

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

CASE NUMBER 18-0395-PET

NOTICE OF PROBABLE VIOLATIONS BY VERMONT GAS SYSTEMS,
INC. FOR CERTAIN ASPECTS OF THE CONSTRUCTION OF THE
ADDISON NATURAL GAS PROJECT

and

CASE NUMBER 17-3550-INV

INVESTIGATION PURSUANT TO 30 V.S.A SECTIONS 30 AND
209 REGARDING THE ALLEGED FAILURE OF VERMONT GAS
SYSTEMS, INC. TO COMPLY WITH THE CERTIFICATE OF
PUBLIC GOOD IN DOCKET 7970 BY BURYING THE PIPELINE
AT LESS THAN REQUIRED DEPTH IN NEW HAVEN, VERMONT

December 8, 2021
9:30 a.m.

Evidentiary Hearing held before the Vermont
Public Utility Commission via Go To Meeting on December 8,
2021, beginning at 9:30 a.m.

P R E S E N T

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1 HEARING OFFICER TOUSLEY: This is a
2 second evidentiary hearing in Case Numbers
3 17-3550-INV and 18-0395-PET which is an investigation
4 pursuant to 30 V.S.A. Sections 30 and 209 regarding
5 the alleged failure of Vermont Gas Systems, Inc. to
6 comply with the Certificate of Public Good in Docket
7 Number 7970 by burying the pipeline less than
8 required depth.

9 My name is Mike Tousley. I'm a Staff
10 Attorney with the Vermont Public Utility Commission
11 and I've been appointed to serve as the hearing
12 officer in this matter. I'm also the platform
13 manager which may slow us down technically because I
14 have not done it before, but I'll do my best. If a
15 party or participant intends on recording the hearing
16 via video or audio, please indicate this when you
17 provide your name for the court reporter. I'll start
18 by taking appearances starting with Vermont Gas
19 Systems.

20 MR. McCLAIN: Good morning. This is
21 Owen McClain from Sheehey Furlong & Behm on behalf of
22 Vermont Gas Systems.

23 HEARING OFFICER TOUSLEY: The
24 intervenors.

25 MR. DUMONT: Good morning. This is

1 James Dumont for intervenors. Assisting me today is
2 Miss Caroline Engvall E-N-G-V-A-L-L. She will not be
3 speaking other than to help me manage exhibits.

4 HEARING OFFICER TOUSLEY: VELCO.

5 MR. RAUBVOGEL: Good morning. Andy
6 Raubvogel with the firm of Dunkiel Saunders
7 representing Vermont Electric Power Company and
8 Vermont Transco LLC, otherwise known as VELCO.

9 HEARING OFFICER TOUSLEY: And the
10 Department or I guess we have AAFM with us; is that
11 correct? Okay. The Department.

12 MR. GUZMAN: Good morning. Eric Guzman
13 on behalf of the Department of Public Service.

14 HEARING OFFICER TOUSLEY: And are there
15 other parties who are present today?

16 MR. MILLER: Randy Miller on behalf of
17 Agency of Natural Resources.

18 HEARING OFFICER TOUSLEY: Okay.

19 MR. DUMONT: I also see that several of
20 my clients have joined us as silent participants.

21 MR. RAUBVOGEL: For VELCO my colleague
22 at Dunkiel Saunders Zoe Sajor is on and Mark
23 Sciarrotta, General Counsel of VELCO.

24 HEARING OFFICER TOUSLEY: Great. Thank
25 you. I don't see anyone participating by phone. I'm

1 going to go through the script here that we've been
2 using for remote hearings. I ask you to bear with
3 me. It's something that we like to ensure is in the
4 record and it does take a couple minutes.

5 Due to the COVID-19 pandemic the
6 Commission is limiting in-person contact. As a
7 result, the parties have agreed to conduct this
8 hearing remotely. I would like to take a moment to
9 confirm that all of the parties have consented to
10 have a remote hearing. If anyone no longer consents
11 to conducting this hearing remotely, they must speak
12 up now. I don't see anybody speaking up so hearing
13 no objection let's talk a little bit about logistics.

14 We're using the web based platform Go To
15 Meeting. During this hearing we will be using
16 special hearing procedures uniquely related to using
17 a web based platform. I'll read them now for the
18 benefit of the parties and to ensure we have them on
19 the record.

20 You may raise objections to these
21 procedures either now or at any point during the
22 hearing. In addition to formal objections, parties
23 may also raise concerns at any time if the platform
24 is not performing as expected or if you are having
25 difficulties. This hearing may proceed more slowly

1 than usual and we may need to stop along the way to
2 resolve technical issues. I also recognize that
3 because we're all in remote locations such as our
4 homes there may be unexpected interruptions at those
5 locations.

6 The representatives in this case should
7 keep their cameras on during the entire hearing
8 except during the breaks. It is very helpful to see
9 all of you particularly when you are raising
10 objections or questioning witnesses. Witnesses
11 should leave their cameras off until they are
12 testifying at which time they should turn them on.
13 Even with your own camera turned off you will still
14 be able to see everyone who has their cameras turned
15 on. My preference is that people who are not
16 actively participating in the proceeding leave their
17 cameras off so the active participants are larger
18 which I have just done in my own presentation so I
19 now see 8 people instead of the more people who are
20 actually listening.

21 I will not mute anyone's microphone
22 whether a party or participant or a member of the
23 public. This means that you should keep yourself on
24 mute until you are speaking. That way you can
25 minimize background noises which can be very

1 disruptive. During breaks in the hearing all
2 participants are asked to turn their cameras off and
3 mute their microphones. We will have a couple of
4 breaks for sure and probably a half hour lunch break
5 in this proceeding. The first time you begin talking
6 please identify yourself by name for the court
7 reporter. If your internet connection cuts out,
8 please try to rejoin the Go To Meeting or call into
9 the hearing using the Go To Meeting telephone number
10 that was provided in the hearing notice. If the
11 audio or video from the hearing has cut out, please
12 let me know when you are able to rejoin and I will
13 summarize what happened, and we will revisit any
14 questions for which an objection may have been
15 allowed including any admission of an exhibit. If
16 you are unable to call in or rejoin, notify me
17 immediately via e-mail at michael.tousley@vermont.gov
18 or the Clerk's Office immediately via e-mail or
19 telephone.

20 I will pause the hearing until the
21 technical issue is resolved. If the technical
22 concern cannot be resolved, we will reschedule the
23 hearing. Similarly, if at any point any of you
24 become aware of any party, participant, or member of
25 the public having trouble accessing the video and

1 audio feeds of this remote hearing, please let me
2 know immediately. I will pause the hearing until the
3 issue is resolved. If it cannot be resolved, we will
4 reschedule the hearing. It's very important that we
5 avoid talking over one another. Of course if you
6 have an objection, then you must raise it at the
7 moment the objection arises. That type of
8 interruption is allowed and required. When
9 objections or issues are raised I'll ask each of you
10 one by one whether they have a response. We will go
11 in the following order in responses to objections.
12 We'll start with Vermont Gas followed by VELCO
13 followed by the intervenors and then ANR and the
14 Department. Please wait until I call on you to
15 respond. Then answer verbally so we have your
16 response in the record. When you are asking
17 questions of the witnesses I will make you the
18 presenter in Go To Meeting which I was taught to do
19 yesterday so I'm hoping it will work again today.

20 If you refer to any documents during
21 your questioning, you must share the documents on
22 your screen by clicking the share icon -- the share
23 screen icon. Alternatively someone else from your
24 firm may show the documents for you during your
25 questioning. The questioner must wait to ask

1 questions about a document until the document is
2 being shared. Please verbally identify the document
3 you are showing for the court reporter. For example,
4 clearly state I'm showing Department-Cross-1. When
5 you are done with the document please click stop
6 sharing screen. When you are sharing your screen I
7 advise you to close out of any other unnecessary
8 applications such as email to avoid notifications
9 being visible to others.

10 Does anyone have any questions or
11 concerns about these procedures at this time? Okay.
12 I don't see any hands raised. We'll move on.

13 We will now begin the substantive
14 portion of this hearing. As of this morning there's
15 one outstanding motion. It is a motion to withdraw
16 filed by Attorney Schwartz representing Vermont
17 Agency of Agriculture, Food and Markets. Having
18 heard no objection, I'm aware that Attorney Tisher
19 remains as the representative of the Vermont Agency
20 of Agriculture, Food and Markets, that motion is
21 granted.

22 Finally, I want to address -- to take
23 this opportunity to address two other issues. First,
24 I wanted to clarify on the record that this is the
25 second evidentiary hearing and the purpose of it is

1 two-fold. In an order issued on April 30, 2021 the
2 Commission directed me to reopen the evidentiary
3 hearing to address whether Vermont Transco, Vermont
4 Electric Power Company, Inc., VELCO, has concluded
5 that the loading standard that Vermont Gas achieved
6 in the VELCO right-of-way in New Haven will not limit
7 VELCO's ability to repair or construct transmission
8 infrastructure in that location in the future. So
9 that's the first issue that we're going to be
10 addressing here today.

11 The second issue is as part of the
12 penalty phase of this hearing I will conduct -- I
13 will conduct an evidentiary hearing. Second phase
14 has to do with the penalty phase. My ultimate
15 proposal for decision will make recommendations
16 regarding both whether Vermont Gas violated the 2013
17 CPG including any amendments to the conclusions and
18 recommendations in the liability order based on any
19 new evidence regarding a loading standard issue and
20 an appropriate civil penalty.

21 So the next step is for us to move
22 through the hearing. I observe that there have been
23 no filings of evidence specifically related only to
24 any potential penalty. At least that's my
25 impression. If I'm incorrect, please let me know in

1 a minute. We have bifurcated the investigation
2 allowing for that conclusion which I made in the
3 liability order January 29, 2021, but we are able to
4 go into -- we are reopening the record as directed by
5 the Commission to address anything related to the
6 loading standard issue that might alter or create
7 amendments to my conclusions in the liability order.

8 After briefing and proposed findings are
9 filed I will issue a proposal for decision addressing
10 any amendments to the conclusions and recommendations
11 in the liability order based on any new evidence
12 regarding the loading standard issue and an
13 appropriate civil penalty. The parties' briefings
14 and proposed findings can address both of these
15 issues. The parties will have an opportunity to
16 comment on that proposal for decision and seek oral
17 argument. The Commission will issue a comprehensive
18 final order addressing liability and appropriate
19 penalty.

20 I observe in the list of witnesses and
21 new documents to be addressed during the hearing
22 there's a ghost, the ghost of Mr. Liebert, inasmuch
23 as at least one witness, Mr. Allen, the purpose of
24 his testimony is purely to rebut the testimony of Mr.
25 Liebert who had been -- whose testimony has been

1 withdrawn.

2 I guess before we begin I would like the
3 parties -- and I also observe that the testimony of
4 Mr. Allen, generally speaking, addresses corrosion
5 protection and AC mitigation which on its face is not
6 directly within the scope of what the Commission
7 wanted me to reopen the record to address. That is
8 they asked me to reopen to address any new evidence
9 regarding the loading standard issue and the
10 appropriate civil penalty. In the liability order I
11 found that Vermont Gas was not liable for any issues
12 regarding corrosion protection and AC mitigation. So
13 I'm just -- I'm going to ask the parties, or at least
14 Vermont Gas and the intervenors and VELCO, to express
15 to me on the record, just so I don't have a problem
16 allowing Mr. Allen's testimony, I want it stated by
17 the parties what the relevance of his testimony is
18 given the limited scope of that hearing. The
19 connections can be made, but I would like you to do
20 that now. We'll start with Vermont Gas. Why is Mr.
21 Allen's rebuttal testimony relevant here?

22 MR. McCLAIN: Good morning. Thank you.
23 You're absolutely correct, Mr. Tousley, that Mr.
24 Allen filed testimony with the specific purpose of
25 rebutting the testimony of Gregory Liebert. I also

1 agree that the testimony of Gregory Liebert with
2 respect to AC mitigation and a cathodic protection
3 was beyond the scope of the remand order in this
4 case. I think it's Vermont Gas's position that we
5 are prepared to address any concerns about the
6 integrity of the ANGP whenever they are raised,
7 whenever we are accused of failing to meet any kind
8 of safety standard whatsoever. We are prepared to
9 rebut that with a full throated response and that's
10 what we did in this case.

11 I have no objection to admitting it and
12 having him questioned before the Commission so that
13 the Commission can have a full and fair understanding
14 of AC mitigations, cathodic protection, and the
15 overall safety and integrity of the pipeline which
16 the company stands by, and so we have no particular
17 position on whether it should be excluded or
18 admitted. It was filed because Mr. Liebert raised
19 concerns and it was prepared in response to Mr.
20 Liebert prior to Mr. Liebert withdrawing his
21 testimony and prior to Mr. Liebert articulating that
22 he was wrong to file his initial testimony.

23 So, you know, I'm fine admitting it and
24 having him cross examined. It's really -- I think we
25 have no objection to proceeding. We also would have

1 no objection if the Hearing Officer and the other
2 parties did not want to admit it. I think it's been
3 admitted by stipulation pursuant to our filing on
4 November 29th whereby we filed a list of all the
5 prefiled testimony that's been filed since the remand
6 and the parties have all agreed to it. That's more
7 or less our position.

8 HEARING OFFICER TOUSLEY: Thank you.
9 Mr. Raubvogel.

10 MR. RAUBVOGEL: I thought you were going
11 to have Mr. Dumont go first.

12 HEARING OFFICER TOUSLEY: I think I
13 would prefer you answer this question. If you don't
14 differ from Mr. McClain, you can say you just agree
15 with him.

16 MR. RAUBVOGEL: Sure. I don't differ.
17 One thing I would note is I read Mr. Dumont's letter
18 withdrawing Mr. Liebert's testimony, and maybe I
19 misread it, I thought essentially he said that with
20 respect to the AC mitigation issue their position
21 with respect to whether it did or didn't require a
22 stamped Vermont licensed engineer was an issue they
23 had preserved in prior testimony in the earlier
24 proceeding, and that was the issue that they were
25 preserving, and if that's the case, then I don't --

1 then this testimony may be relevant, but otherwise I
2 agree with Mr. McClain that it does appear to go
3 beyond the scope of what the purpose of this
4 proceeding is not to rehash whether the AC mitigation
5 was sufficient or not. That issue was asked and
6 answered I think as you noted, and so, you know,
7 otherwise no objection to it being included, but we
8 also think for -- if there's not a need to expand the
9 scope of the proceeding, then that would be
10 potentially preferable too.

11 HEARING OFFICER TOUSLEY: Okay. Thank
12 you. Mr. Dumont.

13 MR. DUMONT: Yes. Thank you. We should
14 have held this proceeding on October 31st since we're
15 dealing with a ghost. I was wondering how we were
16 going to deal with it, Mr. Tousley, since we are
17 dealing in large part with a ghost here. I don't
18 agree that Mr. Allen's testimony was admitted by
19 stipulation. We submitted a stipulation, but the
20 hearing officer has to make a ruling on whether any
21 testimony is admitted and that's why you've asked the
22 question that you have asked.

23 I agree with the hearing officer's
24 reading of the remand order and my position is we
25 have -- my client and we really are bound by the

1 remand order. I think that's pretty simple. I am
2 prepared to cross examine Mr. Allen at some length if
3 his testimony is admitted. I didn't feel I could
4 object to it because it was submitted in response to
5 testimony that we had submitted that we've now
6 withdrawn. Nonetheless, I believe, Mr. Tousley,
7 you're correct it is outside the scope of the remand
8 order.

9 HEARING OFFICER TOUSLEY: Okay. Do Mr.
10 Guzman or Mr. Miller have a comment?

11 MR. GUZMAN: The Department agrees with
12 the characterization addressed by Mr. Dumont and
13 Attorney McClain. We wouldn't have an objection per
14 se to the admission of the testimony in as far as it
15 provides assistance to the Commission, but we do
16 agree it does go beyond the scope of this current
17 remand proceeding in the penalty phase.

18 HEARING OFFICER TOUSLEY: Mr. Miller.

19 MR. MILLER: The Agency has no objection
20 to its admission or its exclusion in this case.

21 HEARING OFFICER TOUSLEY: Okay.

22 MR. McCLAIN: If I might, Mr. Tousley,
23 this is a little -- little bit of a confusing
24 posture. My understanding coming into this hearing
25 was that the intervenors had stated they believed

1 that the issue had become moot. You know they raised
2 new issues about AC mitigation and cathodic
3 protection. If -- if Mr. Dumont does not believe
4 that those are within the scope of the remand and
5 does not believe -- and he agrees that the scope of
6 the remand and there's some sort of limitation on the
7 scope of this hearing, which has not been defined to
8 me in particular other than the remand order itself,
9 it would seem odd to spend a significant amount of
10 time on an issue that Mr. Dumont agrees is moot and
11 there's no need to address further issues if they are
12 moot. So, you know, we're happy withdrawing the
13 testimony if it's indeed viewed as moot. I certainly
14 don't think it's worth spending a significant amount
15 of time on here today if everyone agrees that it is
16 beyond the scope of the hearing and the intervenors
17 themselves believe the issue has become moot. So --

18 HEARING OFFICER TOUSLEY: Okay. So is
19 there any objection to Mr. McClain's motion to
20 withdraw the testimony and presence of Mr. Allen in
21 today's hearing?

22 MR. DUMONT: On behalf of the
23 intervenors I just want to make a slight correction.
24 I stated that I believe the Hearing Officer is
25 correct that this testimony is outside the scope of

1 the remand order. I believe Mr. Raubvogel was
2 correct in stating that we raised the issue in the
3 first phase of the proceeding and we preserved it.
4 That doesn't mean it's appropriate at this point.
5 I'm not saying it's moot. I guess my point is
6 there's a difference between that and saying it's
7 moot. I don't think it's moot, but I think it is
8 beyond the scope of the remand order. You have
9 already made your decisions in that phase.

10 HEARING OFFICER TOUSLEY: Okay. I guess
11 I'm a little bit confused. I'm guessing that what
12 you're telling me is that you will address AC
13 mitigation in your final briefing as opposed to
14 requiring additional evidence from Mr. Allen; is that
15 correct?

16 MR. DUMONT: Well I think what I'm
17 saying this is not an opportunity to rehash issues
18 that people won or lost on during the first phase.
19 So it's not moot, but it's also not appropriate at
20 this phase.

21 HEARING OFFICER TOUSLEY: When would you
22 anticipate being -- do you have new evidence that was
23 unavailable at the time of the initial hearing that
24 you would like to install related to the AC
25 mitigation corrosion question?

1 MR. DUMONT: No. I have cross
2 examination for Mr. Allen and only that. What we
3 would in the final -- when the remand part of this
4 proceeding is over and, Mr. Tousley, you submit a
5 proposal for decision to the full Commission at that
6 point all the parties will be briefing. That's why I
7 don't want to say it's not moot. It's not
8 appropriate for this phase.

9 HEARING OFFICER TOUSLEY: Okay great.
10 Is there any other objection to the withdrawal of Mr.
11 Allen's testimony both the prefiled and live
12 testimony today?

13 MR. RAUBVOGEL: No objection.

14 HEARING OFFICER TOUSLEY: Okay. Great.
15 Seeing no objections we'll go ahead and that gives us
16 an additional -- that shortens our time by about 45
17 minutes, although we did just spend 15 minutes
18 talking about it, maybe half an hour, and we won't
19 address -- Mr. Allen's testimony will not be
20 admitted, however, I just want to make sure that the
21 prefiled testimony noted in the exhibit Joint 2 for
22 Mr. Bodenhamer and Mr. Connaughton, Mr. Chaves, and
23 Mr. St. Hilaire, is there any objection to the
24 admission of that testimony?

25 MR. DUMONT: I do not object.

1 HEARING OFFICER TOUSLEY: Okay.

2 MR. RAUBVOGEL: No objections.

3 HEARING OFFICER TOUSLEY: Okay. Very
4 well. Then the prefiled testimony of Mr. Bodenhamer,
5 Mr. Connaughton, Mr. Chaves, and Mr. St. Hilaire is
6 admitted pursuant to the exhibit Joint 2 filed by the
7 parties and we'll go ahead now, unless there's some
8 other procedural issue that the parties wish to make
9 --

10 MR. McCLAIN: I would just ask to
11 clarify that the testimony listed as well as the
12 exhibits that those witnesses filed would be admitted
13 into evidence.

14 HEARING OFFICER TOUSLEY: That's
15 correct. They are now admitted.

16 MR. McCLAIN: Thank you.

17 <http://epuc.vermont.gov/?=downloadfile/519947/111907>

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1 HEARING OFFICER TOUSLEY: Are we ready
2 to move on to Mr. Bodenhamer? Is that the proper
3 pronunciation?

4 MR. RAUBVOGEL: Bodenhamer.

5 HEARING OFFICER TOUSLEY: Bodenhamer.
6 Thank you, sir. I also -- I did prepare a general
7 witness schedule that included Mr. Allen. I think
8 what we're going to try to do is get through Mr.
9 Chaves if we can and then take a lunch break and then
10 take Mr. St. Hilaire after lunch unless it's
11 anticipated that less than an hour will be needed for
12 his examination and cross examination.

13 I also wanted to note that I would
14 anticipate that -- and I'll say this again later,
15 that initial briefs are due on January 5th and reply
16 briefs are due on January 21st. Mr. Bodenhamer, I
17 see you now. Thank you for -- go ahead, Mr. McClain.

18 MR. McCLAIN: Mr. Tousley, I'm sorry. I
19 may be mistaken, but my understanding of the
20 procedural schedule was that initial briefs following
21 this hearing would be due on December 22nd I think or
22 23rd and that the reply briefs would be due on
23 January 10th. Maybe I'm --

24 HEARING OFFICER TOUSLEY: That I think
25 was probably in the earlier schedule and I apologize

1 for the unnoticed change. I guess I was just
2 thinking about the Christmas holiday and we've been
3 encouraged here at the Commission to push out any
4 deadlines beyond the New Year's holiday if possible.
5 This was one of those cases, however, if you want to
6 stick with the initial schedule, have initial briefs
7 due December 22nd, we can do that.

8 MR. McCLAIN: Yeah I mean that's what
9 the parties had discussed and have filed before and
10 I'm fine sticking with that, but I don't have a
11 strong opinion either way. I was just -- I didn't
12 realize you were attempting to change the existing
13 schedule.

14 HEARING OFFICER TOUSLEY: I don't have
15 to. So December 22nd --

16 MR. McCLAIN: 23rd.

17 HEARING OFFICER TOUSLEY: 23rd is
18 initial briefs and final briefs are due -- remind me
19 again. I don't have that written down.

20 MR. McCLAIN: January 10th.

21 HEARING OFFICER TOUSLEY: January 10th.
22 Okay. So both of them for -- at least the first one
23 is also before the holiday and I would anticipate
24 that in the initial briefs parties would file
25 relevant proposed findings of fact and

1 recommendations that I should make as well as the
2 reply briefs to the Commission in my proposal for
3 decision which I won't be doing until January --
4 after January 10th. Okay.

5 Now, Mr. Bodenhamer, you can put
6 yourself back on again. I believe you are the first
7 witness. Actually I'm going to ask Mr. McClain to
8 introduce Mr. Bodenhamer although I see he just left.
9 Okay.

10 MR. RAUBVOGEL: Sorry. Mr. Bodenhamer
11 is our witness.

12 HEARING OFFICER TOUSLEY: Your witness.
13 So please, Mr. Raubvogel.

14 MR. RAUBVOGEL: I will do that. VELCO
15 calls Kevin Bodenhamer to the witness stand. Kevin,
16 would you introduce yourself for the record please?
17 Kevin, you're still muted.

18 MR. BODENHAMER: There we go. Sorry.
19 Name Kevin Bodenhamer.

20 KEVIN BODENHAMER,

21 DIRECT EXAMINATION

22 BY MR. RAUBVOGEL:

23 Q. And, Kevin, can you just identify who you're
24 employed by?

25 A. I'm employed by TRC based out of Tulsa,

1 Oklahoma.

2 MR. RAUBVOGEL: Thank you. Sorry, Mr.
3 Tousley, would you like me to ask him whether he has
4 any corrections to his testimony now or are you going
5 to swear him in first?

6 HEARING OFFICER TOUSLEY: Go ahead,
7 please.

8 BY MR. RAUBVOGEL:

9 Q. Kevin, did you prefile direct testimony and
10 rebuttal testimony in this proceeding?

11 A. Yes I did.

12 Q. Do you have any corrections that you need to
13 make to -- first to your direct testimony?

14 A. No.

15 Q. Do you have any corrections that you need to
16 make to your rebuttal testimony?

17 A. No.

18 Q. And is that testimony true and accurate to the
19 best of your knowledge?

20 A. Yes.

21 MR. RAUBVOGEL: Thank you.

22 HEARING OFFICER TOUSLEY: Mr. Raubvogel,
23 do you intend to use documents as part of your
24 examination of Mr. Bodenhamer?

25 MR. RAUBVOGEL: Let's see. He does not

1 have any exhibits.

2 HEARING OFFICER TOUSLEY: Okay. Mr.
3 Dumont, do you intend --

4 MR. RAUBVOGEL: I apologize. He does
5 have one exhibit which is his resume. VELCO KB-1 is
6 Mr. Bodenhamer's resume and yes we would move for the
7 admission of that.

8 HEARING OFFICER TOUSLEY: Okay. That's
9 been admitted. Does anybody have a document during
10 the examination of Mr. Bodenhamer that they want to
11 present? Mr. Dumont.

12 MR. DUMONT: Yes. We may use his
13 deposition which is our cross exhibit 7.

14 HEARING OFFICER TOUSLEY: Okay. Well
15 when we get to -- is there anything on direct
16 examination? I'm guessing not from Mr. Raubvogel; is
17 that correct?

18 MR. RAUBVOGEL: That is correct. Yes
19 correct.

20 HEARING OFFICER TOUSLEY: Okay. I just
21 want to make sure I test out my ability to make you a
22 presenter early.

23 MR. RAUBVOGEL: Got you.

24 HEARING OFFICER TOUSLEY: I will wait,
25 Mr. Dumont, until you're done with your direct and we

1 go to cross, and at that point if Mr. Dumont wants to
2 use a document I will make him a presenter. With
3 that I'm going to ask Mr. Bodenhamer to swear in. If
4 you could raise your right-hand.

5 (Mr. Bodenhamer was duly sworn.)

6 HEARING OFFICER TOUSLEY: Mr. Raubvogel,
7 your witness is available.

8 MR. RAUBVOGEL: Yes. Thank you. So
9 given that Mr. Bodenhamer has prefiled his direct
10 testimony and rebuttal testimony I have no further
11 examination at this time and would offer him to be
12 available for cross examination.

13 HEARING OFFICER TOUSLEY: Mr. Dumont, do
14 you want me to make -- let me see if I can find the
15 second Mr. Dumont. Yes. Would you like me to make
16 your office assistant the presenter in this case?

17 MR. DUMONT: Yes please.

18 HEARING OFFICER TOUSLEY: I believe I
19 see your screen. Okay. Mr. Dumont, this is your
20 witness. You can proceed.

21 MR. DUMONT: First I want to say I'll be
22 very brief with Mr. Bodenhamer and very brief with
23 Mr. Connaughton. We've removed Mr. Allen from the
24 schedule. So the only substantial questions I have
25 are for Mr. Chaves. I may not have any questions for

1 Mr. St. Hilaire. So I just want everybody to know
2 about the schedule, and if we do reach Mr. St.
3 Hilaire, it will very likely be before the lunch
4 break.

5 HEARING OFFICER TOUSLEY: Okay.

6 CROSS EXAMINATION

7 BY MR. DUMONT:

8 Q. Mr. Bodenhamer, how are you today?

9 A. Doing fine.

10 Q. Snowy here. I bet it's not snowy in Oklahoma.

11 A. Well there was frost on the windshield this
12 morning, but should be above 60 degrees today so it's
13 going to be a nice day.

14 Q. Caroline, if you could put up exhibit 7, Mr.
15 Bodenhamer's deposition, we might need it. Mr.
16 Bodenhamer, one of the documents you listed in your
17 initial prefiled testimony was the May 25, 2016 report by
18 Mott MacDonald. In that report Mott MacDonald wrote --
19 and that report is in evidence already. Mott MacDonald
20 wrote the stress calculations show that under all soil
21 types compared with 3 foot, 4 foot, and 5 feet of cover
22 the pipeline passes all stress checks (hoop effective,
23 girth weld, and longitudinal weld). In conclusion, Mott
24 MacDonald recommends a minimum depth of cover of 4 feet,
25 although 3 feet of cover is sufficient under the given

1 loading. A 1 foot buffer would help ensure that even if
2 settlement were to occur the pipeline will remain safe and
3 operational. Do you recall reading that in preparing your
4 prefiled testimony?

5 A. Yes.

6 Q. Do you agree with what Mott MacDonald wrote on
7 May 25, 2016 that I just read to you?

8 A. The portion that additional depth of cover
9 does give additional buffer area so to speak I agree with
10 that, and I do agree that certainly 3 foot of cover the
11 line will withstand the HS20 plus 15 loading.

12 Q. Am I correct that you believe that that buffer
13 creates an additional factor of safety?

14 A. That does, yes, create an additional factor of
15 safety. In addition, in the calculations themselves they
16 have a factor of safety already built in that does -- at
17 the depth calculated does provide for safe operation of
18 the pipeline.

19 Q. Thank you, Mr. Bodenhamer. Those are the only
20 questions I had for you today.

21 A. Thank you.

22 HEARING OFFICER TOUSLEY: Do any other
23 parties have questions in light of Mr. Dumont's
24 question?

25 MR. RAUBVOGEL: No.

1 HEARING OFFICER TOUSLEY: Mr. McClain.

2 MR. McCLAIN: No we don't have any
3 questions. Thank you.

4 HEARING OFFICER TOUSLEY: Mr. Raubvogel.

5 MR. RAUBVOGEL: Yes if I may please.

6 MR. DUMONT: Do you want to take down
7 the exhibit? Mr. Tousley, should we take down the
8 exhibit that's up that I didn't use?

9 HEARING OFFICER TOUSLEY: Yes and I'll
10 go ahead and make myself the presenter again first.

11 REDIRECT EXAMINATION

12 BY MR. RAUBVOGEL:

13 Q. Kevin, I think you just testified that the 1
14 foot difference between 3 feet and 4 feet does provide an
15 additional factor of safety or buffer, correct?

16 A. That is correct.

17 Q. In this instance do you believe that -- and
18 you also testified that the calculations themselves have
19 factors of safety built into the analysis of the loading,
20 correct?

21 A. Yes. That's correct.

22 Q. In this instance do you believe that a 1 foot
23 buffer is necessary for the pipeline to meet the HS20 plus
24 15 percent loading standard?

25 A. No it is not necessary. No.

1 MR. RAUBVOGEL: That's all I have.

2 Thank you.

3 HEARING OFFICER TOUSLEY: Other
4 questions in light of Mr. Raubvogel's question and
5 Mr. Bodenhamer's answer? Mr. McClain.

6 MR. McCLAIN: No.

7 HEARING OFFICER TOUSLEY: Mr. Dumont.

8 MR. DUMONT: No.

9 HEARING OFFICER TOUSLEY: Mr. Guzman.

10 MR. GUZMAN: No questions. Thank you.

11 HEARING OFFICER TOUSLEY: Mr. Miller.

12 MR. MILLER: No questions. Thank you.

13 HEARING OFFICER TOUSLEY: Great. Okay.

14 Mr. Bodenhamer, I want to thank you for getting up
15 early in the morning. I see it looks like it's still
16 dark outside there.

17 MR. BODENHAMER: No the blinds are
18 pulled. It's just your normal work time.

19 HEARING OFFICER TOUSLEY: Okay. Well
20 thank you for your testimony and I appreciate your
21 time and happy holidays.

22 MR. BODENHAMER: Thank you.

23 HEARING OFFICER TOUSLEY: VELCO I
24 believe.

25 MR. RAUBVOGEL: I believe the next

1 witness is Brian Connaughton for VELCO. Good
2 morning, Brian.

3 MR. CONNAUGHTON: Good morning.

4 BRIAN CONNAUGHTON,

5 DIRECT EXAMINATION

6 BY MR. RAUBVOGEL:

7 Q. Can you state your full name for the record
8 please?

9 A. Brian Freeman Connaughton.

10 Q. And who are you employed by? What is your
11 position?

12 A. I am the Director of Transmission Services at
13 Vermont Electric Power Company.

14 Q. Did you prefile direct testimony and rebuttal
15 testimony in this proceeding?

16 A. I did.

17 Q. Do you have any corrections to make to either
18 of your direct testimony or to your rebuttal testimony in
19 this proceeding?

20 A. I do not.

21 Q. And is your testimony true and accurate to the
22 best of your knowledge?

23 A. It is.

24 MR. RAUBVOGEL: Thank you. The witness
25 is ready to be sworn in.

1 HEARING OFFICER TOUSLEY: Thank you.
2 Mr. Connaughton, if you could raise your right-hand.
3 (Mr. Connaughton was duly sworn.)
4 HEARING OFFICER TOUSLEY: Mr. Raubvogel,
5 you don't have any questions for Mr. Connaughton, do
6 you?

7 MR. RAUBVOGEL: I do not. Sorry. I
8 apologize, but just for the record Mr. Connaughton
9 has a number of exhibits that were prefiled that you
10 have already admitted into the record and those
11 exhibits are reflected on the combined joint exhibit
12 list.

13 HEARING OFFICER TOUSLEY: Great. Thank
14 you. Mr. Dumont, he's your witness for cross
15 examination. Do you need to be a presenter again?

16 MR. DUMONT: I have constricted my cross
17 examination to one that does not use any new
18 documents.

19 HEARING OFFICER TOUSLEY: Okay. Great.

20 CROSS EXAMINATION

21 BY MR. DUMONT:

22 Q. The one document I'm referring to for
23 everybody's benefit is the transcript. I'm not going to
24 show the witness. It's already in the record of the
25 proceedings and I'm just going to ask the witness if he

1 was aware of it or if he's not. Be very brief cross
2 examination. How are you today, Mr. Connaughton?

3 A. I am well. Thank you for asking.

4 Q. Have you read the transcript -- I'm sorry --
5 September 20, 2013 in Docket 7970?

6 A. Are you referring to the transcript of the
7 depositions?

8 Q. No. The transcript of the actual evidentiary
9 proceedings in 2013, the proceedings that led to the
10 issuance of the Certificate of Public Good.

11 A. No I don't believe so.

12 Q. On September 20, 2013 Mr. Dunn, the CEO of
13 VELCO, testified. You're not aware of what his testimony
14 was, are you?

15 A. I'm aware that Mr. Dunn provided information
16 at a hearing. I don't know whether or not that was --
17 that would be considered testimony.

18 MR. DUMONT: That's all I have. In our
19 post hearing findings I will refer to what's in that
20 transcript, but the witness hasn't read it so I have
21 no further questions for him at this time. I have no
22 further questions for the witness.

23 HEARING OFFICER TOUSLEY: Okay. Mr.
24 Connaughton, how do I pronounce your last name?

25 MR. CHAVES: It's Connaughton.

1 HEARING OFFICER TOUSLEY: Connaughton.
2 Thank you. Thank you for your testimony. Do other
3 parties have any questions in light of Mr. Dumont's
4 question and the answers? Mr. McClain.

5 MR. McCLAIN: No. Thank you.

6 HEARING OFFICER TOUSLEY: Mr. Guzman.

7 MR. GUZMAN: No questions. Thank you.

8 HEARING OFFICER TOUSLEY: Mr. Miller.

9 MR. MILLER: No questions. Thank you.

10 HEARING OFFICER TOUSLEY: Mr. Raubvogel.

11 MR. RAUBVOGEL: No. It would be hard to
12 follow up that examination so no questions.

13 HEARING OFFICER TOUSLEY: Thank you.

14 Mr. Connaughton, I want to thank you for your
15 testimony. I'm glad you're doing well today and now
16 you can proceed with the rest of the day. You're
17 excused.

18 MR. CONNAUGHTON: Thank you very much.
19 Happy holidays.

20 HEARING OFFICER TOUSLEY: You too.

21 Okay. Now we're up to -- I heard this name
22 pronounced a different name -- is it Mr. Chaves or is
23 there a different pronunciation?

24 MR. McCLAIN: Carlos Chaves.

25 HEARING OFFICER TOUSLEY: Chaves. Okay.

1 Is he available? I see he is.

2 MR. McCLAIN: Yes.

3 HEARING OFFICER TOUSLEY: If you could
4 introduce your witness.

5 CARLOS CHAVES,

6 BY MR. McCLAIN:

7 Q. Good morning, Mr. Chaves. Why don't you just
8 state your name for the record.

9 A. Sure. Good morning everyone. I am Carlos
10 Chaves. Employed by Mott MacDonald.

11 MR. McCLAIN: And, Mr. Tousley, Mr.
12 Chaves's prefiled and rebuttal testimony, along with
13 the accompanying exhibits, have already been admitted
14 into evidence, and so unless you would like me to do
15 anything further with the witness I would make him
16 available for cross examination.

17 HEARING OFFICER TOUSLEY: I don't have
18 anything further for you to do. Thank you. Mr.
19 Dumont, he's your witness -- oh let me swear him in.
20 I'm not done yet.

21 (Mr. Chaves was duly sworn.)

22 HEARING OFFICER TOUSLEY: Now he's your
23 witness.

24 MR. DUMONT: If you could make my
25 assistant the presenter.

1 HEARING OFFICER TOUSLEY: Okay.

2 MR. DUMONT: Ms. Engvall, if you could
3 put up our exhibit number 1.

4 HEARING OFFICER TOUSLEY: I don't see it
5 yet. Okay.

6 CROSS EXAMINATION

7 BY MR. DUMONT:

8 Q. Good morning, Mr. Chaves.

9 A. Good morning. How are you?

10 Q. Good. Have you had a chance to look at
11 Intervenors' 2021 Cross Exhibit 1? We circulated it
12 yesterday -- we filed it yesterday.

13 A. I have. Yes.

14 Q. And is this a document you're familiar with?

15 A. It is.

16 Q. And in fact it's cited in two of your -- two
17 of the attachments to your prefiled testimony, correct?

18 A. I don't believe it is cited directly in our
19 prefiled testimony.

20 Q. No it's not in your prefiled testimony. It's
21 cited in two of the exhibits attached to your prefiled
22 testimony. Exhibit CC-7. I hope we can avoid that. Can
23 you tell us what the American Lifelines Alliance is?

24 A. It's an industry -- it's another industry
25 guideline that is available for pipeline operators for

1 designing various steel pipelines.

2 Q. And this is a document that you have referred
3 to in your professional capacity as a pipeline engineer?

4 A. I have on occasion.

5 Q. If you can turn to page 13 table 4-1-1? Page
6 6. We have 8 more to go. There we go. Ms. Engvall, if
7 you can scroll a little higher on the page. Thank you.
8 Section on applied loads.

9 Mr. Chaves, do you agree that the narrative in
10 Section 4.1 discusses the standard you have submitted
11 testimony about which is AASHTO HS20?

12 A. The content is related to a HS20 surface load.

13 Q. And then you scroll down a little bit to the
14 table -- Move down to show the table. Thank you -- the
15 table doesn't refer to a live load of HS20, but it's a
16 live load of H20. Do you see that?

17 A. Yes I see that. The column H20?

18 Q. Yes, and am I correct that H20 is a 40 ton
19 truck? I'm sorry. I misspoke. 20 ton truck?

20 A. 20 ton truck. Yes.

21 Q. The HS20, on the other hand, is a 36 ton
22 truck, correct?

23 A. A HS20 plus. Yes.

24 Q. So the table in this exhibit, the text is
25 talking about HS20, the table is actually not for a 36 ton

1 truck it's just for the 40 ton truck, correct?

2 A. I haven't specifically reviewed this table in
3 the past, Mr. Dumont, so I would want to just
4 double-check, you know, the questions that you're asking
5 here.

6 Q. Sure. Looking at what this table tells us
7 about the live load transferred to a pipe where the truck
8 is a H20 not a HS20, do you agree that the load
9 transferred to a pipe at 2 feet is half -- actually less
10 than half of the load that's transferred to the pipe at 1
11 foot of cover?

12 A. That appears correct.

13 Q. And you agree that the load transferred in the
14 pipe at 4 feet is less than a quarter of the load
15 transferred to a pipe at 1 foot depth of cover?

16 A. In accordance with this table, yes.

17 Q. So if we were speaking in generalities not
18 about H20 but about HS20, would you expect to find the
19 same pattern of increased live load transferred to pipe
20 with increasing depth of cover?

21 A. Generally there will be an increase in the
22 live load that's transferred based on a reduced cover, but
23 there are other variables that come into play that this
24 table may not be, you know, directly incorporating.

25 Q. Thank you. Ms. Engvall, could you now post

1 exhibit 2? While she's doing that I think I would like to
2 move into evidence exhibit 1.

3 HEARING OFFICER TOUSLEY: Is there any
4 objection? Mr. McClain. Mr. McClain, do you have an
5 objection to the admission of what's been marked as
6 --

7 MR. McCLAIN: Sorry. I was muted.
8 Sorry. We do object to the admission of this
9 document. To my knowledge our witness has not
10 reviewed this document prior to Mr. Dumont using it
11 as a cross examination exhibit other than maybe
12 generally in his professional career. It's not been
13 referred to, as far as I understand it, by Mr. Chaves
14 during his -- the development of his loading
15 analysis. He just testified that he didn't review
16 the table that Mr. Dumont refers to in connection
17 with his testimony here today. I've never seen the
18 document myself before. I don't think there's a
19 foundation for or basis to admit it into evidence.
20 I'm not even sure that Mr. Dumont has indicated
21 whether it's relevant to anything in this case or had
22 a witness identify anything about that document
23 that's relevant. So as it stands we would object to
24 the admission of this document. I think it confuses
25 the record.

1 HEARING OFFICER TOUSLEY: I understand.
2 Are there other objections? No. Mr. Dumont, do you
3 have a response to the objection?

4 MR. DUMONT: Yes. Mr. Chaves's own
5 exhibit, which is labeled exhibit CC-7, on pages 1
6 and 2 refers to this very document and it's
7 identified in the footnote as this exhibit document.
8 His own exhibit cites to and refers to this document.

9 HEARING OFFICER TOUSLEY: What's the
10 context of that referral?

11 MR. DUMONT: Exhibit 7 is a publication
12 -- another publication Mr. Chaves relies on, Canadian
13 Energy Pipeline Association publication, and they
14 discuss the history and development of how one
15 determines a live load that is transferred, and the
16 document Mr. Chaves relies upon in turn relies on
17 this document according to the documents.

18 HEARING OFFICER TOUSLEY: Could you
19 connect the dots and tell me how this document is
20 relevant?

21 MR. DUMONT: It is relevant in the
22 manner that we've just discussed with the witness
23 that the general principle that you have decreasing
24 -- sharply decreasing load transferred to a buried
25 pipeline as you go from 1 foot to 4 feet.

1 HEARING OFFICER TOUSLEY: Okay.

2 MR. DUMONT: I could just offer this one
3 page if that makes it simpler.

4 HEARING OFFICER TOUSLEY: For the
5 purpose you just stated?

6 MR. DUMONT: Yes.

7 HEARING OFFICER TOUSLEY: Mr. McClain.

8 MR. McCLAIN: If I may, that's a
9 question Mr. Dumont can ask the witness about what
10 his opinion is about decreasing depths, but it
11 doesn't give Mr. Dumont the right to bootstrap into
12 presenting his own evidence and theories about the
13 extent to which various things occur. The question
14 that Mr. Dumont would like to ask Mr. Carlos Chaves
15 about the extent to which decreasing depth has an
16 impact on the overall live load impact go ahead and
17 ask it, but if he's just using this witness as a
18 conduit to put a new exhibit in front of the
19 Commission that no witness has testified about, that
20 no witness has used or relied upon in the development
21 of their testimony, I think it's confusing and I
22 think it's inappropriate for the evidentiary record
23 to be used in that manner.

24 HEARING OFFICER TOUSLEY: Okay. I'm
25 going to ask Mr. Chaves a couple questions. Mr.

1 Chaves, you are familiar with this document?

2 MR. CHAVES: Yes I am familiar with it,
3 sir.

4 HEARING OFFICER TOUSLEY: Okay, and
5 apparently from what Mr. Dumont says you referenced
6 it in some of your testimony; is that correct?

7 MR. CHAVES: That's -- that's not
8 correct directly. I did not refer to the manual --
9 this manual in performing any of the calculations.
10 It sounds like it may be a reference that's included
11 in one of the CEPA manuals that is kind of the key
12 calculation tool that we used in performing the
13 loading calculation. So it may be a reference in
14 that manual. I don't know specifically where that
15 reference is that he's referring to, but we did not
16 -- we did not use this reference at all during our --
17 to develop any of our calculations or for any of our
18 testimony.

19 HEARING OFFICER TOUSLEY: So when he
20 asked you to look at the table and talk about
21 decreasing -- the decreasing numbers based on the
22 depths that was not -- your answer was not based on
23 familiarity with the table but with your
24 understanding otherwise the loading standard process?

25 MR. CHAVES: That's correct. Yes. Yeah

1 and just doing the calculations at the various depths
2 of covers that's generally, you know, as with
3 shallower depths of cover you're going to have higher
4 stress values. So, you know, that's just our general
5 understanding and that's how the calculations work.
6 It's not specifically referring to -- you know we
7 haven't referred at all to this specific table at
8 all.

9 MR. DUMONT: I can move this along.
10 That was the sole purpose to which I was offering the
11 table.

12 HEARING OFFICER TOUSLEY: Okay. So it
13 was to refresh the recollection and elicit a general
14 answer?

15 MR. DUMONT: Yes.

16 HEARING OFFICER TOUSLEY: Okay. I'm
17 going to overrule the objection and allow this page
18 of the cross exam of the exhibit to be entered into
19 evidence.

20 MR. McCLAIN: Can I just -- can I just
21 clarify? I don't believe that exhibit was being used
22 to refresh anybody's recollection. Mr. Chaves
23 reviewed this exhibit for the first time before this
24 hearing as far as I understand it.

25 HEARING OFFICER TOUSLEY: Okay. Okay.

1 So what page is it, Mr. Dumont, if you can state for
2 the record precisely what I just admitted?

3 MR. DUMONT: 4-1-1.

4 MR. McCLAIN: Mr. Tousley, if we're
5 going to allow this exhibit into the record, our
6 preference would be to have the entire document.
7 I think it's misleading even further to the
8 Commission and anybody that's reviewing the
9 evidentiary record to have a stilted view of a
10 reference document. If we're going to include this
11 document in the record, I would request that we
12 include the entire document.

13 HEARING OFFICER TOUSLEY: Okay. Mr.
14 Raubvogel, do you have an opinion?

15 MR. RAUBVOGEL: No opinion on this.

16 HEARING OFFICER TOUSLEY: Mr. Guzman or
17 Mr. Miller.

18 MR. MILLER: No. Thank you.

19 HEARING OFFICER TOUSLEY: Okay. Well
20 what has previously been marked as Intervenor's Cross
21 exhibit -- this is 2, right, or 1?

22 MR. DUMONT: This is 1.

23 HEARING OFFICER TOUSLEY: This is 1 is
24 admitted. Mr. Dumont, you may proceed.

25 (Exhibit Intervenors Cross 1 was admitted

1 into the record.)

2 <http://epuc.vermont.gov/?=downloadfile/545265/111907>

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1 MR. DUMONT: Thank you. Ms. Engvall,
2 you can go back to exhibit 2 now. So, Mr. Tousley,
3 I'm presenting to the witness a document that I
4 intend to put in my post hearing brief. Everything
5 in this document is based on documents that are
6 already in the record or that I will be putting in
7 the record today. It's a demonstrative exhibit.
8 It's not real evidence. It's just demonstrative
9 evidence. It's a summary of other evidence, but I
10 thought it would be helpful, rather than to submit
11 this to you for the first time in a briefing, to
12 submit it to the witness and have the witness discuss
13 the data that I have collected from the other
14 exhibits. So I'm offering this only as a
15 demonstrative exhibit.

16 HEARING OFFICER TOUSLEY: If you could
17 elicit some testimony from the witness related to
18 this demonstrative exhibit to support your argument,
19 it would be helpful.

20 MR. DUMONT: Yes. That's what I intend
21 to do.

22 BY MR. DUMONT:

23 Q. So, Mr. Chaves, are you familiar with -- first
24 have you seen the document before right now?

25 A. Just yesterday evening.

1 Q. Did you have a chance to -- you'll see I put a
2 footnote for each column with a source for the information
3 in that column and have you had a chance to check the
4 sources?

5 A. I have not.

6 Q. We'll start with what SMYS is first. For the
7 record what does SMYS stand for?

8 A. Specified minimum yield strength.

9 Q. What does that mean in plain english?

10 A. It's the yield strength of the steel that's
11 used for the pipe to construct the pipeline.

12 Q. What is the SMYS of the ANGP?

13 A. 65,000.

14 Q. And in your exhibit for the record is clear
15 Mr. -- there's a memorandum that was filed by two separate
16 witnesses. Mr. Connaughton filed it as exhibit BC 4 and
17 later Mr. Chaves submitted it as exhibit CC 4. Same
18 exhibit and here we've referred to it as BC 4. Exhibit BC
19 4 is a memorandum that you wrote, correct?

20 A. If it's the -- is that -- what's the date? It
21 says VELCO exhibit there. Is that the Mott MacDonald
22 memorandum? What's the date of the memorandum?

23 Q. June of 2021.

24 A. Yes I believe -- yes correct.

25 Q. And so this document's been stipulated into

1 evidence, and do you recall that on May 20, 2016 Mott
2 MacDonald calculated the stress on the pipeline as 31,437
3 psi?

4 A. I would want to see -- that could be one of
5 the values. If you wouldn't mind, that's different than
6 item 2 there that you were just referring to exhibit BC 4.
7 Do you have the exhibit that you could -- so that
8 specifically he's referring to that value?

9 Q. It's your own exhibit CC 4 at pages 5 and 8
10 which we can put up if you want or you can just look at
11 it.

12 A. If you wouldn't mind, Mr. Dumont, if you could
13 pull that up, that would be helpful. I just want to
14 confirm that is the correct number.

15 Q. Actually it's the same document you're
16 referring to with Mr. Bodenhamer same page May 20, 2016.
17 Ms. Engvall, can you put up either CC 4 or BC 4?

18 MS. ENGVALL: I would have to search
19 around for it. If you want to take me off presenter,
20 I can go search around for it. I didn't have that
21 ready for today.

22 MR. DUMONT: Sure.

23 A. Mr. Dumont, I do see where that number is
24 deriving from. I see it now.

25 Q. You agree that 31,437 is 48 percent of SMYS?

1 A. If that's what the calculation works out to.
2 I would have to do the math. I don't know what that is
3 right offhand, but --

4 Q. Slightly less than half of 65,000?

5 A. Yup.

6 MS. ENGVALL: Mr. Tousley, every time
7 you take me off as presenter you kick me out of the
8 meeting.

9 HEARING OFFICER TOUSLEY: I don't know
10 how to do that without kicking you out of the
11 meeting. You should be back on again now.

12 MS. ENGVALL: I'm on. What do you need
13 presented?

14 HEARING OFFICER TOUSLEY: I put you back
15 on in case Mr. Dumont had additional documents.

16 MR. DUMONT: Yes. Ms. Engvall, if you
17 could put up our exhibit number 3. This is a
18 document that was produced in discovery by Vermont
19 Gas. It's a collection of documents that is many
20 pages long.

21 MR. McCLAIN: Jim, sorry to interrupt.
22 Just for the record I'm not sure what just happened,
23 but we moved from exhibit 2 and we moved on and maybe
24 that's what you intended to do, Jim. I just wanted
25 to make it clear for the record that we object to the

1 admission of exhibit 2 and I'm happy to do that now
2 or later. I don't think you've moved it into
3 evidence and it's certainly not evidence, but I just
4 wanted to make that clear that we haven't admitted
5 that into evidence, and if that is moved into
6 evidence, I would like to make an objection and
7 discuss it at that time.

8 MR. DUMONT: Well demonstrative evidence
9 isn't moved into the record as evidence.

10 MR. McCLAIN: There is no such thing as
11 demonstrative evidence. There's either evidence or
12 there's things that are not admitted into evidence
13 but --

14 MR. DUMONT: At any rate I will move to
15 admit it anyway when we're done going through it, but
16 I'm not at the end yet.

17 MR. McCLAIN: Okay.

18 MR. DUMONT: Looking at exhibit 3 this
19 is a document produced in discovery. I believe it's
20 already in the record from the first proceeding, but
21 to be safe I labeled it as an exhibit. I'll start
22 with I'll move 2021 Cross exhibit 3 which is a
23 discovery response from Vermont Gas.

24 MR. McCLAIN: Again we object to using
25 this witness merely as a conduit to admit additional

1 documents into evidence that haven't been admitted
2 before. This document is a discovery response it
3 appears. This witness to my knowledge has no
4 knowledge or has not reviewed the document. You know
5 it may have information that's relevant to the
6 loading standard, and if that was the case, it should
7 have been admitted before. I don't think the purpose
8 of having Mr. Chaves here today is to just admit
9 random documents that he hasn't looked at or
10 testified about you know. So I guess I would object
11 generally and specifically to this document, but more
12 generally to this hearing today being used to just
13 admit additional documents that Mr. Dumont could have
14 admitted under -- you know under the former hearing,
15 other witnesses that would have been familiar with
16 the document. It just doesn't make any sense to ask
17 Mr. Chaves questions about this document or to admit
18 it into evidence through Mr. Chaves who has never
19 seen it. So we object to using the hearing today in
20 general that way and specifically to the admission of
21 this document with respect to Mr. Chaves.

22 HEARING OFFICER TOUSLEY: Mr. Dumont, do
23 you have a response?

24 MR. DUMONT: Yes. Turn to page 18 --
25 PDF page 18. What I'll explain is this is a -- I'm

1 just -- if the witness doesn't know it he doesn't
2 know it, that's fine, but this is the load bearing
3 calculation CHA did in 2014, and it's basically the
4 same value as Mott MacDonald found in 2016. Again
5 it's less than half. I'm just fleshing out the
6 exhibit 2. Mott MacDonald came up with 31,437 psi
7 and the document I'm about to show him CHA doing
8 similar math and coming up with stress transferred to
9 the pipe at 4 feet of 29,314 psi, which is -- I
10 understand Mr. McClain objects to the relevance, but
11 the document -- nobody's objecting it's discovery and
12 it's 99.99 percent certain this is already in the
13 record from the first proceeding. I'm just using one
14 page from it to flesh out this issue.

15 HEARING OFFICER TOUSLEY: Okay. Mr.
16 Dumont, I have to admit I have some sensitivity and
17 concern about Mr. McClain's argument that you're
18 using Mr. Chaves as a vehicle to enter -- to seek to
19 enter into evidence documents with which he's
20 unfamiliar like this one when there were other
21 opportunities that you had to enter in this document
22 or locate, you know, if it's already in the record
23 it's already in the record. You can refer to it in
24 your brief.

25 MR. DUMONT: Yes.

1 HEARING OFFICER TOUSLEY: Just as with
2 your piece of proposed demonstrative evidence, if all
3 the data points that you list in your piece of
4 demonstrative evidence are in fact already in
5 evidence, you simply have to cite to those and
6 there's no need for Mr. Chaves to attempt to
7 recognize or provide some authenticity so that the
8 new document can be entered into evidence. So I'm
9 going to deny your request to admit exhibit 2 and
10 exhibit 3 because there are other vehicles you have
11 available to you to observe them when you're
12 preparing your brief since they already appear to be
13 in evidence, and if they are in evidence, then you
14 can make an appeal later that the parties could
15 respond to, but right now I think it is inappropriate
16 to use Mr. Chaves to attempt to authenticate
17 documents that he has no familiarity with.

18 MR. DUMONT: That's fine.

19 BY MR. DUMONT:

20 Q. So I'll move on to the Mott MacDonald figure
21 that was referenced in Mr. Chaves exhibit BC 4 or CC 4 at
22 page 7. Mr. Chaves, do you agree that Mott MacDonald has
23 calculated that at 3 feet depth of cover the load
24 transferred to the pipeline is very similar to the load at
25 4 feet, less than -- it's about 31,239 which is again less

1 than half of SMYS? Ms. Engvall, you can take down the
2 exhibit that's on the screen right now.

3 A. What value are you specifically referring to,
4 Mr. Dumont, if you don't mind?

5 Q. Sure. Calculated stress on the pipeline.
6 It's attached to your memo 4 and it's PDF page 7.
7 5/24/16.

8 MR. McCLAIN: Jim, if you could show him
9 the document. I don't know. Rightly or wrongly I've
10 informed my witnesses today that if they were
11 questioned about documents that you would be sharing
12 them. So, you know, Mott MacDonald has calculated
13 many, many different kinds of calculations with
14 varieties of inputs including different depths, et
15 cetera. If you want to ask him about a specific
16 calculation, I think it would be helpful for you to
17 show him what that was because --

18 MR. DUMONT: If Ms. Engvall doesn't have
19 it on her computer, I have it on mine so I'll ask to
20 be the presenter.

21 HEARING OFFICER TOUSLEY: Mr. Dumont, I
22 think we want to take a 10 minute break. You can
23 work out your presentation issue and I can get a
24 drink of water.

25 MR. DUMONT: Yeah we'll take a break.

1 That's fine.

2 HEARING OFFICER TOUSLEY: It's now
3 10:50. We'll come back again at 11 o'clock.

4 MR. DUMONT: Okay. Thanks.

5 (Recess.)

6 HEARING OFFICER TOUSLEY: Okay. It's 11
7 o'clock. We're back on the record. Mr. Dumont, are
8 you prepared to move forward with this witness?

9 MR. DUMONT: Yes.

10 HEARING OFFICER TOUSLEY: Mr. Raubvogel,
11 you indicated you had something you wanted to say
12 about Mr. Connaughton's testimony. If you could
13 proceed.

14 MR. RAUBVOGEL: Yes. Thank you. Having
15 just spoken with Mr. Connaughton he's come to realize
16 that he was confused by Mr. Dumont's question
17 concerning the transcript from the original
18 proceeding. Mr. Connaughton understood it to mean
19 did he review the entirety of that transcript and he
20 had not. He has seen a portion of that transcript
21 that does relate to Mr. Dunn's live testimony only,
22 and so he realizes now there was some confusion in
23 what he said earlier today and so he's prepared to
24 come back on the stand if Mr. Dumont wishes to ask
25 him anything further on that note.

1 HEARING OFFICER TOUSLEY: Mr. Dumont,
2 recognizing that Mr. Raubvogel's statement just now
3 is not testimony --

4 MR. RAUBVOGEL: I would add one other
5 thing if it's relevant. Mr. Dumont asked Mr.
6 Connaughton about this at his deposition. At the
7 time Mr. Connaughton had not reviewed Mr. Dunn's
8 transcript and said he had not. Since the deposition
9 he has looked at it and so that's a distinction I
10 would just make. Obviously he can inform you of
11 those things if he does come back on the stand.

12 HEARING OFFICER TOUSLEY: Is he
13 available to do that?

14 MR. RAUBVOGEL: He is available to do
15 that. Yes.

16 HEARING OFFICER TOUSLEY: Mr. Dumont.

17 MR. DUMONT: Maybe the record should
18 reflect that the parties agree to what Mr. Raubvogel
19 just said. I'm content with that.

20 MR. RAUBVOGEL: We can certainly
21 stipulate to, and if you want me to rephrase it, I'm
22 happy to do it or summarize it.

23 HEARING OFFICER TOUSLEY: Okay. Go
24 ahead, Mr. Raubvogel. Please do a brief summary.

25 MR. RAUBVOGEL: Sure. Mr. Connaughton

1 would clarify his prior testimony in that he has in
2 fact seen a portion of the transcript in a prior
3 proceeding in which Mr. Dunn testified live at the
4 hearing. He reviewed or saw that piece of transcript
5 after his deposition in this proceeding which was
6 conducted by Mr. Dumont.

7 HEARING OFFICER TOUSLEY: It is my
8 understanding the parties stipulate to that as a true
9 statement.

10 MR. DUMONT: Perhaps it's obvious to the
11 parties, but the record should be clear that his
12 deposition was taken after he submitted his prefiled
13 testimony.

14 MR. RAUBVOGEL: Yes. Thank you, Jim.
15 That is correct that he had submitted prefiled direct
16 testimony, he then was deposed, answered the question
17 during the deposition that he had not reviewed Mr.
18 Dunn's prior testimony, and since the deposition
19 occurred he has since reviewed that piece of
20 transcript.

21 HEARING OFFICER TOUSLEY: Mr. Dumont, do
22 you have additional questions for Mr. Connaughton in
23 light of this correction?

24 MR. DUMONT: No.

25 HEARING OFFICER TOUSLEY: Okay. Let's

1 go ahead then and proceed.

2 MR. McCLAIN: If I may, I'm not sure --
3 I'm not sure what is happening with respect to the
4 evidentiary record. Mr. Connaughton -- I guess I
5 would say that, you know, to the extent that Mr.
6 Dumont wants to or seeks to impeach the prefiled
7 testimony of Mr. Connaughton in any way this is the
8 opportunity to do it. His cross examination should
9 be a cross examination. If he wants to make
10 insinuations what it means he did or didn't read a
11 transcript what time or what time frame he did it,
12 you know, I find that to be, you know, the kind of
13 shadow boxing that is meaningless. If he has real
14 questions for Mr. Connaughton about what he said in
15 his testimony and whether the veracity of that
16 testimony is true and accurate and whether he stands
17 by it, I think he should ask those questions now. If
18 he's satisfied that he wants to move on based on some
19 insinuation about a seven-year-old transcript, you
20 know, I just -- I'm not sure what we're doing or what
21 we're stipulating to, but I kind of object to
22 proceeding and taking evidence in that fashion. Mr.
23 Tousley, you're muted.

24 HEARING OFFICER TOUSLEY: You're not
25 stipulating to anything, Mr. McClain. I asked Mr.

1 Dumont if he wanted to move forward based on that
2 statement and he said no. So there is no evidentiary
3 enhancement based on Mr. Raubvogel's statement.

4 MR. RAUBVOGEL: It's a statement of
5 counsel. No more.

6 MR. McCLAIN: Okay. Thank you.

7 MR. DUMONT: So the record -- I'm happy
8 to do it any way that works for the Hearing Officer
9 and the parties. The record under oath is he hadn't
10 seen it. Mr. Raubvogel has now pointed out in fact
11 he did see it after his testimony was written and
12 after he was deposed. I've offered to admit that
13 into the record so he doesn't have to be recalled,
14 and I don't need to cross examine him as long as we
15 stipulate that for the record. If the parties don't
16 want to stipulate to that for the record, then his
17 testimony is what his testimony is. Mr. Raubvogel,
18 in light of the fact that there may not be a
19 stipulation, which I'm happy to do in light of the
20 fact there's not a stipulation, if Mr. Raubvogel
21 wants to call him, he can do that. It's not
22 necessary with a stipulation.

23 HEARING OFFICER TOUSLEY: Why don't we
24 go ahead, Mr. Raubvogel, and, Mr. Chaves, I want to
25 apologize for this interjection here during your

1 time, but let Mr. Connaughton come back and answer
2 that question himself.

3 MR. RAUBVOGEL: Sure. Will do. Let me
4 get him so give me a moment and there he is. Thank
5 you, Brian.

6 HEARING OFFICER TOUSLEY: Mr.
7 Connaughton, I want to remind you that you're still
8 under oath. Mr. Raubvogel, you may proceed.

9 MR. RAUBVOGEL: Sure. Thank you.

10 BY MR. RAUBVOGEL:

11 Q. Mr. Connaughton, earlier this morning Mr.
12 Dumont asked you a few questions concerning whether you
13 had reviewed a transcript from earlier in the proceedings
14 that was testimony from Mr. Dunn of VELCO. Do you recall
15 those questions?

16 A. I do.

17 Q. Thank you, and have you had a chance to
18 consider the fact what you had or had not reviewed
19 concerning Mr. Dunn's prior testimony since testifying
20 earlier this morning?

21 A. I have.

22 Q. Thank you. So just to clarify for the record
23 have you ever reviewed a portion of a transcript that
24 concerned Mr. Dunn's live testimony in the earlier PUC
25 proceeding?

1 A. Yes I have reviewed a portion of the
2 transcript.

3 Q. And the specific portion you reviewed was Mr.
4 Dunn's testimony, correct?

5 A. That's correct.

6 Q. And am I -- is my understanding correct that
7 you reviewed that transcript after you had prefiled direct
8 testimony in this case and after you had been deposed by
9 Mr. Dumont in this case?

10 A. That is correct.

11 MR. RAUGVOGEL: Thank you. That's all I
12 have. Thank you.

13 HEARING OFFICER TOUSLEY: Are there any
14 questions in light of Mr. Connaughton's correction?

15 MR. DUMONT: This is Jim Dumont
16 speaking. I have no questions.

17 HEARING OFFICER TOUSLEY: Mr. McClain.

18 CROSS EXAMINATION

19 BY MR. McCLAIN:

20 Q. Good morning, Mr. Connaughton. How are you?

21 A. Fine. Good morning. I apologize for any
22 confusion or delay of these proceedings.

23 Q. No. That's okay. So when you reviewed Mr.
24 Dunn's testimony in Docket 7970 did it change your mind or
25 want you to take any different position with respect to

1 the testimony that you filed in this case?

2 A. It did not.

3 MR. McCLAIN: Thank you.

4 HEARING OFFICER TOUSLEY: Any additional
5 questions in light of that question and answer?

6 Seeing none, Mr. Connaughton, I want to thank you for
7 coming back and making that correction. You're
8 dismissed again. If we could get Mr. Chaves back in,
9 are you prepared to go forward, Mr. Dumont?

10 MR. DUMONT: Yes. Thank you.

11 HEARING OFFICER TOUSLEY: Thank you.

12 Mr. Raubvogel.

13 MR. RAUBVOGEL: Certainly.

14 HEARING OFFICER TOUSLEY: Thank you, Mr.
15 Chaves, for your patience.

16 MR. CHAVES: No problem at all.

17 HEARING OFFICER TOUSLEY: Mr. Dumont.

18 MR. DUMONT: Yes. Ms. Engvall, if you
19 can put up exhibit BC 4 back up on the screen we'll
20 return to PDF 7 -- PDF page 7.

21 MS. ENGVALL: This is Caroline Engvall.

22 I need to be made the presenter to do that.

23 HEARING OFFICER TOUSLEY: Okay. I
24 thought I had made you the presenter. Try this
25 again. You're still the presenter, Ms. Engvall. I'm

1 not sure why it's not working for you.

2 BY MR. DUMONT:

3 Q. Ms. Engvall, if you scroll down to the middle
4 of the page, there we go. Right there. Thank you. Mr.
5 Chaves, does exhibit BC 4 beginning on page 7 say 3 foot
6 of cover stress load transferred to the pipeline as
7 calculated by Mott MacDonald 31,239 psi?

8 A. Yes based on those -- the input parameters
9 included in that calculation. The effective stress there.

10 Q. Thank you, and, Ms. Engvall, if you can scroll
11 to the top of the page, right there, that's good, you
12 refer to the input parameters, Mr. Chaves, in this example
13 the modulus soil reaction or prime is listed as .2 ksi.
14 First can you explain what modulus soil reaction is?

15 A. Sure. It's the -- essentially it's a strength
16 parameter of the soil related to the stiffness of the soil
17 itself. So it's a strength parameter of soil.

18 Q. Ksi is a thousand pounds per square inch?

19 A. Correct.

20 Q. So .2 ksi is 200 pounds per square inch?

21 A. Yes, sir.

22 Q. Ms. Engvall, if you can scroll to PDF page 32,
23 and now if you can scroll to the bottom half of the page,
24 Mr. Chaves, did Mott MacDonald on this page, page 32,
25 indicate that at 2 feet depth of cover the live load

1 transferred to the pipeline is 47,563 psi?

2 A. Would you mind just scrolling up on the sheet,
3 Mr. Dumont? I just want to confirm the parameters on the
4 specific calculation. Yes that's correct. So this is
5 based on a 2 foot depth of cover, 100 psi soil reaction
6 value, and the combined effective stress is towards the
7 bottom of the sheet here.

8 Q. 47,563?

9 A. Correct.

10 Q. And Mott MacDonald did the math for us. They
11 computed that as 73.2 percent of SMYS, correct?

12 A. Correct.

13 Q. Miss Engvall, if you can scroll up to PDF page
14 25. Go further down. Thank you. This is an email to Mr.
15 St. Hilaire from Mr. Hartman H-A-R-T-M-A-N who was an
16 engineer at Mott MacDonald, correct?

17 A. He was at the time. Correct.

18 Q. And in this e-mail does he explain to Mr. St.
19 Hilaire that he tried to run or started to run the
20 calculation of stress transferred to the pipeline at 1
21 foot depth of cover and before he got very far into it he
22 found a hoop stress of 101,000 and 175 psi?

23 A. That's -- that calculation I believe is not
24 based off a HS20 plus 15 percent. It's slightly -- it's a
25 greater value that he was assessing as part of that

1 calculation.

2 Q. Do you know what the greater value was?

3 A. The first sentence there he notes that 1 foot
4 of cover with a 25 kip load and the other calculations
5 HS20 plus 15 percent load is 18,400. So it's a larger
6 load that he assessed as part of that 1 foot of cover
7 calculation.

8 Q. Thank you. Has Mott MacDonald ever calculated
9 the HS20 plus 15 load that we transferred to the pipe at 1
10 foot depth of cover?

11 A. I have not, Mr. Dumont. I can't speak to what
12 was done in 2016, 2017. All I can refer to is these
13 documents that you know we have as part of the record, and
14 so it appears that the 1 foot of cover calculation was
15 based off a 25 kip load. So I guess -- I don't believe
16 they have been. I did not perform any.

17 Q. We know that at 2 foot depth of cover the load
18 transferred is 73.2 percent of SMYS. Am I correct that
19 you have not calculated the depth of cover at which the
20 HS20 load will exceed SMYS?

21 A. No. We've run a sensitivity to see at what
22 depth we would exceed the allowable stress level of 90
23 percent of SMYS. We have done that.

24 Q. At what depth will the HS20 load exceed 90
25 percent of SMYS?

1 A. HS20 plus 15 percent load. Based on -- we
2 would have to check the input parameters, but I believe at
3 1 foot 7 inches of cover or 1.7 feet of cover based on a
4 soil modulus of 70 psi you would have a -- you would be --
5 it's a passing value, but you are getting close to the 90
6 percent allowable limit for effective stress.

7 Q. When did you perform that calculation?

8 A. In preparing for today. I figured that would
9 be one of the questions that you would ask, Mr. Dumont.

10 Q. Have you written that up anywhere? Is it in a
11 document you can share with us?

12 A. It's not. It's just -- I just performed
13 directly into the calculation tool. I can certainly -- if
14 there's a need to share it, I guess we certainly could
15 produce it if there's a need to share it.

16 Q. So I have a couple questions about what you
17 just told us about the 1.7 feet. You said at 1.7 feet the
18 load exceeds or begins to exceed 90 percent of SMYS. I
19 know this is in your prefiled testimony. Tell us why you
20 used 90 percent?

21 A. 90 percent is the value that's provided in the
22 ASME code for -- that's essentially the limit that is --
23 that's the stress level that's allowed for all three types
24 of stress that you would see; circumferential stress,
25 longitudinal stress, and effective stress. They are

1 essentially all generally limited by 90 percent of SMYS.

2 Q. If the record shows Vermont Gas intended to
3 comply to AS7871.8, that requirement of 90 percent is in
4 the ASME code, correct?

5 A. It is.

6 Q. So in order to comply with a CPG one must
7 comply with a 90 percent, correct?

8 A. That's our understanding, correct.

9 Q. And using a soil modulus of 70 psi you found
10 that to be about 1.7 feet. Did you calculate that using
11 soil modulus any smaller than 70?

12 A. Yes.

13 Q. What were the results?

14 A. We assessed 50 psi and the stress levels were
15 below 90 percent. We also checked a 10 psi value at a
16 depth of cover of 2 feet and that also passed.

17 Q. You said 10 psi and 50 psi?

18 A. Correct.

19 Q. At what depth of cover does the load exceed 90
20 percent using a soil modulus of 50 psi?

21 A. I would have to check, Mr. Dumont. I did not
22 -- at what depth of cover. It would be -- I would have to
23 check that calculation.

24 Q. So it would be --

25 A. I can tell you that it passed at 50 psi at 2

1 feet depth of cover it was a passing value.

2 Q. With a psi of 10 you get a passing value of 2
3 feet?

4 A. Correct.

5 Q. So you've been very forthright with me. I
6 appreciate it. Would you have to go back on to your
7 computer or just need to check notes to find out at what
8 depth of cover you reach 90 percent at the two lower soil
9 depths 10 and 50? In other words, if we took a break
10 could you find that out relatively easily?

11 A. I would have to perform a calculation on that,
12 Mr. Dumont, because we checked the 2 feet depth of cover.
13 It's our understanding that the depth of cover in that
14 area in the clay plain swamp is the lowest value that our
15 understanding is two and a half feet. So there really was
16 no need to assess a value that was lower than 2 feet, but
17 if we needed to, we could do the calculation, but it's not
18 -- you know we would have to perform a calculation using
19 the tool to obtain that value.

20 Q. Miss Engvall, if you could put up our exhibit
21 6. Mr. Chaves, are you familiar with exhibit 6 which is
22 called Canadian Energy Pipeline Association final report
23 Development of a Pipeline Surface Loading Screening
24 Process and Assessment of Surface Load Dispersing Methods?

25 A. Yes.

1 Q. How have you become familiar with this final
2 report?

3 A. In professional work experience on performing
4 surface loading calculations.

5 Q. For the record what is the Canadian Energy
6 Pipeline Association?

7 A. It's an industry organization similar to what
8 we have in the U.S. similar to API.

9 Q. If you could turn, Ms. Engvall, to page 82-2,
10 the table in that section, there you go. Now am I correct
11 that you referred to this report, exhibit 6, when you were
12 preparing the memorandum that is labeled exhibit BC 4?

13 A. We did.

14 MR. DUMONT: I'm going to move exhibit 6
15 into evidence.

16 HEARING OFFICER TOUSLEY: Is there any
17 objection?

18 MR. McCLAIN: No we don't have any
19 objection to the admission of this document.

20 HEARING OFFICER TOUSLEY: Mr. Raubvogel.

21 MR. RAUBVOGEL: None.

22 HEARING OFFICER TOUSLEY: Mr. Guzman.

23 MR. GUZMAN: No objection.

24 HEARING OFFICER TOUSLEY: Mr. Miller.

25 MR. MILLER: No objection.

1 HEARING OFFICER TOUSLEY: So what's been
2 marked as Intervenors' Cross Exhibit 6 is admitted.
3 You may proceed.

4 MR. DUMONT: Thank you.

5 <http://epuc.vermont.gov/?=downloadfile/545289/111907>

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1 BY MR. DUMONT:

2 Q. Have you consulted table 2-2 as part of your
3 work as a pipeline engineer over the years? I didn't hear
4 you.

5 A. Yes we have. This manual, Mr. Dumont -- if
6 you don't mind clarifying the question. Yes.

7 Q. Sure. I'll start the question over again
8 because we were interrupted. Have you consulted table 2-2
9 over the years in your work as a pipeline engineer?

10 A. We have. It's actually, well, table 2.2, but
11 it's table 3.4 out of the excerpt. Yes.

12 Q. Thank you for clarifying that. On the top it
13 says table 2-2, but just below that it says table 3.4.
14 For certain soils does this table say you should use soil
15 modulus value of zero?

16 A. It does, yes, depending if you are not able to
17 consult with a competent -- with a geotechnical engineer.
18 Otherwise, if you're not able to consult otherwise use a
19 soil modulus of zero.

20 Q. In this case were you able to consult with a
21 geotechnical engineer?

22 A. I was.

23 Q. When did you do that?

24 A. The exact date I can't confirm, but in
25 performing and developing our calculations we consulted

1 with the geotechnical engineer.

2 Q. After I took your deposition?

3 A. Yes. Actually we may have -- I can't recall
4 specifically, Mr. Dumont. I know that I did speak with
5 somebody after the initial deposition. I may have had an
6 initial conversation prior to, but yeah it's been several
7 months.

8 Q. You agree when I took your deposition you told
9 me you were not a soil expert, correct?

10 A. I agree with that. Yes.

11 Q. Did you also tell me you had not consulted
12 with a soil expert?

13 A. I did not tell you -- I don't think you asked
14 the question, Mr. Dumont. I would have to check the
15 record to be -- to check the transcript to be honest, but
16 I don't think you specifically asked that question.

17 Q. At some point you learned -- you have
18 consulted with a soil expert. Who was the expert?

19 A. A gentleman out of our Massachusetts office
20 Scott Kibbe.

21 Q. What did he tell you that the soils at this
22 New Haven site were or were not what this table refers to
23 as CH, MH, or CM-MH?

24 A. I asked him specifically. Based on our
25 understanding from some of the information that we had

1 gathered in our discussions with Vermont Gas we understood
2 the soil type to be a livingston clay, and based on the
3 soil descriptions that are available on the U.S.D.A. web
4 site soil survey I asked a geotechnical engineer to review
5 the soil description and provide us with a range of values
6 that would be representative of livingston clay material.

7 Q. What did he tell you?

8 A. He said it could have a range anywhere from 70
9 psi but all the way up to potentially 700 psi. So there's
10 a large variability in them.

11 Q. Is that why you put in 70 psi for the
12 calculations you did in preparing for your testimony
13 today?

14 A. That is why, yes.

15 Q. Ms. Engvall, if you could turn to page number
16 3 section 2.2 of this exhibit 6. Scroll down a little
17 bit. That area. Thank you. Mr. Chaves, this exhibit,
18 CEPA report, states it is our observation and experience
19 that the vast majority of pipeline crossing scenarios
20 require little in the way of special measures to protect
21 the pipeline provided the pipeline is in sound condition
22 and has sufficient amounts of competent soil protection.
23 Do you agree with that?

24 A. In a general sense, yes, but as it relates to
25 this project I mean there's a lot of -- generally yes, but

1 there are a lot of factors and variables that go into
2 protection measures for a pipeline.

3 Q. The next sentence states exceptions exist such
4 as where muskeg soils or exceptionally heavy equipment or
5 very shallow cover might be involved. We are aware --
6 first, what's your understanding of what a muskeg soil is?

7 A. A muskeg soil is a type of soil that's usually
8 found in Canada. Very frozen. It's a swampy mucky
9 material.

10 Q. Is muskeg a synonym for bog or swamp?

11 A. I don't know if it's directly related to
12 swamp, but it has similar -- from my limited understanding
13 yes I would say it's generally similar.

14 Q. Do you agree with the sentence exceptions
15 exist such as where muskeg soils or exceptionally heavy
16 equipment or very shallow cover might be involved?

17 A. Except -- I guess that statement is referring
18 to the previous statement. I guess in general terms, Mr.
19 Dumont, I mean there are numerous factors that go into
20 ensuring that a pipeline is safely installed and
21 maintained. Those are some of the factors; soil, depth of
22 cover, but I would say probably the largest factor is the
23 steel that's selected for the pipeline itself and the
24 strength of the steel. That's likely the largest factor
25 in ensuring that a pipeline is safely installed and

1 operated.

2 MR. DUMONT: Thank you. That completes
3 my questions.

4 HEARING OFFICER TOUSLEY: Is there
5 redirect, Mr. McClain?

6 MR. McCLAIN: I would like to follow up
7 on a couple of items.

8 HEARING OFFICER TOUSLEY: Please.

9 MR. McCLAIN: I think that it would be
10 helpful -- well I think maybe actually I can just do
11 it without, but could we stop the presentation of the
12 current document and I may need to show a document or
13 two if it comes to it.

14 HEARING OFFICER TOUSLEY: Okay. I'll
15 shift you to being the presenter.

16 MR. McCLAIN: Thank you.

17 REDIRECT EXAMINATION

18 BY MR. McCLAIN:

19 Q. Mr. Chaves -- I guess I'm waiting, Mr.
20 Tousley. I guess just so -- I don't see anything.

21 HEARING OFFICER TOUSLEY: You should
22 have it now.

23 MR. McCLAIN: Yes. Thank you.

24 BY MR. McCLAIN:

25 Q. I have nothing to share quite yet, but, Mr.

1 Chaves, Mr. Dumont asked you about whether you consulted a
2 geotechnical engineer and I'll read -- I want to read a
3 footnote from your November 1, 2021 testimony to see if it
4 refreshes your recollection just about the timing and
5 extent of your consultation with your geotechnical
6 engineer.

7 The footnote reads when we prepared our June
8 2021 memorandum Mott MacDonald ran a sensitivity analysis
9 to assess whether the ANGP would meet the HS20 plus 15
10 percent loading standard with input values for soil
11 strength that are lower than the 200 psi assumptions used
12 in our 2016 and 2017 calculations. I consulted with our
13 geotechnical team which confirmed that a soil modulus of
14 100 percent -- 100 psi is a conservative value even for
15 mucky wet conditions in a wetland like the clay plain
16 swamp. We are confident that this sensitivity analysis is
17 adequate for assessing conditions in the clay plain swamp
18 because we ran our calculations with even weaker soil
19 conditions such as 50 psi and the ANGP still meets the
20 HS20 plus 15 percent loading standard under those more
21 conservative conditions. Does that sound like a footnote
22 in your rebuttal testimony of November 1st of 2021, Mr.
23 Chaves?

24 A. Yes.

25 Q. And based on your November 1, 2021 testimony

1 is it your recollection that you discussed the soil
2 condition input parameters for your soil loading
3 calculations when you prepared your June 2021 memorandum
4 or not until later?

5 A. I know that we definitely included them in the
6 November prefiled testimony calculations and I believe --
7 I would have to check on the June memorandum.

8 Q. Did you perform your sensitivity analysis
9 regarding soil types in preparation of the June 2021
10 memorandum?

11 A. Yes.

12 Q. And at the time that you did your sensitivity
13 analysis was that the same time that you talked to your
14 geotechnical engineer?

15 A. It is. Yes.

16 Q. And so that would have been in advance of
17 submitting your June 2021 memorandum to Vermont Gas?

18 A. Correct. That's correct.

19 Q. The other question I wanted to follow up on
20 was a line of questioning that Mr. Dumont asked about
21 calculations that you did where the ANGP -- or not the
22 ANGP, but calculations that you performed where the depth
23 of cover would not be adequate to meet a HS20 plus 15
24 percent loading standard, and I think that you had
25 indicated that prior to your -- prior to coming to the

1 hearing today you had performed various calculations at
2 less than 2 feet of cover; is that correct?

3 A. Yes we did. That's correct.

4 Q. And so just for clarification, though, the
5 evidence that you have shared in this case -- that's been
6 shared with you in this case what depths of cover are
7 actually existent in the clay plain swamp based on the
8 evidence that you have reviewed in this case?

9 A. The lowest depth of cover that I have seen is
10 I believe 2.5 feet of cover.

11 Q. And the document that you're familiar with
12 that tells you the depth of cover of the clay plain swamp
13 in this case would that be the Hearing Officer's January
14 29th order citing evidence of the actual depth of cover in
15 the clay plain swamp?

16 A. Yes. That's correct.

17 Q. And at the depth of cover that the ANGP
18 actually is does it meet the HS20 plus 15 percent loading
19 standard?

20 A. Yes it does.

21 Q. And, in fact, it meets that standard at a
22 significantly less -- lower depth of cover than the ANGP
23 is actually buried, doesn't it?

24 A. That's correct.

25 Q. And when you performed your analysis you

1 described that there are a lot of different inputs and a
2 lot of different factors. Is Mott MacDonald confident
3 that it has reviewed the potential variation and factors
4 that might affect the loading standard sufficiently enough
5 to conclude that the ANGP meets the HS20 plus 15 percent
6 loading standard under any reasonable conditions that may
7 be out in the clay plain swamp?

8 A. We do. Absolutely.

9 Q. And I guess I'll just ask bluntly given Mr. --

10 MR. DUMONT: I object to the form of
11 that question, but I was muted so you didn't hear it.
12 I object to the form of the last question. Sorry. A
13 little late.

14 MR. McCLAIN: Object to the form of it.

15 HEARING OFFICER TOUSLEY: Are you
16 talking about the bluntly? Try again, Mr. McClain.

17 MR. DUMONT: It was a long leading
18 question so I objected to it.

19 MR. McCLAIN: Okay.

20 BY MR. McCLAIN:

21 Q. Is Mott MacDonald confident that the ANGP in
22 the clay plain swamp in New Haven meets a HS20 plus 15
23 percent standard?

24 A. Yes.

25 MR. DUMONT: Same objection.

1 MR. McCLAIN: Okay. I don't think
2 that's a leading question, Mr. Tousley, but --

3 HEARING OFFICER TOUSLEY: I'm going to
4 overrule the objection and allow it. You may
5 proceed.

6 BY MR. McCLAIN:

7 Q. And why is Mott MacDonald so confident about
8 whether or not the ANGP meets a HS20 plus 15 percent
9 loading standard?

10 A. There's multiple factors. One is, you know,
11 we've done checks with soil modulus values that are less
12 than what are reasonably foreseeable out there. I mean we
13 checked 10 psi which is well below the bottom of the range
14 of what livingston clay would be and at 2 feet depth of
15 cover you still have a passing value. So -- and knowing
16 that at 10 psi it passes at 2 feet of cover. We -- and we
17 also know that at 2 and a half feet of cover that's the
18 lowest value that's actually out there. So I mean just
19 with those two specific factors, you know, we're very
20 confident in that the ANGP will meet that HS20 plus 15
21 percent loading standard, and I think what it comes down
22 to is that the VGS -- VGS when they selected the pipe, the
23 pipeline is over designed. The steel that's used they
24 used a class three design factor in selecting the pipeline
25 design, and that was part of that -- the initial project

1 order and authorization to proceed with the project, and
2 using that class three design factor to select your steel
3 pipeline parameters it's a very conservative approach. So
4 that's why at the shallow depth of cover, you know, you're
5 able to achieve a HS20 plus 15 percent loading standard
6 with no concerns. So, you know, we're very confident and
7 based on the information that we have that there's no
8 issues with the HS20 plus 15 percent loading.

9 MR. McCLAIN: I don't have any further
10 questions for Mr. Chaves at this time. Thank you. I
11 don't need to be the presenter any more either.

12 HEARING OFFICER TOUSLEY: Okay. I'll
13 make myself the presenter.

14 MR. McCLAIN: Thank you, Mr. Tousley.

15 HEARING OFFICER TOUSLEY: Okay. Having
16 made myself the presenter are there any questions in
17 light of questions and answers derived from Mr.
18 McClain of Mr. Chaves? Mr. Dumont.

19 MR. DUMONT: No further questions.

20 HEARING OFFICER TOUSLEY: Mr. Guzman.

21 MR. GUZMAN: No questions. Thank you.

22 HEARING OFFICER TOUSLEY: Mr. Miller.

23 MR. MILLER: No questions. Thank you.

24 HEARING OFFICER TOUSLEY: Mr. Raubvogel.

25 MR. RAUBVOGEL: No questions. Thank

1 you.

2 HEARING OFFICER TOUSLEY: We have no
3 more questions for Mr. Chaves.

4 MR. DUMONT: Thank you, Mr. Chaves.

5 MR. CHAVES: You're welcome. Have a
6 nice day.

7 HEARING OFFICER TOUSLEY: Mr. Chaves, I
8 want to thank you for your testimony and wish you a
9 happy holiday and you're excused.

10 MR. CHAVES: All right. Thank you, sir.
11 You as well.

12 HEARING OFFICER TOUSLEY: Okay. Now
13 we're up to Mr. St. Hilaire.

14 MR. DUMONT: Mr. Tousley, I know you
15 will be disappointed, but I have no questions for Mr.
16 St. Hilaire.

17 HEARING OFFICER TOUSLEY: Okay. That
18 means we have no more requirement for witnesses.

19 MR. DUMONT: Correct.

20 HEARING OFFICER TOUSLEY: Okay which
21 means we're finished. With that I will reiterate the
22 briefing schedule and get it correct this time.
23 Initial briefs are due December 23rd. Reply briefs
24 are due January 10th. Are there any other matters
25 that we need to take up before we adjourn? Mr.

1 McClain.

2 MR. McCLAIN: Sorry, Mr. Tousley. I had
3 an icon in front of the mike button. I couldn't
4 change it. I don't have any other issues to address
5 this morning and would defer to Mr. Dumont or Mr.
6 Raubvogel and the Department or ANR as to whether
7 anything else needs to be addressed. Thank you.

8 HEARING OFFICER TOUSLEY: Okay. Mr.
9 Raubvogel.

10 MR. RAUBVOGEL: Nothing from our end.
11 Thank you.

12 HEARING OFFICER TOUSLEY: Mr. Dumont.

13 MR. DUMONT: Ready to start drafting our
14 briefs.

15 HEARING OFFICER TOUSLEY: Mr. Guzman.

16 MR. GUZMAN: Yes. On the briefing
17 schedule I personally would have a preference for the
18 schedule that you had I guess initially outlined
19 which would move us out of the holiday territory for
20 -- particularly for reviewing the initial briefs and
21 responding, and so I would personally prefer the
22 schedule that you had outlined unless there's any
23 opposition from the other parties on that.

24 HEARING OFFICER TOUSLEY: I want to say
25 they were both in January.

1 MR. RAUBVOGEL: You had said January
2 5th, January 21st.

3 HEARING OFFICER TOUSLEY: Okay. Is
4 there any objection to changing the dates?

5 MR. McCLAIN: I have no objection to --
6 I have no objection to pushing the briefing out, but
7 if we're going to have the initial brief due in early
8 January, I would prefer that it be like the 10th not
9 the 5th.

10 HEARING OFFICER TOUSLEY: Okay. Why
11 don't we go with January 10th which is a Monday and
12 January 24th. So January 10th initial briefs will be
13 due and reply briefs will be due Monday, January
14 24th. Is there any objection? Hearing no objection
15 that's when the briefs will be scheduled. I hope
16 everybody has a nice holiday season. I thank you for
17 your time this morning. We are adjourned.

18 (Whereupon, the proceeding was
19 adjourned at 11:55 a.m.)
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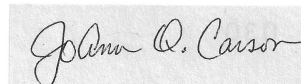
C E R T I F I C A T E

I, JoAnn Q. Carson, do hereby certify that I recorded by stenographic means the evidentiary hearing re: Case Numbers 18-0395-PET and 17-3550-INV via Go to Meeting on December 8, 2021, beginning at 9:30 a.m.

I further certify that the foregoing testimony was taken by me stenographically and thereafter reduced to typewriting, and the foregoing 86 pages are a transcript of the stenograph notes taken by me of the evidence and the proceedings, to the best of my ability.

I further certify that I am not related to any of the parties thereto or their Counsel, and I am in no way interested in the outcome of said cause.

Dated at Burlington, Vermont, this 9th day of December, 2021.



JoAnn Q. Carson

Registered Merit Reporter

Certified Real Time Reporter