Exh. RJR-41X

Kinner Cross-Examination, 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

BUELL REALTIME REPORTING
COURT REPORTING AND LEGAL VIDEO

206.287.9066 I 800.846.6989
1325 Fourth Avenue, Suite 1840, Seattle, Washington 98101
www.buellrealtime.com
email: info@buellrealtime.com

Certified WBENC Women's Business Enterprise

POLLUTION CONTROL HEARINGS BOARD

FOR THE STATE OF WASHINGTON

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

VIDEOCONFERENCE HEARING

DAY 10

Pages 2330 - 2644

OLYMPIA, WASHINGTON

April 27, 2021

8:03 a.m.

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

C R O S S-E X A M I N A T I O N

BY MR. BRIDGMAN:

Q. Good morning, Dr. Kinner. Welcome -- pleasure to meet you. My name is Geoff Bridgman. I just have a couple of questions. Let's start with, you're familiar with CO CEMS; correct?

A. Yes, I am.

Q. And how many CO CEMS would you estimate are being used in stacks today?

A. Hundreds.

Q. Is that fairly old technology that's been around for a couple decade?

A. Yes, it is.

Q. Are you familiar with NOx CEMS?

A. Yes, I am.

Q. And can you estimate how many are being used in stacks today?

A. Hundreds.

Q. And is that also fairly old technology?

A. Yes, it is.

Q. And are you familiar with SO2 CEMS?

A. Yes, I am.

Q. And is that also fairly old technology that's been around for a while?

A. Yes, sir, it is.

Q. And is it frequently used in industry today?
A. Yes, they are.
Q. Are you familiar with VOC CEMS to measure stack VOC emissions?
A. Yes, I am.
Q. And how many vendors currently sell VOC CEMS in the US? Do you know?
A. Yes, I do. There are numerous. There are the good ones and then there are the also rans. If I were to install one, I would select either a Thermo Fisher Scientific Model 51. I would perhaps consider California Analytics or perhaps the ABD. Those are the three top contenders.
Q. Now, in your declaration you indicate -- also in your testimony here, that the small warm and large burners will be separated -- will be tested separately; correct?
A. That's correct.
Q. And neither of the cold burners are going to be tested; correct?
A. That's correct.
MR. FRANK: Objection. Sorry. Misstates her testimony. She said at this time.
THE WITNESS: True.
BY MR. BRIDGMAN:

Q. And there are many scenarios in which either the warm -- either of the warm burners will be operated simultaneously with the small cold burner; is that correct?

MR. FRANK: Objection. Foundation.

THE COURT: Mr. Frank, what was your objection?

MR. FRANK: It was to foundation. He's asking questions about how the plant will operate, and I don't believe that any foundation has been laid for that.

MR. BRIDGMAN: Your Honor, I would happy to withdraw and lay some more foundation.

BY MR. BRIDGMAN:

Q. Dr. Kinner, in order to come up with the stack testing, did you make an effort to determine how the plant would operate?

A. No, sir. My job is to test the stack. There are plenty of people, as you have seen, that are experts in how the plant will operate, and that is not me. I test --

Q. I'm sorry to interrupt you.

In order, though, to determine the stack testing protocol, didn't you need to at least have some idea of the different scenarios in which the plant would

operate?

A. I believe that I was told that the large cold burner is for emergencies and we do not plan to replicate an emergency to test it. That's a safety issue. And for the small cold burner, that there's no vessel loading or truck loading at this time, so there is nothing to test at this time. Therefore, our proposal is to test separately the large warm and the small warm burners.

Q. And it sounds like, though, you do recognize that there are going to be events when they are going to actually use both of those burners simultaneously. It's just that event isn't ready to transpire soon; is that fair?

A. The fair answer would be the loading is not expecting to transpire soon. One would hope or hopefully expect that the cold burner would never be used, but that is not my bailiwick. I cannot predict the planned emergency for the large cold burner to burner.

Q. And with regard to SO2, certain data, according to your declaration, would be conducted during the stack test.

Can you tell us what sulfur data will be collected in the waste gas on the days when there is no

stack test?

MR. FRANK: Objection. Foundation and beyond the scope.

THE COURT: Mr. Bridgman?

MR. BRIDGMAN: Your Honor, I believe it's within the scope of the stack testing protocol that has already been admitted in the subject of significant testimony so far today.

THE COURT: Go ahead, Mr. Frank.

MR. FRANK: I took his question to be what is going to be recorded at times when the stack testing is not taking place, and Dr. Kinner is here to talk about stack testing. So, I don't believe that he's laid a foundation for that.

THE COURT: I'm going to allow it.

Dr. Kinner, do you need somebody to repeat the question for you?

THE WITNESS: Yes, I do. Please repeat the question.

MR. BRIDGMAN: Madam Court Reporter, would you be willing to read that back?

(Question was read back.)

THE WITNESS: I expect they will comply with what's written in their permit.

What we will do is test for SO2 while we

were there doing the stack testing.

Q. And is it fair to say, then, that you are unclear what sulfur data will be collected on days when there's no stack test?

A. Well, I believe that there's the content of the Pipeline gas. That's what I read. So to me, it's inconsequential. I'm hired to manage and conduct the stack test. I expect that PSE will comply with their permit.

Q. And, in fairness, while you're hired to design and conduct the stack test, you were also hired as an expert in this case; correct?

MR. FRANK: Your Honor, she was hired to -- not as an expert, but to assist PSE with developing its testing protocols.

MR. BRIDGMAN: Your Honor, if I may, she -- the direct testimony was that she was hired also to investigate CEMS in response to Dr. Sahu.

MR. FRANK: I don't believe it was -- that she said it was in response to Dr. Sahu.

THE COURT: I think this is outside the scope.

MR. BRIDGMAN: Your Honor, it goes to bias. If I may, we have a witness that's being presented as a fact witness, when, in fact, this witness was hired --

perhaps a dual purpose. We've seen several dual-purpose witnesses, but was also hired to attack our witness, Dr. Sahu.

THE COURT: Because the limited purpose that she was introduced in this case is around her declaration and what we've talked about today, I think that's outside the scope of what this witness can testify to.

MR. BRIDGMAN: Okay. I will move on then, Your Honor.

BY MR. BRIDGMAN:

Q. Your declaration indicates that the waste gases will have potentially thousands of VOC compounds; is that correct?

A. There are thousands of VOC compounds. That's the definition of EPA VOC in part 51.1.

Q. And do you know -- I'm sorry. Didn't mean to cut you off.

A. I'm just using the EPA definition of VOC.

Q. And do you know how many of these potentially thousands of VOC compounds are HAPs or are TAPs?

A. Many, I'm sure.

Q. Are you familiar with the Wobbe meters that will be used to measure heat content of the waste gases?

A. Are you referring to the Yokogawa BTU analyzers

installed at the inlet of the flare?

Q. Yes, I am.

A. I have some familiarity with them.

Q. Do you know how those work?

A. I have never operated one myself. I understand that there's a calorimeter and an oxygen meter and that they use those two data points as well as a mathematical equation to come up to the Wobbe number. That's the extent of my knowledge.

Q. Do you know where they are located at the inlet?

A. In the appropriate place to make the measurement. I looked at the -- the photographs. And I'm not the flare designer, so I would expect they put them in the proper place.

Q. Do you know how those meters work?

A. I just described to you that there's a calorimeter in there that measures heat and there's an oxygen meter that measures residual oxygen. There's a mathematical equation that puts you to a table for Wobbe index. That's how they work.

Q. Do they rely on combustion of those gases?

A. Yes. There is a small combustion chamber. Those analyzers are essentially bomb proof. If you look at the specifications on the classifications that they need to have, plus the fire suppression, they are

installed in an intrinsically safe manner.

Q. Your declaration indicates that the flare will burn a relatively consistent exhaust stream.

Can you please tell us what that is based upon?

A. That is based upon my knowledge of what has been told to me by the flare designers and how we will be testing it. So during our test, the flare burners will be receiving a consistent BTU content of gas. We will be testing the large warm and the small warm burners and we expect to have consistent gas during those tests.

Q. Do you know if during regular operation of the facility whether or not it will burn a relatively consistent exhaust stream?

A. I understand from the flare designers that there are different exhaust streams that go to the flare, especially when you have a holding condition of 14 SCFM at the inlet to, perhaps, over 600 SCFM for the large liquefying condition for the large warm.

So yes, there is a wide range of gas that goes to the flare from the inlet.

MR. BRIDGMAN: Thank you. Those are all the questions I have.

THE WITNESS: You're welcome.

THE COURT: Mr. Frank, redirect?

MR. FRANK: No questions, Your Honor.