's no.

12 Q. I said 16, yeah, I meant 15. Is there a Federal
13 regulatory definition for extremely high velocity?

14 A. No.

15 Q. Is there a state definition for extreme velocity?

16 A. No.

17 Q. What do you mean by "extreme"?

18 A. It's based on my background and my experience,
19 especially in cases investigating ruptures. And I guess
20 what I'd qualify as this: You can go those high
21 velocities, there are pipelines that probably run those.
22 I think I heard something today from operated by ET, but

1 that's under their call. But the context is what --
2 it's more than just that velocity. I'll look at
3 velocities and say, "Is there a threat category I need
4 to pursue?" And when I see velocities of this high then
5 I'm going to pay more attention to things that could
6 cause surge overpressure. And have you designed for it,
7 installed for it? And that's where I'll go based on
8 experience that I've done in investigations.

9 Q. So, let me ask it this way. A pipeline can be
10 operated safely at 15 feet per second.

11 A. Yes.

12 Q. Doesn't API recommended practice 14E provide an
13 equation for calculating velocity above which pipeline
14 erosion may occur?

15 A. Yes.

16 Q. And that equation when applied to a solids-free
17 internal corrosion-inhibited system, like Dakota Access,
18 yields a result of about 20 feet per second. Correct?

19 A. I think I've read something like that, but I've
20 got to say: I know of no pipeline operator, that'd be
21 reckless enough to want to be anywhere near for any
22 liquid-transmission large-diameter pipeline anywhere

1 near erosion velocities. You just -- there's a lot of
2 factors can affect that.

3 Q. Sure, but we can agree that the 15 feet per
4 second is 25 percent less than 20 feet per second.

5 A. I wouldn't disagree with that.

6 Q. You're not suggesting this Commission can enact a
7 regulation that would prohibit velocities at or above 15
8 feet per second. Right?

9 A. I don't think any of my testimony has suggested
10 that.

11 Q. You had mentioned surge, and let's talk about
12 that for a minute. I believe that starts on the next
13 page at 170. And I want to start where you list some
14 causes of surge, suggest that inadvertently remotely
15 operated mainline valve closures are common occurrences.
16 Do you see that in your testimony?

17 A. Which line number, please?

18 Q. This would be 173 and 174.

19 A. Yes. My experience they're rare, but when they
20 occur they're a real nightmare. If you've ever been in
21 the control room and watched the control room guy
22 frustratingly trying to stop a remotely-controlled valve

1 closing when no one's given any command, you would
2 understand. He can't do anything. He's got to live
3 with the outcome. He just hopes the safety's in place
4 to be sure that the line doesn't go overpressure.

5 Q. I just want to be clear. I believe you just said
6 those are rare, but serious. Is that correct?

7 A. Yes.

8 Q. Is your testimony?

9 A. Well, yeah. They're so serious that PHMSA in
10 their minimum Federal pipeline safety regulations
11 addresses that you need to have this in your game plan.

12 Q. Sure. But you also testified that they are rare.
13 Correct?

14 A. Yeah, but I don't -- some of this rare stuff, I
15 don't want to be betting the company on.

16 Q. And of the two and a half years Dakota Access has
17 been in commercial service, do you have any evidence
18 there's ever been an inadvertent mainline valve closure?

19 A. No.

20 Q. You raised a concern that the surge pressure can
21 increase quickly and move quickly to damage the
22 pipeline, but you also agree that surge pressures can be

1 mitigated. Correct?

2 **A. That's correct. That can be engineered properly**
3 **designed with proper safeties to provide -- if you've**
4 **got that exposure you can engineer, construct it,**
5 **install it to allow pressures to stay below 110 percent**
6 **MOP.**

7 Q. On line 180 you say that velocities in excess of
8 15 feet per second increases the risk of surge
9 overpressure, and you also then talk about horsepower
10 and drag-reducing agent. Is it your position that
11 Dakota Access is obtaining the increased flow rates
12 through adding horsepower and also using DRA?

13 **A. I'm not sure I understand your question. Excuse**
14 **me for being slow here. But, yeah --**

15 Q. So at 180 you talk about velocities increasing
16 the risk of surge overpressure; you go on in paragraph
17 at 187 and talk about the DRA.

18 **A. Yes.**

19 Q. And it's your testimony -- and I'm not
20 disagreeing with it -- but the horsepower and the DRA is
21 how Dakota Access is achieving the 15 feet per second.

22 **A. Or achieving the capacity apparently of 1.1**

1 million barrels a day, which then you can go calculate,
2 say, it's over 15 feet a second.

3 Q. Fair enough. DRA increases the flow rate.
4 Correct?

5 A. Yes, but the purpose is to get more flow rate
6 for, let's say, a particular given. There's lots of
7 ways you can argue this gets the same point. You got
8 more flow for the amount of horsepower that you're
9 putting in.

10 Q. Try it this way. Horsepower equal, DRA will
11 increase the flow rate.

12 A. Yes. Should within reason depending on other
13 factors, but yes.

14 Q. And it's your position that the increased flow
15 rate increases the risk of surge overpressure. Correct?

16 A. Yeah, because you're increasing -- it gets back
17 to what is your feet-per-second velocity.

18 Q. And DRA is helping to accomplish the
19 15-foot-per-second flow rate. Loss of DRA effectiveness
20 would actually reduce the flow rate. Correct?

21 A. Well, that's not quite a fair characterization
22 based on my experiences it -- unless there's been a

1 quantum leap in the way DRA is persistent. It can
2 disappear pretty quick, the impact of it. I think an
3 example this morning, I heard, you have to add DRA at
4 every -- at every discharge of the pump station. And
5 from my experience, the pump stations are adding sheer
6 to the liquid, and it's breaking up the intent of the
7 DRA, so you lose the effect of DRA. And so I guess what
8 I'm trying to say is -- and it's a question of how
9 quickly does the effect of DRA on a particular system go
10 away? And it's system -- It can be system dependant.

11 Q. Sure, but generally speaking, DRA facilitates a
12 higher flow rate; less effective DRA will reduce the
13 flow rate.

14 A. It can, but it -- the answer is yes. But how
15 quickly it does, it's one of the issues.

16 Q. And then at line 195 of your testimony, you say
17 that the loss of DRA effectiveness can exacerbate surge
18 pressures. Help me understand. I believe you said that
19 increasing the flow rate increases the risk of surge
20 overpressure, but logically wouldn't decreasing the flow
21 rate decrease the risk of surge overpressure?

22 A. There's a problem here, and it depends on the DRA

1 and who's manufacturing it, and what they're claiming.
2 But I think it's still, given all the decades of DRA
3 use, it's still very sheer-sensitive. If you run it
4 through a pump or you run it through a big turn or a
5 meter, the effect can go "sst" real quick, and it can go
6 away. And so the issue I'm trying to point out is: I
7 look at DRA as it's allowed you to run a higher
8 velocity, and so the question is on your particular
9 system -- and I don't know the answer to this. But my
10 first reaction is: Can this be a contributor to surge?
11 If it's -- if the effect is very quick in terms of its
12 loss. And I -- you know, you guys -- the operator
13 should be able to answer that one in their surge
14 analysis.

15 Q. So you --

16 A. Go ahead.

17 Q. Your testimony really is that you don't know
18 whether it would increase the risk of surge overpressure
19 or not.

20 A. My experience has been -- and I've added many
21 hundreds of millions of dollars of DRA on some very big
22 pipelines -- we had to be very careful with that. And I

1 think it's pipeline-specific. But this is an answer
2 that can best be explained with sufficient detail to tie
3 this one down by the operator, not me.

4 Q. I just want to be really clear. You're not
5 saying that both higher flow rates increase the risk of
6 surge overpressure and lower flow rates increase the
7 risk of surge overpressure?

8 A. I'm not saying that lower flow rates -- I am not
9 saying that lower flow rates increase the risk of surge.
10 I think that's you saying that, not me.

11 Q. At line 199, now you say the fact that MOP isn't
12 changing does not adequately frame the risk; then you
13 say that the issue is not that the optimization will
14 alter the MOP. So we can agree that MOP is not going to
15 change after the optimization?

16 A. We agree.

17 Q. Okay. And you argue that the pipeline will be
18 transmitting oil closer to MOP, which you say increases
19 the risk of pipeline failure. Correct?

20 A. In some segments.

21 Q. That's exactly what I was going to ask. You will
22 you agree then that there will be places on the pipeline

1 that will actually have lower pressures after the
2 optimization than prior to it.

3 A. That's correct. But from a failure threat
4 analysis, it isn't the low pressures are the problem;
5 It's the peak pressures. And so I'm going to look at
6 what's your capability to generate higher pressures like
7 surge overpressure versus lower pressure?

8 Q. So we're not worrying about the places where the
9 pressure gets lower.

10 A. That's a fair call.

11 Q. And in fact one of those places where the
12 operating pressure will be lower than prior to
13 optimization, is at the crossing at Lake Oahe. Right?

14 A. From the new pump station, is there a question?

15 Q. Correct.

16 A. Yeah. Would tend to lower the -- the easiest
17 thing to explain is rather than have a bunch of
18 engineers confusing the hell out of all the
19 Commissioners, is get the -- and trying to communicate
20 but just speaking in tongues -- is a hydraulic profile
21 illustrate your concept, provided with enough detail.

22 Q. That crossing will be on the suction side of the

1 new pump station.

2 **A. That's correct.**

3 Q. And isn't it true that the average operating
4 pressure Dakota Access Pipeline is, following
5 optimization will be essentially what it is prior to the
6 optimization?

7 **A. I believe it will be, but I need to know -- I**
8 **need to see the numbers.**

9 Q. At line 208 of your testimony, you quote the
10 Federal PHMSA Regulation governing pressure on a
11 pipeline. And it provides that each operator must
12 provide adequate controls and protective equipment to
13 control the pressure within 110 percent of MOP.
14 Correct?

15 **A. Yeah, that's prescribed in the regulation as a**
16 **minimum.**

17 Q. And if we go over to page 12, you know that you
18 are aware, and I believe you mentioned this, that Dakota
19 Access has in fact modeled the post-optimization
20 transport volume for the potential to create surge
21 overpressure under various initiating conditions.
22 Correct?

1 **A. Yes, I'm aware of it. But again, it's under a**
2 **protective order, so I can't get into the details. The**
3 **Commission may want to see those details, but I can't**
4 **talk about them.**

5 Q. Sure. But without getting into the details, you
6 would agree that that's a -- that that is the kind of
7 transient surge analysis you said should be completed
8 prior to the optimization. Correct?

9 **A. Yes, but it's a good start.**

10 Q. I believe you heard testimony from Dakota Access
11 earlier that the modeled parameters -- or the
12 instructions for the modeling of the parameters -- were
13 to hold pressures under 105 percent of MOP. Did you
14 hear that testimony?

15 **A. Yes, I did.**

16 Q. And again, without getting into details, you have
17 no reason to believe that testimony is not correct.

18 **A. I think that's learn their intent in guiding the**
19 **person doing the surge analysis. Whether or not that's**
20 **effective is going to be a different issue.**

21 Q. And it's your understanding from Dakota Access
22 that it will abide by whatever recommendations are the

1 result of that surge model report. Is that correct?

2 A. Well, I think I heard that this morning. This
3 morning? Yeah, I think it was this morning.

4 Q. Sometime today, we've heard that. And that the
5 they will be adding a surge relief valve at the new pump
6 station and increasing the size of the surge tanks of
7 the existing pump stations as well. Is that your
8 understanding?

9 A. That is correct. I don't know the details of how
10 they're going to do that, and I think I heard some
11 Commissioners question about possible ways to generate
12 surge overpressure. And one way to do that in
13 microseconds is not know what you're doing and how
14 you're choosing your SRV; how you're installing the SRV;
15 And how you're calibrating and maintaining the SRV.

16 Q. SRV stands for?

17 A. Excuse me, Surge Relief Valve. They're a special
18 type of valve designed and intended, extremely
19 fast-acting, highly reliable if properly designed,
20 chosen, and installed, and maintained. So that's a good
21 sign. It's moving in the right direction, but I don't
22 have the details to say, you know, can I agree with what

1 Mr. Hein is agreeing. There'll be questions eventually,
2 let's talk about details so the adults in the room can
3 make sure we've made an informed decision here.

4 Q. You don't have any evidence that would lead you
5 to believe that Dakota Access doesn't know how to
6 properly install an SRV.

7 A. I do not have that, but I'm just saying that I've
8 had cases where that's been a problem, and someone asked
9 about it. It's more than just valves closed -- mainline
10 valves closing or pump stations. There are situations.
11 Where an improperly installed, maintained surge-relief
12 valve -- I normally don't get into criminal
13 investigations, but that resulted in death. So the
14 company may know what it's doing. I would like to
15 believe they do. My obligation in another state is to
16 ensure -- and probably in this day, you folks will have
17 to decide this but -- that's been that details been
18 worked out and if everybody's happy, we're off and
19 running.

20 Q. You agree with me that in the report for any
21 source of surge initiation, if the recommendation are
22 followed, the pressure in the line will never exceed 105

1 percent.

2 A. Well, you got me. Who's got the gun? I can't
3 agree to that. I think the intent is well meaning. I'm
4 not criticizing the person who's trying to do that.
5 Further details need to come out. As adults and
6 engineers and experienced, we can have an informed
7 conversation and work this out. And I'd like to believe
8 that's your intent. But I have an obligation to say I
9 have some questions that need clarification. It's not
10 that clear.

11 Q. Do you agree that having the model run at 105
12 rather than 110 percent, is an additional margin of
13 safety.

14 A. No.

15 Q. 110 percent is allowed by the regulation.

16 A. That's correct.

17 Q. And modeling to -- you don't think that modeling
18 to 105 percent is better than modeling to 110?

19 A. I don't want to make this sound like criticism,
20 but the nature of surge overpressure. Blink. You've
21 just increased 500 to 1,000 pounds. Okay? Now that
22 situation is going to be rare. You've got to have

1 equipment to deal with it, and I've got to be sure that
2 your approach is what I'd call failsafe. And I've got a
3 problem with some of the stuff I've been reading. I
4 think their intent is well-meaning. I'm not here to
5 criticize folks. My obligation is to say I don't want
6 to be here on an investigation after the fact. We can
7 get there. I believe we can get there. The transient
8 surge analysis is an excellent start at 1.1 million
9 barrels a day.

10 Q. At the top of page 13, you claim it's important
11 to know where the high-consequence areas have been
12 identified. And I read that as you're saying that
13 because the regulations require reassessment of the
14 integrity of those HCA's, and so it's important to have
15 them identified to be able to reassess them. Is that
16 fair?

17 A. Well, it's a little more than that, but that's a
18 good start. I've done some rupture pipe -- liquid
19 pipeline rupture investigations in which the first
20 question from the investigators including the NTSB and
21 PHMSA was: "Do you know you're in a High-Consequence
22 Area?" And they said no.

1 Q. And you were here for the testimony that Dakota
2 Access enacts the same integrity reassessment across the
3 entire pipeline, not just HCA. Correct?

4 A. I understand that. But it's important for the
5 Commission to understand, I believe, I don't want to --
6 the Commission has to decide this themselves. But where
7 are your high-consequence areas? You might want to know
8 why, and then you'd understand. They're doing
9 everything, but sometimes doing everything -- not saying
10 that happens here -- but it can dilute your attempt and
11 you're missing something. You know, the last place I
12 want to be is, you're in a criminal investigation
13 assisting parties. And what do you mean you don't know
14 that you could affect the High-Consequence Area like the
15 Santa Barbara Channel; Marshall, Michigan; pipeline
16 rupture 6B Enbridge? Come on, you guys that if you
17 can't get your high consequence -- and it's a good thing
18 to do all your line, but the regulations for the
19 integrity management -- I helped write some of those --
20 are predicated on you understand first. You got to get
21 your high-consequence areas. If you want to get beyond
22 that, that's great. But if you can't get your

1 high-consequence areas right, the credibility of your
2 integrity-management program is subject to criticism.

3 Q. And those are reported to PHMSA. Correct?

4 A. I don't know just how much detail they get.
5 PHMSA gets a lot of stuff; they don't always evaluate
6 it. And I'm not trying to criticize PHMSA. They got a
7 lot of stuff going on. They don't validate the -- it
8 may not it be unusual for them this early. They don't
9 want to find out in a pipeline rupture or a release that
10 you didn't know you were in a High-Consequence Area when
11 PHMSA says, "You're in a High-Consequence Area" after
12 the fact.

13 Q. At Line 291 you say that the capacity expansion
14 will increase operating pressures throughout the system.
15 And we've already talked about the fact that's not
16 exactly accurate. Correct?

17 A. Throughout this -- well, certainly where you're
18 adding pump stations, new pump stations.

19 Q. It will lower the pressure in roughly the same
20 number of places. Correct?

21 A. I'd have to look at the total system, that might
22 be the right direction. It's been really challenging to

1 **get the hydraulic profiles. Let me just say that.**

2 Q. The hydraulic profile is included in the surge
3 model. Correct?

4 A. Part of it is, yes.

5 Q. Again, you --

6 A. That was a good thing in the transient analysis,
7 yes.

8 Q. And you have seen that?

9 A. Yes, I have. But I defined in my testimony
10 information, because hydraulic profiles may mean
11 different things to different companies. That's not a
12 criticism, but the variations can cause you -- like a
13 Commission trying to evaluate something, there may not
14 be certain information that, on my definition of
15 hydraulic profile, that you would get, that maybe
16 another company -- not trying to lie with you -- this is
17 how they're generically defining hydraulic profile. So
18 I have defined, I've gone to the extent, I believe, in
19 my testimony: This is what I expect to be on a
20 hydraulic profile. And not all that information is in
21 the transient analysis, you may assume.

22 Q. At line 328, the paragraph that starts here you

1 say that: "Oil released from a rupture is more than
2 just a function of daily capacity." And what you go on
3 to define there is drain-down. Correct?

4 A. Well, it's more than dragging down, it's also
5 line unpacking, because it's compressed hydrocarbon.
6 And that's why, you know, your transient analysis guys
7 will be able to explain this better. But they use a
8 factor called bulk modulus and -- which is the inverse
9 of compressibility, and hydrocarbon, you know, in a
10 mainline large-diameter, long-diameter, long-pipeline
11 mileage, you have millions of pounds, if not tons, of
12 pipeline inventory. And when you pressurize it you
13 squeezed it, and some of that comes back at you. Let's
14 say when you have a major release like a rupture, and
15 that's what confuses some of the control rooms that I've
16 been in where you've gone back and, "You mean you didn't
17 shut the valves for 19 and a half hours like in the line
18 6 b? Or a couple hours like in the Plains All American?
19 And a few others, the Silvertip?" They were designed to
20 be quick-tacking closing valves across the Yellowstone
21 River. That line snapped in a full-bored 12-inch almost
22 1-inch-thick pipeline wall. In a Yellowstone River

1 flood stage. So you just -- it's more than just
2 drain-down, its actual -- I'll call it the dynamics of
3 the line on pack, which is one reason, I don't -- When
4 someone tells me we're looking for pressure loss,
5 they're setting up their control-room guys, and that's
6 not fair.

7 Q. I want to drill down on a little more though,
8 because you go on to say you should talk about pushing
9 further barrels of oil out even after mainline valves
10 are closed. And I gather that's what you mean by
11 unpacking. You aren't suggesting that the total amount
12 of drain-down can be more than the total volume that the
13 pipe can hold between two closed valves, are you?

14 A. Yes, I am. It's a law of science.

15 Q. The cylinder has a fixed volume --

16 A. That's correct.

17 Q. -- both ends are capped. Right?

18 A. Yeah. And there's a lot of control-room
19 state-of-the-art rupture detection systems, if you wish,
20 setting up their control room operators for -- "Well, we
21 got to fix the inventory and we'll try to compensate for
22 all this stuff." But, you know, the line pack drives

1 **them crazy. The compressibility of the fluid, the**
2 **inventory within the cylinder, and the fact that it can**
3 **change as you change your operating pressures.**

4 **Q. Again, I want to make sure I'm clear on this**
5 **because you -- as I read it, it says you can push**
6 **further barrels out after the mainline valves are**
7 **eventually closed.**

8 **A. You have a lines-deep pressure.**

9 **Q. Once both those valves are completely closed, the**
10 **quantity is known and fixed. Correct? There is a**
11 **mathematically determined --**

12 **A. You can determine what -- let me help you out. I**
13 **don't mean to be argumentative with you, and I apologize**
14 **if I if I'm saying too much here. But you have a fixed**
15 **volume, but the inventory is not fixed because it's a**
16 **spring that's been compressed. That's one way to look**
17 **at it. And so you've closed the valves, but the**
18 **dynamics is still occurring, which is one reason when**
19 **you try to model -- and I mean, there's a lot of**
20 **companies trying to get their handles on this stuff.**
21 **It's tough. It's a tough challenge even for big**
22 **ruptures.**

1 Q. Let me ask you this --

2 A. Changing the volume that's being released, it's
3 more than just a volume of inventory. In terms of --
4 when I say inventory volume, I mean the cylinder space
5 within the pipeline. It's the inventory within that
6 cylinder under certain pressures that now see lesser
7 pressure.

8 Q. Let me get to the finer point here. You say
9 Alliance 336 or 338, referring to the case of a rupture
10 that, quote, "In addition, millions of tons of pipeline
11 inventory unpacks or swells for pressure loss as the
12 pipeline depressurizes." Correct?

13 A. It can be, yes.

14 Q. You aware that the entire Dakota Access line from
15 Johnson Corner to Patoka does not hold millions of tons
16 of crude oil at any given time.

17 A. I probably have misspoke by tons. It probably
18 should have been pounds. That's my error.

19 Q. Okay. So you're not suggesting that millions of
20 tons of inventory will impact in the event of a rupture,
21 that --

22 A. It's a lot of pounds.

1 Q. -- that is exaggerated, albeit by --

2 A. No. I made I made a mistake. I wasn't trying to
3 mislead you, I made a mistake, and I'm a big boy. I'm
4 an old guy. I don't really care what people think of
5 me. All right? But if I made a mistake, I've learned a
6 long time ago if it's important, I'll admit to it.
7 I'm going to ask that you don't clap for people, please
8 don't do that. It makes me look bad.

9 ADMINISTRATIVE LAW JUDGE DAWSON: But it may
10 it may inhibit somebody from testifying further that
11 comes up after him. I think he's quite capable of
12 taking applause and boos, but don't know other people
13 may not.

14 MR. KUPREWICZ: I apologize to the
15 Commissioners and everybody if I've set people up do
16 that. Please don't do that.

17 BY MR. PURDON:

18 Q. At line 354, paragraph that asserts your concerns
19 about leak detection systems and low rate releases. Is
20 that correct?

21 A. Yeah. This is a real challenge.

22 Q. And that same claim is raised by The Standing

1 Rock Tribe in the Federal Court in the District of
2 Columbia. Correct?

3 **A. I don't know.**

4 MR. PURDON: Pass out Exhibit 14. Your
5 Honor, I would ask that we distribute Dakota Access
6 Exhibit 14.

7 BY MR. PURDON:

8 Q. Mr. Kuprewicz, can we agree that that appears to
9 be a memorandum from Standing Rock Sioux Tribe in the
10 remand in support of their motion for summary judgment?

11 **A. I don't see a date on it. Can you help me out**
12 **here?**

13 Q. All right. Over the top, there should be a file
14 stamp with the Court and 81619?

15 **A. I don't think the stamp came over across the**
16 **Xerox.**

17 Q. The very top and above the caption.

18 **A. I don't see it. Oh here. I'm sorry.**

19 Q. It's file 81619. Thank you. Does that help?

20 **A. Yeah, that does help.**

21 Q. All right. Can we agree that that's what this
22 document appears to be?

1 **A. Yes.**

2 Q. All right. If we turn to page 18 -- just to be
3 clear, are consulting as an expert for the Standing Rock
4 Tribe in that case. Correct?

5 **A. In this case? Excuse me --**

6 Q. In the Federal case.

7 **A. Yes. I'm not sure -- the reason I'm hesitating,**
8 **I'm not sure where that Federal case stands.**

9 Q. Regardless of where the Federal case stands, you
10 have been part of the team supporting Standing Rock in
11 its role, District of Columbia district Court case.
12 Correct?

13 **A. That's fair.**

14 Q. Okay. And on page 18, about one third of the way
15 down after a parenthetical, the Tribe makes the argument
16 there, the Tribe also documented how PHMSA itself has
17 found that spill-detection technology touted by DAPL
18 actually detects leaks in a small percentage of cases.
19 Correct?

20 **A. Yes, not only that but there's also independent**
21 **and DSB studies that. And my experience, it's a real**
22 **challenge.**

1 Q. That is the same issue that you're talking about
2 in page at line 354 of your testimony here in front of
3 the North Dakota Commission?

4 A. I'm not quite sure how you characterize that. I
5 guess I would summarize, it's really challenging to find
6 small leaks --

7 Q. I'm not asking whether it's challenging. I'm
8 asking if it's the same argument in both places?

9 A. I believe it is. Same science.

10 Q. In your conclusion regarding what you see as the
11 risks from optimization -- we've talked about most of
12 these, but I want to ask about the claim in number 4,
13 that: "Reliance on Federal WCD Regulations without
14 demonstrating this approach is truly worst case within
15 this pipeline within North Dakota."

16 A. Where are you reading from?

17 Q. This is your conclusion at number 4 on page 20?

18 A. Yes. I Just don't want to rely on memory at my
19 age, photographic trained memory is getting foggy.

20 Q. I'm happy to steer you there.

21 A. Thank you.

22 Q. Page 20, line 412.

1 **A. 412. All right.**

2 Q. I just read lines 412 to 414. And my question
3 is: Under the Federal PHMSA regulations response
4 planning for any point in a response zone is based on
5 the WCD value. Is that correct?

6 **A. That is correct.**

7 Q. And you were here earlier when we talked about
8 where the model WCD is in North Dakota?

9 **A. I remember hearing that, yep.**

10 Q. And you're aware that it's a tank farm.

11 **A. Yeah, that's not an unusual occurrence in the**
12 **past 20 or 30 years. People use tanks instead of**
13 **pipelines.**

14 Q. And knowing that, I assume you would not be
15 surprised to hear that models to several times the size
16 of any point on the mainline transmission pipeline?

17 **A. Don't know. I'll have to go look at the**
18 **calculations. It's not unusual. A problem with the**
19 **line 194 has been the worst-case discharge, because**
20 **PHMSA really wasn't approving worst-case discharge**
21 **oil-spill response plans. Many of them since their**
22 **inception is it wasn't unusual for pipelines to just**

1 say, "Let's use a tank", when they were kind of missing
2 the concept. And that was, you didn't have to have a
3 tank spill in volume, but you it was lesser volume. But
4 on a pipeline you could do a lot of damage. That was
5 the issue.

6 Q. But you don't disagree that the rule specifically
7 states that if a tank is the largest model discharge
8 that you use the tank. Correct?

9 A. Say that again, please.

10 Q. You don't disagree that the rule states that if
11 the tank is the largest model discharge, you use the
12 tank.

13 A. I don't think -- from my recollection and like,
14 you know, they may change and update these things; It
15 doesn't say "tank". 194 does not state tank as
16 worst-case discharge. That's my point. You can pull it
17 out to me and see if I've recalled it wrong. It just
18 ask for a way to do worst-case discharge. Some
19 companies actually do a worst-case pipeline discharge.
20 Other ones --

21 Q. Hey, I am in fact going to pull it out for you.
22 So 194 105. We agree that's the correct rule. Right?

1 UNIDENTIFIED SPEAKER: Could you hear me?

2 My briefcase, please.

3 MR. PURDON: Excuse me a second. I didn't
4 mean to interrupt you. I apologize to the Commission.

5 UNIDENTIFIED SPEAKER: You often carry a
6 Federal rule.

7 COMMISSIONER FEDORCHAK: I try not to.

8 UNIDENTIFIED SPEAKER: You should. Let, me
9 whip this out it's not a movie line.

10 BY MR. PURDON:

11 Q. Your recollection is that 194 105 does not allow
12 you to include tanks as part of your work?

13 A. No, I didn't say that. I just said I don't think
14 it says that you go use a tank as the worst-case
15 discharge. There's a difference there.

16 Q. Okay. So we agree 194 105 is the correct rule?

17 A. The Federal pipeline, yeah. Response plans for
18 onshore oil pipelines.

19 Q. And it says that: "The worst-case discharge is
20 the largest volume of the following: Step 1 is the
21 maximum released time." We've talked about earlier,
22 that calculation. You go down to No. 3: "If the

1 response Zone contains one or more breakout tanks, the
2 capacity, the single largest tank or battery of tanks"
3 so on and so forth. That is one of the things you look
4 at to determine your largest worst-case-discharge
5 volume. Correct?

6 **A. You can use that, yes.**

7 Q. And Again, your response planning throughout the
8 entire response zone will be based on that largest
9 measurement. Correct?

10 **A. I would assume so, yes.**

11 Q. Your answer a minute ago, talking about some
12 issues with PHMSA regulations segues nicely into my next
13 question actually. You've testified on more than one
14 occasion to a Public Service Commission that you
15 believed PHMSA regulations are inadequate. Correct?

16 **A. Yeah, and PHMSA knows that. I represented the**
17 **public.**

18 Q. In fact -- Let me back up.

19 You recognize that PHMSA is a Federal regulator
20 and the State Commission can't change the Federal law
21 regarding pipeline safety. Correct?

22 **A. That's correct. But the powers of the Commission**

1 **go beyond pipeline safety.**

2 Q. They go beyond pipeline safety, but they can't go
3 into pipeline safety. Correct?

4 A. **I think that would be a fair characterization,**
5 **yes.**

6 Q. In fact -- are you a lawyer, Mr. Kuprewicz?

7 A. **No, I'm not.**

8 Q. But in your -- Yeah, I assume it is important to
9 know jurisdictional boundaries between different
10 agencies. A fair statement.

11 A. **Yes.**

12 Q. Are You familiar with the Kinley Corp versus Iowa
13 Utilities Board case?

14 A. **Nope.**

15 Q. You've never read that?

16 A. **Nope. If I have I don't remember.**

17 Q. All right. In your Illinois testimony, you
18 specifically testified that you realize the Commission
19 cannot change Federal Regulations. Correct?

20 A. **That would be consistent with what I've testified**
21 **here.**

22 Q. Although you didn't -- you actually took that

1 line out of your written testimony in this case.

2 Correct?

3 **A. You'll have to pull in front of me.**

4 Q. I just want to make sure that if I'm right that
5 wasn't in there. You're not trying to tell this
6 Commission that, in fact, it can change the Federal
7 Regulations?

8 **A. On pipeline safety, that I don't think is in**
9 **their jurisdiction. I don't believe it is.**

10 Q. You provided testimony to the Minnesota PUC on
11 behalf of Friends of the Headwaters in the Enbridge line
12 3 case. Correct?

13 **A. That's correct.**

14 Q. And in your testimony in that proceeding, again,
15 that was a time when you testified specifically that you
16 believe that PHMSA's oil-spill-response regulations are
17 deficient. Correct?

18 **A. Excuse me. What did you say?**

19 Q. Are deficient.

20 **A. Deficient. Yes.**

21 Q. And you are aware that in that case the
22 Administrative Law Judge in their finding of facts and

1 conclusions, which was later adopted by the Minnesota
2 PUC, that they disregarded your testimony regarding the
3 alleged inadequacy and granted the permit in that case.
4 Is that correct?

5 **A. I don't know if that's correct.**

6 Q. Have you seen the order of the Administrative Law
7 Judge in that case?

8 **A. No.**

9 Q. So you're not aware that it says: "While Friends
10 of the Headwater, witness Richard Kuprewicz, testified
11 the Federal pipeline safety regulations are inadequate
12 to reduce the risk of spills, and the Federal oil-spill
13 response regulations are deficient, there has been no
14 evidence presented that the project design,
15 construction, or operation will be in violation of any
16 applicable laws rules or regulations." You're not aware
17 of that?

18 **A. That's correct. Different state.**

19 MR. PURDON: And nothing further, Your
20 Honor.

21 ADMINISTRATIVE LAW JUDGE DAWSON:

22 Mr. Pelham.

1 MR. PELHAM: Thank you.

2 EXAMINATION

3 BY MR. PELHAM:

4 Q. Good afternoon, Mr. Kuprewicz.

5 A. Afternoon.

6 Q. The proposed facility here, does it meet PHMSA
7 requirements in your opinion?

8 A. Excuse me, I'm -- ask the question again.

9 Q. Does the proposed facility the application
10 presented by the company in which you have reviewed in
11 your role as an expert for Standing Rock Sioux
12 Reservation. Does the application meet, in your
13 opinion, the PHMSA requirements?

14 A. Yeah. And PHMSA has additional requirements for
15 -- and so I get very careful about the words "facility"
16 versus "pump station" versus "pipeline". Facility to me
17 usually means a pump station. The Federal Regulations
18 have --

19 Q. Do we agree we're talking about a pump station?
20 Pump station, that's what I mean.

21 A. I'm sorry for being so winded here, but PHMSA
22 has additional requirements for pump stations. And I

1 **believe Dakota Access Pipeline will meet those**
2 **additional requirements for the pump station**
3 **requirements.**

4 Q. You testified a little bit about the
5 microseconds, and I was asking about that. And a surge
6 could -- a surge in the line could cause issues within
7 microseconds or milliseconds? I can't recall exactly
8 which one you used, but can you expound on that for us a
9 little bit?

10 A. Well, an example would be in surge-relief valves,
11 if they're improperly installed where they can start
12 chattering. Chattering is that they've hit their set
13 point, but they're getting mixed signals. These things
14 work so fast that they can actually cause a back
15 pressure on the line that they're trying to protect that
16 actually generates surge.

17 Q. You were asked about surge-relief valves by --
18 just now. Is there any objective evidence that you've
19 reviewed, Sir, that would indicate to you that the
20 surge-relief valves that are proposed on this particular
21 project are deficient?

22 A. And so I have no details on them right now at

1 **this stage.**

2 Q. And the drag-reducing agent, the DRA, is that
3 regulated at all by PHMSA?

4 A. **No. You can add it any time you want.**

5 Q. And I believe your testimony indicates you've
6 managed pipes in your operations career that add DRA.
7 Right?

8 A. **Yes. Hundreds of millions of dollars.**

9 Q. Did you ever see any of the issues that you
10 testified are possible issues with this proposed
11 facility and this line?

12 A. **On DRA's? Yes, it put us into surge.**

13 Q. Okay. Can you be specific as to those instances?

14 A. **No, I can't. I'm under a nondisclosure.**

15 Q. Okay. How many how many of those are you aware
16 of that you've personally worked on?

17 A. **At least two pipelines that added DRA. One put
18 us into a surge situation, and again, it gets back to
19 what I think I said earlier may be a fine point. There
20 may be characteristics in a particular pipeline that
21 causes the DRA to disappear quickly.**

22 Q. Do you know -- do you have any objective

1 evidence, Sir, that you've seen in this application that
2 would indicate that there would be issues with the DRA
3 that would be proposed to use and on this particular
4 line?

5 A. No, but you can bet in rebuttal testimony, I'll
6 probably be asking for that.

7 Q. Well, I mean -- let's assume that to be the case.
8 What are you asking for then?

9 A. I'd like the surge-analysis expert who's supposed
10 to be an expert in this area, to explain how he's
11 modeled this, and see if it makes sense. And if it does
12 then he's done the right job. And he may have an answer
13 that this is not an issue and let's go on. And that's
14 fair.

15 Q. Thank you, Sir. I don't have any other questions
16 for you.

17 ADMINISTRATIVE LAW JUDGE DAWSON:

18 Mr. Fawn.

19 UNIDENTIFIED SPEAKER: (Inaudible).

20 ADMINISTRATIVE LAW JUDGE DAWSON:

21 I was going to get to that. Any objection?

22 There so marked and admitted.

1 Commissioner Fedorchak.

2 COMMISSIONER FEDORCHAK: Okay. Thank you.

3 EXAMINATION

4 BY COMMISSIONER FEDORCHAK:

5 Q. Mr. Kuprewicz. Kuprewicz?

6 A. Kuprewicz. I've been called a lot worse,
7 especially in emergency response. Don't feel bad.

8 Q. Oh, good. All right. Back to surge. On page 10
9 of your testimony you've -- well, actually separate from
10 that. I believe that expert that the company is working
11 with is Mr. Hein? H-E-I-N. Mr./Dr. Hein.

12 A. Dr. Hein.

13 Q. Are you familiar with his him and his work?

14 A. Only in the Dakota Access.

15 Q. So you've seen him? Do you --

16 A. No, I have. No, I'm sorry. I didn't understand
17 your question. I apologize. I've never met him. I've
18 just looked at his analysis and his transient surge
19 analysis and details, so I only know him by report.

20 Q. Okay. And you've looked at that in this case?
21 Or where? Because I thought we were ask -- I thought
22 you were asking for that. Or is that the stuff you got

1 in the Illinois?

2 A. I got it in Illinois, and it covers all their
3 pipelines, the two that are affected by this Dakota
4 Access Pipeline and the Energy Transfer crude oil
5 pipeline going further south to Texas.

6 Q. Okay. So you've reviewed it.

7 A. Yes.

8 Q. You do view him as an expert or qualified to be
9 providing this kind of analysis? Or what's your opinion
10 of what you've seen?

11 A. I have some further clarification questions,
12 because there's some confusion. And there shouldn't be;
13 it should be very clear. He sent some messages that are
14 very clear. It doesn't take a rocket scientist to see
15 the warnings. Whether or not those warnings have been
16 appropriately dealt with I think is going to be an
17 issue. So I have to be real careful here. I'm not
18 trying to sound critical. There's what I call the
19 adults in the room ought to be able to get
20 communication; is this really thorough and complete?
21 And it does it does it do its job? Because you're in a
22 situation where -- what I'll say is this. It confirms

1 my written testimony to you folks about the potential
2 for how quickly surged overpressure without the proper
3 safeties can exceed 110 percent MOP by wide margins.
4 And I'm not going to say anymore.

5 Q. Okay. Well, that's what I'm trying to get my
6 head around is you're saying you stand by the testimony
7 you provided, but the company has said this morning that
8 they've modeled this to 105 percent of the MOP which is
9 lower than the standard. So I know you didn't
10 necessarily agree that that was more conservative, but
11 it feels more conservative to me.

12 A. Sounds conservative. I've been around in many --
13 in my almost 50 years in situations where I've basically
14 saved cities. I don't want to go all melodramatic here,
15 but in those situations, the thing that is always kept
16 me alive, and the people who relied on my leadership to
17 help them is avoid the illusion of a safety. Either the
18 safety is properly installed and works, or it doesn't.
19 I want to caution that 105 percent, when it comes to
20 surge -- again, I'm not trying to say don't do that.
21 But surge can move so fast and so high it would, it
22 would -- 105. What's 5 percent more safety margin if

1 **you're hypothetically 80 percent over that?**

2 Q. Correct. So that -- it's just one piece of the
3 puzzle to --

4 A. We can work it out. He should be able to work
5 that out with, you know, again, I can't -- I'm in
6 another state as well that's doing a different process.
7 But that kind of stuff is going to -- it's going to come
8 out. So it -- you know, whether it's public or not it's
9 a different issue.

10 Q. So they modeled it and he's going to recommend or
11 they're in the process of getting the recommendations
12 from Mr. Hein. And they've said they're going to
13 implement all of them.

14 A. Yes. I'm not sure if all those recommendations
15 came from him.

16 Q. And you don't know whether those recommendations
17 you've suggested -- I believe if I can find it here
18 quickly, that you know -- we need that -- you need.
19 "Based on my extensive experience", I'm quoting from
20 your testimony on page 12. "Surge-protection equipment
21 placed only at pump stations is inadequate. Additional
22 overpressure safety equipment must be installed on

1 mainline valves." So that your --

2 A. Let me help you out here, because I just -- it is
3 to, you know, people who are not into the details and
4 which is not fair to you folks is: The concept of surge
5 overpressure is very important. It's been validated by,
6 at a high level, by this transient analysis. And the
7 question is: What safeties are you installing and
8 where? It's been my experience that some valves, and
9 maybe further detail with Dr. Hein will work this out,
10 not all valves, but some valves may need additional
11 protection. I don't rely on SCADA systems as a failsafe
12 safety interlock.

13 Q. So what you're saying is you don't know yet. But
14 if that's if -- if there are additional valves properly
15 installed or, yeah -- is it a valve that they installed?
16 Are surge valves different if they're installed at the
17 right places, and in the correct manner, that's the
18 solution to surge. That's how you properly address
19 those issues.

20 A. I'm sorry. I apologize if I'm confusing you.
21 You keep asking until I can clearly communicate, please.
22 The surge relief valves are the traditional way to deal

1 with a lot of the surge risk on mainline valves, so I'm
2 not taking that away from them. I just say I want some
3 additional details to be sure you know what you're doing
4 here. Because I've run into companies who didn't and
5 went into overpressure. The other part of my statement
6 here is, I believe -- it's not clear -- but I believe
7 Dr. Hein has validated that there is a -- some issue
8 with maybe some of the -- I heard like 400 valves. I
9 don't know if that -- I didn't count them all. I'm
10 trying to figure out where to the hell they are at. I
11 can't even figure that out. But by mileposts, but it
12 may be with further discussions and clarifications that
13 I think the committee -- the Commission has the right to
14 understand, because it's going to affect your decisions,
15 that have they adequately fail-safe protected for
16 certain valves that could put you into serious surge
17 overpressure? And his study doesn't quite get there.
18 It's very close, so I'm not trying to take anything away
19 from him. You sit there and say, "I don't understand
20 your statement here, because the next paragraph's in
21 direct conflict." And I don't want that. I want
22 win-win here.

1 Q. Okay. Also in the High-Consequence Area, page
2 13, you say that: "Following" -- on line 265 --
3 "Following several recent liquid transmission pipeline
4 ruptures, it was discovered that more than one pipeline
5 operator had failed to identify pipe line segments that
6 were obviously in HCA's and the should have been subject
7 to prudent periodic integrity assessment in those
8 areas." I know you've talked about this already, that
9 you heard the company say they kind of treat the whole
10 line as a --

11 A. That's a good thing in a way, but if it cleans
12 them out, it's a bad thing. So let's just know what is
13 --

14 Q. What more do they need to be doing in your
15 opinion to have the prudent periodic integrity
16 assessment? What is meant --

17 A. They would probably help the Commission by
18 saying, "Look, for the areas that we're studying; these
19 are the risks that might be significant threat." Now,
20 third-party damage a little tough when you get under.
21 All right? You can though, there are ways to deal with
22 that. But it's not as good as, let's say, general

1 corrosion. You probably have got a handle on general
2 corrosion. I'd be amazed if you've got corrosion of
3 that nature, but you could have. But if they sat down
4 and says, "Look, as a pipeline operator our integrity
5 management system, these are the threats we considered
6 to be significant. And this -- is in our integrity
7 management program a very brief bullet how we're
8 addressing it." And in doing that they can they can --
9 it'll be fairly obvious to even the average individual
10 that they've got this threat under control or they
11 don't.

12 Q. Okay. Now, that would have been something
13 covered in the previous permitting process where we
14 talked in more detail about all of those things on the
15 existing line --

16 A. With the exception of -- and I'm sorry, I don't
17 mean to cut you. I apologize if I've interrupted you.
18 With the exception as the higher capacity change the
19 HCA's.

20 Q. Yeah, and we've asked for those.

21 A. They should give them to you.

22 Q. Evaluation of -- if those have changed. Okay.

1 And then I think my last area -- I'm not I'm sighing not
2 because I'm exasperated.

3 **A. By being a control room operator it's getting it.**

4 Q. Okay. On page 20, 19 and 20 you kind of
5 summarize your big concerns and number 4, we haven't
6 really talked on yet, but you talked a little bit with
7 Mr. Dublinske. But you wrote -- you criticize their
8 reliance on Federal worst-case discard [sic] regulations
9 without demonstrating. "This approach is truly worst
10 case for this pipeline within North Dakota." I have
11 heard them explain several times now that they have used
12 the "worst-case discharge for the tank, which exceeds
13 anything that could possibly happen on the line to model
14 this". Does that information change this statement to
15 you?

16 **A. No, it does not. And again --**

17 Q. You need explain that then. What do you mean?
18 What do you -- what are they not doing to address --

19 **A. Well, the impression is that "we've got this big**
20 **volume and we're prepared to handle it". Well, that**
21 **doesn't really necessarily -- listen, and I'll do a**
22 **hypothetical. I don't know if it's real or not. But**

1 you got a sensitive waterway that people depend on for
2 drinking. It's a High-Consequence Area, and it's
3 somewhere in North Dakota, not real easily accessible.
4 So you've got a game plan to handle the
5 200,000-barrel-tanks bill, but it's going to take you
6 two days to get equipment there. Well, that's not quite
7 fair.

8 Q. But I heard him describe this differently that
9 they used that 200 -- They use the tank spill for all of
10 the worst case -- all of these segments that they
11 discharged all along the line. Did you not -- am I
12 understanding what they described wrongly?

13 A. I don't know if that's the right way to
14 characterize that. I would just say, I look at two
15 things, an oil spill response. First of all, PHMSA
16 doesn't care if you're effective or not. That's not
17 your call. Alright? Federal Regulations. You can have
18 a plan; it doesn't have to be effective. That's
19 something you need to know about, because it probably
20 `helps your decision, whatever that is. And the
21 effectiveness is going to be more than just volume, it's
22 how quickly you can get there. All right. And that

1 might be what I'll call like hypersensitive areas where
2 they've gone with the best of equipment in terms of
3 volume, but it's response time controls the critical
4 path. And I think under your Charter -- again, I'm not
5 a lawyer but I've operated in states where Commissions
6 have certain powers and protecting certain waterways and
7 that is under some states' jurisdictions.

8 Q. Thank you very much.

9 A. Thank you for your patience with me today.

10 ADMINISTRATIVE LAW JUDGE DAWSON:

11 Commissioner Kroshus.

12 COMMISSIONER KROSHUS: Thank you, Your
13 Honor.

14 EXAMINATION

15 BY COMMISSIONER KROSHUS:

16 Q. Just a couple of questions. Do you agree with
17 the company's estimate on response time.

18 A. You mean in terms of shutting down the line and
19 all that stuff? No.

20 Q. Would you be able to evaluate/identify a problem
21 in them shutting it down?

22 A. And I'd love to have that be real. The number of

1 Investigations I've done -- we call them "control-room
2 operator setups". You know, in the Enbridge line 6-B,
3 that exceeded over 1.2 billion dollars in cleanup. I
4 mean, that's a public number and, you know, they had an
5 unusual animal -- not Bakken -- it had "Baca the
6 Dilbert". All right? And lo and behold, "What do you
7 mean you didn't know it didn't sink?" Come on. But
8 their response times, you know, nineteen and a half
9 hours to close the valves. They actually had -- and
10 this is public -- they actually had a position in their
11 control room called a material balance analyst, a
12 special position. It's looking at their line and their
13 alarms and all that, and they still couldn't get it.
14 And it's not a criticism of them, some of this stuff
15 pretty tough. In terms of rupture the lead factor that
16 I look for in companies not, I don't want to hear this
17 answer because that's what I want to hear. It's the
18 right technical answer. On a rupture, its' very rare
19 that pressure drop will tell you you got a release on a
20 big old hole. It's rate. And the rate can be a many
21 different factors. So, you know, there are a lot of the
22 industry, and I've worked with them trying to improve in

1 this area. I've done stuff on the Mariner East
2 Pipelines, you know, their heart's in the right place,
3 but, God, you don't ever want one of these with that
4 material. So, there was a lot of things that they've
5 done and what they've done it right, I've said that.
6 And just, you know, some people have criticized me. I'm
7 not a judge or jury. I'm looking at -- with my
8 expertise, they bring me in to ask the questions and
9 who's giving me straight answers to (inaudible).

10 Q. So what would be a realistic timeframe? Or is it
11 --

12 A. Well, there's a lot of reports out there that
13 say, you know, something like -- and I know they're
14 trying to improve the SCADA systems and I'm sure their
15 meaning well, but an hour to two hours is probably an
16 hour, at least. I'm trying not to be punitive here, but
17 -- and I'm not trying to scare people, you know, the --
18 There's something I've seen take -- the Enbridge Line
19 6-B, 19 and a half hours to get the word to somebody who
20 said, "We got oil everywhere and close the valves" took
21 19 and a half hours. They went -- and they weren't
22 running all that time. I mean, this is all public.

1 They start up twice with a material balance analyst.
2 Their response was they fired a lot of guys in their
3 control room. And that's not that's not the way to deal
4 with this. Solve it, give them the tools. And so
5 I think they may mean well; they may want it to work,
6 but I don't want to be investigating a pipeline rupture
7 that it's been an hour.

8 Q. Have you seen examples where a line could be shut
9 down in the timeframe that they describe?

10 A. No. More likely not.

11 Q. So never? You've never seen --

12 A. We actually had a rupture in the Olympic Pipeline
13 in 1999 and it killed a few children, nearly took out a
14 major city. They have an independent rupture detection
15 system. There is no false alarm. No equipment failure.
16 No nothing. You get this alarm -- it's very rare. I'm
17 not asking them to put it in here, but the factors
18 associated with that line segment, you get this alarm,
19 you are to immediately shut down and close the valves.
20 And they're designed on their mainline valves to not
21 generate surge overpressure?

22 Q. Is the likelihood if -- or not the "likelihood"

1 -- but in terms of location, if a leak were to occur is
2 the greatest likelihood right beyond, after the pump
3 station because that's when it's at the highest
4 pressure?

5 A. It may or may not be. I mean as Commissioners
6 you folks ought of get the pictures of the latest
7 Keystone Pipeline. You know, bless her little heart, I
8 love PHMSA and their corrective action or they've spent
9 a lot of effort writing those things. They're
10 important. They carry the rule of law and. You know,
11 they've sent some mixed signals. Was this a leak or was
12 this a rupture? We saw it by pressure. It was a couple
13 feet downstream of our pump station and we shut down and
14 that's a fairly new line. Now, you don't know if it's a
15 leak or a rupture. They're sending mixed signals here.

16 So get a picture of that, a color photo of that
17 pipeline. You don't have to wait six months to a year.
18 You have the right to ask for that as Commissioners. I
19 believe. I don't want to give you advice, but that
20 would be an example: Did they leak or rupture? And
21 they, you know, they're claiming they shut this in
22 minutes, which is if they did that more power to them.

1 I want them to do be able to do that. But realistically
2 I can't sit here and from this Commission and say this
3 is going to happen instantaneously. I'm sorry, you may
4 believe that. More likely that's -- statistics are not
5 going to show that.

6 Q. All right. Thank you.

7 A. Thank you for your patience.4.

8 ADMINISTRATIVE LAW JUDGE DAWSON:

9 Commissioner Christmann.

10 EXAMINATION

11 BY COMMISSIONER CHRISTMANN:

12 Q. I don't know if you clarified this detail as part
13 of something bigger; if you did I missed it. But does
14 PHMSA require a -- that's the wrong thing.

15 Do PHMSA regulations address or establish limits
16 on flow rates specifically?

17 A. That -- Yeah, I'm sorry if I haven't been clear.
18 The answer is they do not set flow rates. They do not
19 set velocities. They do set -- you better know about
20 110. Now you can exceed 110. Okay? You don't even
21 have to report it to PHMSA. If you go to 125 percent
22 and the line doesn't fail, there are ways to avoid the

1 obligation to report that to PHMSA. And there are a lot
2 of events that that occurs. Now, we don't advise
3 real-time pressure testing of an operating
4 large-diameter pipeline with a hazardous hydrocarbon.
5 All right? You just don't want to do that.

6 Q. No other questions.

7 ADMINISTRATIVE LAW JUDGE DAWSON:

8 Mr. Purdon, any redirect questions?

9 MR. PURDON: No questions.

10 ADMINISTRATIVE LAW JUDGE DAWSON:

11 Mr. Dublinske?

12 MR. DUBLINSKE: No questions.

13 ADMINISTRATIVE LAW JUDGE DAWSON:

14 Any further questions, Mr. Pelham?

15 MR. PELHAM: Yeah.

16 EXAMINATION

17 BY MR. PELHAM:

18 Q. Something you said, Mr. Kuprewicz. You said
19 Hein's study "didn't get there, it's very close" or
20 something to that effect. Where's the lapse? Where
21 doesn't it get there?

22 MR. PURDON: If I can jump in. Of course,

1 this is a sealed document at Energy Transfer's request.
2 He's got to be careful about. I just want to caution
3 him, he's got to be careful that he's subject to that.

4 MR. PELHAM: Yeah, but I mean, I don't
5 disagree with you. Mr. Purdon. He testified to it.
6 And and I mean, he's left us wanting information. I
7 think by saying that "it doesn't quite get there but
8 it's close". Well, I don't know. I guess if that's
9 where he wants to leave the testimony at, then that's --

10 A. I have an obligation to tell you close don't fit
11 the bulldog. All right? And so when you -- if you got
12 the report you -- you're not transient experts.

13 Q. No.

14 A. You are though, apparently. Well, let me help
15 you. You would figure out the way it's worded.
16 Something isn't matching here. It may be it's just a
17 miscommunication the way it's been written, but it's so
18 important --

19 Q. But Mr. Kuprewicz, it's incumbent upon those
20 testifying before the Commission to give their expert
21 opinion as to whether or not it --

22 A. It validates my testimony. It's not failsafe.

1 And for surge overpressures of these magnitudes at these
2 velocities where the capabilities to get pressure is
3 very high, you want to be sure that you've properly and
4 prudently designed and installed it. Dakota Access may
5 do that. I mean, I think we're there, but the keyword's
6 going to be I don't rely on SCADA for failsafe.

7 Q. Yeah. And Sir, with all due respect. I mean, I
8 hear what you're saying, but at the same time we hear
9 while they may be compliant or they may not be, I mean,
10 which is it? I mean, can you answer that question?

11 A. I don't think they're in compliance. And to be
12 fair, and I'm not here to have a running battle with
13 people.

14 Q. In compliance under whose standards then, Sir.

15 A. I don't think they'll be able to prevent surge
16 overpressure that it would be adequate.

17 Q. But I understand your response, but my question
18 was just a little bit different. Under whose standards
19 would they not be compliant?

20 A.

21 Well, PHMSA is pretty clear. You got to stay below 110
22 percent. You know, you can avoid having to report it.

1 Q. Well, are you suggesting that they're avoiding
2 reporting something?

3 A. No, I'm not. I'm just saying that other
4 pipelines have had overpressure events in excess of 110.
5 They tend to run not 15 feet a second but higher
6 velocities.

7 Q. And I'm just going back to the question I asked
8 you, and I thought I had an answer but I just want to
9 ask again. As applied -- as it is applied to the
10 Commission here, does the application presented to the
11 Commission meet the PHMSA requirements?

12 A. And I don't agree with the earlier testimony this
13 morning that indicates that problem has been addressed.

14 Q. And I understand your response, but my question
15 was just a little bit different, Sir. Does the
16 application of Dakota Access on this particular case
17 here, in your opinion, does it meet the PHMSA
18 requirements?

19 A. No.

20 Q. Why doesn't it meet the PHMSA requirements?

21 A. I don't think they have adequate protection to
22 prevent overpressurization as proposed.

1 Q. And not saying you're right, not saying you're
2 wrong, what's PHMSA's obligation then at that point to
3 analyze the aspect of what it is regulating as a visual?

4 A. They have none.

5 Q. Your testimony is they have no regulatory
6 authority over at Dakota Access on this particular
7 issue.

8 A. No, I didn't say that. I'm saying usually you'll
9 bring PHMSA in, they do their inspections and all this
10 their assessment. But there seems to be an
11 understanding that PHMSA kind of audits and blesses
12 everything. Their primary function -- and I've worked
13 15 years in advisory council, advising PHMSA on liquid
14 pipeline safety regulations. They don't have to do it
15 my way, I'm a big boy. All right? But their job is to
16 really ensure compliance with the way the regulations
17 are written. In a lot of areas, you know, the English
18 language isn't a perfect language, so they don't -- if
19 you think they're coming in and blessing the design, I
20 think you need to hear that from PHMSA because I'd be
21 amazed they'd agree to that.

22 Q. I don't have any other questions for you. Thank

1 you.

2 **A. Thank you for your patience.**

3 **ADMINISTRATIVE LAW JUDGE DAWSON:**

4 **Are there any further questions?**

5 **Mr. Dublinske?**

6 MR. DUBLINSKE: A few, Your Honor, briefly.

7 EXAMINATION

8 BY MR. DUBLINSKE:

9 Q. Mr. Kuprewicz, I want to be really clear on that
10 last exchange you had. The obligation under the PHMSA
11 regulations is that we engage in adequate control of the
12 system to maintain pressures under 110 percent of MOP.
13 Correct?

14 **A. Correct.**

15 Q. And there's no requirement that the surge report
16 itself be filed with PHMSA. Correct?

17 **A. That's correct.**

18 Q. So we have a difference of opinion. We believe
19 based on -- what we believe is a well-credentialed
20 expert that there are ways to mitigate surge
21 overpressure and keep that below 105 or below. You
22 disagree with that. Is that a fair statement?

1 A. That's right, and he probably wants to talk to
2 me.

3 Q. So as we as we sit here there is nothing you can
4 point to that is in violation of any PHMSA regulation,
5 any rule in our application. And I actually believe you
6 answered a question earlier in your testimony from
7 either Commissioner staff on exactly that. And the
8 application is it sits today is compliant with PHMSA
9 regulations.

10 A. Well, can I cite something for the record that
11 might help?

12 Q. I'm just asking: Is the application as we sit
13 today compliant with PHMSA regulations?

14 A. I don't believe it is. Should I call PHMSA?
15 That's not my job.

16 Q. Exactly. It's film says job. Right? And --

17 A. No. Their job is to ensure that you comply with
18 the regulations as written, and they may get more
19 involved after an event. I don't want you to have an
20 event. I think you can get there where you give
21 confidence that you are not going to have an event, but
22 the adults in the room need to sit there, throw all the

1 people out and say, "What am I missing here?" In
2 fairness, you know, I could be missing something. But
3 when you see the report and I point that out to you
4 you'd understand.

5 Q. Nothing further.

6 ADMINISTRATIVE LAW JUDGE DAWSON: Nothing
7 further, you may step down. Thank you.

8 We'll take a break of about -- we'll try to
9 make it ten minutes, so it will be 40 -- 37 minutes
10 after the hour. We'll take another break then at 6:00,
11 or as close to that time as we can for about 20 minutes.
12 We will try to keep going and get this completed today.
13 We'll make a final decision probably around 8:00, but
14 the sense now is that we'll keep going. We have 20
15 people about that want to speak in the audience. And I
16 think that's doable so that we can get done tonight.
17 The correct time to be 4:42 p.m.

18 And we'll begin with calling your first
19 witness and we'll wait for the Commissioners. Once we
20 get to the point that of if testimony called on
21 Holmstrom is the next Witness.

22 MR. PURDON: Call Don Holstrom as the next

1 witness.

2 ADMINISTRATIVE LAW JUDGE DAWSON:

3 Mr. Holstrom, were you here for my previous warnings as
4 to perjury? So you understand what perjury is and the
5 penalties for it?

6 WITNESS: Yes, Sir.

7 ADMINISTRATIVE LAW JUDGE DAWSON:

8 Understandings so, do you promise or swear that the
9 testimony that you're about to give will be the truth,
10 the whole truth, and nothing but the truth?

11 WITNESS: Yes, I do.

12 ADMINISTRATIVE LAW JUDGE DAWSON: You may
13 begin, Mr. Purdon.

14 MR. PURDON: Thank you.

15 EXAMINATION

16 BY MR. PURDON:

17 Q. Mr. Holmstrom, as with the other experts from
18 both sides today, I just -- a little bit on your CV.
19 Can you tell a little bit -- the Public Service
20 Commission -- just a little bit about your work history
21 and what you've done with your career, what brings you
22 here?

1 A. Sure. My name is Donald S. Holmstrom, I live in
2 Boulder Colorado. I started my career in the oil
3 industry where I worked in process operations, process
4 safety, incident investigation for 18 years with Total
5 Petroleum and for approximately 17 years for the US
6 Chemical Safety Board. Where for the last 10 years of
7 my career I was director of the Western Regional Office
8 of the US Chemical Safety Board, investigating major
9 accidents across the United States in upstream, some
10 midstream, and also downstream refinery operations and
11 chemical plants, and other hazardous material operations
12 that usually had serious consequences.

13 Q. And again, you've sat through the testimony of
14 the witnesses this morning/this afternoon from the
15 applicant?

16 A. Yes, I have.

17 Q. Is there anything that as we -- before I tender
18 here -- with your pre-file testimony, anything
19 specifically that you want to react to in response to
20 anything that stands out?

21 A. Yes.

22 Q. What is that? What is the topic area?

1 A. I want to talk a little bit about worst-case
2 discharge and it's importance when you're considering
3 nearly doubling the capacity of the oil pipeline. And
4 also what it's impacts are -- the adverse -- to try to
5 create minimal adverse impacts to the environment and
6 the people of North Dakota. And first of all, I want to
7 talk about the definition under PHMSA, the pipeline, and
8 hazardous materials safety administration. And then as
9 I'm asked questions today, I'll probably be talking a
10 lot about not just regulations, but good practice
11 pipeline safety standards, particularly those
12 promulgated by the American Petroleum Institute.

13 In my work at the Chemical Safety Board, we made
14 a number of recommendations to the American Petroleum
15 Institute, worked hard to try to improve those
16 standards. Recognize they have many good standards;
17 they have some standards that over the course of my
18 career we made recommendations to improve. And so we'll
19 be looking at both good practice and also a regulatory
20 minimums. And for the impacts of an oil spill, and
21 considering nearly doubling the capacity of the Dakota
22 Access Pipeline, when asked to consider what could

1 happen and what will be the impacts, and also the
2 likelihood of that happening. In terms of the
3 consequences one of the tools in the pipeline sector is
4 worst-case discharge. And I thought it was important to
5 clarify a couple of things in that context, because
6 there is a definition, and the worst-case discharge
7 definition really looks at the largest foreseeable oil
8 spill. And it examines in the terms of the definition
9 the maximum shutdown time and the largest drain-down
10 volume. So it's really applying the worst-case concepts
11 to all aspects of calculating worst-case discharge.
12 It's -- it doesn't have a reasonableness standard; it's
13 maximum shut-down time is the definition.

14 So I think when we're talking about worst-case
15 discharge, that's what we have to consider and there
16 certainly is a detection time that's very important.
17 And so we're not looking at for example, I think the
18 position that we've heard today and previously is
19 there'll either be instantaneous detection and shutdown
20 or that it will take a minute. I think that's been a
21 previous position. It would take a minute -- that's in
22 the environmental assessment for the Dakota Access

1 Pipeline, it would take one minute for detection. And
2 really that's not a an accurate assessment of detection
3 time for shutting down a pipeline. And in reference to
4 that there is a API standard API 1130 that addresses
5 computational pipeline monitoring, and that particular
6 standard identifies the need for evaluation. Is this a
7 false signal? There might be some discussions and
8 evaluation that occurs and so did -- evaluation of that
9 is not merely a receiving an alarm or getting a signal
10 that you have a full rupture, but rather
11 decision-making. And just to give an example of that --

12 Q. Before you do that I we that's, that's plenty.
13 I'm sure these are topics that the Commissioners and
14 others are going to want to talk about. I just wanted
15 to tee-up.

16 A. Okay.

17 MR. PURDON: I was going to ask that maybe
18 we move the mic back a little bit. Thank you.

19 I would tender what I believe is probably
20 Intervenors Exhibit I2, which is the pre-filed testimony
21 and CV of Mr. Holmstrom.

22 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.

1 Holmstrom, what is your capacity here today? Are you an
2 independent consultant or --

3 MR. HOLMSTROM: I'm a consultant for the
4 Standing Rock Tribe.

5 ADMINISTRATIVE LAW JUDGE DAWSON: And those
6 have already been entered into evidence.

7 MR. PURDON: I tender for cross.

8 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.
9 Kuprewicz -- Dublinske.

10 MR. DUBLINSKE: Thank you, Your Honor.

11 EXAMINATION

12 BY MR. DUBLINSKE:

13 Q. Good afternoon, Mr. Holmstrom.

14 A. Good afternoon.

15 Q. And you just -- and I apologize, I'm going to try
16 to look away. I've got the sun right in my eye right
17 there, so you've got me at a disadvantage on this one.
18 But your testimony indicates -- you just said, you're a
19 consultant for Standing Rock Sioux Tribe. Correct?

20 A. Correct.

21 Q. And you're also serving as an expert consultant
22 for the Tribe with respect to litigation in Federal

1 Court in District of Columbia against the Army Corps of
2 Engineers. Correct?

3 **A. That's correct.**

4 Q. And in that litigation the Tribe is challenging
5 certain actions of the Corps with regard to the crossing
6 at Lake Oahe. Correct?

7 **A. That's correct.**

8 Q. You were talking a little bit about your
9 background. I wasn't clear on that. Have you testified
10 about mainline oil pipelines before?

11 **A. No, I have not. I retired in 2016 and the one**
12 **consulting job I've taken since then has been to assist**
13 **the Standing Rock Sioux Tribe. And so I have not worked**
14 **as a consultant, but I have participated in pipeline**
15 **investigations from early in my career, and we did some**
16 **pipeline investigation work that happened to be**
17 **connected with fixed facilities when I worked for the US**
18 **Chemical Safety Board.**

19 Q. Have you ever worked for a company that managed
20 and an oil transmission pipeline system?

21 **A. Not specifically for that division. I've worked**
22 **for an oil company that had pipelines that were**

1 connected to a fixed facility refinery.

2 Q. You haven't personally had any previous work
3 before your consulting for Standing Rock on oil
4 transmission pipelines.

5 A. My work has been in investigating pipelines. So
6 when I worked for industry and investigated several
7 pipeline incidents. Probably the most notable was a
8 Philips Pipeline hazardous liquid, it was a refined
9 products release that failed and released a large vapor
10 cloud that drifted onto I-70 in Denver. It created a
11 large fireball, burned a number of people that were on
12 the freeway. And I investigated that and wrote a report
13 on that.

14 Q. Turning to your testimony, at lines 47 and 48,
15 you say you were asked to analyze whether the capacity
16 optimization may have potential adverse effects on the
17 environment and welfare of the citizens of North Dakota.
18 Do you know, what North Dakota regulations govern the
19 siting and construction of the pump station in Emmons
20 County?

21 A. I read those regulations early on when this
22 action was first announced, but if you would ask me to

1 **repeat those now, I could not do that.**

2 Q. You have reviewed code section 49 22.1 --

3 **A. I read it. Yeah, so number of weeks ago.**

4 Q. Do you agree that the reason we have to have a
5 hearing here is for the construction of a specific pump
6 station on a specific piece of ground in Emmons County?

7 **A. I would agree that's what initiates the hearing,**
8 **but I would definitely, strongly offer my view that the**
9 **impacts from that on the environment and the citizens --**
10 **the health safety and the citizens, the welfare of the**
11 **citizens of North Dakota are part of the discussion and**
12 **decision-making.**

13 Q. So you don't make any recommendations in your
14 testimony regarding an alternative site to place the
15 pump station?

16 **A. No.**

17 Q. You don't make any recommendations about the
18 environmental and cultural surveys that were done for
19 the pump station site?

20 **A. No.**

21 Q. In fact, your testimony doesn't discuss the
22 actual pump station site at all, does it?

1 **A. The discussion is on the impacts of the increase**
2 **in capacity as a result of the construction of the pump**
3 **site. That's the focus of my -- on the environment and**
4 **on the -- any impacts to the health and safety, welfare**
5 **of the people of North Dakota.**

6 Q. You aware that production in the Bakken has
7 increased since Dakota Access Pipeline went into
8 commercial service?

9 **A. I'm not. I try to follow mostly through media**
10 **sources, anything related to Bakken crude. But I**
11 **couldn't -- I couldn't cite to you the increase in**
12 **production or any issues related to that.**

13 Q. You don't disagree the production has increased
14 since the pipeline went in?

15 **A. I don't think -- I don't consider myself**
16 **qualified to have that information.**

17 Q. Did you analyze whether it would be less
18 impactful [sic] for the citizens in the environment for
19 that increased output to be shipped by trucks or rail --

20 **A. No, I did not consider that as part of my**
21 **testimony.**

22 Q. (Inaudible) -- better for the environment and

1 citizens to build a brand new pipeline?

2 A. No, I did not consider that either.

3 Q. Line 80 of your testimony on page 4, I'm curious.
4 What evidence do you have that Dakota Access doesn't use
5 a Management of Change process.

6 A. It's the record that I -- that I know it and
7 particularly the two standards that I'm aware of that
8 are -- had promulgated recently in response to recent
9 well-known incidence by the American Petroleum
10 Institute. I think at least one of them, maybe both of
11 them, in response to recommendations from the National
12 Transportation Safety Board, have recommended or used a
13 Management of Change process. And I'm also aware, at
14 least until a few months ago in time, that neither of
15 those two standards were -- there was no record that
16 they were being applied by Dakota Access Pipeline. But
17 I do not know if subsequent to then they have applies
18 those, or whether they have a Management of Change
19 process that's not conducted other -- than that's not
20 pursuant to those standards.

21 Q. So you actually can't say with certainty whether
22 or not Dakota Access is using a Management of Change

1 process as we sit here today.

2 **A. I feel confident at least a couple of months ago**
3 **they weren't using it pursuant to the industry**
4 **standards. I can't say whether they had their own**
5 **procedure or not that was unique to Dakota Access.**

6 Q. And at line 96, whipping over to the next page,
7 you assert that: "The applicant has failed to develop a
8 valid WCD or worst-case discharge." The WCD is filed
9 with PHMSA. Correct?

10 **A. That's correct.**

11 Q. It's filed as part of the Facility Response Plan
12 or FRP?

13 **A. That's correct.**

14 Q. And both the plan and the WCD calculation of the
15 product of Federal PHMSA rules. Correct?

16 **A. They should be. They should be in that document.**

17 Q. And Dakota Access has filed an FRP for the
18 response zone that includes North Dakota. Correct?

19 **A. They -- so just to clarify, I FOYA'ed a Facility**
20 **Response Plan that was dated 2017 that apparently, at**
21 **least in the change log, indicated that there were there**
22 **were input from PHMSA in terms of the plan. And in that**

1 plan they had a -- they had several for the Codex
2 Pipeline's listing of worst-case discharge, including
3 the numbers which, you know, from other documents I've
4 received -- I'm not going to discuss. But I'll just say
5 that they not only discuss tanks, they discuss the
6 overall pipeline worst-case discharge and they also
7 discussed two geographic regional worst-case discharge
8 for the pipeline.

9 Q. Let me back up. The question's very specific.
10 You aren't claiming the Dakota Access has not filed an
11 FRP for the response zone that includes --

12 A. No, I don't. I was trying to answer that they
13 have, and I FOYA'ed one, and I've got a copy of it.

14 Q. And you say it's not valid, but are you aware
15 that PHMSA has approved Dakota Access's FRP?

16 A. They've approved the FRP, but for the two
17 geographic response plans -- and one of which I've
18 largely been focused on from my work with the Tribe,
19 which is Lake Oahe; they provided a number under PHMSA.
20 Your requirements, you're supposed to provide the
21 methodology and the calculation, and they did not
22 provide that in the FRP of 2017.

1 MR. DUBLINSKE: Your Honor I'd like to
2 distribute Dakota Access Exhibit 15.

3 BY MR. DUBLINSKE:

4 Q. Mr. Holmstrom, can we agree that this appears to
5 be a letter to Sunoco Logistics from the Pipeline
6 Hazardous and Materials and Safety Administration.
7 Correct? And it's titled letter of approval. Correct?

8 A. Correct.

9 Q. So PHMSA is in fact the agency who is responsible
10 for approving the validity of a Facility Response Plan.
11 Correct?

12 A. They're -- yes, they're responsible for approving
13 the overall Facility Response Plan. That's correct.

14 MR. DUBLINSKE: Your Honor, I would move
15 Exhibit 15.

16 ADMINISTRATIVE LAW JUDGE DAWSON: Any
17 objection?

18 UNIDENTIFIED SPEAKER: No objection.

19 UNIDENTIFIED SPEAKER: No objection.

20 ADMINISTRATIVE LAW JUDGE DAWSON: Hearing no
21 objection, It is so marked 15 and admitted into
22 evidence.

1 (Whereupon Exhibit No. 15 is marked for identification.)

2 BY MR. DUBLINSKE:

3 Q. Let's go ahead and talk about WCD for a moment.

4 At lines 117 to 133, you list some concerns relating to

5 Dakota Access's WCD calculations. And I want to be

6 clear; this is the same argument that's being litigated

7 in the Federal Court in the District of Columbia.

8 Correct?

9 A. This is -- this is certainly -- contains elements
10 of that, yes.

11 Q. Do you have a copy of Exhibit 14 there at the
12 witness stand? I don't know that you do.

13 A. No, I don't think I do.

14 UNIDENTIFIED SPEAKER: Did you say line 173?

15 A. Which line were you --

16 BY MR. DUBLINSKE:

17 Q. 117 to 133.

18 A. Okay.

19 Q. And in that paragraph, you say that: "The WCD
20 analysis is worse than a best-case scenario." Correct?

21 A. Yes.

22 Q. And if we look at the table of contents in

1 Exhibit 14, the Tribe's memorandum in the Federal case,
2 the argument one says: "The remand relies on a flawed
3 worst-case spill estimate." Correct?

4 **A. And what page are you on?**

5 Q. I'm on table of contents, page 2 of 63 if you're
6 looking at that.

7 **A. Better. Okay.**

8 Q. And the argument, argument one is: "The remand
9 relies on a flawed worst-case spill estimate." Correct?

10 **A. And which would -- I see: "The Court's decision**
11 **relied on a deeply flawed worst-case discharge, (A) and**
12 **then (B), worst-case it's not even a best-case**
13 **scenario." Right? Is that what you're referring to?**

14 Q. So (B) actually even uses the same language that
15 you use in your testimony here at the Commission.
16 Correct?

17 **A. That's correct.**

18 Q. Now, by rule there is only one WCD per response
19 Zone. Correct?

20 **A. I think that's why it's important to clarify that**
21 **there's only one that's required, and that's the largest**
22 **foreseeable spill. But there are Facility Response**

1 Plans that prove -- that go beyond that. And that's why
2 I wanted to clarify that I have a copy of the 2017
3 Facility Response Plan that included not only a tank,
4 which is the minimum required statement. But DAPL went
5 beyond that and included the largest, as pipeline
6 worst-case discharge, as well as two cases of spills,
7 just providing the numbers in the two geographic
8 response zones related to Lake Oahe.

9 Q. And I may be surprised by assuming you think
10 that's a good thing?

11 A. No, I'm -- that's a good thing. They didn't
12 provide -- and that's why I want to clarify, they did
13 not provide -- They provided the PHMSA formula, but they
14 didn't provide the specific methodology or calculations
15 for those two sub-regional numbers that they had in the
16 Facility Response Plan.

17 Q. And -- but all they were required to provide is
18 just the one number. Right? I mean --

19 A. That's correct.

20 Q. Everything else was going beyond. Correct?

21 A. Right.

22 Q. And --

1 **A. I've seen -- just to clarify that, I've seen**
2 **other Facility Response Plans that provide beyond just**
3 **the tank. That's the minimum. Keystone for example, I**
4 **think they provided three different worst-case-discharge**
5 **scenarios, for example in their analysis. So not**
6 **everybody does the minimum.**

7 **Q. You're also saying that Dakota Access didn't do**
8 **the minimum either. Right?**

9 **A. That's correct.**

10 **Q. Some additional information. I want to talk**
11 **about this calculation issue that's been coming up**
12 **throughout the day. And you note that the calculation**
13 **is set forth in the Federal Regulations. And it's the**
14 **-- basically a function of time to detect plus time to**
15 **isolate and shut down, times the maximum flow rate, plus**
16 **the drain-down. That accurate?**

17 **A. No, I would clarify that. It's the largest**
18 **foreseeable discharge with maximum time to shut down,**
19 **maximum shutdown time, plus the largest drain-down**
20 **volume. So those specific words are used in the**
21 **definition. Maximum shut down time. In the discussion.**

22 **Q. It's also based on the maximum flow rate.**

1 Correct?

2 A. That's right. They're conservative, and that's
3 important to clarify that. They're conservative
4 assumptions that are built into analyzing that formula.
5 One of which, for example, pump -- if you're looking at
6 a pump shutdown -- If you're -- it's a subcomponent of
7 pump shutdown time. If you're looking at shutting down
8 the pump, obviously, the actual pressure is going to be
9 dropping over time, but the conservative assumption is
10 it will stay even. So it's calculated as if it's the
11 maximum flow at that time.

12 Q. And you're aware that that is how Dakota Access
13 calculates it. It does not assume a pump ramp down.

14 A. On the pump issue, yes.

15 Q. And I want to get to an even more basic issue.
16 In figuring a WCD the assumption is that it is what's
17 been referred to today as sort of a guillotine break.
18 Right? A full break that allows the maximum flow to
19 escape the pipe.

20 A. That's correct.

21 Q. That's because the regulation specifies that you
22 use the maximum flow rate. Correct?

1 **A. The regulations say to use the largest**
2 **foreseeable release, which would be the maximum flow**
3 **rate, which --**

4 Q. And it in fact expressly specifies maximum flow
5 rate in the text of the calculation. Correct?

6 **A. Yes.**

7 Q. So a smaller breach wouldn't flow at the maximum
8 rate, would it? That's sort of a tictology.

9 **A. A smaller break would not flow -- Well, it could**
10 **rip -- smaller break could result in an even larger**
11 **worst-case discharge potentially, not using the -- not**
12 **necessarily using that particular formula, but based on**
13 **one that goes below the detection limit for a long**
14 **period of time.**

15 Q. But the formula that we've discussed assumes the
16 guillotine cut.

17 **A. The formula assumes a guillotine type rupture.**

18 Q. And at lines 135 and 136 you say that: "The
19 applicant assumes detection and shutdown in 9 minutes
20 and omits the time it takes to shut the valves." Have
21 you heard today that Dakota Access calculates 3.9
22 minutes in addition to that to account for valve

1 closure?

2 A. And I disagree with that and I would encourage
3 the Commission to request to receive the documentation.
4 I can't talk about specific numbers, but I can
5 definitely tell you -- and it's public knowledge because
6 it's in the litigation documents -- that the time that's
7 given is nine minutes. Which it stated that nine
8 minutes is the time that the pumps are designed to be
9 shut down. So it's a design factor of nine minutes; no
10 mention of detection time, and no mention of valve
11 closure. And that 9 minutes is the only time used for
12 the actual calculation of the, you know, time times
13 flow.

14 Q. Just be clear, it's your position that Dakota
15 Access does not include time to close the valves in its
16 FRP calculation.

17 A. Not as an additional volume added to the
18 worst-case discharge. I understand that at some point
19 Dakota Access may have taken the position that it's part
20 of drain-down volume. But drain-down volume by
21 definition is when the two EFRD's are closed, the volume
22 that's drained between those valves is the drain-down

1 volume. And you would not close those valves until the
2 pumps have been shut off for that nine-minute period.
3 So it's a separate additional value that you would have
4 to add to the calculation.

5 Q. Moving on, just below that at line 140 you
6 suggest Dakota Access's assumption on detection time and
7 shutdown for its WCD calculation is not realistic. And
8 you go on to say in some cases it takes hours or days to
9 detect and initiate a shutdown. You aren't talking
10 about a guillotine break there though, are you?

11 A. Well, I'm glad you raised that. One of the
12 things that is in my statement that's not considered as
13 part of the PHMSA required formula considerations is
14 adverse weather conditions. There was a statement, I
15 believe -- I apologize if I mispronounce his name. Mr.
16 Stamm made clear that there is backup power to the FRD's
17 for communications, but no backup power to the valve
18 actuator to actually close the valve. So you could have
19 -- which is a foreseeable that -- remember worst-case
20 discharge talks about foreseeable releases, what could
21 cause a foreseeable release. It certainly foreseeable,
22 power failures are certainly foreseeable. Having worked

1 in industry for many years and investigate incidents
2 that power failures were involved, that's certainly
3 foreseeable. And having a failure a certainly
4 foreseeable. Or a break. And so both of those items
5 are foreseeable. And so you would have to then consider
6 the time it would take, I think, it's Mr. Stamm
7 acknowledged that they could send somebody down to that
8 location and either start a generator or manually close
9 the valve. And so that -- those actions would take
10 time. So when I said hours --

11 Also from conversations, my own experience, and
12 just from conversations with those in the industry, one
13 hour is a typical time, and we have put that forward at
14 different times for a reasonable time. But it -- this
15 is the maximum shutdown time. So the maximum shutdown
16 time has to consider time to evaluate. Maximum shutdown
17 time has to consider a number of things that are
18 involved in detection, and also has to consider the fact
19 that there may be failures that aren't uncommon in
20 industry. Power failures are not uncommon. And so that
21 should be considered as part of an impact of adverse
22 weather.

1 Q. But you're talking about the detection and
2 shutdown for the WCD calculation. Are you aware of any
3 guillotine break that's taken days to detect?

4 A. So to answer that question -- that is not -- I'm
5 not aware of that, but that's not something I would have
6 researched. But I did note looking at the PHMSA data
7 for the Energy Transfer, not, you know, now it's Energy
8 Transfer family of pipelines that there were -- you
9 know, there's different definitions of failure; leak,
10 you know, external damage, etcetera. And at least for
11 indicated rupture, I believe it was for approximately,
12 and so I don't know what that entails. I don't have the
13 details for that, but I don't think it's -- I don't
14 think it's unusual. I don't think it would be highly
15 unusual for there be a rupture.

16 You know, there's -- I think there was one in
17 North Dakota recently where there was heavy rains and
18 some subsidence of ground or earth that caused a
19 pipeline to rupture. And I think a farmer discovered
20 it, if memory serves me right, it was from a media
21 report. But I think those -- that's not unusual given
22 there's a wide variety of failure mechanisms.

1 Q. Do you know what the times it's action shutdown
2 was in that case?

3 A. I think it was -- I think because it was detected
4 by a member of the public, I don't think it was
5 immediate. But I'm not sure that when they use the word
6 rupture -- obviously, it's a media report, it probably
7 wasn't a term -- that wasn't a technical term that they
8 were using, so I don't know if it was a full guillotine
9 rupture or not.

10 Q. To put a finer point on it, you can't tell me of
11 any guillotine break situation you're familiar with that
12 took days to discover. Is that correct?

13 A. No, I can't give you -- other than potentially
14 the one example I just gave that comes to mind, no.

15 Q. In fact -- well, we make backtrack. Let me go
16 where I was going there.

17 Can you name a guillotine break situation that
18 even took multiple hours to detect that you're
19 personally aware?

20 A. No. In the -- and one of the things you have to
21 really is -- I would say no. But one of the things you
22 have to realize is that when you're talking about

1 worst-case discharge, you're talking, again, about
2 conservative assumptions. Because the whole idea is to
3 be prepared and have the appropriate people, equipment,
4 response time, etcetera, and it's a geographic response
5 plan, you know, focus to make sure given the geography
6 and given the distance of backup equipment and other
7 things to make sure that you can successfully deal with
8 that. So it's really -- the worse-case discharge is
9 really a real-world attempt, even though it has
10 conservative assumptions, to be prepared for an
11 emergency. And really the worst one that could happen,
12 because if you don't, obviously, respond in a timely
13 way, as you can see in Lake Oahe, you can have a lot of
14 impacts even to the management of the damn; to
15 downstream intakes that you may or may not otherwise
16 anticipate.

17 Q. But even those conservative assumptions should be
18 realistic assumptions. Correct?

19 A. I think those conservative assumptions in many
20 ways may not capture all the elements of foreseeability
21 and time to detect, as we've seen from other incidents.

22 Q. On this topic in your testimony you use the

1 Permian Express 2 as your example. Permian Express 2 is
2 not a guillotine break. Correct?

3 A. That's correct.

4 Q. It was a small hole with a slow leak. Right?

5 A. That's correct. I would like to clarify that I
6 believe the owner at that time was -- I think it was
7 stated earlier was not Energy Transfer, and that may be
8 technically correct, but I believe it was Sunoco and
9 it's Sunoco LP. And I believe that Sunoco was part of
10 the family of partnerships that included Energy Transfer
11 Partners, and eventually they -- the partnership model
12 is highly complex; I'm not going to attempt to try to
13 explain it. You probably are much more familiar with it
14 than I am. But clearly they, had similar -- It happened
15 at the same time that there were -- you know, the
16 litigation was going on, Kelsey Warren was head of
17 Energy Transfer Partners and is currently. So the -- I
18 believe that family of companies is the same entity in
19 my view, and especially from a process -- from a major
20 accident prevention point of view where you need to
21 apply leadership top management oversight over major
22 accident prevention. I think that Sunoco was part of

1 the same group of partnerships that currently see that
2 Dakota Access pipelines being one of its assets.

3 Q. And were you here earlier today when Mr. Stamm
4 testified that in fact many of these cases, including
5 PE2, were prior to Energy Transfer being in a
6 controlling position over those assets?

7 A. Right. And I was just -- I'm trying to explain
8 from my perspective, and it's one from approaching it
9 from a process safety perspective. So in the
10 investigations I've done, and we've often looked at top
11 management. For example, in our BP Texas City
12 investigation where 15 workers were killed in a refinery
13 in Texas, we looked at the board of directors of BP in
14 London. Top management has a responsibility to play an
15 important role and major accident prevention and prevent
16 spills from occurring. And so if you have the same CEO
17 and that same -- the name may change but you have the
18 same group of partners involved. I think -- I don't
19 think that from a process safety or major accident
20 prevention perspective, that is not a persuasive reason
21 not to take ownership over either the incidents that
22 occurred or the safety record and make appropriate

1 changes so those incidents no longer occur.

2 Q. You're not suggesting Mr. Warren was CEO of
3 Sunoco Logistics, were you know?

4 A. No. I think he was of Energy Transfer Partners,
5 but they -- during the course of this, Sunoco was the
6 operator of DAPL from the beginning. I think they came
7 out with a -- so those companies were interlinked for
8 some time I believe.

9 Q. The fact that they were venture partners doesn't
10 mean that they had the same culture or that Energy
11 Transfer initially had control over all those years,
12 does it?

13 A. It may mean they don't have the same culture, but
14 it certainly means that if you have the same leadership.
15 And that -- and what I'm quoting from is not just my own
16 perspective. One great advance in pipeline safety has
17 been the development of the American Petroleum
18 Institute's standard 11 -- or recommended practice 1130,
19 pipeline safety Management. It has whole sections on
20 the responsibilities of top management and leadership in
21 order to -- they have a plan, do, check, act, approach
22 to preventing accidents. And top management and

1 leadership has a key role in making sure that the
2 entities that are their assets or under their control
3 are moving and preventing incidents from occurring by --
4 through continuous Improvement and assessing their
5 safety systems etcetera.

6 Q. I want to be clear. You don't disagree that Mr.
7 Stamm testified earlier that Energy Transfer was not in
8 control of the Permian Express 2 pipeline at the time of
9 the leak.

10 A. Yeah, I think it was Sunoco that was which is
11 part of the family that now includes that -- where
12 Energy Transfer is the name of the new entity, yes.

13 Q. You don't think Energy Transfer existed prior to
14 --

15 A. I think there was a -- I think there was an
16 Energy Transfer. And again, I'm not an expert on
17 complex partnerships, but I know they had the CEO. I
18 also know that they -- the incidents reported to the
19 same address. If you look in the PHMSA database, it was
20 1300 Main Street in Houston, Texas. If you're trying to
21 say that -- and that's for all of the related pipelines
22 that I've discussed in my statement. So I certainly

1 think that they all had the same physical address. At
2 least that's in the PHMSA database, and it's been that
3 least for time. I believe they had an ongoing similar
4 leadership, and many of the incidents that I discuss on
5 my statement occurred under Sunoco. And so I do believe
6 that they're -- the top management responsibility,
7 again, from a major accident prevention perspective was
8 for those top managers. And even if they -- even if the
9 forms of the corporate nections [sic] and partnerships
10 changed, those responsibilities don't change.

11 Q. But you don't know what responsibilities any of
12 those particular individuals had over any particular
13 project. Correct?

14 A. No, I think that for DAPL, I think that Energy
15 Transfer Partners has been kind of the controlling
16 entity from -- at least my involvement with this project
17 -- in the fall of 2016. And I believe they had the same
18 CEO then they have today.

19 Q. And we end up on a bit of a digression, so I want
20 to go back. You agree with me that the WCD calculation,
21 because it talks about the maximum flow rate, assumes a
22 guillotine break. Correct?

1 A. Yes. That's correct.

2 Q. And your example of why the detection and
3 shutdown time is unrealistic, is the PE2, which you
4 agree was not a guillotine break. Correct?

5 A. That's one example that we use in terms of
6 detection time. Here there was no -- I would argue from
7 my -- the length of my involvement in this that there
8 has been no real argument that there was any detection
9 time because of the wording in the original calculation
10 about nine minutes is the time the pumps are designed to
11 shut down. It's very clear to me. It's a plain
12 language of that statement. But that being said, many
13 other companies use detection time. Just in the recent
14 Keystone Pipeline spill, they have a Facility Response
15 Plan, emergency response plan, on the web. And they
16 have a full discussion of their worst-case discharge,
17 which is something kind of unusual in this case. I can
18 -- I won't digress into that, but there's a number of
19 Facility Response Plans and risk assessments on the web
20 by various Federal agencies that include an actual
21 number for worst-case discharge, but let's put that
22 aside for a minute. I would say that in the Keystone

1 example, which recently spilled here in North Dakota,
2 they had a 10-minute detection time, just separate for
3 detection time. There was no separate detection time
4 included. In fact that detection time was greater than
5 the other emoluments [sic] that were used to calculate
6 the worst-case discharge in this case.

7 Q. And there's no relationship between Dakota Access
8 and Keystone.

9 A. No, I'm just using that as an example.

10 Q. Is it your testimony that a properly calculated
11 WCD will assume a guillotine break for flow, but days to
12 detect from a small leak for the detection time?

13 A. I don't understand your question.

14 Q. It seems to me that you're using the Permian
15 Express 2 as part of your argument for worst-case
16 discharge calculation. What I'm asking is: Are you
17 suggesting that you can mix and match between the flow
18 rate of a guillotine break and the detection time of a
19 small leak?

20 A. There's an assumption built in that I don't think
21 I agree with and that assumption is that -- there's a
22 previous statement, I believe it's from Mr. Stamm, that

1 a guillotine break will lead to an immediate detection.
2 And what I'm stating to you -- and I think I stated
3 before when I talked about the standard 1130 of American
4 Petroleum Institute, which provides for an evaluation of
5 a spill and assumes that there will be various
6 decision-making processes -- excuse me -- evaluation of
7 an alarm of the CPN system, and there will be various
8 decision-making processes that'll take place before the
9 pipeline -- the decision is made to shut down the
10 pipeline. So I'm not -- I'm not agreeing with the idea
11 that the idea of a rupture will be detected
12 instantaneously just based -- because the one -- even
13 the one-minute time that's been offered by Energy
14 Transfer recently is only the time for the computer.

15 So in the environmental assessment and recently
16 in public documents, it's been asserted that they're --
17 included that nine minutes was a one-minute detection
18 time, which wasn't in the actual calculation. And that
19 was the time for the CPM system to detect that there was
20 potentially a release.

21 Q. You were here for Mr. Stamm's testimony.

22 A. Right.

1 Q. Because I think you and I may have heard it
2 differently. You're talking about CPM system. I didn't
3 understand Mr. Stamm to suggest that in a guillotine
4 break that CPM system would be how it would be detected
5 and shut down. His point is the guillotine break, the
6 suction side of the next downstream pump is going to
7 going to trip. Right? On low suction.

8 A. All I would argue is that testimony is different
9 from quite a bit of other information that's been
10 provided in the environmental assessment and elsewhere
11 that the Dakota Access Pipeline will rely on a leak-warn
12 system that's state-of-the-art, and for a rupture it
13 will -- it gives a figure of one minute. And for other
14 types of leak that may be above the detection limit, it
15 may take up to three minutes. That is the -- that has
16 been the ongoing information supplied by DAPL and Energy
17 Transfer throughout the last three years. And so I
18 heard that today, but that's not what I've heard before.

19 Q. And all of that about the leak-detection system
20 and how it's intended to work may be perfectly true.
21 But I'm just saying as an engineering matter the pumps
22 on either side are going to fail. Right? The upstream

1 pump is going to over-amp, the downstream pump's going
2 to immediately lose suction on a guillotine break. And
3 those are going to shut down because of mechanical
4 protection devices on the pumps. Right? You disagree
5 with that?

6 A. So here's my point. My point is that there's a
7 lot of things that go into decision-making in terms of
8 detection time. The what the one minute, or if it's
9 instantaneous is only one part of it. I don't agree
10 with the instantaneous and I think the one minute only
11 looks at the computerized time. So I'm just -- I'm just
12 going by the previous viewpoint of Energy Transfer on
13 this issue. This is the first I've heard that somebody
14 from in their judgment feels that could be decided
15 instantaneously. That is not something is a -- as a
16 major accident prevention professional, that I would
17 ever rely on for planning purposes. I think that that's
18 not the maximum shutdown time. Again, we're not looking
19 -- the definition of this in this formula is maximum
20 shutdown time. It's not the best-case scenario.

21 Q. Let me try this one more time, because you keep
22 talking about decision-making. And to be fair I should

1 start -- and I don't mean this judgmentally; every
2 expert has their own area of expertise. Do you have the
3 background, do you have an engineering judgment on how
4 the pumps would react to a guillotine break?

5 **A. No, I do not.**

6 Q. Then let's go ahead and move on. On line 193 you
7 cite a 2012 PHMSA study that examined the spill
8 database, and you note that that finds that a CPM system
9 has detected leaks only 20 percent of the time. Is that
10 study that you rely on the Keefner (phonetic) and
11 Associates final report on leak detection study?

12 **A. That's correct.**

13 Q. And that's 16. Is that right?

14 MR. DUBLINSKE: Your Honor, we'd like to
15 distribute what will be marked as Dakota Access Exhibit
16 16.

17 (Whereupon Exhibit No. 16 is marked for identification.)

18 BY MR. DUBLINSKE:

19 Q. And while he's passing that out, let me just ask:
20 Seven years is a long time in technology. Correct?

21 ADMINISTRATIVE LAW JUDGE DAWSON: You have
22 to repeat.

1 MR. DUBLINSKE: I know. That's fine.

2 BY MR. DUBLINSKE:

3 Q. While he's handing out the rest of these: Seven
4 years is a long time in technology. Correct?

5 A. Yes, I'll agree with that.

6 Q. And now that you've seen it, this is the report
7 you were referring to. Correct?

8 A. I believe it is. Yes.

9 Q. And if you turn to page 2-11 of that study, if
10 you look down at the bottom of that page appears we're
11 in the summary section. Correct?

12 A. Correct.

13 Q. At number four in the list on that page, that's
14 the figure that you cite in your testimony. Correct?
15 That CPM was the leak identifier in 20 percent of the
16 releases?

17 A. Right. And I think there's a another part of the
18 document that goes into more detail.

19 Q. And would you agree that, at least in this
20 section, that includes all releases whether they're slow
21 leaks; whether they're ruptures; whether they're
22 guillotine breaks.

1 **A. That's correct.**

2 Q. If you go down a number 11 on that same page.

3 Can you read number 11 for me? Aloud, please.

4 **A. "For 32 out of the 68 incidents, the pipeline**
5 **shut-down time was between 1 and 14 minutes."**

6 Q. So rough math, 47 percent are between 1 and 14
7 minutes?

8 **A. Roughly, yeah.**

9 Q. And that includes all releases. Ruptures,
10 guillotine breaks, but also all the slow leaks.
11 Correct?

12 **A. That's correct.**

13 Q. And if that is half of all incidents, roughly,
14 have a shutdown time from 1 to 14 minutes, that's hardly
15 an unrealistic figure, is it?

16 **A. But the PHMSA formula is not using the word**
17 **"realism" if that's the point you're making. The PHMSA**
18 **formula is talking about maximum shut-down time.**

19 Q. Actually, I'm --

20 **A. Because it's a worst case -- implies worst case**
21 **to each of the elements that you're calculating.**

22 Q. Actually, I'm using your words. You made the

1 claim, starting at line 40 that: "The assumption on
2 detection and shut-down time is not realistic." And
3 what I'm saying is: If going beyond guillotine and
4 looking even at the slow leaks, half are detected in 1
5 to 14 minutes. That's not unrealistic, is it?

6 **A. But that's not the criteria that I'm using.**
7 **Something could be unrealistic, but in the worst-case**
8 **discharge, you certainly can be -- you need to have**
9 **conservative assumptions.**

10 Q. Now, did the study also look more specifically at
11 advanced events with an above average discharge? If you
12 know?

13 **A. I wouldn't know. It's been a while since I**
14 **reviewed this document.**

15 Q. So would you agree with me that by definition a
16 hypothetical worst-case discharge would fall into the
17 above-average-discharge category?

18 **A. Yes.**

19 Q. And if you turn to -- well, let's --

20 We go to page 3-43, you see section 3.7.2.

21 Section 3.7.2 is "above-average hazardous-liquid
22 releases". Correct?

1 **A. Correct.**

2 Q. And if you turn to page 3-50, there is a pie
3 chart of how these larger discharges are identified. Do
4 You see that?

5 **A. Yes.**

6 Q. And if you want to do the math, you certainly
7 could. But I will represent, if you'll take my word for
8 it, that over on the next page they've done the math for
9 us, and note that 71 percent of the pipeline -- or of
10 the large releases -- are identified by pipeline control
11 and non-control room personnel, and contractors,
12 including 46 percent, that our control room, either CPM
13 or SCADA. That correct?

14 **A. I would have to add that up. But one thing I**
15 **would say is that you included a lot of categories**
16 **there. And if you're looking at the effectiveness of**
17 **the CPM system, you would not add in workers, you know,**
18 **in the field, or contractors. You're looking**
19 **specifically at SCADA or CPM performance.**

20 Q. And that's in that same sentence. Right? It
21 says 46 percent are CPM or SCADA. Right?

22 **A. But I think it's important to make that**

1 **distinction.**

2 Q. And that is significantly more than the 20
3 percent that you point to as the figure from page 211.
4 Correct?

5 A. I think one is obviously overall and the other is
6 related to above-average volume and releases. Correct.

7 Q. And you agree that above-average is the category
8 that by definition WCD's are going to fall into.
9 Correct?

10 A. Correct.

11 Q. At line 205 of your testimony, you say: "There
12 is no record that applicant has identified its
13 leak-detection record is a problem." And you suggested
14 "applicant hasn't evaluated its past data to improve
15 performance". You have no way of actually knowing what
16 they've done internally, do you?

17 A. Again, it's similar to the discussion we had
18 earlier about the MOC. There's a American Petroleum
19 Institute standard related to leak-detection system
20 management, that would have a company identify its
21 leak-detection performance and set up goals in order to
22 not only evaluate, but continuously improve that

1 performance. And we know from a variety of the record
2 that at no time has Energy Transfer or DAPL acknowledged
3 that they've adopted or use that standard, which is the
4 industry standard for evaluating how your -- how your
5 leak-detection systems are working. And so what I would
6 pose to the Commissioners is: That standard actually
7 requires using metrics, and establishing goals to try to
8 evaluate your leak-detection performance; and how you're
9 doing; and what steps you're taking to improve. If in
10 fact Dakota Access or Energy Transfer is using that
11 standard, subsequent to whatever record has been
12 developed thus far, I would encourage them to share that
13 Best-Practice methodology, and what they're doing, and
14 what their performance is. I think that would be
15 important for the Commissioners to know, in terms of
16 potential impacts to the environment and the welfare of
17 the people of North Dakota.

18 Q. You keep referring to the record. Where in this
19 record do you find any evidence that Dakota Access is
20 not doing those things internal to the company?

21 A. Again, I'm relating -- I'm not -- I would agree
22 with you that I do not know that they are not doing

1 anything within the company. What I'm saying is,
2 there's an industry Best Practice standard by the
3 American Petroleum Institute, that they did not list as
4 one of the standards in the environmental assessment,
5 which is a public record that they were using. They
6 listed several. We heard today that earlier there were
7 a number of standards that Dakota Access has utilized of
8 API, but they acknowledged, I believe, in that statement
9 at the same time that they're not utilizing all the API
10 standards. And certainly, in the course of the
11 litigation, and in briefs and other documents this
12 issue's been raised, and at no point has the company
13 acknowledged that they've utilized 1175 for leak
14 detection; 1173 for pipeline safety-management systems;
15 the new 1160, which is integrity management that just
16 came out in 2019 that incorporates all the recent
17 learnings from 1173 and in system safety management.

18 So I would certainly hope if you were going to
19 try to minimize adverse impact you would be using these
20 Best Practices. That's what I would anticipate, and you
21 would be proud of it, and you would acknowledge it, and
22 it be part of the record in this proceeding as well.

1 **But I have not seen it.**

2 Q. When you say in "briefs and litigation", you
3 referring to the Federal litigation in front of Judge
4 Boasberg?

5 A. **That's correct.**

6 Q. Okay. Now, at line 70 you assert there have been
7 12 spills on the Dakota Access Pipeline. Do you still
8 believe that's the correct number for Dakota Access?

9 A. **I heard the testimony, and I don't. At this**
10 **point I would have to go back and look at the specific**
11 **location of those spills. But I certainly heard that**
12 **testimony. In the PHMSA database, they're not**
13 **differentiated; they're listed under "DAPL/ETCO". And**
14 **so the location may -- in that database would provide**
15 **the answer to that. So I can't assert that -- I can't**
16 **contradict what was stated this morning because I**
17 **haven't reviewed that myself.**

18 Q. And you understand that even though those may be
19 listed under the same operator, that DAPL and ETCO are
20 two separate pipelines?

21 A. **Well, I think there's a number of pipelines that**
22 **are assets of Energy Transfer. And so that's somewhere**

1 -- that's a point that I think we're going to continue
2 to disagree about.

3 Q. Do you know how many total barrels have been
4 released on the Dakota Access Pipeline since it entered
5 operation?

6 A. If -- again, I've collected a lot of data, and I
7 apologize if I don't have this exactly correct, but I
8 think it's -- I think it's in the neighborhood of maybe
9 6,000 gallons, something like that. But I could -- I
10 would need to look at it. And Again, it's depending --
11 I'm looking at ETCO. I'm not looking at the assertion
12 that there's a separate number of incidents that
13 occurred that weren't part of DAPL.

14 Q. I understand you want to go to gallons because it
15 makes the number bigger, but I asked barrels which is
16 about 140 or 145.

17 A. My memory is in gallon, so I apologize. So we
18 can do the division, but it --

19 Q. Would you have any basis to dispute if I told you
20 that the aggregate total of the discharges on DAPL
21 pipeline alone is about 12 barrels?

22 A. I would -- again, I'd have to look at -- I

1 haven't done that math. I'd have to look at it and
2 again, you're looking at the DAPL portion, which I
3 haven't -- I haven't examined. But there's an important
4 point here and that is: In all of my work in major
5 accident prevention, near misses, smaller incidents are
6 always very important because they reveal
7 management-system deficiencies and weaknesses that help
8 prevent the bigger accidents. And so, in any company
9 that's reviewing their record, they're going to be
10 paying a lot of attention to these smaller incidents,
11 because there are opportunities to learn. And a lot of
12 times the difference between a small release and a large
13 release is fortuitous. It's somebody discovered the
14 leak earlier than another incident, etcetera. And so, I
15 think all these -- the number of these incidents, and
16 even if they're small in terms of their release, they're
17 key opportunities for learning. And so, I don't
18 minimize them in my experience.

19 Q. I don't disagree with that. Have you looked at
20 the trend line over time for those Dakota Access
21 releases?

22 A. Well, I would caution against doing too much math

1 with such a small number. Again, I'm not a statistician
2 but there's 12 releases. But what's I think interesting
3 or a little bit alarming about that is the pipeline has
4 been operational for such a short period of time. I
5 know that one of the incidents was maybe a 119 barrels
6 or something like that.

7 Q. Do ou know if that was on DAPL or not?

8 A. No. I know what distinction you're making and I
9 certainly didn't make that distinction when I when I
10 used that figure.

11 Q. Right. Because that is not on DAPL.

12 A. Okay.

13 Q. Do you know how many of those were during
14 commissioning when they were first filling the pipe?

15 A. No. No, but it -- again, it goes to an important
16 point that when you see a large number of incidents --
17 and I think over a 13-year period we've identified for
18 the Energy Transfer family of pipelines, something
19 around 458 since 2006, that it's -- you need to -- lot
20 of times when you have a lot of incidents, even though
21 some of them are small, they're revealing larger
22 problems. It could be a problem that your

1 incident-investigation system is not functioning very
2 well, that you're not implementing corrective actions in
3 a timely way. And maybe -- it may be that there are
4 larger cultural issues that you need to examine. So the
5 number of incidents is probably one that's very key, and
6 not necessarily looking at the size. Because industry
7 is really focusing on leading and lagging indicators and
8 near misses, because major accidents are low-frequency,
9 high-consequence events. And so you can't measure the
10 big accidents and make any real determination about how
11 your systems are performing.

12 Q. You didn't do an analysis on any of the
13 discharges at DAPL to determine if they were near
14 misses?

15 A. I know some of the incidents are smaller. I do
16 know that approximately 30 percent of that 450 -- not
17 the DAP, I'm sorry. You said DAPL. The 12 incidents?
18 No, the 12 incidents I have not done any specific
19 analysis there.

20 Q. There are not 12 incidents on DAPL, are there?

21 A. Well, that's your that's your position. Again,
22 all I'm saying is, I'm not looking at the spreadsheet

1 **and I'm not making that determination --**

2 Q. You would stake your credibility on and whether
3 or not there have been 12 on just DAPL --

4 A. I think they're been 12 on ETCO. And before I
5 made -- you're asking me to testify and be truthful. I
6 can't do that unless I look at the data themselves.
7 It's very easy for me to do.

8 Q. We're talking about DAPL in this hearing.
9 Correct?

10 A. Yeah.

11 Q. All right. So that's the relevant --

12 A. I'm talking about more than DAPL. I'm talking
13 about the Energy Transfer family of pipelines.

14 Q. Do you know if any barrels have gotten beyond the
15 facilities of Energy Transfer on the DAPL pipeline?

16 A. No. I don't know that. I do know that in the
17 Energy Transfer family of pipelines approximately 21
18 percent of the releases were in the right-of-way, and
19 another 8 percent of the releases were on the entity's
20 property, but migrated off-site.

21 Q. No. You're talking about Energy Transfer broadly
22 here. Correct?

1 **A. That's correct.**

2 **Q. And you mentioned a minute ago a number of spills**
3 **over a 13-year period. Do you know if Energy Transfer**
4 **was actually the controlling entity on those pipelines**
5 **going back that entire 13-year period?**

6 **A. In some cases I would I would answer that no.**
7 **But as you indicated earlier, there's cultural issues**
8 **that can carry over and so -- but one of the things I**
9 **did in my testimony was I compared that history of 13**
10 **years to the last two and a half years, and didn't**
11 **notice a significant Improvement in property damage and**
12 **other factors.**

13 **Q. A significant Improvement in the last couple of**
14 **years?**

15 **A. I've not noticed that, no. I've noticed the same**
16 **pattern. I think there was something like \$21,000,000**
17 **in property damage from the Energy Transfer family of**
18 **pipelines in the last -- since 2017. So the be the last**
19 **two years, nine months, something like that.**

20 **Q. Over that 13 years, would agree that several of**
21 **those systems are ones that Energy Transfer has acquired**
22 **from another operator?**

1 **A. I couldn't. I couldn't speak to the exact point**
2 **of acquisition.**

3 Q. Anywhere in your testimony about those numbers?
4 Do you adjust those metrics for system miles?

5 **A. No. No, I don't.**

6 Q. Do you adjust the comparison for barrels
7 transported?

8 **A. No.**

9 Q. You are aware that Energy Transfer's acquired
10 some relatively aged assets over time, aren't you?

11 **A. I believe some of them are aging, yes.**

12 Q. Have you adjusted your numbers for age of system?

13 **A. No.**

14 Q. So you just did a raw count of incidents by
15 operator parent company.

16 **A. I did a raw count of spill numbers, which to me**
17 **is very significant. And I also looked at other factors**
18 **such as spills in High-Consequence Areas, which to me is**
19 **very significant.**

20 Q. Do You know how many of those Dakota Energy
21 Transfer incidents have been from modern
22 state-of-the-art pipelines that are built to similar

1 specifications, is DAPL?

2 **A. No, but I would -- if your implication is that**
3 **aging pipelines have more incidents, I've seen data**
4 **published by the Pipeline Safety Trust, which is a**
5 **well-respected independent organization that's argued**
6 **that pipelines that have been recently constructed have**
7 **more incidents. And so, I'm not sure that aging**
8 **pipelines is the only indicator of where more incidents**
9 **are occurring.**

10 Q. Did you compare the construction methodologies of
11 the other -- the lines that you were counting there? Or
12 for that matter, the lines of systems you were comparing
13 to the construction methodologies on DAPL.

14 **A. No.**

15 Q. Did you compare the mainline valve spacing on
16 those lines to Dakota Access?

17 **A. No.**

18 Q. At line 285 you go on with your discussion of
19 Energy Transfer, and note that they've been the subject
20 of certain regulatory actions including suspension of
21 pipeline operations. And in line 290 you list four of
22 them, and what you described from the bottom of page 13

1 over the top of page 14: None of those involve the
2 discharge of shipped product, did they?

3 A. I think most of those incidents involved spilling
4 of drilling mud.

5 Q. All of them did. Right?

6 A. Yeah.

7 Q. And they all involved drilling-fluid spills in
8 pipeline construction, not the operation of
9 transportation of liquids.

10 A. That's correct. And why I think it's significant
11 is, again, drill accidents are caused by
12 management-system deficiencies. A lot of them are at a
13 higher level. When I see a high number of spills in a
14 company's record, and then I also look at other actions
15 that are resulting in enforcement in some degree. It's
16 reported at least criminal enforce -- criminal
17 investigations, that to me indicates that there could be
18 bigger issues that are actually more concerning because
19 there is not just one type of failure mechanism. It
20 could be a failure mechanism that's not widely
21 understood, that maybe a company could learn about and
22 correct. But if there's multiple deficiencies not only

1 of transporting crude, but in drilling mud and other
2 issues that could lead -- that could lead to an
3 assessment that there's broader management-system
4 deficiencies at play.

5 Q. Mr. Holmstrom, Will there be any new pipeline
6 construction on this optimization project?

7 A. From what I've seen of the plan, no, there will
8 not be any new construction.

9 Q. And you mentioned that the examples you give are
10 all drilling fluid. There won't be any HDD to add a
11 pump station in Emmons County, will there?

12 A. No.

13 Q. At page 309 you start a section on Lake Oahe's
14 spill model and geographic response plan, ones you've
15 mentioned a little earlier. That argument is also
16 currently being litigated in the Federal Court in the
17 District of Columbia. Correct?

18 A. That's correct.

19 Q. And in fact, if we go again to that remand
20 memorandum that is Exhibit 14, as in your testimony here

21 --

22 A. What are we looking at?

1 Q. Page 23, footnote 16. Again, the water-column
2 issue is -- that you mentioned in your testimony here in
3 that section starting at 309, is specifically being
4 litigated, and will be decided in the Federal District
5 Court. Correct?

6 A. That's correct.

7 Q. Now, while we're talking about Lake Oahe and
8 Spills, in the first quarter of 2018 there were a series
9 of meetings held to discuss spill model for Lake Oahe.
10 Are you aware of that?

11 A. I was not at some of those meetings. In fact, I
12 believe one of the meetings I was at never started.

13 Q. I suspect that you weren't.

14 A. Yeah.

15 Q. Are you aware that -- so those meetings were
16 directed by Judge Boasberg. Correct?

17 A. That's correct.

18 Q. And it was the Corps, Dakota Access, and Standing
19 Rock that were invited to those meetings. Correct?

20 A. I think that Standing Rock invited -- just to
21 clarify, because it's an important background point -- I
22 think Standing Rock on several occasions invited the

1 Corps and DAPL to come to Fort Yates to meet and
2 respond. There was really not much of a response. I
3 think the Tribe also ask the Corps to help. They also
4 asked the EPA to help facilitate meetings with Energy
5 Transfer and DAPL. I know that the emergency response
6 director at the Tribe has requested to have greater
7 communication and participation and emergency response
8 --

9 Q. I'm not talking about emergency response time --

10 A. Yeah.

11 Q. My question about the January 2018 meeting.

12 You're aware that there was a January 2018 meeting to
13 fulfill the judge's requirement?

14 A. I'm not exact -- I can't verify the exact dates.
15 It's been some time ago. I know that DAPL at one point
16 indicated they would. There was a meeting that was
17 going to be held in Bismarck and the Tribe was wanting
18 as a -- having entity as a Sovereign Nation, wanting the
19 Energy Transfer and DAPL to come to Fort Yates.

20 Q. And whatever the reason, that January 18th
21 meeting about the Lake Oahe spill plan that you're
22 testifying about, the Corps and Dakota Access were

1 there, and the Tribe chose not to attend that meeting.

2 Correct?

3 A. Right. They were trying to persuade them to come
4 to Fort Yates. That's my understanding.

5 Q. February 18th, there was also a meeting.

6 Correct?

7 A. I'm not aware of that.

8 Q. Where the Corps and Dakota Access attended. The
9 Tribe attended, read a letter saying that they would not
10 be able to participate, and did not participate further
11 in that meeting. Is that your understanding?

12 A. My memory of that meeting now -- I'll correct
13 myself. That was a meeting I went to, and what the
14 Tribe requested is that if you're going to have a
15 meeting that was meaningful to discuss a facility
16 response by geographic response plan, they requested
17 certain documentation be provided so they could have a
18 meaningful conversation. In other words, they did not
19 have an up-to-date -- at that point -- a geographic
20 response plan. They had a redact -- at that point, they
21 had a redacted Facility Response Plan. And so in order
22 to engage -- and they also asked for the spill model in

1 order to engage so they could review it and ask
2 questions. And so what they stated is they wanted to
3 meet, they wanted have those documents given to them so
4 they could review them and engage in a meaningful
5 conversation with Dakota Access where they could provide
6 meaningful input with the appropriate information.

7 Q. You understand that over that series of multiple
8 meetings that they could have had those discussions and
9 asked those questions had they actually participated?

10 A. I think -- I would say -- I would say to you the
11 Tribe from early on had been requesting those documents.
12 And in fact in some cases, if you read the introduction
13 to the environmental assessment, the environmental
14 assessment requests several documents from DAPL,
15 including an up-to-date -- some up-to-date response
16 plans. Additionally the Tribe early on since I was
17 involved has been requesting those documents so they
18 could engage, and requesting access to a spill model
19 which they only received pursuant to the NEPA
20 litigation. And that was just, I think, in February --
21 approximately February of this year. So they never
22 received a spill model. A spill model, just so for the

1 sake of the Commissioners, really tells you what the
2 potential -- assuming that you're using the correct
3 worst-case discharge as a starting point -- really tells
4 you where the impacts are going to be on the waterway
5 that you're that you're going to be responding to. And
6 it can tell you what sensitive areas are going to be
7 impacted. The Tribe is very interested in protecting
8 environmentally-sensitive areas; culturally-sensitive
9 areas; areas where they have very, you know, religious
10 things that are very close to their religious beliefs.

11 Q. I'd like to step in. We have an additional
12 witness on some of this stuff and I appreciate your
13 testimony, but on this specifically, we have an
14 additional witness. So we can probably move on.

15 A. But just from the standpoint of the response
16 plan, that's something that I'm actually involved in the
17 creation of, the Tribe's own response plan. And so that
18 is that is something that is very critical to them and
19 they want to know very specifics, like a model will show
20 we're in different currents in areas and eddies where
21 oil may concentrate, and where different areas may be
22 even more susceptible to a release. And that is based

1 on, hopefully, an accurate worst-case discharge.

2 Q. Just for completeness, there was also a March
3 2018 meeting as well that, again, pursuant to the
4 direction of Judge Boasberg, that Dakota Access and the
5 Corps participated in, and the Tribe chose not to
6 participate in. Is that correct?

7 A. Yeah, I think the Tribe when they went to Judge
8 Boasberg and asked for these meetings, and they had some
9 very specific things that they requested, and those
10 weren't forthcoming. And so that's -- and I'm not aware
11 of that third meeting. But if there was such a meeting,
12 I'm sure that the, you know -- I know some of the
13 documents weren't forthcoming to the Tribe.

14 Q. And did you take that concern about the documents
15 to Judge Boasberg?

16 A. I can't speak to the litigation. I don't know
17 what went on in the litigation.

18 Q. And our documents, you're trying to get the PSC
19 to discover for you here. Correct?

20 MR. PURDON: I'm going to object to that
21 characterization. I don't think we're trying to get the
22 documents for our litigation. I think we're suggesting

1 documents the PSC might want to see as part of their
2 determination on minimum adverse effect.

3 MR. DUBLINSKE: That's Mr. Purdon's
4 characterization, not mine.

5 MR. PURDON:

6 You don't have to answer the question.

7 BY MR. DUBLINSKE:

8 Q. At line 413 of your testimony, Mr. Holmstrom, you
9 accused Dakota Access of not having an
10 Integrity-Management Plan that includes Dakota Access
11 Pipeline. Is that your testimony?

12 A. I think I -- what I stated was a series of facts,
13 and then I also suggested to the Commission that they
14 obtain a copy of the Integrity-Management Plan. What I
15 do know from the record -- and this is also raised in
16 public briefing related to the litigation -- is that
17 there were several opportunities -- there were several
18 sort of demands or opportunities for Energy Transfer,
19 Dakota Access Pipeline to supply an Integrity-Management
20 Plan to the Corps. The Tribe got a copy in the
21 litigation. But what I can say about it is that overall
22 that Integrity-Management Plan -- and this is true up to

1 a few months ago -- did not meet the requirements of the
2 requirements under the PHMSA regulations, in so far as
3 it was not pipeline-segment specific. It was a generic
4 Sunoco plan that put Dakota Access Pipeline in the
5 index, but had no specific information related to the
6 pipeline in the Integrity-Management Plan. And that
7 PHMSA regulation on integrity management is all about a
8 pipeline-specific series of activities, including an
9 initial assessment, and making determinations about
10 inspection intervals etcetera.

11 Q. I want to go back to what I think is a pretty
12 serious implication that you made to the Commission,
13 that Dakota Access didn't have an Integrity-Management
14 Plan. And your testimony was that Dakota Access didn't
15 have an Integrity-Management Plan that included Dakota
16 Access Pipeline. Correct?

17 A. Right. That the actual plan that I have seen,
18 and we've argued this in public briefing, had Dakota
19 Access in the index, but not did not address Dakota
20 Access specifically. It was a generic plan for Dakota
21 Access -- or excuse me -- Sunoco Pipeline generically.
22 But that was several months ago. In the last several

1 months, it may be the case, and it was also indicated in
2 that in the record that they intended in the future to
3 put in that pipeline-segment-specific information. But
4 at least as far as the record we see it hadn't been
5 done. And this was a year and a month or two after the
6 start of the pipeline. And I believe for new pipelines
7 PHMSA gives the company a year to produce that plan.

8 Q. You say in your testimony to the Commission that
9 the DAPL Integrity-Management Plan was not found. In
10 fact, the Tribe has known for over a year section IMP
11 was provided to the Corps, haven't they?

12 A. I don't believe that's true, no. And again, I'm
13 making that based on a distinction of what I consider a
14 real Integrity-Management Plan that meets the PHMSA
15 definition.

16 MR. DUBLINSKE: Now, can we hand out 17?

17 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.
18 Dublinske, how much longer do you think it will be with
19 this witness?

20 MR. DUBLINSKE: Not much longer Your Honor.

21 ADMINISTRATIVE LAW JUDGE DAWSON: Thank you.

22 MR. DUBLINSKE: And while he's handing that

1 out, I'll move the admission of 16.

2 MR. PURDON: Objection. Is it 16 or 17?

3 MR. DUBLINSKE: 16 was the prior one. The
4 prior one, sorry.

5 MR. PURDON: Sorry.

6 ADMINISTRATIVE LAW JUDGE DAWSON: So it's
7 marked and admitted.

8 (Whereupon Exhibit No. 17 is marked for identification.)

9 MR. DUBLINSKE: This is 17.

10 BY MR. DUBLINSKE:

11 Q. And if you turn to page 7 -- and this document --
12 if we turn to the front, you'll agree with me this
13 document was dated March 29, 2018. Correct? Actually,
14 it's in the footer as well on each page.

15 A. Okay.

16 Q. First of all, can we agree that this was dated
17 March 29, 2018?

18 A. That's what it says on the in the footer.

19 Q. On the cover. Correct?

20 A. Correct.

21 Q. Okay. And page 7 at under "evidence of
22 compliance", there's a paragraph C, and it says that

1 they were unable to locate correspondence initially, and
2 then an e-mail dated March 22nd, 2018, was provided, and
3 that attached to that was a current version of the
4 Operator's, Dakota Access Pipeline's risk
5 assessment/current Integrity-Management Plan. You see
6 that?

7 **A. That's -- I see that definitely, and I've read**
8 **this before.**

9 Q. Sure. In fact, the Tribe had this and presumably
10 you had this 18 months ago. Correct?

11 **A. That's correct.**

12 Q. So you knew that in fact an Integrity-Management
13 Plan was on file, and you left the impression in your
14 testimony of 4/13 that there was never an IMP filed.

15 **A. No, that's not my testimony. My testimony is**
16 **that I've seen an Integrity-Management Plan, and I**
17 **encourage the Commissioners to request that specific**
18 **document that does not -- is not pipeline-specific to**
19 **Dakota Access. That it has Dakota Access in the index,**
20 **and there's also documentation that would indicate that**
21 **Dakota Access and Energy Transfer intended to make it**
22 **pipeline-segment specific in the future, but it hadn't**

1 **done so at the time of the conclusion of the remand**
2 **process.**

3 Q. Now, you start summarizing with your
4 recommendations at 4/24 and at 4/28, I know that you
5 say: "Even absent capacity expansion DAPL's operation
6 would pose unacceptable risks." So really -- and this
7 is what you're fighting over in the suit with the Corps.
8 Right? You're opposed to the pipeline optimization. No
9 optimization. Period. End of story.

10 A. We're here to talk about the expansion, and our
11 concerns are even greater with the expansion, in terms
12 of the threat to the environment and the welfare of the
13 people of North Dakota.

14 Q. You say you're here to talk about the expansion.
15 The testimony I just read says "even without the
16 expansion". Correct?

17 A. This is one statement. That's correct, and
18 that's our position -- my position.

19 Q. So your position is this Commission was wrong to
20 grant DAPL a permit in the first place?

21 A. My position is yes, that's true. And I think
22 that in the course of analyzing major accident

1 prevention and the whole piece of what safety threats
2 are related to pipelines. I think it's a difficult job,
3 and I think a lot of the information that was available
4 at that time was fairly scant. And I think during the
5 course of -- at least from what I've seen over the last
6 three years, there's a lot been a lot more information
7 that's developed. But I -- you know, I can't put myself
8 in the position of the Commissioners at that time, but I
9 certainly can say that from what I know now: This
10 pipeline should not have been permitted initially
11 without substantial review and looking at a number of
12 issues in terms of siting; in terms of impact to the
13 sensitive Lake Oahe area; etcetera. For example, the
14 spill model wasn't even conducted until 2017, which was
15 after the initial assessment by the -- or the initial
16 decisions by the Commissioners.

17 Q. Whether you disagree or not, you're aware that
18 the welfare of North Dakota people and the environment
19 were part of the criteria for that decision, and on
20 review of the record the Commission found in favor of
21 permitting Dakota Access.

22 A. That's correct.

1 Q. You're aware that the pipeline also needed
2 approval from the South Dakota Public Service
3 Commission. Correct?

4 **A. That's correct.**

5 Q. And you're aware that the pipeline was opposed on
6 similar safety issues there, and on review of the
7 evidence the South Dakota Commission approved the
8 pipeline?

9 **A. That's correct.**

10 Q. And you're aware the pipeline needed approval
11 from the Iowa Utilities Board?

12 **A. Correct.**

13 Q. And you're aware that the board specifically
14 found Dakota Access had adequately address safety
15 concerns and presented the safest method to transport
16 the oil.

17 **A. I'm not I'm not aware of their specific decision**
18 **-- decision language.**

19 Q. Are you aware --

20 **A. I know they approved it.**

21 Q. Are you aware that the safety issue in Iowa was
22 part of an appeal of the permit in the Iowa Supreme

1 Court, and that just this year the Court reviewed the
2 issue and upheld the permit?

3 A. I'm not aware of that, but I know the permit was
4 approved in Iowa.

5 Q. You're aware the pipeline needed approval from
6 the Illinois Commerce Commission and it, too, found the
7 pipeline satisfactory for approval?

8 A. I know it was approved in Iowa.

9 Q. And you know --

10 A. And Illinois.

11 Q. And obviously, you know -- and I think I can
12 assume you disagree -- that in particular, with
13 relationship to Lake Oahe, the US Army Corps of
14 Engineers reviewed the pipeline and granted both a
15 permit and an easement to Dakota Access Pipeline.

16 A. That's correct.

17 Q. As we discussed earlier, the Tribe has raised
18 safety issues before Judge Boasberg in the Federal
19 Court, and he affirmed most of the analysis of the
20 Corps. That fair?

21 A. No, I don't think -- I don't think that's fair.
22 I think they failed NEPA. There were three issues that

1 they found -- they were found to be deficient and they
2 were to remand. It wasn't an approval --

3 Q. And in the Allied-Signal order, he specifically
4 determined not to vacate and remand, because (A) he
5 found that the majority of issues have been met, and (B)
6 because he thought that the remaining ones could be
7 easily remedied. Isn't that the basis of the
8 Allied-Signal order?

9 A. I think he certainly indicated that he believed
10 that a number of the issues had been satisfied. I'm not
11 so sure he asked the remaining issues. He asked the
12 Energy Transfer/ DAPL to take a deep dive and do a
13 thorough review. I'm not so sure that he thought that
14 those were insignificant issues. I disagree with that.

15 Q. And we saw earlier that PHMSA has specifically
16 approved the FRP for the pipeline. Correct?

17 A. PHMSA has approved the FRP -- the one I have
18 reviewed and been able to read the whole document was
19 the FOYA'ed record that I receive dated 2017.

20 Q. You don't disagree that we have a letter saying
21 PHMSA --

22 A. Yeah, I said that initially.

1 Q. So all of these State and Federal entities, many
2 expert agencies, all neutral adjudicators, they all got
3 it wrong about Dakota Access being safe to operate, in
4 your opinion?

5 A. I disagree with those decisions, yes.

6 Q. And you're the only ones getting -- out of that
7 whole list -- you're the only ones getting paid to have
8 that opinion. Correct?

9 A. I don't think that's a fair question.

10 Q. I have no further questions.

11 ADMINISTRATIVE LAW JUDGE DAWSON: I think
12 what we'll do is -- and you do need to not groan,
13 because that can or show appreciation for what is said
14 up here, because it does chill the speech of other
15 people that want to come up here and talk. So I know
16 it's getting late, but please try to hold your tongue
17 and your applause.

18 MR. DUBLINSKE: No further questions, Your
19 Honor.

20 ADMINISTRATIVE LAW JUDGE DAWSON:

21 Mr. Purdon?

22 MR. PURDON: No questions, Your Honor.

1 ADMINISTRATIVE LAW JUDGE DAWSON:

2 Mr. Pelham.

3 MR. PELHAM: Thank you, Your Honor.

4 EXAMINATION

5 BY MR. PELHAM:

6 Q. I appreciate your testimony here today, but I
7 don't have any questions for you at this time. Thank
8 you.

9 ADMINISTRATIVE LAW JUDGE DAWSON: Okay,
10 Commissioners. Do you want to take a separate break or
11 do you have a just a few questions.

12 COMMISSIONER FEDORCHAK: Just a few
13 questions.

14 ADMINISTRATIVE LAW JUDGE DAWSON: Okay.
15 Commissioner Fedorchak.

16 EXAMINATION

17 BY COMMISSIONER FEDORCHAK:

18 Q. You've gone through a lot of details, and
19 I was going to go through some specifics on your
20 recommendations to the Commission on page 20 of your
21 testimony. So basically, prior to that you recommend
22 that we not approve the order because of the company's

1 record, and then you say in addition the Commission
2 should order that applicant to produce, number one, the
3 Integrity-Management Plan, PHMSA regulations that
4 complies -- company. And I don't need a lot of
5 information, just yes or no. Does the letter that they
6 provided showing that PHMSA approved this plan address
7 that issue?

8 A. The letter we -- well, there's two things. Are
9 you referring to -- just to clarify -- are you referring
10 to the letter from PHMSA on the Facility Response Plan?
11 If you are, I think it is important to request that,
12 because it will identify that there is more that's being
13 evaluated than a tank. In terms of worst-case
14 discharge, there's also worst-case discharge for the
15 pipeline. Now, the minimum requirement is the largest
16 foreseeable release, but -- and there in that particular
17 Facility Response Plan, they also looked at the largest
18 worst-case discharge for the pipeline on the whole,
19 which I believe was in South Dakota. And then they
20 looked at the two, and they just provided numbers for
21 the worst-case discharge for the two geographic
22 responses in North Dakota.

1 Q. Actually, back to number 20 or page 20 number 1,
2 union organizations, 447. Just yes or no. Do you still
3 think we need to request DAPL-specific
4 Integrity-Management Plan?

5 A. That's correct. And I think it's the version
6 that, you know -- if you or your staff and want more
7 information we could identify a document. But there's a
8 specific version that we have that I think meet will
9 meet the description that I'm supplying. So if there's
10 a more up-to-date plan, if DAPL/Energy Transfer has done
11 an update, which they've made the integrity management
12 and pipeline segment-specific, I think that should be
13 sent as well.

14 Q. So I'm just curious if your position is that they
15 do not have a PHMSA- approved Integrity-Management Plan
16 for this system. Yes or no? I don't want an
17 explanation. I just need to know: Do you believe --

18 A. I don't believe they have a PHMSA-compliant
19 version, no. And I don't believe PHMSA -- I have no
20 knowledge if PHMSA has refuted or not.

21 Q. The proof that -- adheres to all the API Best
22 Practices that you've discussed, and so a proof would be

1 a letter or a statement under oath. What kind of proof
2 do you -- would we need to have that?

3 A. It would be, you know, in the EA they said what
4 standards they're applying. If you're applying a
5 particular standard you'll have some management-system
6 documents that discuss the application of that standard
7 within your overall pipeline safety-management system
8 procedures. And so there would be already existing
9 documentation. You could correct that written --
10 documentation that will reflect that they're utilizing
11 that, those API standards that I reference.

12 Q. And confirmation under oath is not enough in your
13 opinion?

14 A. Well, it's one thing to say you're using it; it's
15 another to kind of eyeball how they're using it that
16 makes it look real.

17 Q. Okay. Number three was the updated worst-case
18 discharge. We've talked about that in depth extensively
19 with other witnesses, so I don't think I need any of
20 your input on that one. Revised spill model based in
21 that we've also just to -- okay. So just a couple
22 general questions and that's it. What advantage would a

1 company have -- and just to step back and say like, you
2 know: I know you guys don't like them, and they don't
3 like you and this -- all this. But what advantage does
4 a company have, what motivation to underestimate a spill
5 model so that they can't properly prepared to recover
6 and respond to that? What advantage would they have to
7 be doing that, or motivation?

8 A. I don't -- I don't -- I can't speak to that. All
9 I can do is look at the facts and tell you whether or
10 not that seems to be, you know, severely understated in
11 terms of worst-case discharge, and whether they're
12 applying the elements of the PHMSA definition. And it
13 does have a big importance in terms of protecting
14 emergency responders. If they don't think there's going
15 to be a big spill there, and they show up and there's
16 the really big spill, they're likely to be overwhelmed
17 and it puts people at risk. So I think it's very
18 important.

19 Q. And it what I'm hearing is, they're saying they
20 have modeled it higher than what's necessary for that
21 particular location. You guys don't agree. So we're
22 kind of in the middle and that's why I say: Okay,

1 what's logical here? What -- who's got a motivation to
2 do what? And so that's why it matters to me whether
3 there's some sort of plausible motivation for a company
4 to do that sort of thing. What in -- along the same
5 lines, what if they don't have an integrity management
6 system, which is essentially the system that monitors
7 the pipeline events; identifies things that could go
8 wrong with it; attempts to mitigate those things. What
9 advantage would have a company have to have a poor
10 integrity-management system or cut corners on that? Is
11 it cost in your opinion: Cost a lot more to do it
12 right?

13 **A. Yeah. Again, I don't want to speculate as to**
14 **motive. I all I can say is I've seen an**
15 **Integrity-Management Plan as I've described, it was one**
16 **that was available several months ago. There may be one**
17 **that's been produced since then, but at least at that**
18 **time that I saw that document, it was purported to be**
19 **their Integrity-Management Plan, and it was not**
20 **sufficient, and did not meet the PHMSA requirements.**

21 **Q. Okay. Alright, that's it for me. Thank you.**

22 ADMINISTRATIVE LAW JUDGE DAWSON:

1 Commissioner Kroshus?

2 COMMISSIONER KROSHUS: Thank you, Your
3 Honor. Just a few questions.

4 EXAMINATION

5 BY COMMISSIONER KROSHUS:

6 Q. I'm going to follow up along the same line that
7 Commissioner Fedorchak just was on, because I have the
8 same question in terms of: Are the economics better for
9 a company? You not spend as much on construction or the
10 development of a plan when -- and just help me reconcile
11 this, because would you agree that if a spill occurs
12 they have to -- the cost of cleaning it up.

13 A. Now again, I wouldn't want to speculate -- and
14 just be aware for the 17 years, I retired from the CSV,
15 we were very careful not to make -- not to trust -- we
16 would look at the facts, we'd make recommendations about
17 what caused an accident. We were very careful not to
18 look at motivations unless that's -- unless there were
19 evidence in the record that would lead us -- and I have
20 no evidence that to tell you right now that there's
21 motivation. And I will also tell you, don't take my
22 word for it. That's why at the end of the document, I

1 suggested you request certain documentation to see for
2 yourself. So it shouldn't be a -- like a one person
3 said one thing, another set another. You can get this
4 document these documents yourself. There is a -- there
5 are documents that talk about worst-case discharge in
6 the calculation that, you know, date from 2016 that you
7 could request and examine it yourself, and see if
8 there's a detection time, and see if they add -- of
9 barrels for valve closure. I can assure you they don't,
10 but you need to find out for yourself. The same with
11 the Integrity-Management Plan. That's why that's in my
12 document, my testimony suggesting you look at it. If
13 you want, you know, if there's any follow-up or anything
14 else, we'd be glad to we'd be glad to help in any way we
15 can.

16 Q. Do you think the company received preferential
17 treatment on the approval of their response plan?

18 A. No, I don't think that. I don't -- what I saw in
19 the document, the Facility Response Plan, was that they
20 did not tie the two sub-regional worst-case discharge to
21 a particular formula. But it gave the impression the
22 formula was used and that that's a concern. But it --

1 there -- they indicated the PHMSA formula supplied
2 calculations for the tank and also for the worst case.
3 I believe it was in South Dakota, and for the two
4 sub-regional areas crossing the Lake Oahe, you know,
5 high-consequence areas, they just supplied a number and
6 so PHMSA had nothing to review for that. There was no
7 there was no formula to review, but it implied they had
8 used, you know -- the PHMSA formula is stretched, you
9 know, maximum shut-down time, etcetera.

10 Q. Does that imply then that if they didn't get
11 preferential treatment -- and just trying to get my arms
12 around this --

13 A. Sure.

14 Q. Then this would be a broad concern not only for
15 this facility, but for pipelines across the country
16 which -- and would lead me to believe that, in your
17 opinion, PHMSA just has it wrong, not only here but
18 across the board.

19 A. I think that's a possibility. There are
20 organizations, I mentioned the Pipeline Safety Trust
21 earlier. You can download from their website. They
22 have a series of talking points on facility

1 response/emergency response and they have some
2 criticisms of this very issue we're talking about. This
3 was mandated by Congress. So emergency responders
4 across the country -- and this is happening in
5 relationship to other Energy Transfer pipelines, like
6 the Mariner 2 East where emergency responders aren't
7 getting un-redacted Facility Response Plan. So they
8 don't -- there's pieces of information they don't know.
9 So it's important. So Congress mandated that these
10 Facility Response Plans be provided on their website,
11 which they're doing. But they're also redacting them
12 and a lot of the information that's being redacted at
13 times can be to important emergency responders.

14 Q. Do you -- have you interacted with PHMSA at all
15 expressing your concerns that --

16 A. Yes, at a low level. We worked closely when I
17 worked at the Chemical Safety Board with PHMSA, because
18 they were very interested in our work. We had some of
19 the same companies involved. The major oil companies
20 where we did accident investigations, were some of the
21 same companies where they did their enforcement actions.
22 And we actually -- actually one of my staff worked on

1 the development of API 1173 Pipeline Safety Management
2 Systems, incorporating some of the lessons learned from
3 major accidents in fixed facilities that were
4 incorporated into 1173.

5 So a lot of those management system elements of
6 safety culture, and leading and lagging indicators and
7 things were recommendations that we made to industry.
8 And industry, the API stepped up and they developed
9 standards related to Leading leading and lagging
10 indicators. And in some of the things that we
11 requested, fatigue management, etcetera. And so that
12 has actually been one of the phenomena it's important
13 for you to know, that Government is often slow to act in
14 implementing Congressional mandates, recommendations
15 from the NTSB, and the government accountability office.
16 And in this case, you know, I reviewed API standards and
17 been critical of times. But in this case API stepped up
18 and in the case of 1173, they gave them an evaluation
19 that was -- exceeds the performance. And they gave
20 them, you know, like an A+ for that development of that
21 standard, which I agree with that evaluation.

22 Q. Okay. And then one last question. This is an

1 easy one. The aging-pipeline-incident analysis that you
2 referenced earlier. What was the source on that again,
3 please?

4 A. Oh, the Pipeline Safety Trust. And it's in one
5 of the Tribe's reports. It might have been the first
6 report from 2018. There's a graph showing age of
7 pipelines in -- and I'm not sure if it's what the other
8 access is -- might be spills or failures. And it shows
9 that in the recent period there's been an increase in
10 newer and newer pipelines having more incidents.

11 Q. All right. Thank you.

12 COMMISSIONER KROSHUS: No other questions,
13 Your Honor.

14 ADMINISTRATIVE LAW JUDGE DAWSON:
15 Commissioner Christmann?

16 COMMISSIONER CHRISTMANN: He just covered
17 both of my questions, Your Honor.

18 ADMINISTRATIVE LAW JUDGE DAWSON: Okay. Is
19 there any other questions?

20 UNIDENTIFIED SPEAKER: Did you want to/like
21 to move the admission of Exhibit 17? Thank you, Your
22 Honor.

1 ADMINISTRATIVE LAW JUDGE DAWSON: Yeah, it's
2 marked. And are there any objections?

3 UNIDENTIFIED SPEAKER: No objection.

4 UNIDENTIFIED SPEAKER: No objection.

5 ADMINISTRATIVE LAW JUDGE DAWSON: No
6 objections. It's admitted, and we will take --

7 You may step down.

8 And we will take a minute break coming back
9 at a little after a quarter to.

10 (Whereupon a short recess is taken.)

11 MR. BENDER: The witness I would call -- the
12 Standing Rock Sioux Tribe would call John Eagle.

13 ADMINISTRATIVE LAW JUDGE DAWSON: Mr. Eagle,
14 you were here for my previous warnings as to perjury?

15 MR. EAGLE: I was.

16 ADMINISTRATIVE LAW JUDGE DAWSON: So you
17 understand what perjury is and the penalties for it?

18 MR. EAGLE: I do.

19 ADMINISTRATIVE LAW JUDGE DAWSON:
20 Understanding so, do you promise or swear that the
21 testimony that you're about to give will be the truth,
22 the whole truth, and nothing but the truth?

1 MR. EAGLE: Yes.

2 ADMINISTRATIVE LAW JUDGE DAWSON: You may
3 begin.

4 EXAMINATION

5 BY MR. BENDER:

6 Q. Mr. Eagle, can you introduce yourself to the
7 Commission and tell them what you do for living, where
8 you live, those sorts of things?

9 A. (Speaks Sioux) My relatives -- you may be
10 wondering why I started in my language. And in our
11 belief systems and in our way of life, that's the most
12 respect that we can show you, is to speak to you in one
13 of the first languages ever spoken on this land. To
14 translate for you, what I just said is I referred to you
15 as my relatives. When you think about the wisdom of my
16 ancestors and why they taught us to introduce ourselves
17 in that way, it's so that as good relatives we're going
18 to listen to each other. But it also prepares us for
19 that day, like today, where we might not be agreeing
20 with one another. That if we looked at each other as
21 relatives, we'd always have that to fall back on.

22 What I told you in my language was: This is

1 sincere that I greet you today with a good-hearted
2 handshake. Keep it in mind that that's not my culture,
3 my way of life; it's your culture that you taught us, to
4 reach out and shake hands. Also share with you that my
5 Lakota name is Lakota Sca (phonetic). And I don't
6 really feel a need to translate that, but my English
7 name is John Anthony Eagle, Senior. I come from an
8 extended family known as the Sorbac Tuapsha of the Inca
9 Tuepe (phonetic). And I come from a family of an
10 ancestor by the name of Womble Kuack Mone (phonetic),
11 and what that translates to is "One who walks dressed in
12 Eagle".

13 1900, my great-grandfather was forced to take a
14 Christian name, and the soldiers in Fort Yates shortened
15 the translation of that to Eagle. And he took the name
16 Francis Eagle, and that's where my family gets our last
17 name from.

18 I'm very honored to be here today. And I'm very
19 honored to have heard what I heard, see people not in
20 agreement but joint integrity, joint honesty, join
21 self-control, and I appreciate that. Part of why I
22 appreciate that is because I heard somebody mention the

1 veterans that are hanging on these walls here. And I,
2 too, served in the United States military, I come from a
3 family with a long history of that. My father is a
4 Vietnam vet. So all day I kept looking at these
5 pictures and I kept reading these signs that are in this
6 building. I didn't know we're in an American Legion
7 Post. But I can relate to that. And I wanted to share
8 that with you because I believe I understand what
9 sacrifice and duty means. I believe that I understand
10 what discipline means. Because at one time in my life I
11 had to do things I didn't want to do. And maybe sitting
12 here in front of you is one of those times. Because for
13 me, to come from where I came from, I came from a place
14 where I'm surrounded by love and I live in peace, and I
15 had to step outside of that comfort zone to be here with
16 all of you. But what gives me courage in my heart are
17 the people sitting beside me and sitting behind me. And
18 I don't mean just enrolled members in the Standing Rock
19 Sioux Tribe, I mean the members sitting beside me from
20 this community as well. Because I grew up hearing
21 stories about a time when the people from Standing Rock
22 and the people on the East Bank here used to get along.

1 I grew up hearing stories of a time when our peoples
2 used to meet on the River Bottom and at certain times a
3 year would share harvest with one another and would
4 share food with one another.

5 My mother-in-law, who is no longer here --
6 and in our ways, it's really disrespectful to mention
7 names of people who have already left, so I'm not going
8 to mention her name -- but I sat in a room listening to
9 her to tell him my wife and my children stories of her
10 coming here to something called a polka and to come into
11 things called barn dances. I grew up listening to
12 stories of my dad telling -- breaking horses for farmers
13 and ranchers on the South Dakota side of Standing Rock.
14 And how those families that he trained horses for in the
15 fall would buy him school clothes and shoes, maybe in
16 that way relieve some of the Purdon from my
17 grandparents.

18 I look at the room behind me now, and I've
19 been staring at this all day, and it really seems to be
20 a metaphor to how our peoples are today. Because there
21 are no signs saying white people sit over there and
22 Indians sit over there, but yet we took our respective

1 places apart from one another. When I look at that
2 river I think about my dad -- when driving out here I
3 was thinking about my dad. It took me two hours to get
4 here from Fort Yates. They used to drive wagons across
5 that river to be here. I've met German people on that
6 side of the river who spoke Lakota and I've met Lakota
7 people who could speak German. But my dad tells me a
8 story of a time prior to the flooding of that river.
9 And he told me that story because I asked him, because
10 I'd never seen that. When I was a little boy, there
11 used to be dead trees sticking up. I don't know if some
12 of you remember that, but you could see the ancient
13 forest that used to be there but in the form of dead
14 trees; you don't see that anymore.

15 So one day I asked him, I said, "Dad, tell
16 me about that river. Tell me about that way of life."
17 He told a story of my grandparents writing from Wewela,
18 South Dakota to Bismarck, North Dakota in a team and
19 wagon. And he said they only came to Bismarck once that
20 he could remember. And my father Glen Eagle, a Vietnam
21 vet, and his older brother, my uncle, followed them on
22 horseback. And he said that down on the bottom was an

1 ancient pathway. And the look in his eye and expression
2 on his face and his body language told me that in
3 telling me those things, he was going back to a real
4 happy time, a real happy place, a real happy memory.
5 He said that everything they needed was on that river
6 bottom: Food, medicines. He said that all along the
7 way there were camps here and there, people coming to
8 him. And he said every time they passed a camp that
9 people would invite them in and share whatever they had,
10 if it was tea or if it was fruit or if it was bread,
11 whatever it was that they had. And that's how they
12 sustained themselves going to Bismarck; it took them two
13 days he said. And he described those trees, that
14 canopy, as a great cathedral. I've never been in a
15 cathedral, and I don't think my dad did either, but
16 those are the words that he chose. And even now in
17 sharing that with you, it puts a picture in my mind, but
18 unfortunately, it's a picture I'm never going to see, my
19 children are never going to see that. Because when man
20 changes the land, the land is changed forever.

21 My dad and my grandparents used to back
22 wagons up. My Chairman, too, we were talking about the

1 other day. Back wagons up to that river and then fill
2 rain barrels and take those back to their log cabins,
3 and they'd let the sediment drift to the bottom and
4 drink the water off the top. My generation drink water
5 out of creeks and streams. They said as long as it was
6 moving it was safe to drink. I've been sitting here
7 watching you all day drink water out of plastic bottles.
8 My children are never going to experience that because
9 it's not safe; there isn't good water anywhere anymore.
10 But yet in here is the ability to create life and the
11 ability to destroy life both good and bad. And that's
12 why even today in ceremony when we bring water into our
13 ceremonies, we pray with it as to activate all that
14 good, activate that ability to create life.

15 I had to -- when I heard you guys
16 reconvening, I pulled some of my people aside and I
17 said, "Come in here real quick", because I needed to put
18 courage in my heart to sit here in an unfamiliar place.
19 And I told my people in that room, I said, "I can't
20 believe that I feel so uncomfortable in my own country,
21 can't believe that." And the only way for me to feel
22 comfortable and have that courage to come out and talk

1 to you like I am right now is we surrounded ourselves in
2 that room and we prayed in my language to create this
3 place where I can talk openly and freely. Because, you
4 know, when I entered the United States military, when
5 they were processing me, and they said, "Eagle, do you
6 speak a foreign language?" And I said, "Yes, English."
7 And that's why I spoke Lakota to you, to help you
8 understand and I'm descendant of an ancient people, that
9 in our oral histories and in our creation stories, we
10 have cultural affiliation to the land, to the water, to
11 the air, going all the way back to the beginning of
12 time, sacred knowledge that passes on.

13 Sitting behind me at our elders,
14 grandmothers, grandfathers. There's some fluent
15 speakers in that crowd behind me, carry our beautiful
16 language. When our lawyer came up to me and asked me,
17 "What is it you'd want to talk to them about after
18 everything you heard today?" I told him, "I want to
19 tell you that the road my mom and my dad and my grandma
20 my grandpa prepared me for no longer exists." I grew up
21 living off that land: Eating deer, antelope, every once
22 in awhile elk wanders into our territory, moose, eating

1 fish out of that river, rabbits, birds. We can't eat
2 our rabbits anymore because they're carrying a poison in
3 them because of the farming. Our children and our
4 elders can't eat that fish out of that river anymore,
5 they're cautioned against it because the amount of
6 mercury in it. I just saw a report that says in
7 McKenzie County north of us that they found a deer with
8 that wasting disease in it.

9 I brought my children with me. I'm sitting
10 here feeling melancholy because I don't know if in their
11 lifetime they're going to get to live off the land like
12 I did. I don't know. Every time I go up in the air --
13 and just so you know, I don't like to fly -- but I look
14 out the windows and I see how much of our undisturbed
15 land is disappearing. Everywhere you look is squares
16 and circles when you look out that window. That
17 undisturbed land is disappearing to me at an alarming
18 rate. I don't want you to feel sorry for me, though,
19 because I don't feel sorry for myself. I come from a
20 culture that had to deal with the papal bulls who said
21 we were fractionated human beings. I come from a
22 culture that had to deal with doctrine of discovery that

1 said a foreign people who came to this land had a
2 god-given right to take it away from us. I went to
3 school and I learned about Manifest Destiny like it was
4 supposed to have been a good thing, and I used to sit in
5 that class embarrassed. And I got older and learned
6 about To Kill an Indian and Save a Man. And in spite of
7 everything that's happened to us as a people, I don't
8 feel like a victim. No hawk G le nom cupola (phonetic),
9 we're still here, an ancient people deeply connected to
10 our environment, deeply connected to this land, this
11 water, and this air. And I wonder to myself: Can we
12 ever get to a place where we sit with each other instead
13 of segregated from each other? Because when the
14 immigrants came to this country, there wasn't warfare.
15 My ancestors took care of them because they weren't
16 prepared to live in this extreme of an environment.
17 But now there's a disconnect. And I keep thinking to
18 myself, How do we live up to what this country describes
19 that we're supposed to be to each other? How do we
20 really stand with each other as a nation? Because I
21 can't be mad at you guys, right. Everyone has a right
22 to support themselves, however it is, whatever their

1 gifts are. Everybody in this world has that right to do
2 that. So I can't fault you for your career choices.

3 But I sat here today listening to all of
4 this thinking, Well, my beautiful people back here,
5 where do they fit in this? Because my ancestors signed
6 a treaty, and I'm a Federal Officer, I'm a tribal
7 historic preservation officer authorized under National
8 Historic Preservation Act under 92 amendments. And my
9 tribes authorized representative for Native American
10 Graves Protection and Repatriation Act. My office
11 enacts ARPA, Archaeological Resource Protection Act. We
12 have a tribal code. I'm the authorized representative
13 for my Tribe in regards to that North Dakota Indian
14 Reinterment Committee, the North Dakota State burial
15 law. And I'm also the authorized representative for not
16 only section 106 consultation but nation to nation. And
17 then it goes further. My code says I'm also the
18 authorized representative to address or Ochetty Chacoan
19 (phonetic) matters.

20 I sat here all day listening to all of you
21 thinking, Well, how do I fit into this? Because this is
22 state law. This is a Public Service Commission. Yet I

1 have this knowledge that your constitution says that
2 treaties are the supreme law of the land. In that
3 Constitution it states that State law doesn't supersede
4 Federal law. But this isn't a Federal hearing, this is
5 State. But here I sit in treaty territory. 1851, 1868.
6 Some of these people sitting behind me, ahite tuana
7 (phonetic), which means that they still hold claim to
8 this land on this side of the river, Docket 74(a).

9 How do we have a say in our own country? I kept
10 thinking about that, thinking about that. Because I
11 don't even know, I can't even -- I never experienced
12 what my mother-in-law and my father described. The
13 relationships with people on this side, I never
14 experienced that in my lifetime. And I walked in this
15 building thinking, How come when Indians gather there's
16 always so many law enforcement guys around? We didn't
17 come here to fight, we didn't come here for a war. We
18 came here to speak on behalf of our children, our
19 grandchildren, and those not yet born. Because those
20 are our spiritual laws that we're supposed to be
21 thinking seven generations into the future; that's why
22 I'm here. Someday maybe somebody's going to tell my

1 great-great-great-great grandchild, "Your grandfather
2 loved you so much that he stepped out of his comfort
3 zone and he went to a place where he was facing
4 insurmountable odds, but that's how much he cherished
5 you." That's why I'm here. I'm a grandfather now.
6 Some of you probably are too. I had no idea how good
7 that was going to feel, to have a little child look up
8 to you and call you Papa. And in our language they say
9 Lala. I had no idea how good that was going to feel.
10 Tonight when I finish here I'm going to go hug my
11 granddaughter up, I'm going to kiss her up, I'm going to
12 hug my grandsons, to kind of try to shake loose this
13 anxiety that I feel that I shouldn't be feeling in my
14 own country.

15 When I look at this world that we live in,
16 I'm a fortunate man, I've been to 48 of our states.
17 Because of my military service I've been to five
18 countries. And I've seen such beauty in this world that
19 I honestly believe only a poet can put word to that.
20 I've seen places that put tears in my eyes and I didn't
21 know why that tear was there. I stood on mountaintops
22 that put this feeling in my chest that I can't even

1 describe in English. When I think about the Dakotas,
2 you know, when I was in the Army, somebody asked me,
3 "Well, what country is North Dakota in?" I was like,
4 "America, how could you not know that?" Then I met
5 another guy in the military who said, "Yeah, I went to
6 North Dakota once, it's just flat. There's nothing
7 there." Well, then you weren't looking because North
8 Dakota is a beautiful place. And I know it's not just
9 my people that hunt and fish and enjoy being on that
10 land, because that land has such a good feeling to it.
11 And you know, when you look at it, at some point in our
12 histories those of us who live here in North Dakota, our
13 stories crossed, they merged with one another.

14 I'm employable, I don't have to live on a
15 reservation. I'm employable, I don't even have to live
16 in this state. But I live here because this is home. I
17 live here because out of every place that I've been
18 nothing compares to a North Dakota sunrise, nothing
19 compares to a North Dakota sunset, nothing compares to
20 those birds this time of year when they head south,
21 springtime when they come back. There's nothing in this
22 country that compares to that.

1 And I listened, and I listened, I think to
2 myself, I understand. I understand what you and your
3 witnesses said, but I also think I understand why you're
4 willing to take that risk, because it's not happening in
5 your backyard, it's not happening in that place that you
6 call home, that place that you feel is beautiful. It's
7 happening in our backyard, us North Dakotans. Did you
8 see even though I have long hair and brown skin and I'm
9 a little cute and chubby, I also have this that says I'm
10 a North Dakota citizen. And I also have this says I'm a
11 member of The Standing Rock Sioux Tribe, but those four
12 words don't actually reflect who we really are. This is
13 who the United States Government says that we are.
14 Sitting out here are papa Cee Haase papa buxa honkdona
15 (phonetic), Lakota and Dakota people. Maybe why I feel
16 so uncomfortable is because what I'm going to have to
17 share with you is: This enrollment number that's on
18 this card, do you know that Native Americans are the
19 only people in this country that have to prove our
20 existence by blood quantum? The only thing that
21 mainstream society keeps track of blood quantum on are
22 horses, dogs, and Indians. And those first three

1 numbers in my enrollment number 302, how many of you are
2 from Standing Rock? Every single one of them has those
3 same first three numbers in their enrollment cards
4 because that's a POW camp that we come from. POW Camp
5 302, still left over from the Indian Wars.

6 In consultation at Wyoming, Montana I was
7 asked one time -- because they got frustrated because
8 we're talking about these sacred connections and they
9 said, "Well, describe to me a site boundary." I said,
10 "Coast to Coast, pole to pole. Wherever the people
11 walked, you're in a site of religious and cultural
12 significance to my people." And we cherish that river.
13 Even though we lost what was on the bottom or we're not
14 ever going to see those things again, our entire
15 existence is dependent upon that water, our entire
16 existence. And I heard you, I know you're talking about
17 just this little area, this little acreage of a pump
18 house. But my greatest fear isn't that we're going to
19 experience a pipeline leak over that river. My greatest
20 fear is that my children and my grandchildren are going
21 to experience that. And I want my children, as I know
22 they're listening to me, to have the same courage that I

1 have to be here with you. Because courage isn't the
2 absence of fear; courage is the ability to overcome that
3 emotion. I'm here today because seven generations ago
4 my ancestors prayed about us. And I'm also here to tell
5 you that we're praying for our future, we're praying for
6 our grandchildren. And I want to ask
7 something real quick. I want -- and I know this is off
8 what you guys do, but for me being here, this is off
9 what I do too. But I want the veterans for my people to
10 stand up. Do you see that we're related? Do you see
11 that we share that same brotherhood? That these men and
12 women standing behind me fought for that same flag?
13 We're Americans. We're North Dakotans, but we're also
14 descendant of an ancient people. Muhatcho lo taquali
15 san (phonetic).

16 MR. BENDER: I think I would tender his
17 profile to testimony Exhibit, what, I-3, I think it was.

18 ADMINISTRATIVE LAW JUDGE DAWSON: I-3.

19 Any questions?

20 MR. PURDON: No questions.

21 ADMINISTRATIVE LAW JUDGE DAWSON: No
22 questions.

1 Any questions, Mr. Pelham?

2 MR. PELHAM: I have no questions, Sir.

3 Thank you for having the courage to tell us part of your
4 story today.

5 ADMINISTRATIVE LAW JUDGE DAWSON:
6 Commissioner Fedorchak.

7 COMMISSIONER FEDORCHAK: Thank you, Mr.
8 Eagle. I really appreciate you being here. We have had
9 the opportunity to visit previously, and I enjoyed our
10 discussion then as well, and really hope you feel
11 welcomed. I know it's always intimidating. You're not
12 the first one to take the stand that's been intimidated,
13 and this isn't the first time that we've had divided
14 rooms at our hearings, I can guarantee you that. Sadly,
15 most of the time our rooms are divided between people
16 who are for and people who are against. And we have the
17 great fortune of trying to find a path through the
18 middle. It's not always possible, but we do our best to
19 try to weigh the, you know, factors that we're given to
20 consider, and get to a decision that is fair and
21 reasonable. So I really appreciated your story.
22 There's so much that you talked about that, you know, we

1 could have long conversations about over coffee or glass
2 of wine, or whatever you prefer.

3 MR. EAGLE: Oh, you don't want to see me on
4 wine.

5 COMMISSIONER FEDORCHAK: Coffee then. But I
6 do think it's really important that you're here and
7 sharing your perspectives and helping everybody
8 appreciate what's behind some of the concerns that your
9 party has raised today. And just being here and being
10 part of the process makes me feel so much better than
11 the last time around. Utility regulators aren't
12 supposed to get choked up, so I'm going to stop now
13 because I'm supposed to be tougher than this. But just
14 know that we do take these decisions to heart; they're
15 not easy. I've always felt that Standing Rock members
16 are North Dakotans, and that's been, you know -- it's
17 weighed heavily on my heart over the last few years
18 because of the conflict that has arisen through this
19 process. So, and a lot of the misunderstandings and
20 mischaracterization that has occurred.

21 So thank you very much to Chairman Faith, to
22 you for coming forward, for being part of this process,

1 taking the -- having the courage to step forward and
2 share some of your perspectives and your thoughts and
3 even speaking in your native tongue was really special.
4 So thank you very much.

5 ADMINISTRATIVE LAW JUDGE DAWSON:
6 Commissioner Kroshus.

7 COMMISSIONER KROSHUS: Thank you as well for
8 being here and for helping me to understand your culture
9 a little bit better, just the show of unity. And you
10 could not see your members behind you as you were
11 speaking, but I can assure you they were glowing,
12 showing a great sense of pride as you presented to us.
13 So I can appreciate that. It wasn't easy and it did
14 take courage, and obviously quite a bit of your strength
15 came from them. So thank you for being here and for
16 sharing and for your service, as well as the other
17 members who have served and help protect our country.
18 Greatly appreciate it.

19 ADMINISTRATIVE LAW JUDGE DAWSON:
20 Commissioner Christmann.

21 COMMISSIONER CHRISTMANN: I also thank you,
22 Mr. Eagle, as well as Mr. Faith, for participating in

1 this today. I'll just reiterate what I said shortly
2 before noon, but add to it: The veterans that just
3 stood behind you, as well as the ones on the wall and
4 all the rest of them in the room, got to be proud today
5 to see people of strong beliefs on both sides of an
6 issue coming together to gather information about that
7 issue to help us make the best possible decision. Right
8 now I think everyone should be proud of the way we've
9 exercised our freedom today. Thank you.

10 ADMINISTRATIVE LAW JUDGE DAWSON: If there's
11 no further questions, you may step down.

12 MR. EAGLE: Thank you, Sir.

13 ADMINISTRATIVE LAW JUDGE DAWSON: Do you
14 have any further witnesses?

15 MR. BENDER: I've no further witnesses, Your
16 Honor.

17 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.
18 Bender? Mr. Dublinske?

19 MR. DUBLINSKE: Your Honor, we do have one
20 rebuttal witness, if we may? We would call John
21 Godfrey.

22 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.

1 Godfrey. I know you were here for my previous
2 admonitions on perjury. Now, do you understand what
3 perjury is and the penalties for it?

4 WITNESS: Yes, Your Honor.

5 ADMINISTRATIVE LAW JUDGE DAWSON:

6 Understanding so, do you promise or swear that the
7 testimony that you're about to give will be the truth,
8 the whole truth, and nothing but the truth?

9 WITNESS: I do.

10 ADMINISTRATIVE LAW JUDGE DAWSON: You may
11 begin.

12 MR. DUBLINSKE: Thank you, Your Honor.

13 EXAMINATION

14 BY MR. DUBLINSKE:

15 Q. We're going to have to do this the long way since
16 we don't have pre-filed testimony from you. Can you
17 state your name and your place of employment for the
18 record?

19 A. My name is John F. Godfrey. I'm employed by
20 DNVGL USA, Incorporated. Place of business is 5777
21 France Road, Dublin, Ohio.

22 Q. And what is your position there?

1 **A. I'm a senior principal consultant.**

2 **Q. And can you tell me a little bit about what that**
3 **entails?**

4 **A. A lot of a lot of different stuff. I provide --**
5 **I work within the integrity solutions group of the**
6 **pipeline services department. I work with operators and**
7 **regulators, and we provide engineering and consulting**
8 **services to the pipeline industry. Me personally, I**
9 **focus primarily on integrity management, materials, and**
10 **assisting operators with their compliance programs.**

11 **Q. And you have been retained by Dakota Access to**
12 **assist with those issues?**

13 **A. That is correct.**

14 **Q. And before we go too far, can you tell us a**
15 **little bit about your background and qualifications?**

16 **A. Yeah. My background, I graduated in 1987 from**
17 **the University of Illinois with a degree in general**
18 **engineering, which is kind of a funny degree because it**
19 **allowed me to get a focus area in fluid mechanics and**
20 **strength of materials. Following that, I worked for 22**
21 **years in the pipeline industry for two operators.**
22 **Following that, I went into pipe manufacturing, was vice**

1 president of quality control and quality assurance for a
2 US pipe manufacturer; worked in the regulatory
3 consulting industry; worked in the facility mechanical
4 integrity industry as vice president of operations for a
5 company that provided inspection and testing services;
6 and then joined DNVGL five years ago as a consultant.

7 Q. It sounds like you have covered a lot of
8 different aspects of the industry.

9 A. I've been in the industry for 32 years, Sir.

10 Q. I want to start at one of the last issues that
11 came up before we broke for dinner. And the question
12 came up from Commissioner Fedorchak about: Why would it
13 benefit a company to cut corners? Do you think it would
14 benefit a company to cut corners?

15 A. No. In my experience, it would not. I work with
16 a number of pipeline operators. I think DNV works with
17 almost all the pipeline operators in the United States.
18 And time and time again it is demonstrated that prudent
19 operators will not cut corners, they will pay attention
20 to their asset. Pipeline operations in general should
21 be boring: You should be able to move product on
22 schedule, on quantity, on specification, with no

1 interruptions of service; no leaks, no spills, no
2 unintended pressure reductions, no maintenance issues
3 that cause a pipeline to be shut down. And we find the
4 pipeline operators that really focus on those issues,
5 they tend to be the most successful.

6 Q. You said that your work now and much of your
7 experience has been an integrity management. Is that
8 correct?

9 A. That is correct.

10 Q. You've been here for all of today's testimony.
11 Correct?

12 A. That is correct.

13 Q. We have talked quite a lot about integrity
14 management. Were you here when Mr. Kuprewicz testified?

15 A. Yes, Sir.

16 Q. I thought I heard him say that Dakota Access
17 should provide a list of periodic integrity assessment
18 steps. Did you understand that to be his testimony?

19 A. Yes, I did.

20 Q. Does that sound a lot like an
21 Integrity-Management Plan?

22 A. Yes, it does. I wasn't really clear what he was

1 getting at, but it sounds like an integrity program,
2 yes.

3 Q. Now, are you familiar with Dakota Access's
4 Integrity-Management Plan?

5 A. Yes, Sir. I have reviewed it.

6 Q. And so can you confirm that it is in fact filed
7 as it should be?

8 A. The integrity management program isn't actually
9 filed, okay. The regulations require an operator to
10 establish an integrity management program to implement
11 that program, and it is subject to audit and inspection
12 by PHMSA and by performance verification. There's
13 actually no filing requirement.

14 Q. And what kind of performance verification is
15 done?

16 A. Typically, it's done during audit. PHMSA in my
17 experience as both an operator and a consultant: They
18 will come into the operator's office; they'll review the
19 integrity program; they'll look for documentary evidence
20 that the program is being executed; they'll look for
21 documentary evidence that the program is responding to
22 anomalies and other conditions in accordance with the

1 regulations; and in the absence of that, they will take
2 enforcement actions to require the operator to comply.

3 Q. And is it your opinion based on your experience
4 that Dakota Access's Integrity-Management Plan is
5 compliant with all regulations?

6 A. Yes, it is.

7 Q. There's been some discussion about what was
8 referred to as a generic high MP. Did you have a
9 reaction to that testimony?

10 A. Yeah, I certainly did. Because for a large
11 company like Energy Transfer that is composed of
12 new-build pipelines, acquisitions, mergers, best
13 practice really is to have one comprehensive integrity
14 management program. And an integrity management program
15 really is a management system. It really does allow you
16 to bring things together. You assess the risk to the
17 pipeline, you establish performance measures. Integrity
18 management programs drive continuous improvement. It
19 would do no good to have separate, distinct ones that
20 didn't leverage the other pipelines within a company.

21 Now that said, Energy Transfer's integrity
22 management program is line specific. It identifies each

1 line. Each line goes through an HCA assessment. Each
2 line goes through spill modeling. Each one has a risk
3 assessment, preventive and mitigative measures are
4 identified. Each has an individualized assessment
5 schedule and a reassessment schedule. Each one has
6 performance metrics that then roll up to the bigger
7 program and allow the program to be measured as well.

8 Q. Above and beyond the question of whether or not
9 Dakota Access's IMP is compliant with regulations, do
10 you have an opinion about Dakota Access's approach to
11 integrity management, generally?

12 A. I would say it is a very good approach, okay.
13 Integrity -- Dakota Access specifically? Or Energy
14 Transfer?

15 Q. Either is fine.

16 A. Either is fine. For the Dakota Access system,
17 they're assessing the entire length of the line. Energy
18 Transfer doesn't just look at their integrity assessment
19 results for HCA locations, they look at it for the
20 entire line. They prioritized HCA's, but they remediate
21 any other feature on the line to the full MOP of the
22 pipe. They've also taken the step with Dakota Access

1 specifically to get ahead of that assessment schedule.
2 The assessment of Dakota Access began in 2018 with two
3 pivotal line segments being reassessed. There are three
4 more that have been assessed in 2019, and the State of
5 North Dakota will be finished by next year.

6 Q. I want to switch topics for a moment here. I
7 think Mr. Kuprewicz and I ended up agreeing that a
8 pipeline can be operated safely at 15-foot-per-second
9 velocity, but I wanted to tie that up. Do you believe
10 that 15 feet per second is an extreme velocity?

11 A. No, Sir.

12 Q. And can you explain why?

13 A. The velocity of the pipeline is really just a
14 design consideration. There's no litmus test that says
15 one velocity is worse than another; it's something you
16 designed to. Pipelines and production platforms,
17 plants, operating facilities, they operate at a wide
18 range of velocities. It's really about how the operator
19 designs those assets and what care they take in
20 inspecting and maintaining them.

21 Q. And do you have the experience to have an opinion
22 on the manner in which Dakota Access cares and maintains

1 for its pipeline?

2 A. Yes, I do. I think that they have gone above and
3 beyond, particularly in the design component. They're
4 using deeper depth of cover; They're using heavy wall
5 pipe in sensitive areas, road crossings and water
6 crossings and rail crossings; they're using
7 state-of-the-art pipe spec. And I'll tell you right now
8 when I was QA/QC at the pipe mill, I did not like seeing
9 Energy Transfer come in and place a pipe order because I
10 knew they're going to wear me out. They really have
11 taken the time to put the front end of the design in,
12 okay, and they've made a lot of design enhancements
13 specifically for this line. There's been a lot of talk
14 about the number of valves out on the line. I would say
15 that they're probably the most progressive when it comes
16 to installing emergency flow-restricting devices to
17 minimize the impact of any potential spill, in my
18 experience.

19 Q. There has been a lot of talk about surge today.
20 Are you familiar with the surge issue?

21 A. Yes, Sir.

22 Q. And are you aware of the transient surge analysis

1 that was developed by Dr. Hein (phonetic) for this
2 pipeline?

3 **A. I have reviewed that analysis, yes.**

4 Q. I want to back up: Is it your understanding that
5 a surge analysis was conducted for the original Dakota
6 Access Pipeline?

7 **A. Correct.**

8 Q. And there has been a new surge analysis done in
9 conjunction with the optimization project. Is that
10 correct?

11 **A. Correct.**

12 Q. And have you had an opportunity to meet with Dr.
13 Hein?

14 **A. Yes, I have.**

15 Q. And if you had a chance to ask him any questions
16 you may have had about the model?

17 **A. Yes, in fact I did. I was given the surge model,**
18 **which by the way not only incorporates the new design**
19 **capacity but also reflected the current. I had the**
20 **opportunity to review that; went to some of my**
21 **colleagues. Because DNVGL is in some ways actually a**
22 **competitor to Fluid Flow Consultants. We also have our**

1 own surge model. We also do our own transient analysis.
2 So we had the opportunity to review that and then meet
3 with Dr. Hein and ask him some very specific questions
4 about the model. I found that it was very thorough,
5 that it incorporated all of the potential initiation
6 scenarios that I would have incorporated, as both a
7 pipeline operator and somebody who studied fluid
8 mechanics in college, and it also took into account all
9 the different mitigation options. And I think people
10 ought to remember that a surge model isn't a one-time
11 thing, it's an iterative process. You start with
12 modeling the pipeline without any protections on it at
13 all; and then you run through the different initiation
14 scenarios, whether it's loss of a pump station due to a
15 power outage, whether it's closure of a valve at a pump
16 station, or the inadvertent closure of a valve on the
17 mainline. And then you start running different
18 iterations of mitigative measures: What if I install a
19 valve, a surge relief valve, here? What if I install
20 two? What if I change the design of this valve? What
21 if I change the design of this valve operator? What if
22 I go ahead and link it to my SCADA system? What is the

1 **best combination of actions that I can take to minimize**
2 **that surge potential and really design it out of the**
3 **system?**

4 Q. And do you believe that it was -- I'll ask it
5 this way: Is your understanding that by regulation the
6 protection that needs to be against surges that would
7 exceed 110 percent of MOP?

8 **A. That is correct.**

9 Q. And it's my understanding -- and please confirm
10 if it's your understanding -- that this particular
11 modeling was done to 105 percent?

12 **A. That is correct. That was a choice by Energy**
13 **Transfer.**

14 Q. And do you believe that that was a beneficial
15 choice?

16 **A. Yeah. It's just another level of conservatism**
17 **and extra factor of safety.**

18 Q. I don't want to get into details because of the
19 protective order issue in Illinois. But without saying
20 what the time interval is, do you believe that the time
21 interval that was used for the surge modeling was an
22 appropriate one?

1 **A. I'm going to defer to the expertise of Dr. Hein**
2 **and Fluid Flow Consultants, they work for a number of**
3 **companies within the industry. I had the chance to meet**
4 **him/to grill him/to quiz him. He answered everything**
5 **satisfactorily. I have no reason to doubt his model**
6 **inputs at all.**

7 **Q. And is it your understanding that Dakota Access**
8 **is going to adopt all of the recommendations of Dr.**
9 **Hine's study?**

10 **A. That was the testimony here today. Yes, Sir.**

11 **Q. There's been a lot of talk today about API RP's.**
12 **You've been here for some of that testimony?**

13 **A. Yes, I have.**

14 **Q. Can we back up a step, and can you tell us a**
15 **little bit about API and the RP's and how they are used**
16 **and what their role is?**

17 **A. An API-recommended practice -- and I think I can**
18 **safely say this because at one point in time I was the**
19 **Chairman of the API pipeline integrity committee; I was**
20 **also on the API operations technical committee, which**
21 **balloted and approved the standards; I was also the vice**
22 **Chairman of the pipeline research council international**

1 committee that dealt with research and new material
2 issues. And as somebody who is balloted and written
3 those standards in the past -- I was actually on the
4 original 1160 committee as well. And not to poke it Mr.
5 Holstrom any, but it's not new this year. I was on the
6 original issue back around 1998. This is the third
7 edition.

8 Recommended practices are industry consensus
9 standards. They're driven by pipeline operators who are
10 the members of API, and they come together to identify a
11 recommended practice for operators to adopt who are
12 looking to either improve performance, correct some
13 issue that they have within their company, or to adopt a
14 framework for doing something different. Sometimes they
15 will be adopted into Federal pipeline regulations,
16 either in whole or in part. PHMSA reserves the right to
17 adopt them if they deem them valuable or not. So an
18 API-recommended practice is exactly that, it's an
19 industry consensus practice that's recommended by the
20 trade association.

21 Q. And there have been several of the RPE's that
22 have been discussed today. Do you have an opinion about

1 Dakota Access's adoption of the RPE's?

2 A. How about an observation instead?

3 Q. Sure.

4 A. Okay. Observation is that they're doing probably
5 what every operator in the US does when it comes to
6 1160, okay: They're looking at their individual assets;
7 they're looking at their existing integrity management
8 program; and they're looking for areas where 1160 could
9 improve it, where the practices in 1160 gel with it, and
10 can enhance their program. It doesn't mean they have to
11 adopt it completely; it means they're going ahead and
12 they're taking a look, and a very studied look, at the
13 standard. There are actually some sections of 1160 that
14 contradict with pipeline safety regulations. Their
15 aspirational, you know, but they do contradict with the
16 current regulations that are out there. So they aren't
17 adopting those obviously.

18 When it comes to 1173 pipeline safety management
19 systems, in discussions in preparation for this hearing,
20 Dakota Access is adopting 1173, as is Energy Transfer.
21 That standard -- and I've had the opportunity to teach
22 two classes on that standard at the pipeline pigging and

1 integrity management conference. I also had the
2 opportunity to train PHMSA inspectors in process
3 auditing to prepare them to audit against that standard.
4 It is a scalable standard; right in the first section it
5 says: "This standard is flexible. This standard is" --
6 or excuse me, "recommended practice is flexible and it's
7 scalable." It's meant to be adopted by pipeline
8 companies at any stage of the management system
9 development and encourage them to continue to drive it
10 forward, measure their performance, and continuously
11 improve their performance. It is not a
12 one-size-fits-all standard.

13 Q. I apologize, I'm going to jump around a bit. I
14 didn't have a chance to get organized here before we --

15 A. Okay. If they start nodding off, though.

16 Q. Alright. Fair enough. I want to go back a
17 minute to the surge report. One of the recommendations
18 that was discussed today involves surge relief valves.
19 Correct?

20 A. That is correct.

21 Q. Your understanding is there are currently surge
22 relief valves on the existing pump stations on DAPL?

1 **A. That is correct.**

2 **Q. And there are also surge relief tanks at all of**
3 **the existing pump stations on DAPL?**

4 **A. I believe so, yes.**

5 **Q. And you hesitated there.**

6 **A. If there's a relief valve, there's going to be a**
7 **relief tank.**

8 **Q. Okay. And can you explain to me how surge relief**
9 **valves work to address the issue of surge overpressure?**

10 **A. Surge relief valves are typically installed on**
11 **the suction side of a pump station upstream of the**
12 **station block valve, okay. So that's upstream of any**
13 **operating equipment that could induce a surge. Pressure**
14 **relief valves are surge relief valves are mechanical**
15 **valves, mechanical devices. I understand that they're**
16 **using a nitrogen-over-piston design; basically, you have**
17 **a set nitrogen pressure that's established on top of the**
18 **valve. Once the line pressure exceeds that, the valve**
19 **opens up. There are several different designs that are**
20 **out there; they have a long proven track record.**

21 **I also understand that at certain locations, both**
22 **to accommodate the surge volume and to provide for**

1 **redundancy, they have two valves in parallel.**

2 Q. There was some discussion today -- and I'm going
3 to jump back now a bit more to practices -- about
4 Management of Change. Is it your understanding that
5 Dakota Access has an appropriate Management of Change
6 process that they're using for this optimization?

7 A. Yes, they do.

8 Q. And can you explain why you believe them?

9 A. I had the opportunity to review their IMP, which
10 includes a specific section in the IMP devoted to
11 Management of Change which contemplates exactly the
12 scenario an increase in capacity of a pipeline which,
13 you know, could increase the potential for surge
14 pressure. They've also developed a Management of Change
15 checklist for the operation project that includes
16 transient analysis, SCADA system improvements,
17 identification of HCA impacts, adoption of a new FRP,
18 and that was provided to me for review. They also have
19 in their construction standard operating procedures,
20 procedures for proper design, as-building, record
21 retention, and communication. And I would also say any
22 Management of Change process also involves securing the

1 necessary permits and engaging with necessary
2 stakeholders. I actually think this hearing process is
3 a big part of a Management of Change process.

4 Q. There was also a fair amount of discussion today
5 about the facility's response plan. Are you familiar
6 with facility's response plans?

7 A. I have reviewed the Facility Response Plan for
8 North Dakota -- well, for the north zone, yes.

9 Q. For the northern response zone?

10 A. Yes, Sir.

11 Q. And do you have an opinion of whether it is
12 compliant with all PHMSA regulations?

13 A. Yes, it's compliant. In fact, I'll go one step
14 further: I read it, and I was actually -- I was quite
15 surprised, they had some things in the Facility Response
16 Plan in terms of response capability and techniques that
17 I wasn't familiar with. It was actually a bit of an
18 education. You know, after 22 years in the industry, I
19 thought I had learned a lot, but there were a few things
20 in the plan that that went above and beyond, and I was I
21 was impressed by the thoroughness and detail
22 incorporated into the plan.

1 Q. And we discussed today that the WCD calculation
2 is part of that plan. Is that correct?

3 A. That is correct.

4 Q. And do you believe that the calculation that
5 Dakota Access has made is an appropriate one?

6 A. I believe it is appropriate, yes.

7 Q. And more generally, you've heard some of the
8 testimony back and forth today about an appropriate
9 approach to calculating a WCD. Do you have an opinion
10 on that?

11 A. Yes, I do. I think people have really lost sight
12 of what FRP is for. An FRP is -- in the purpose of the
13 regulation, it says: "To plan for an oil spill
14 response." It's a planning document. It's not a
15 detailed engineering analysis of what could go wrong at
16 any point in time. It is designed to help an operator
17 and ensure an operator has an adequate plan to respond
18 to an event out on their pipeline. Worst-case discharge
19 is often way overstated. Simply to make sure that
20 enough resources that -- enough resources are available,
21 enough equipment is available, the proper contractors
22 are available, and that the management system they use

1 for incident response is adequate. It also incorporates
2 the incident command system, notification flowcharts,
3 notification trees, context agencies, local emergency
4 responders, as well as your typical how much oil can
5 spill and where's your equipment located.

6 Q. We've had some disagreement among witnesses in
7 the type of event that would lead to a worst-case
8 discharge, on how long it would take to detect that.
9 We've had some discussion about how the pumps would
10 react independent of computational monitoring. Do you
11 believe that in a guillotine break on a pipeline like
12 Dakota Access that the pumps would the independently
13 fail without any operator intervention?

14 A. First, let me describe a guillotine break.

15 Q. Sure.

16 A. Okay. A guillotine break is probably the worst
17 possible scenario you could run into: It's where the
18 pipeline is cleanly severed; there's no flow
19 restriction; it's an open bar on both ends, okay. When
20 that happens, it is immediate decompression of any
21 product in the pipeline. Now, we can argue a little bit
22 about how compressible is oil, okay. How many light

1 ends are in it? What's the composition of it? But in
2 reality, it decompresses almost instantaneously. A
3 negative pressure wave is formed. Depending on where
4 that break occurs relative to the pump stations, that
5 negative pressure wave travels upstream and downstream
6 at the speed of sound in the fluid. If it's close to a
7 downstream pump station, that pump station is going to
8 lose suction within seconds. Low suction pressure
9 switches are going to knock the pump station offline.
10 If it runs upstream and is close to the upstream
11 station, a new hydraulic gradient is immediately going
12 to be formed between the discharge of that pump station
13 and the open end of the pipe. Imagine this pipe used to
14 be pumping 75 miles downstream from 1400 to 50 psi, now
15 it's going five miles downstream from 1400 to 0. That
16 flow rate is going to accelerate rapidly. The pump is
17 going to run off the end of the pump curve, meaning it's
18 going to draw more amperage and horsepower than it's
19 designed for, and it's going to trip the breakers in the
20 pump station; I've had that happen. In the event of a
21 major guillotine break, it's almost assured the system
22 is going to take itself down within minutes.

1 Q. Just a couple more questions. And we kind of got
2 to an answer with this: There was a math problem really
3 early in the day. I believe it was Commissioner
4 Fedorchak that was asking: Can you put in context for
5 me what this flow rate is?

6 **A. Yes.**

7 Q. I think we decided that 15 feet per second with a
8 little help, I believe -- and I hope I don't
9 misattribute this to Commissioner Kroshus -- it was
10 roughly 10.2 miles per hour. Is that correct?

11 **A. Yeah, that's correct. I was actually calculating**
12 **it on the side myself at the same time.**

13 Q. He was faster than you.

14 **A. He was faster than I was.**

15 Q. 10.2 miles per hour is the equivalent of running
16 a six-minute mile. Correct? Roughly.

17 **A. Roughly, yes. We discussed that.**

18 Q. Yeah.

19 **A. Yeah, you embarrassed me and said, "You could run**
20 **a six-minute mile?" And I said, "No".**

21 Q. I did not say that. That would not be true.

22 **A. It's a -- but it is roughly equivalent to a**

1 **six-minute mile, yes.**

2 Q. So if we have anyone that goes out and does 5K's
3 on the weekend and they have a six-minute pace, they
4 could --

5 A. **They'd beat my personal best.**

6 Q. But that should give you a reference. It's about
7 10 miles an hour.

8 A. **And that's all the way from Williston all the way**
9 **to Patoka. You know, after the expansion, it's going to**
10 **be a 10-mile-an-hour flow rate all the way from**
11 **beginning to end.**

12 Q. Let me just ask you this: You have been here for
13 a lot of testimony about concerns, and a lot of
14 testimony about the care taken to address those concerns
15 in the pipeline. You've also heard that the standard
16 that the Commission is looking at is: Does it minimize,
17 or other minimal effects, to the public in the
18 environment in North Dakota in exchange for securing the
19 benefits of the energy supply? Do you believe, given
20 your experience and what you know about Dakota Access
21 Pipeline, that the construction of the pump station in
22 Emmons County and the resulting optimization will result

1 in minimal effects or minimal impacts to the public and
2 the environment?

3 **A. Based on the designs I've seen and the studies**
4 **I've seen, yes.**

5 MR. DUBLINSKE: We have nothing further,
6 Your Honor.

7 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.
8 Purdon.

9 MR. PURDON: I just have a couple of topics.
10 I'm going to try and be brief, because we want to get to
11 the public comment here.

12 EXAMINATION

13 BY MR. PURDON:

14 Q. There was discussion here about a guillotine cut
15 between to pump stations. Do you recall your testimony
16 about that just now?

17 **A. Yes, Sir.**

18 Q. You talked about how it would impact the two pump
19 stations, how they would shut down. I wanted to ask
20 you: In that hypothetical, two pump stations with a
21 guillotine cut in between them, do you agree with me
22 that between those two pump stations at the time of the

1 cut there would be the potential for more oil in the
2 ground at 1.1 million barrels per day as opposed to 570K
3 barrels per day?

4 **A. Are you saying would there be more leaving the**
5 **pipe as a result of the flow rate?**

6 Q. Exactly.

7 **A. Yes.**

8 Q. You said you've reviewed the transient surge
9 analysis, it's confidential in Illinois, and you met
10 with -- I don't know if it's Dr. or Mr. Hein. When did
11 you meet with him and have that discussion?

12 **A. I can't remember the exact date, but I believe it**
13 **was about three weeks ago.**

14 Q. So the report is dated October of 2019. Correct?

15 **A. That is correct.**

16 Q. And you met with him also in October of 2019?

17 **A. That's correct.**

18 Q. Was the report complete when you met with him or
19 was he in process and you were part of his process?

20 **A. No. We reviewed the draft of the report, and he**
21 **incorporated comments.**

22 Q. And then so -- okay. All right?

1 MR. PURDON: No further questions.

2 ADMINISTRATIVE LAW JUDGE DAWSON: Mr.

3 Pelham.

4 EXAMINATION

5 BY MR. PELHAM:

6 Q. Mr. Godfrey, can you tell us about hydraulic
7 profiles on this proposed facility?

8 A. Yes, Sir.

9 Q. All right. What can you tell us about that?

10 A. Hydraulic profiles are basically a depiction of
11 the discharge pressure of a pump station, suction
12 pressure of a pump station, and the change in elevation
13 and MOP between the two. It's typically plotted in
14 feet.

15 Q. Have you reviewed the hydraulic profiles for the
16 proposed plan that have been developed by Dakota Access?

17 A. Yes, I have, Sir.

18 Q. Do you have an opinion on those proposed plans?

19 A. I thought the hydraulic profiles were put
20 together very well. They were very conservative. And
21 they didn't take into account any of the heavy wall pipe
22 that was installed in any of the river crossings or

1 other sensitive areas. They based their profile and
2 their modeling exclusively on nominal line pipe.

3 Q. In your review, did you note any concerns that
4 you may have had with hydraulic profiles developed?

5 A. No.

6 Q. Help me out, Sir. Those hydraulic profiles, are
7 those a PHMSA requirement?

8 A. No, they're not a PHMSA requirement, okay. But
9 they are subject to review periodically during audit or
10 in the event of some sort of an incident. But they're
11 not they're not subject to a formal regulatory review,
12 no.

13 Q. Something that's done in the industry?

14 A. You know, it used to be a lot more common than it
15 is now. Computers have kind of taken over. We used to
16 call him Nomographs, and we did it on drawing boards.
17 But the principle of a hydraulic profile is exactly the
18 same, but most of it now is computer modeling.

19 Q. So in this case, computer modeling was used for
20 the hydraulic profiles?

21 A. Yeah. The profiles I reviewed were included in
22 the transient report and FFC's model.

1 Q. And would you say that would be the state of the
2 art at present?

3 A. At present, yes, Sir.

4 Q. The verifications done by PHMSA on the IMP, what
5 would the consequence of an inadequate IMP be?

6 A. It really depends upon what the findings are by
7 PHMSA. And I represent auditors -- I represent
8 operators now during PHMSA IMP audits. There are
9 several clients I have where I actually sit in with the
10 client during the audit and help prepare them and help
11 them get ready for it. Depending on the level of
12 violation, how the PHMSA inspector views that, it could
13 go from a notice of amendment which says "fix this" to a
14 notice of probable violation which says "you did not
15 follow the rule, we're going to take it back and
16 consider it for a fine". Or it could even lead to a
17 corrective action order which says "you're so far out of
18 line, you've got to fix it, you've got to fix it this
19 way right now".

20 Q. Sir, in your experience, is that a common
21 occurrence, would you say, for PHMSA to issue a
22 corrective action?

1 **A. Not on an IMP review or an IMP audit, no, very,**
2 **very rarely.**

3 Q. Do you know, Sir, in your experience, whether or
4 not PHMSA has ever issued such for Dakota Access or
5 Energy Transfer?

6 **A. No, I do not.**

7 Q. Kind of going back a little bit. You were asked
8 a line of questions about cutting corners, whether a
9 company, it benefits them to cut corners. In your work
10 in this industry and your work for Dakota Access, have
11 you observed Dakota Access cutting corners?

12 **A. No, Sir, I have not.**

13 Q. Have you observed other pipeline companies
14 cutting corners? Without naming names, I'm not asking
15 for names. I'm just wondering if you have.

16 **A. And when I do, I try to make them a client.**

17 Q. Understood. The Facility Response Plan, it's my
18 understanding that -- well, I'm getting mixed up here at
19 the end of the day, and it's been a long day. Filed
20 with PHMSA, or no?

21 **A. Yes, Sir.**

22 Q. It is filed with PHMSA. And in this case the

1 FRP, is it still in progress? Is it being updated?

2 A. The FRP currently is filed and approved by PHMSA.
3 It's required to be updated with the capacity expansion.

4 Q. Well, that's the letter that we've been talking
5 about.

6 A. That's right.

7 Q. February 23rd, 2017, Exhibit 15.

8 A. Yeah. And if I could add to that? That's the
9 first real approval letter I've seen on these. PHMSA
10 oftentimes will not respond or they'll send you a notice
11 of amendment or they'll say, "You need to improve your
12 FRP." I would say it's just a testament to the scale of
13 this pipeline and the attention of this pipeline that
14 they went to the extent of actually issuing an approval
15 letter. I've not seen one of those before.

16 Q. Having reviewed the transient surge analysis, you
17 heard the testimony. Mr. Kuprewicz's indicating that in
18 his opinion it came close to being sufficient in his
19 mind, but he viewed as there being a lapse. Do you
20 share that opinion?

21 A. No, I don't.

22 Q. And why don't you share that opinion, Sir?

1 **A. I've had the opportunity to not only review it**
2 **but to discuss it with Dr. Hein, and to discuss it with**
3 **some of my colleagues at DNVGL. I've had a -- and in my**
4 **personal experience, operating pipelines and designing**
5 **pipeline systems, I thought it was very prudent, it was**
6 **very reasonable.**

7 Q. So you're saying in your expert opinion the
8 transient surge analysis meets the acceptable standards
9 established in the industry as well as Federal
10 Regulations?

11 **A. Yes, Sir.**

12 Q. We talked about surge valves and explained those.
13 Those effectively would be automatic if it detected an
14 anomaly. Is that fair to say?

15 **A. Do you mean a surge valve, if it detected a**
16 **pressure spike?**

17 Q. A pressure spike, yes.

18 **A. Yeah, they're fully automatic. They're**
19 **autonomous.**

20 Q. No one's going to have to push a button?

21 **A. No.**

22 Q. It's not even computerized. It's right there on

1 the valve. Is that fair to say?

2 A. Yeah, it is a purely autonomous system. And in
3 fact, there's part of the regulation, one of the things
4 PHMSA inspectors will go out and look for is: Every
5 surge relief line also has to have an isolation valve,
6 so if the surge relief valve needs to be removed or
7 repaired you can isolate it from the pipeline. If those
8 valves aren't locked open, they will cite you and fine
9 you for it. It has to be a clear path to the valve.
10 The valve has to be autonomous and it has to be
11 functional all the time.

12 Q. You testified, Sir, as the Facility Response
13 Plan, having reviewed it, you believe it's compliant
14 with PHMSA, and you said something to the effect that
15 you're surprised with some of the techniques you weren't
16 familiar with. I'm wondering if you could elaborate and
17 be more specific as to those?

18 A. Yeah, I hate to admit it, but I moved South after
19 college. Recovery of oil under ice just wasn't anything
20 I've ever had to do. I've been on a number of oil
21 spills, unfortunately. I've been an incident commander.
22 I've been an operation site commander under the incident

1 **command system. I was really surprised, I'd never seen**
2 **a below-ice oil spill recovery plan before.**

3 Q. So that was included in this and you hadn't seen
4 it before, so that in other words impressed you?

5 A. Yeah. The detail and the level impressed me.
6 And the fact they've already drilled on it impressed me
7 as well.

8 Q. Is there anything else that surprised you that
9 you can think of right here as we sit?

10 A. It was just more or less the level of detail and
11 how thorough it was. It was a very thorough plan.

12 Q. Have you considered, in terms of a potential
13 impact on environmental and human welfare, different
14 forms of transportation of crude, aside from pipelines?

15 A. I'll leave that to the testimony of the experts
16 before.

17 Q. Fair enough. I don't have any other questions
18 for you. Thank you, Sir.

19 ADMINISTRATIVE LAW JUDGE DAWSON: Thank you.
20 Commissioner Fedorchak.

21 COMMISSIONER FEDORCHAK: Thank you.

22 EXAMINATION

1 BY COMMISSIONER FEDORCHAK:

2 Q. Just two questions, Mr. Godfrey. So first of
3 all, we've spent a lot of time today talking about
4 pressure surges. In the scope of threats to pipelines
5 and causes of accidents, where would you rank pressure
6 surges? Is that a common cause of line failure?

7 A. I wouldn't say it's a common cause of failure,
8 okay. I'd say it exacerbates other threats. You know,
9 a surge has to have something that it acts upon before a
10 pipe will fail, okay. So there has to be another
11 feature there, whether it's corrosion, whether it's a
12 crack, whether it's mechanical damage. Operators work
13 to prevent and detect and remediate those, and to design
14 and maintain a system that prevents the surges. Really,
15 the way to manage it is to go after the anomalies.

16 Q. And then you talked some with Mr. Dublinske about
17 the API best practices. But there's a couple that the
18 Tribe's witness identified that you didn't speak to. So
19 you mentioned that Dakota Access, you're aware that
20 they're adopting RP 1173. You talked about 1160 and
21 said -- I can't remember exactly what you said about
22 1160. That's the one that some --

1 **A. They are adopting it in part.**

2 Q. They're adopting in parts. Part of it conflicts
3 with existing regulations?

4 **A. Yeah. And part of it just doesn't fit their**
5 **operation.**

6 Q. All right. And then there's two others that he
7 referenced, 1175 leak detection program management. You
8 didn't mention if you're aware of --

9 **A. Or 1130.**

10 Q. Or 11:30.

11 **A. Yeah, I am not an expert in control systems,**
12 **SCADA, or control room management. I can speak**
13 **generally to it; if I tried to go beyond that, I'd be**
14 **out of my comfort zone.**

15 Q. Okay, no problem. That's it. Thank you.

16 **A. Yes, Ma'am.**

17 **ADMINISTRATIVE LAW JUDGE DAWSON:**

18 **Commissioner Kroshus.**

19 **EXAMINATION**

20 **BY COMMISSIONER KROSHUS:**

21 Q. I'll make this really quick, just I am going to
22 follow suit with Mr. Purdon. And I'm very anxious to

1 hear public testimony.

2 **A. Yes, Sir.**

3 Q. And I think I've gotten the basis of your
4 position. But can you tell me the surge relief valve
5 upstream of a pump station, from a distance -- and I
6 know it's going to vary, I would at least anticipate it
7 will vary -- but how far upstream is that?

8 **A. A few feet, just a few feet. It's within the**
9 **facility boundaries. It's just upstream of the station**
10 **suction valve. Typically, a station is designed with**
11 **two isolation valves in the event of a big emergency,**
12 **and then you'll have a suction discharge valve. It'll**
13 **be just upstream of that suction valve.**

14 Q. Okay. And then just if you can keep it really
15 brief if possible on this question: A slow leak is
16 worse from the way you've described it than say a
17 guillotine leak?

18 **A. A slow leak worse?**

19 Q. That would be worse because it won't be detected
20 as quickly. You said the system will shut down --
21 almost with certainty, would shut down immediately in
22 the event of a guillotine leak. So that --

1 A. I'm going to apologize right now, because it's
2 not a really short answer. In the event of a guillotine
3 leak, you have an open pipe and you get the maximum flow
4 out of it all at once until it's detected, the stations
5 are shut down, and the line is isolated. And then the
6 line is allowed to drain down into that leak point. And
7 in almost all ruptures or guillotine breaks, that
8 drain-down volume is more than the instantaneous volume
9 that's released from the pipe; that's the governing
10 volume on spill size.

11 So those really are the worst-case discharges.
12 Ruptures and line breaks, by and large, are always
13 larger than the small leaks, with the exception of the
14 small leak that just can't be detected. Those can be
15 pin holes, they can be small cracks that open up, they
16 can only leak under a certain operating pressure. Those
17 are difficult to detect. And that's also why pipeline
18 companies have adopted a lot of the damage prevention
19 actions, as well as the public communication work. You
20 know, Call Before You Dig, the national one-on-one
21 system, was pushed by the American Petroleum Institute
22 as a way to help minimize third-party damage. Public

1 outreach, there's an API standard on community awareness
2 that's actually incorporated into the regs, and I can't
3 remember the number right now. I apologize.

4 But everything from the emergency response number
5 on a line marker to the outreach that goes out to the
6 public, to the training with first responders, to the
7 participation in the one-call system, to the aerial over
8 patrol flights, those are all part of a leak detection
9 system, part of a leak detection scheme. Those are
10 highly effective at finding those small leaks. That's
11 probably why you see a significant number of the smaller
12 leaks being detected, you know, by the public or by
13 means other than a SCADA system.

14 Q. Okay, all right. Thank you.

15 A. Sorry for the length of the answers.

16 ADMINISTRATIVE LAW JUDGE DAWSON:

17 Commissioner Christmann.

18 COMMISSIONER CHRISTMANN: No other
19 questions. Thank you.

20 ADMINISTRATIVE LAW JUDGE DAWSON: Are there
21 any further questions?

22 MR. BENDER I have one brief -- a couple

1 with how many valves? 400 valves on it -- well over a
2 thousand miles, elevation changes, differences in pipe
3 wall, currently three pump stations going to six pump
4 stations, I would think the development of the model
5 alone would take a couple of months. Now, you talk
6 about running the different iterations in the different
7 scenarios of surge initiators and mitigating factors,
8 and you're talking weeks to run those and to proof out
9 the output. I know that it was a period of well over a
10 week from the draft to the final with just the small
11 comments that were made following review. So it's a
12 lengthy process. I think when we quote it, we quote
13 four to six months.

14 Q. So this started well before the October date on
15 the report?

16 A. I'm not personally familiar with the start date,
17 but my experience would say yes, very much before.

18 Q. You -- say it a way nicely talking about the
19 number of valves, you were talking just a little bit
20 with the Commission about drain-down. One way to limit
21 the impact of drain-down is shorter distances between
22 mainline valves. Correct?

1 **A. That is correct.**

2 Q. Limit the inventory available for drain-down
3 between those two valves?

4 **A. That's correct.**

5 Q. In your experience, is the spacing distance on
6 Dakota Access more conservative than other pipelines?

7 **A. It's safe for me to say that Dakota Access has**
8 **the most emergency flow-restricting valves,**
9 **remote-controlled valves, of any pipeline I've worked**
10 **with.**

11 Q. And that will help limit the drain-down in any
12 event?

13 **A. Yeah, that is correct. And I've also got to**
14 **speak to the design of the valves. People talk about**
15 **valves, whether they can create a surge or whether they,**
16 **restrict a drain-down. Not all valves perform the same,**
17 **you know, there are valves that can close very quickly**
18 **that can lead to a surge, there are valves that have a**
19 **more linear closure rate where the pressure is begins to**
20 **be reduced immediately when the valves close and it**
21 **works all the way through its first cycle. The valves**
22 **installed on this system are ball valves; they are often**

7 ADMINISTRATIVE LAW JUDGE DAWSON: Any
8 further questions? Seeing none, you may step down.
9 Thank you.

12 ADMINISTRATIVE LAW JUDGE DAWSON: Any
13 further testimony? Any further testimony? Any further
14 testimony? Seeing no further testimony, the public
15 testimony section of this hearing is over.

18 MR. PELHAM: No. I think that there was one
19 matter that I've been talking with. Mr. Bender about,
20 plus the day now it seems but -- then I think there's
21 just the matter of: I understand there's going to be
22 post-hearing briefings.

1 ADMINISTRATIVE LAW JUDGE DAWSON: There will
2 be post-hearing briefings combined with proposed
3 findings of fact and conclusions of law and our order,
4 both parties simultaneously.

5 MR. PELHAM: Would the 9th work, or is that
6 in the ballpark?

7 ADMINISTRATIVE LAW JUDGE DAWSON: Or you're
8 thinking the 30th? 30th of November?

9 MR. PELHAM: Yep, 30th of November. Excuse
10 me, December. December.

11 ADMINISTRATIVE LAW JUDGE DAWSON: Okay,
12 that's fine.

13 Are there any late filed exhibits or
14 anything like that that we're waiting for right now?

15 UNIDENTIFIED ATTORNEY: Your Honor, I think
16 one of the issues that came up -- I don't recall which
17 Commissioner brought it up -- but there was some issue
18 -- and perhaps it was -- I just don't recall this late
19 at night. But there was the issue of whether Dakota
20 Access would comply with anything that might be in the
21 Army Corps' permit, and the answer to that -- and we
22 will agree to that.

1 ADMINISTRATIVE LAW JUDGE DAWSON: So are
2 there any late filed exhibits?

3 UNIDENTIFIED ATTORNEY: I don't have any
4 neatly filed exhibits noted, unless I'm missing
5 something and someone disagrees with me. Yes, sorry. I
6 can't think of which witness it was, but I had asked --
7 one of the witnesses who said that it would be provided
8 with an answer to whether ETP or DAPL as a member of the
9 Chicago area.

10 ADMINISTRATIVE LAW JUDGE DAWSON: Yeah,
11 Water Response Group.

12 UNIDENTIFIED ATTORNEY: And if they're not,
13 whether they were going to at least look into the
14 possibility.

15 ADMINISTRATIVE LAW JUDGE DAWSON: And
16 Commissioner Christmann, is that something that we could
17 provide to you in the form of a letter, and the letter
18 would be a late-night filed exhibit? Is that
19 appropriate?

20 COMMISSIONER CHRISTMANN: Absolutely fine.
21 I'm familiar.

22 ADMINISTRATIVE LAW JUDGE DAWSON: Okay. So

1 if I have everything clear here, we're going to close
2 this hearing. It is 12:30 on Thursday. Whatever,
3 Wednesday. Thursday, Thursday, November. I don't know
4 what date. It's 12:30 on the 14th. I think that's
5 correct. November. And we are closing this hearing on
6 PU-19-200 for the application of Dakota Access. And
7 we'll keep the record open for late filed exhibits and
8 briefs and proposed findings. This hearing is closed.

9 (Whereupon the hearing concludes.)

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1 I, Alexandria Martin Kaan, do hereby certify that
2 the within-named proceedings were recorded
3 stenographically by me and this transcript is a true
4 record of the proceedings.

5

6 I further certify that I am not Counsel to any of
7 the parties, nor an employee of Counsel, nor related to
8 any of the parties, nor in any way interested in the
9 outcome of this action.

10

11 As witness my hand this 25th day of November, 2019.

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Alexandria Kaan

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