Excerpts of Libicki Cross-Examination Transcript, PCHB No. P19-087c (4-27-2021)

Hearing - Day 10

Advocates for a Cleaner Tacoma, et al. v. Puget Sound Clean Air Agency, et ano.

April 27, 2021



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FOR THE STATE OF WASHINGTON

ADVOCATES FOR A CLEANER TACOMA;)
SIERRA CLUB; WASHINGTON)
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PHYSICIANS FOR SOCIAL) PCHB NO. P19-087C
RESPONSIBILITY; STAND.EARTH; and)
THE PUYALLUP TRIBE OF INDIANS,)
)
Appellants,)
)
V.)
)
PUGET SOUND CLEAN AIR AGENCY, PUGET)
SOUND ENERGY,)
)
Respondents.)

VIDEOCONFERENCE HEARING

DAY 10

Pages 2330 - 2644

OLYMPIA, WASHINGTON

April 27, 2021

8:03 a.m.

REPORTED BY: CRYSTAL R. MCAULIFFE, RPR, CCR 2121

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Page 2486 again. 1 2 Α. Afternoon. 3 Would it be fair to say that you did not assist 0. with PSE's permit application for the Tacoma LNG 4 5 facility? б I did not assist with the permit application. Α. Okay. And a little earlier you discussed 7 Ο. fugitive emissions at refineries with Ms. Mallick. 8 9 Is Tacoma LNG a refinery, in your view? No, it is not. 10 Α. And would it be fair to say that all of your 11 Ο. 12 work concerning Tacoma LNG occurred after the issuance of the Order of Approval being appealed in this case? 13 Yes, that's correct. 14 Α. Okay. And would it be fair to say that your 15 Ο. 16 written testimony in this case is based, to some extent, on work that you performed after your deposition with me 17 on January 14th of this year? 18 19 I'm sorry. Can you repeat the question? Α. What part of my work? 20 Just -- just an appreciable portion of it was 21 0. 22 performed after January 14th; is that --MS. WATKINS MALLICK: Objection to form. 23 Ι 24 don't know what "appreciable portion" means. 25 THE COURT: Can you rephrase, Mr. Thomas?

Page 2487 1 MR. THOMAS: Sure. 2 BY MR. THOMAS: 3 Dr. Libicki, you know what, I'll leave that. 0. 4 When we spoke at your deposition, you told me 5 you had never been to the Tacoma LNG site or the Port of Tacoma. 6 Do you recall that? 7 8 Α. I do. And have you been to the Port of Tacoma since 9 Ο. your deposition to personally observe Tacoma LNG and its 10 surroundings? 11 12 Α. Well, in as much as we can call a FaceTime tour personally in the age of COVID, yes. I haven't been 13 fully vaccinated but for a couple of weeks now, so I 14 took a tour on FaceTime. 15 16 Okay. Correct me if I'm wrong, but you did not 0. personally run the air dispersion modeling underlying 17 18 the testimony you provided today. 19 Do I have that right? What do you mean by personally running? 20 Α. Did you set up the model and press go? 21 0. 22 No, I did not set up the model and press go. Α. 23 Ο. Well, can you tell us who actually ran the modeling analysis that you're testifying about? 24 25 Α. Sure. It was a woman in our staff at our

	Page 2488		
1	Lynnwood office.		
2	Q. In your what office?		
3	A. Lynnwood. Lynnwood, Washington. It is right up		
4	near the facility.		
5	Q. Okay. So just one person?		
6	A. Well, she was the one who physically put the		
7	parameters in the monitor and pressed go. I believe		
8	that's what you asked.		
9	Q. I see.		
10	And are you a professional engineer,		
11	Dr. Libicki?		
12	A. I am not.		
13	Q. Do you hold any professional certificates?		
14	A. Other than my Ph.D., no.		
15	Q. Okay. Would it be fair to say that you are also		
16	an expert in how drugs are transported through human		
17	skin in the pharmaceutical context?		
18	A. Well, that's what I did my first work on out of		
19	graduate school, and that's what I have patents in. But		
20	I haven't kept up with the science in that area		
21	probably, 30 years right now.		
22	Q. And would it be fair to say that you have no		
23	educational background in meteorology?		
24	A. I have not taken a course in meteorology, per		
25	se; however, meteorology is simply fluid dynamics, and		

Page 2489 that I've taken a number of courses in. 1 2 And you're not employed by the Environmental Ο. 3 Protection Agency; correct? 4 I am not employed by the EPA. Α. 5 0. And in your testimony here today, you're not 6 purported to speak for the EPA, are you? 7 Α. No. 8 Ο. And have you spoken with the EPA about whether it considers Tacoma LNG to be a fuel conversion 9 facility? 10 11 I have not. Α. 12 Q. Okay. Does EPA routinely retain you as an outside consultant? 13 So I have some grants that I work with from the 14 Α. Actually, not grants to me, but I'm a 15 EPA. 16 subcontractor on them, so I suppose. Okay. And at your deposition you told me that 17 0. Tacoma LNG was the first time you performed work 18 19 specifically assessing emissions from a methane liquefaction facility; correct? 20 21 MS. WATKINS MALLICK: Objection to form. 22 Methane liquefaction facility. MR. THOMAS: Your Honor, it is what Tacoma 23 24 LNG is. They turn methane into liquid methane. The 25 process is called "liquefaction," if --

Page 2490 THE COURT: I'm going to allow it. 1 2 THE WITNESS: So I have to apologize, 3 Mr. Thomas. Can you repeat the question? 4 MR. THOMAS: Sure. Yes. BY MR. THOMAS: 5 б Is Tacoma LNG the first time that you performed Ο. 7 work specifically assessing emissions from an LNG facility that makes LNG, like Tacoma LNG? 8 9 So as much as we're talking about the facility Α. in total, I don't recall doing any work on a methane 10 11 facility. However, each and every one of the processes 12 in the facility I think I've worked on. And you and Ms. Mallick discussed Jordan Cove a 13 0. bit, and you've provided a fair amount of testimony 14 regarding Jordan Cove. But you did not work on the 15 16 permitting of Jordan Cove; correct? 17 That's correct. Α. 18 Okay. And do you understand that Tacoma LNG is Q. 19 not an export facility subject to FERC jurisdiction? MS. WATKINS MALLICK: Objection. 20 Foundation. 21 22 THE COURT: Mr. Thomas? 23 MR. THOMAS: Your Honor, it's cross-examination of -- of items that Ms. Mallick 24 25 discussed with the witness in depth. I'm asking the

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witness what her understanding is based on that testimony. THE COURT: I don't think you talked about whether it had FERC jurisdiction. But with that said, I'm going to let her answer it to the best of her ability. Yeah. THE WITNESS: So I think I'm going to agree with exactly what you said. I don't think I talked about FERC jurisdiction. I don't have knowledge of that area. BY MR. THOMAS: Ο. Do you understand that Tacoma LNG will not be exporting its LNG project? So if you're using the term "export" in a Α. technical sense, I'm afraid I can't answer that because I don't know what constitutes export in a technical sense. Q. Okay. Do you understand that the LNG produced at LNG needs to meet a methane number of 80? I have read that in the record. Α. What specification is Jordan Cove's LNG that 0. it's producing? What specification is that LNG required to meet, if you know? I'm not sure I know that. Α. I won't ask you any more questions about it. Q. BUELL REALTIME REPORTING, LLC

		Page 2492	
1		I would like, if we could, to take a look at	
2	PSE 347	. So your written direct.	
3		Do you have that handy?	
4	Α.	I do.	
5	Q.	Okay.	
6	A.	So you have to excuse me because I'm going to be	
7	switching from close in and far out.		
8	Q.	And I can ask Ms. Perloff to please put it up on	
9	the screen.		
10	Α.	I've actually got it in front of me.	
11	Q.	And I'd like to go to page 77 of your written	
12	testimony.		
13		And, Dr. Libicki, I would like to ask you about	
14	your te	stimony at line 16 where it says, quote, "What	
15	the Tri	be thinks the flare can do is not relevant here."	
16		Do you see that that?	
17	Α.	I do.	
18	Q.	And would it be fair to say that you have done a	
19	lot of	work assessing the flare's emissions in this	
20	case?		
21	Α.	So I've done a fair amount of work looking into	
22	what the flare can do. In terms of its destruction		
23	efficiency and in terms of what's coming out of the		
24	flare.		
25	Q.	And you've got a Ph.D. in chemical engineering,	

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1 if I'm not mistaken.

2 A. That's correct.

Q. Given all the work that you've done, do you understand that Tacoma LNG's flare will emit carcinogens to the airshed?

A. So in -- in our world, when we talk about toxics, we can talk about them two ways. We can talk about the single molecule, which is to say that there are definitely molecules of chemicals that have been classified as carcinogens or possible carcinogens in the exhaust of the flare.

12 The second way we talk about carcinogens is: 13 What's the concentration? Because there are things in 14 the air all around us that are carcinogens. And that's 15 why we have the TAPs and the ASILs and the evaluation.

16 So the simple emissions of carcinogens -- of 17 course we would like zero everywhere -- is not something 18 we normally talk about.

19 Q. But will it?

A. There are -- so I'm going to use the benzene,
which I think is either a suspected carcinogen or a
known carcinogen. I'm not sure what the classification
is. There is benzene in the exhaust.
Q. Did you write this sentence?

25 A. Did I write this sentence? I -- I certainly