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.

PRESENT

HEARING OFFICER: Michael Tousley, Staff Attorney

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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 pursuant to 30 V.S.A. Sections 30 and 209 regarding 4 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 via video or audio, please indicate this when you 16 17 provide your name for the court reporter. I'll start by taking appearances starting with Vermont Gas 18 19 Systems. 20 MR. McCLAIN: Good morning. This is Owen McClain from Sheehey Furlong & Behm on behalf of 21 22 Vermont Gas Systems. 23 HEARING OFFICER TOUSLEY: The

MR. DUMONT: Good morning. This is

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intervenors.

| 1 | James Dumont for intervenors. Assisting me today is |
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| 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 |

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

Due to the COVID-19 pandemic the

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

After briefing and proposed findings are filed I will issue a proposal for decision addressing any amendments to the conclusions and recommendations in the liability order based on any new evidence regarding the loading standard issue and an

amendments to my conclusions in the liability order.

appropriate civil penalty. The parties' briefings and proposed findings can address both of these issues. The parties will have an opportunity to comment on that proposal for decision and seek oral

argument. The Commission will issue a comprehensive

final order addressing liability and appropriate

19 penalty.

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

withdrawn.

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

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

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

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

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

no objection if the Hearing Officer and the other parties did not want to admit it. I think it's been admitted by stipulation pursuant to our filing on November 29th whereby we filed a list of all the prefiled testimony that's been filed since the remand and the parties have all agreed to it. That's more or less our position. HEARING OFFICER TOUSLEY: Thank you.

HEARING OFFICER TOUSLEY: Thank you.

Mr. Raubvogel.

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

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

MR. RAUBVOGEL: Sure. I don't differ.

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

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

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

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

I agree with the hearing officer's reading of the remand order and my position is we 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 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

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 |

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

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

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

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

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

MR. DUMONT: No. I have cross

examination for Mr. Allen and only that. What we would in the final -- when the remand part of this proceeding is over and, Mr. Tousley, you submit a proposal for decision to the full Commission at that point all the parties will be briefing. That's why I don't want to say it's not moot. It's not appropriate for this phase.

HEARING OFFICER TOUSLEY: Okay great.

Is there any other objection to the withdrawal of Mr.

Allen's testimony both the prefiled and live

testimony today?

MR. RAUBVOGEL: No objection.

HEARING OFFICER TOUSLEY: Okay. Great.

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

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 | |
| LØ | MR. McCLAIN: I would just ask to |
| l1 | clarify that the testimony listed as well as the |
| 12 | exhibits that those witnesses filed would be admitted |
| L3 | into evidence. |
| L4 | HEARING OFFICER TOUSLEY: That's |
| L5 | correct. They are now admitted. |
| L6 | MR. McCLAIN: Thank you. |
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1 HEARING OFFICER TOUSLEY: Are we ready 2 to move on to Mr. Bodenhamer? Is that the proper 3 pronunciation? MR. RAUBVOGEL: Bodenhamer. 4 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 this hearing would be due on December 22nd I think or 21 22 23rd and that the reply briefs would be due on 23 January 10th. Maybe I'm --24 HEARING OFFICER TOUSLEY: That I think

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 |

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 |
| LØ | the examination of Mr. Bodenhamer that they want to |
| l1 | present? Mr. Dumont. |
| 12 | MR. DUMONT: Yes. We may use his |
| L3 | deposition which is our cross exhibit 7. |
| L4 | HEARING OFFICER TOUSLEY: Okay. Well |
| L5 | when we get to is there anything on direct |
| L6 | examination? I'm guessing not from Mr. Raubvogel; is |
| L7 | that correct? |
| L8 | MR. RAUBVOGEL: That is correct. Yes |
| L9 | 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 that I'm going to ask Mr. Bodenhamer to swear in. 3 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 examination at this time and would offer him to be 11 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. HEARING OFFICER TOUSLEY: I believe I 18 19 see your screen. Okay. Mr. Dumont, this is your 20 witness. You can proceed. MR. DUMONT: First I want to say I'll be 21 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

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. Hilaire, it will very likely be before the lunch 3 break. 4 5 HEARING OFFICER TOUSLEY: 6 CROSS EXAMINATION 7 BY MR. DUMONT: 8 Q. Mr. Bodenhamer, how are you today? 9 Doing fine. Α. 10 Q. Snowy here. I bet it's not snowy in Oklahoma. 11 Well there was frost on the windshield this Α. 12 morning, but should be above 60 degrees today so it's 13 going to be a nice day. 14 Caroline, if you could put up exhibit 7, Mr. Q. 15 Bodenhamer's deposition, we might need it. Mr. Bodenhamer, one of the documents you listed in your 16 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

MacDonald recommends a minimum depth of cover of 4 feet,

although 3 feet of cover is sufficient under the given

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| 1 | loading | A 1 foot buffer would help ensure that even if |
| 2 | settleme | ent were to occur the pipeline will remain safe and |
| 3 | operation | onal. Do you recall reading that in preparing your |
| 4 | prefiled | d testimony? |
| 5 | Α. | Yes. Do you agree with what Mott MacDonald wrote on |
| 6 | Q. | Do you agree with what Mott MacDonald wrote on |
| 7 | May 25, | 2016 that I just read to you? |

- May 25, 2016 that I just read to you? The portion that additional depth of cover Α.
- does give additional buffer area so to speak I agree with that, and I do agree that certainly 3 foot of cover the line will withstand the HS20 plus 15 loading.
- Q. Am I correct that you believe that that buffer creates an additional factor of safety?
- Α. That does, yes, create an additional factor of safety. In addition, in the calculations themselves they have a factor of safety already built in that does -- at the depth calculated does provide for safe operation of the pipeline.
- Q. Thank you, Mr. Bodenhamer. Those are the only questions I had for you today.
 - Α. Thank you.

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

> MR. RAUBVOGEL: No.

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| 1 | HEARING OFFICER TOUSLEY: Mr. McClain. |
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| 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. |
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| 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. |
| LØ | Q. And who are you employed by? What is your |
| l1 | position? |
| 12 | A. I am the Director of Transmission Services at |
| L3 | Vermont Electric Power Company. |
| L4 | Q. Did you prefile direct testimony and rebuttal |
| L5 | testimony in this proceeding? |
| L6 | A. I did. |
| L7 | Q. Do you have any corrections to make to either |
| L8 | of your direct testimony or to your rebuttal testimony in |
| L9 | 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 I am well. Thank you for asking. Α. 4 Q. Have you read the transcript -- I'm sorry --5 September 20, 2013 in Docket 7970? Are you referring to the transcript of the 6 Α. 7 depositions? 8 Q. 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 No I don't believe so. Α. 12 On September 20, 2013 Mr. Dunn, the CEO of Q. 13 VELCO, testified. You're not aware of what his testimony 14 was, are you? 15 Α. 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 no further questions for him at this time. I have no 21 22 further questions for the witness. 23 HEARING OFFICER TOUSLEY: Okay. Mr. 24 Connaughton, how do I pronounce your last name?

MR. CHAVES: It's Connaughton.

| 1 | HEARING OFFICER TOUSLEY: Connaughton. |
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| 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 |
| LØ | Chaves. Employed by Mott MacDonald. |
| l1 | MR. McCLAIN: And, Mr. Tousley, Mr. |
| L2 | Chaves's prefiled and rebuttal testimony, along with |
| L3 | the accompanying exhibits, have already been admitted |
| L4 | into evidence, and so unless you would like me to do |
| L5 | anything further with the witness I would make him |
| L6 | available for cross examination. |
| L7 | HEARING OFFICER TOUSLEY: I don't have |
| L8 | anything further for you to do. Thank you. Mr. |
| L9 | 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 nineline operators for |

1 designing various steel pipelines.

- Q. And this is a document that you have referred to in your professional capacity as a pipeline engineer?
 - A. I have on occasion.
 - Q. If you can turn to page 13 table 4-1-1? Page 6. We have 8 more to go. There we go. Ms. Engvall, if you can scroll a little higher on the page. Thank you. Section on applied loads.
 - Mr. Chaves, do you agree that the narrative in Section 4.1 discusses the standard you have submitted testimony about which is AASHTO HS20?
 - A. The content is related to a HS20 surface load.
 - Q. And then you scroll down a little bit to the table -- Move down to show the table. Thank you -- the table doesn't refer to a live load of HS20, but it's a live load of H20. Do you see that?
 - A. Yes I see that. The column H20?
- Q. Yes, and am I correct that H20 is a 40 ton truck? I'm sorry. I misspoke. 20 ton truck?
 - A. 20 ton truck. Yes.
 - Q. The HS20, on the other hand, is a 36 ton truck, correct?
- 23 A. A HS20 plus. Yes.
- Q. So the table in this exhibit, the text is talking about HS20, the table is actually not for a 36 ton

- 1 | truck it's just for the 40 ton truck, correct?
- A. I haven't specifically reviewed this table in the past, Mr. Dumont, so I would want to just double-check, you know, the questions that you're asking here.
 - Q. Sure. Looking at what this table tells us about the live load transferred to a pipe where the truck is a H20 not a HS20, do you agree that the load transferred to a pipe at 2 feet is half -- actually less than half of the load that's transferred to the pipe at 1 foot of cover?
 - A. That appears correct.

- Q. And you agree that the load transferred in the pipe at 4 feet is less than a quarter of the load transferred to a pipe at 1 foot depth of cover?
 - A. In accordance with this table, yes.
- Q. So if we were speaking in generalities not about H20 but about HS20, would you expect to find the same pattern of increased live load transferred to pipe with increasing depth of cover?
- A. Generally there will be an increase in the live load that's transferred based on a reduced cover, but there are other variables that come into play that this table may not be, you know, directly incorporating.
 - Q. Thank you. Ms. Engvall, could you now post

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

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

MR. McCLAIN: Sorry. I was muted. Sorry. We do object to the admission of this document. To my knowledge our witness has not reviewed this document prior to Mr. Dumont using it as a cross examination exhibit other than maybe generally in his professional career. It's not been referred to, as far as I understand it, by Mr. Chaves during his -- the development of his loading analysis. He just testified that he didn't review the table that Mr. Dumont refers to in connection with his testimony here today. I've never seen the document myself before. I don't think there's a foundation for or basis to admit it into evidence. I'm not even sure that Mr. Dumont has indicated whether it's relevant to anything in this case or had a witness identify anything about that document that's relevant. So as it stands we would object to the admission of this document. I think it confuses 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? MR. DUMONT: Yes. Mr. Chaves's own 5 exhibit, which is labeled exhibit CC-7, on pages 1 and 2 refers to this very document and it's 6 7 identified in the footnote as this exhibit document. His own exhibit cites to and refers to this document. 8 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 document Mr. Chaves relies upon in turn relies on 16 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? MR. DUMONT: It is relevant in the 21 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

pipeline as you go from 1 feet to 4 feet.

1 HEARING OFFICER TOUSLEY: Okay. 2 MR. DUMONT: I could just offer this one 3 page if that makes it simpler. HEARING OFFICER TOUSLEY: For the 4 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 impact on the overall live load impact go ahead and 16 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 of their testimony, I think it's confusing and I 21 22 think it's inappropriate for the evidentiary record 23 to be used in that manner. 24 HEARING OFFICER TOUSLEY: Okay.

going to ask Mr. Chaves a couple questions.

| 1 | Chaves, you are familiar with this document? |
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| 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 |

understanding otherwise the loading standard process?

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

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| 1 | and just doing the calculations at the various depths |
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| 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. |

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.) |
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| 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 intend to put in my post hearing brief. Everything 5 in this document is based on documents that are already in the record or that I will be putting in 6 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. HEARING OFFICER TOUSLEY: If you could 16 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 to do. 21 22 BY MR. DUMONT: 23 Q. So, Mr. Chaves, are you familiar with -- first 24 have you seen the document before right now?

Just yesterday evening.

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Α.

- Q. Did you have a chance to -- you'll see I put a footnote for each column with a source for the information in that column and have you had a chance to check the sources?
 - A. I have not.

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- Q. We'll start with what SMYS is first. For the record what does SMYS stand for?
 - A. Specified minimum yield strength.
 - Q. What does that mean in plain english?
- A. It's the yield strength of the steel that's used for the pipe to construct the pipeline.
 - Q. What is the SMYS of the ANGP?
- 13 | A. 65,000.
 - Q. And in your exhibit for the record is clear Mr. -- there's a memorandum that was filed by two separate witnesses. Mr. Connaughton filed it as exhibit BC 4 and later Mr. Chaves submitted it as exhibit CC 4. Same exhibit and here we've referred to it as BC 4. Exhibit BC 4 is a memorandum that you wrote, correct?
 - A. If it's the -- is that -- what's the date? It says VELCO exhibit there. Is that the Mott MacDonald memorandum? What's the date of the memorandum?
 - Q. June of 2021.
- 24 A. Yes I believe -- yes correct.
- Q. And so this document's been stipulated into

evidence, and do you recall that on May 20, 2016 Mott

MacDonald calculated the stress on the pipeline as 31,437

psi?

- A. I would want to see -- that could be one of the values. If you wouldn't mind, that's different than item 2 there that you were just referring to exhibit BC 4. Do you have the exhibit that you could -- so that specifically he's referring to that value?
- Q. It's your own exhibit CC 4 at pages 5 and 8 which we can put up if you want or you can just look at it.
- A. If you wouldn't mind, Mr. Dumont, if you could pull that up, that would be helpful. I just want to confirm that is the correct number.
- Q. Actually it's the same document you're referring to with Mr. Bodenhamer same page May 20, 2016.

 Ms. Engvall, can you put up either CC 4 or BC 4?

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

MR. DUMONT: Sure.

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

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 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. MR. DUMONT: Well demonstrative evidence 8 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. MR. DUMONT: Looking at exhibit 3 this 18 is a document produced in discovery. I believe it's 19 20 already in the record from the first proceeding, but to be safe I labeled it as an exhibit. I'll start 21 22 with I'll move 2021 Cross exhibit 3 which is a 23 discovery response from Vermont Gas.

MR. McCLAIN: Again we object to using

this witness merely as a conduit to admit additional

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| 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? |

MR. DUMONT: Yes. Turn to page 18 --

PDF page 18. What I'll explain is this is a -- I'm

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

HEARING OFFICER TOUSLEY: Okay. Mr.

Dumont, I have to admit I have some sensitivity and concern about Mr. McClain's argument that you're using Mr. Chaves as a vehicle to enter -- to seek to enter into evidence documents with which he's unfamiliar like this one when there were other opportunities that you had to enter in this document or locate, you know, if it's already in the record it's already in the record. You can refer to it in your brief.

MR. DUMONT: Yes.

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BY MR. DUMONT:

Q. So I'll move on to the Mott MacDonald figure
that was referenced in Mr. Chaves exhibit BC 4 or CC 4 at
page 7. Mr. Chaves, do you agree that Mott MacDonald has
calculated that at 3 feet depth of cover the load

transferred to the pipeline is very similar to the load at 4 feet, less than -- it's about 31,239 which is again less

HEARING OFFICER TOUSLEY: Just as with

your piece of proposed demonstrative evidence, if all

the data points that you list in your piece of

demonstrative evidence are in fact already in

evidence, you simply have to cite to those and

there's no need for Mr. Chaves to attempt to

recognize or provide some authenticity so that the

new document can be entered into evidence. So I'm

going to deny your request to admit exhibit 2 and

exhibit 3 because there are other vehicles you have

available to you to observe them when you're

preparing your brief since they already appear to be

in evidence, and if they are in evidence, then you

can make an appeal later that the parties could

respond to, but right now I think it is inappropriate

to use Mr. Chaves to attempt to authenticate

documents that he has no familiarity with.

MR. DUMONT: That's fine.

1 than half of SMYS? Ms. Engvall, you can take down the 2 exhibit that's on the screen right now. 3 What value are you specifically referring to, Α. 4 Mr. Dumont, if you don't mind? 5 0. 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

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

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

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

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

That's fine. 1 2 HEARING OFFICER TOUSLEY: It's now 3 We'll come back again at 11 o'clock. 10:50. MR. DUMONT: Okay. Thanks. 5 (Recess.) HEARING OFFICER TOUSLEY: Okay. It's 11 6 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 that he was confused by Mr. Dumont's question 16 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 that does relate to Mr. Dunn's live testimony only, 21 22 and so he realizes now there was some confusion in 23 what he said earlier today and so he's prepared to

come back on the stand if Mr. Dumont wishes to ask

him anything further on that note.

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| 1 | HEARING OFFICER TOUSLEY: Mr. Dumont, |
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| 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 |
| LØ | would just make. Obviously he can inform you of |
| l1 | those things if he does come back on the stand. |
| L2 | HEARING OFFICER TOUSLEY: Is he |
| L3 | available to do that? |
| L4 | MR. RAUBVOGEL: He is available to do |
| L5 | that. Yes. |
| L6 | HEARING OFFICER TOUSLEY: Mr. Dumont. |
| L7 | MR. DUMONT: Maybe the record should |
| L8 | reflect that the parties agree to what Mr. Raubvogel |
| L9 | 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 |

go ahead then and proceed.

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

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

Dumont if he wanted to move forward based on that

statement and he said no. So there is no evidentiary

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

enhancement based on Mr. Raubvogel's statement.

MR. McCLAIN: Okay. Thank you.

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

HEARING OFFICER TOUSLEY: Why don't we go ahead, Mr. Raubvogel, and, Mr. Chaves, I want to 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. HEARING OFFICER TOUSLEY: Mr. 6 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: Mr. Connaughton, earlier this morning Mr. 11 Q. 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 those questions? 15 Α. 16 I do. 17 Thank you, and have you had a chance to Q. 18 consider the fact what you had or had not reviewed 19 concerning Mr. Dunn's prior testimony since testifying 20 earlier this morning? Α. I have. 21 22 Thank you. So just to clarify for the record 0. 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 |
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| 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? |
| LO | MR. DUMONT: Yes. Thank you. |
| l1 | HEARING OFFICER TOUSLEY: Thank you. |
| L2 | Mr. Raubvogel. |
| L3 | MR. RAUBVOGEL: Certainly. |
| L4 | HEARING OFFICER TOUSLEY: Thank you, Mr. |
| L5 | Chaves, for your patience. |
| L6 | MR. CHAVES: No problem at all. |
| L7 | HEARING OFFICER TOUSLEY: Mr. Dumont. |
| L8 | MR. DUMONT: Yes. Ms. Engvall, if you |
| L9 | 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 |

not sure why it's not working for you.
BY MR. DUMONT:
Q. Ms. Engvall, if you scroll down to the middle

- of the page, there we go. Right there. Thank you. Mr. Chaves, does exhibit BC 4 beginning on page 7 say 3 foot of cover stress load transferred to the pipeline as calculated by Mott MacDonald 31,239 psi?
- A. Yes based on those -- the input parameters included in that calculation. The effective stress there.
- Q. Thank you, and, Ms. Engvall, if you can scroll to the top of the page, right there, that's good, you refer to the input parameters, Mr. Chaves, in this example the modulus soil reaction or prime is listed as .2 ksi. First can you explain what modulus soil reaction is?
- A. Sure. It's the -- essentially it's a strength parameter of the soil related to the stiffness of the soil itself. So it's a strength parameter of soil.
- Q. Ksi is a thousand pounds per square inch?
- 19 A. Correct.

- Q. So .2 ksi is 200 pounds per square inch?
- A. Yes, sir.
- Q. Ms. Engvall, if you can scroll to PDF page 32, and now if you can scroll to the bottom half of the page, Mr. Chaves, did Mott MacDonald on this page, page 32, indicate that at 2 feet depth of cover the live load

- 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.
- Q. And Mott MacDonald did the math for us. They
- 11 | computed that as 73.2 percent of SMYS, correct?
- 12 A. Correct.
- 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.

- Q. Do you know what the greater value was?
- A. The first sentence there he notes that 1 foot of cover with a 25 kip load and the other calculations HS20 plus 15 percent load is 18,400. So it's a larger load that he assessed as part of that 1 foot of cover calculation.
- Q. Thank you. Has Mott MacDonald ever calculated the HS20 plus 15 load that we transferred to the pipe at 1 foot depth of cover?
- A. I have not, Mr. Dumont. I can't speak to what was done in 2016, 2017. All I can refer to is these documents that you know we have as part of the record, and so it appears that the 1 foot of cover calculation was based off a 25 kip load. So I guess -- I don't believe they have been. I did not perform any.
- Q. We know that at 2 foot depth of cover the load transferred is 73.2 percent of SMYS. Am I correct that you have not calculated the depth of cover at which the HS20 load will exceed SMYS?
- A. No. We've run a sensitivity to see at what depth we would exceed the allowable stress level of 90 percent of SMYS. We have done that.
- Q. At what depth will the HS20 load exceed 90 percent of SMYS?

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

- A. In preparing for today. I figured that would be one of the questions that you would ask, Mr. Dumont.
- Q. Have you written that up anywhere? Is it in a document you can share with us?
 - A. It's not. It's just -- I just performed directly into the calculation tool. I can certainly -- if there's a need to share it, I guess we certainly could produce it if there's a need to share it.
 - Q. So I have a couple questions about what you just told us about the 1.7 feet. You said at 1.7 feet the load exceeds or begins to exceed 90 percent of SMYS. I know this is in your prefiled testimony. Tell us why you used 90 percent?
 - A. 90 percent is the value that's provided in the ASME code for -- that's essentially the limit that is -- that's the stress level that's allowed for all three types of stress that you would see; circumferential stress, longitudinal stress, and effective stress. They are

- 1 | essentially all generally limited by 90 percent of SMYS.
 - Q. If the record shows Vermont Gas intended to comply to AS7871.8, that requirement of 90 percent is in the ASME code, correct?
 - \parallel A. It is.

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- Q. So in order to comply with a CPG one must comply with a 90 percent, correct?
 - A. That's our understanding, correct.
 - Q. And using a soil modulus of 70 psi you found that to be about 1.7 feet. Did you calculate that using soil modulus any smaller than 70?
- 12 A. Yes.
 - Q. What were the results?
 - A. We assessed 50 psi and the stress levels were below 90 percent. We also checked a 10 psi value at a depth of cover of 2 feet and that also passed.
- 17 | Q. You said 10 psi and 50 psi?
- 18 A. Correct.
- Q. At what depth of cover does the load exceed 90 percent using a soil modulus of 50 psi?
- A. I would have to check, Mr. Dumont. I did not

 -- at what depth of cover. It would be -- I would have to

 check that calculation.
- 24 | O. 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.
 - Q. With a psi of 10 you get a passing value of 2 feet?
 - A. Correct.

- Q. So you've been very forthright with me. I appreciate it. Would you have to go back on to your computer or just need to check notes to find out at what depth of cover you reach 90 percent at the two lower soil depths 10 and 50? In other words, if we took a break could you find that out relatively easily?
- A. I would have to perform a calculation on that, Mr. Dumont, because we checked the 2 feet depth of cover. It's our understanding that the depth of cover in that area in the clay plain swamp is the lowest value that our understanding is two and a half feet. So there really was no need to assess a value that was lower than 2 feet, but if we needed to, we could do the calculation, but it's not -- you know we would have to perform a calculation using the tool to obtain that value.
- Q. Miss Engvall, if you could put up our exhibit
 6. Mr. Chaves, are you familiar with exhibit 6 which is
 called Canadian Energy Pipeline Association final report
 Development of a Pipeline Surface Loading Screening
 Process and Assessment of Surface Load Dispersing Methods?
 - 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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BY MR. DUMONT:

- Q. Have you consulted table 2-2 as part of your work as a pipeline engineer over the years? I didn't hear you.
- A. Yes we have. This manual, Mr. Dumont -- if you don't mind clarifying the question. Yes.
- Q. Sure. I'll start the question over again because we were interrupted. Have you consulted table 2-2 over the years in your work as a pipeline engineer?
- A. We have. It's actually, well, table 2.2, but it's table 3.4 out of the excerpt. Yes.
 - Q. Thank you for clarifying that. On the top it says table 2-2, but just below that it says table 3.4. For certain soils does this table say you should use soil modulus value of zero?
 - A. It does, yes, depending if you are not able to consult with a competent -- with a geotechnical engineer.

 Otherwise, if you're not able to consult otherwise use a soil modulus of zero.
 - Q. In this case were you able to consult with a geotechnical engineer?
 - A. I was.
 - Q. When did you do that?
- A. The exact date I can't confirm, but in performing and developing our calculations we consulted

1 | with the geotechnical engineer.

- Q. After I took your deposition?
- A. Yes. Actually we may have -- I can't recall specifically, Mr. Dumont. I know that I did speak with somebody after the initial deposition. I may have had an initial conversation prior to, but yeah it's been several months.
- Q. You agree when I took your deposition you told me you were not a soil expert, correct?
- A. I agree with that. Yes.
- Q. Did you also tell me you had not consulted with a soil expert?
- A. I did not tell you -- I don't think you asked the question, Mr. Dumont. I would have to check the record to be -- to check the transcript to be honest, but I don't think you specifically asked that question.
- Q. At some point you learned -- you have consulted with a soil expert. Who was the expert?
- A. A gentleman out of our Massachusetts office Scott Kibbe.
- Q. What did he tell you that the soils at this New Haven site were or were not what this table refers to as CH, MH, or CM-MH?
- A. I asked him specifically. Based on our understanding from some of the information that we had

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

Q. What did he tell you?

- A. He said it could have a range anywhere from 70 psi but all the way up to potentially 700 psi. So there's a large variability in them.
- Q. Is that why you put in 70 psi for the calculations you did in preparing for your testimony today?
 - A. That is why, yes.
- Q. Ms. Engvall, if you could turn to page number 3 section 2.2 of this exhibit 6. Scroll down a little bit. That area. Thank you. Mr. Chaves, this exhibit, CEPA report, states it is our observation and experience that the vast majority of pipeline crossing scenarios require little in the way of special measures to protect the pipeline provided the pipeline is in sound condition and has sufficient amounts of competent soil protection. Do you agree with that?
- A. In a general sense, yes, but as it relates to this project I mean there's a lot of -- generally yes, but

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

- Q. The next sentence states exceptions exist such as where muskeg soils or exceptionally heavy equipment or very shallow cover might be involved. We are aware -- first, what's your understanding of what a muskeg soil is?
- A. A muskeg soil is a type of soil that's usually found in Canada. Very frozen. It's a swampy mucky material.
 - Q. Is muskeg a synonym for bog or swamp?
- A. I don't know if it's directly related to swamp, but it has similar -- from my limited understanding yes I would say it's generally similar.
- Q. Do you agree with the sentence exceptions exist such as where muskeg soils or exceptionally heavy equipment or very shallow cover might be involved?
- A. Except -- I guess that statement is referring to the previous statement. I guess in general terms, Mr. Dumont, I mean there are numerous factors that go into ensuring that a pipeline is safely installed and maintained. Those are some of the factors; soil, depth of cover, but I would say probably the largest factor is the steel that's selected for the pipeline itself and the strength of the steel. That's likely the largest factor in ensuring that a pipeline is safely installed and

| 1 | operated. |
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| 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 o |
| 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. |

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

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

24 | A. Yes.

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Q. And based on your November 1, 2021 testimony

- is it your recollection that you discussed the soil

 condition input parameters for your soil loading

 calculations when you prepared your June 2021 memorandum

 or not until later?
 - A. I know that we definitely included them in the November prefiled testimony calculations and I believe -- I would have to check on the June memorandum.
 - Q. Did you perform your sensitivity analysis regarding soil types in preparation of the June 2021 memorandum?
 - A. Yes.

- Q. And at the time that you did your sensitivity analysis was that the same time that you talked to your geotechnical engineer?
 - A. It is. Yes.
- Q. And so that would have been in advance of submitting your June 2021 memorandum to Vermont Gas?
 - A. Correct. That's correct.
- Q. The other question I wanted to follow up on was a line of questioning that Mr. Dumont asked about calculations that you did where the ANGP -- or not the ANGP, but calculations that you performed where the depth of cover would not be adequate to meet a HS20 plus 15 percent loading standard, and I think that you had indicated that prior to your -- prior to coming to the

- hearing today you had performed various calculations at
 less than 2 feet of cover; is that correct?
 - A. Yes we did. That's correct.

- Q. And so just for clarification, though, the evidence that you have shared in this case -- that's been shared with you in this case what depths of cover are actually existent in the clay plain swamp based on the evidence that you have reviewed in this case?
- A. The lowest depth of cover that I have seen is I believe 2.5 feet of cover.
- Q. And the document that you're familiar with that tells you the depth of cover of the clay plain swamp in this case would that be the Hearing Officer's January 29th order citing evidence of the actual depth of cover in the clay plain swamp?
 - A. Yes. That's correct.
- Q. And at the depth of cover that the ANGP actually is does it meet the HS20 plus 15 percent loading standard?
 - A. Yes it does.
- Q. And, in fact, it meets that standard at a significantly less -- lower depth of cover than the ANGP 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 loading standard under any reasonable conditions that may 6 7 be out in the clay plain swamp? 8 Α. We do. Absolutely. 9 And I guess I'll just ask bluntly given Mr. --0. 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 Is Mott MacDonald confident that the ANGP in 0. 22 the clay plain swamp in New Haven meets a HS20 plus 15 23 percent standard? 24 Α. Yes.

MR. DUMONT: Same objection.

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6 7 BY MR. McCLAIN:

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MR. McCLAIN: Okay. I don't think
that's a leading question, Mr. Tousley, but -HEARING OFFICER TOUSLEY: I'm going to
overrule the objection and allow it. You may

proceed.

- Q. And why is Mott MacDonald so confident about whether or not the ANGP meets a HS20 plus 15 percent loading standard?
- Α. There's multiple factors. One is, you know, we've done checks with soil modulus values that are less than what are reasonably foreseeable out there. I mean we checked 10 psi which is well below the bottom of the range of what livingston clay would be and at 2 feet depth of cover you still have a passing value. So -- and knowing that at 10 psi it passes at 2 feet of cover. We -- and we also know that at 2 and a half feet of cover that's the lowest value that's actually out there. So I mean just with those two specific factors, you know, we're very confident in that the ANGP will meet that HS20 plus 15 percent loading standard, and I think what it comes down to is that the VGS -- VGS when they selected the pipe, the pipeline is over designed. The steel that's used they used a class three design factor in selecting the pipeline 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. |
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| 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 |

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. Raubvogel and the Department or ANR as to whether 6 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. MR. GUZMAN: Yes. On the briefing 16 17 schedule I personally would have a preference for the 18 schedule that you had I guess initially outlined which would move us out of the holiday territory for 19 20 -- particularly for reviewing the initial briefs and responding, and so I would personally prefer the 21 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

they were both in January.

| 1 | MR. RAUBVOGEL: You had said January |
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| 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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| 1 | <u>C E R T I F I C A T E</u> |
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| 2 | |
| 3 | I, JoAnn Q. Carson, do hereby certify that |
| 4 | I recorded by stenographic means the evidentiary hearing |
| 5 | re: Case Numbers 18-0395-PET and 17-3550-INV via Go to |
| 6 | Meeting on December 8, 2021, beginning at 9:30 a.m. |
| 7 | I further certify that the foregoing |
| 8 | testimony was taken by me stenographically and thereafter |
| 9 | reduced to typewriting, and the foregoing 86 pages are a |
| 10 | transcript of the stenograph notes taken by me of the |
| 11 | evidence and the proceedings, to the best of my ability. |
| 12 | I further certify that I am not related to |
| 13 | any of the parties thereto or their Counsel, and I am in |
| 14 | no way interested in the outcome of said cause. |
| 15 | Dated at Burlington, Vermont, this 9th day |
| 16 | of December, 2021. |
| 17 | |
| 18 | |
| 19 | O(A) O(A) |
| 20 | Joann Q. Carson |
| 21 | |
| 22 | JoAnn Q. Carson |
| 23 | Registered Merit Reporter |
| 24 | Certified Real Time Reporter |