

1 A. I—well, the protocol that—the sole protocol that I approved for the
2 certification of the thermometers was the one for the certification of the
3 mercury in glass thermometers using the digital reference thermometer.

4 Q. Oh, okay.

5 A. I didn't—I didn't require in that any—to quote from your definition, a
6 comparison having stated uncertainties. I did not require the Breath Test
7 Section to determine any uncertainty in their determination of agreement
8 of the thermometer temperature between the mercury in glass and the
9 digital reference thermometer.

10 Q. Okay. So, when you said that the definitions here in plaintiff's D and
11 plaintiff's E were more than what is necessary, in your opinion for the
12 certification of the mercury in glass thermometer, you were just referring to
13 that protocol which is plaintiff's B, right?

14 A. I was.

15 Q. And so you were only referring to that portion of the process that is done
16 internally by the Washington State Patrol?

17 A. When I—when I adopted the WAC?

18 Q. No, when you indicated to Mr. Schwartz that the definitions of traceability
19 previously described in your cross-examination were more than you felt
20 were necessary for this process, meaning the certification of the mercury
21 in glass simulator solution thermometer.

22 A. Since that was the—then protocol I adopted...

23 Q. Yes.

1 A. That would—that would be the case, but if a determination of uncertainty
2 isn't made in one step, then a determination of uncertainty made at any
3 other step can't be linked to the mercury in glass thermometer.

4 Q. And that means that if the chain of comparisons is broken at any stage it is
5 not traceable to NIST standards is that what you are saying?

6 A. Well, I guess given the definition that I've been given that you've
7 represented as being NIST's definition. My definition does not agree with
8 NIST's definition because we have a step, the very first step, the step
9 which I have approved which is not (inaudible) stated uncertainty.

10 Q. Okay, but what I'm trying to get at Dr. Logan is that first step is the
11 comparison of the digital reference thermometer to the mercury in glass
12 simulator thermometer, right? That's the first step of that they're...

13 A. That's the first step, yes.

14 Q. ...talking about? That's done internally...

15 A. Yes.

16 Q. ...by the Washington State Patrol, and it's done based on your protocol,
17 the protocol that you adopted and approved, and it's admitted as plaintiff's
18 B, right?

19 A. Yes.

20 Q. Okay. I'm not talking—I want to be clear that when you say that the NIST
21 protocols, procedures for traceability are in excess of what you require.
22 You're only referring to that portion of the process, the first sentence of
23 448-13-035, correct?

1 A. I think that is what I have testified to, but I wouldn't want that to be
2 construed as meaning that the fact that another step in that chain met my
3 standard but not the NIST standard was fatal to meeting my definition of
4 traceability. I didn't address that in anything that I published in the WAC
5 or elsewhere.

6 Q. There is no protocol for certification of the DRT, the reference
7 thermometer?

8 A. That's correct.

9 Q. All right. You didn't tell anybody how you wanted that done?

10 A. That's correct.

11 Q. You simply adopted the language of 448-13-035 and said that it should
12 be—that it shall be done using a reference thermometer traceable to
13 standards maintained by NIST?

14 A. That is the language I adopted, yes.

15 Q. And you allowed the Washington State Patrol to—to send that reference
16 thermometer out to a third party to achieve that goal?

17 A. Yes.

18 Q. All right.

19 MR. STEIN: Nothing further Your Honors.

20 JUDGE JACKE: Mr. Schwartz?

21 MR. SCHWARTZ: May I just ask one—one question?
22

23 SECOND REDIRECT EXAMINATION

1 (BY MR. SCHWARTZ)

2 Q. Dr. Logan, I'd like to give you a hypothetical based on the question that—
3 that Mr. Stein just asked you. If the third party assigned the responsibility
4 of certifying the digital reference thermometers, if that entity did not, for
5 example, calculate standard deviations or uncertainties would that affect
6 your—for purposes of the breath test program would that affect your belief
7 that it is—does that break the chain of traceability?

8 A. Not in my opinion.

9 Q. Why not?

10 A. As long as they don't—I mean if you like, by establishing that first step in
11 the chain by my approval of the protocol that the Breath Test Section
12 uses, the application of any lower standard than that higher up the chain
13 could potentially compromise the validity of that first certification of the
14 mercury in glass thermometers. But, the application of anything that is a
15 comparable standard or a higher standard means that the certification is
16 still as good as that first protocol, or what was achieved through that first
17 protocol that I have approved.

18 Q. And is that based on your experience—well, is that an opinion that would
19 be acceptable in the breath testing community at large?

20 A. Yes.

21 MR. SCHWARTZ: Nothing further.

22 JUDGE JACKE: Mr. Stein?

23

1 MR. SCHWARTZ: I'm going to object to the form of the
2 question. Again it is ...

3 JUDGE JACKE: Sustained. Form of the question.

4 MR. SCHWARTZ: ...assuming facts not in evidence.

5 Q. All right. Let's go at it one at a time then. Let's assume that the individual
6 who attempts to certify the digital reference thermometer for the
7 Washington State Patrol does not use a laboratory. Could that be a
8 basis—could that certification be the basis of a claimed traceability to
9 standards maintained by NIST...

10 MR. SCHWARTZ: I'm going...

11 Q. ...in your opinion?

12 MR. SCHWARTZ: ...(inaudible) ongoing objection to facts
13 not in evidence.

14 JUDGE JACKE: Sustained.

15 MR. STEIN: But I'm making it as a hypothetical.

16 JUDGE JACKE: Okay. Reword it counsel.

17 MR. STEIN: Do you want me to—okay.

18 Q. The (inaudible). Let's assume that the person that the State Patrol relies
19 on to certify the digital reference thermometer does not take multiple
20 readings of each thermometer employed in the process of the certification.
21 If that is a true fact, in your opinion, can such a certification be the basis
22 of a claim of traceability to standards maintained by NIST?

1 MR. SCHWARTZ: Objection. Still facts outside of—facts
2 not in evidence. There is no foundation for a definition of NIST
3 traceability.

4 JUDGE JACKE: Sustained.

5 MR. STEIN: I am asking this individual's opinion as to
6 whether it can...

7 JUDGE JACKE: Reword—reword it counsel.

8 Q. Assume sir that the person relied on by the State Patrol to certify the
9 digital reference thermometer has failed—has only recorded a single
10 reading of the thermometers that he is using and certifying. In your
11 opinion, does that meet the definition of traceable to standards maintained
12 by NIST?

13 MR. SCHWARTZ: Objection. Same.

14 JUDGE JACKE: Whose definition?

15 MR. STEIN: I'm asking for Dr. Logan's opinion.

16 JUDGE JACKE: All right, but we have several definitions
17 presented today so far.

18 MR. STEIN: I'm asking for his definition Your Honor.

19 JUDGE JACKE: All right. Then reword it an emphasize
20 that part of it.

21 MR. STEIN: All right.

22 Q. Dr. Logan, please assume that the individual who the Washington State
23 Patrol relies upon to certify the digital reference thermometer employed by

1 the Washington State Patrol takes only a single reading of each
2 instrument in the certification process. In your opinion, based on your
3 understanding of the definition of traceable to standards maintained by
4 NIST, could such a process be traceable to standards maintained by
5 NIST?

6 A. Yes.

7 Q. And how would that, in your opinion, can you explain to me how would
8 that be?

9 A. Because I have not required in the first step of the process the comparison
10 of the mercury in glass to the digital reference thermometer, that the
11 technicians make multiple measurements. So, if a subsequent step in the
12 chain employs the same standard it doesn't compromise the process by
13 which I said—the process which I set in place to certify the thermometers.
14 If he uses a more lax standard then potentially it does.

15 Q. All right, and what about up the chain further? What if the party upon
16 whom—this third party relies upon to certify his instrument, the instrument
17 that is now certifying the digital reference thermometer. If that party
18 doesn't take multiple readings or state its uncertainty?

19 A. Same answer.

20 Q. Would—would that in your opinion based on your definition of standards
21 maintained by NIST be traceable to standards maintained by NIST?

22 A. Yes.

1 Q. So, in your opinion there is no need to state uncertainty at either of these
2 levels?

3 A. Not by the definition of traceability that I have implied in this program.

4 Q. So you've implied a definition other than the definition other than the
5 definition that is globally used by scientists?

6 MR. SCHWARTZ: Objection. Not in evidence.

7 JUDGE JACKE: Sustained.

8 Q. Is there a globally accepted definition of traceability sir?

9 A. There may well be within the community of metrology, which is what I read
10 from the exhibit you presented me with, but it is not one that I can say I
11 recognize.

12 Q. Assuming that there is a globally accepted definition of traceability to
13 standards by NIST, would you—strike that. Sir, do you have personal
14 knowledge of whether the definition that you're employing, your definition
15 of the term—of the phrase traceable to standards maintained by NIST, do
16 you know if that is the same definition that NIST uses?

17 A. It probably is not.

18 Q. Do you know if it is the same definition that scientists in the field of
19 metrology use?

20 A. Probably is not.

21 Q. And you previously testified, did you not, that the field of metrology is the
22 field of measurement of science, correct?

23 A. For certain things, yes.

1 Q. All right. Well, for infrared spectroscopy the measurement of alcohol
2 concentration, would that be within the field of metrology?

3 A. I don't think there is any well specifically defined field of metrology. I
4 mean it's (inaudible) science of measurement. So, practically anything
5 could fit into that. The weighing of vegetables in a grocery store, so
6 conceivably under somebody's definition, or somebody's opinion, breath
7 alcohol measurement is part of the field of metrology, but it is part of—it
8 could be defined as part of a number of different fields.

9 Q. Okay. Fair enough. Where is your definition of traceable to standards
10 maintained by NIST? Where is that written? Where do you get it?

11 A. I—when I—I don't think I cite to—with—off the top of my head to any
12 specific source.

13 Q. Well, are you aware of any source?

14 A. That would give a different definition of traceability?

15 Q. That would give your definition of the term traceable to standards
16 maintained by NIST?

17 A. I could find you some other definitions of the term traceability other than
18 what you presented me with today.

19 Q. No, no, no sir. I'm sorry. I don't mean to interrupt, but let me ask the
20 question again. Where can we find the—a written definition of traceable to
21 standards maintained by NIST that is the same as your definition?

22 A. I can't answer that.

23 Q. You're not aware...

1 A. I don't know.

2 Q. ...of any written definition that is the same as yours are you?

3 A. I suppose not, no. I...

4 Q. I'm sorry.

5 A. I suppose not. I—that's...

6 Q. Not in any scientific community has the definition that you've given to this
7 court of the—of the terminology traceable to standards maintained by
8 NIST used?

9 A. If you're asking if anybody else has ever used my definition I can't tell you
10 the answer to that. If people use definitions other than what you've
11 presented me with today, and the way I have, yes they have.

12 Q. And so just to be clear Dr. Logan, has any scientific community adopted
13 your definition of the term traceable to standards maintained by NIST?

14 A. I don't know.

15 Q. You did not put your definition in any protocol?

16 A. That's correct.

17 Q. You did not write it down anywhere?

18 A. That's correct.

19 Q. You did not check it with anyone in any scientific field? Strike the
20 question.

21 MR. STEIN: Nothing further Your Honor.

22 JUDGE JACKE: Counsel?

1 MR. SCHWARTZ: Just one last question from the State I
2 hope.

3

4 THIRD REDIRECT EXAMINATION

5 (BY MR. SCHWARTZ)

6 Q. In your experience would the definition that you have employed for the
7 purposes for which you have employed it, be acceptable in the breath
8 testing community?

9 A. Yes.

10 MR. SCHWARTZ: Nothing further.

11 JUDGE JACKE: Further Mr. Stein?

12

13 THIRD CROSS-EXAMINATION

14 (BY MR. STEIN)

15 Q. Does the definition that you used ever been published in a peer review
16 document within the breath testing community?

17 A. No, not that I'm aware of.

18 Q. Are you familiar with experts within the field of breath testing?

19 A. Yes.

20 Q. Can you tell me one name of a person who uses the definition of traceable
21 to standards maintained by NIST that you have used today?

22 A. If that's what you implied by my answer to the last question then that was
23 misleading. I would say that if you were to survey people working in this

1 field, and I can give you a list of people who are working in this field, if
2 they would disagree with the way in which I've implied the definition of
3 traceability, that they would not disagree with that.

4 Q. Well, you have not spoken with these individuals with regard to that issue
5 have you?

6 A. Yes I have.

7 Q. Now previously I asked you whether the definition that you have used for
8 the term—for the phrase traceable to standards maintained by NIST had
9 been published in a peer review article within the breath testing
10 community, and I—just to be clear what was your answer to that?

11 A. Not that I know of.

12 MR. STEIN: I have nothing further Your Honor.

13 JUDGE JACKE: Mr. Schwartz questions?

14 MR. SCHWARTZ: Nothing further.

15 JUDGE JACKE: I have a clarification question and then
16 you are through.

17 DR. LOGAN: Thank you.

18 JUDGE JACKE: You were asked a question about
19 definition from exhibit D, defense exhibit D, which maybe a NIST
20 document, and that may be established later, and that was apparently, or
21 allegedly a NIST definition, and you were asked also, defendant's exhibit
22 E, which may be a NIST definition from the internet, and you said those
23 are a definition not your definition. Is that correct?

1 DR. LOGAN: Correct.

2 JUDGE JACKE: And you testified that when the WAC
3 was promulgated, 035, you were not aware of the definitions which have
4 been given to us today as NIST definitions?

5 DR. LOGAN Correct.

6 JUDGE JACKE: And is it therefore correct to say that
7 since you were not aware of the definitions when you promulgated 035
8 you never intended that those be the ones used as the definition for
9 WAC?

10 DR. LOGAN: Yes.

11 JUDGE JACKE: All right. Any questions based on the
12 court's questions?

13 MR. SCHWARTZ: No Your Honor.

14 MR. STEIN: Yes, just brief follow up. You've testified that
15 the phrase traceable to standards maintained by NIST is a term—a
16 technical term, technical phrase?

17 DR. LOGAN: Yes.

18 MR. STEIN: And were you aware that it was a technical
19 phrase when you employed it?

20 DR. LOGAN: Yes.

21 MR. STEIN: And I have nothing further Your Honor.

22 JUDGE JACKE: Anything further Mr. Schwartz?

23 MR. SCHWARTZ: No Your Honor.

1 JUDGE JACKE: All right. We're going to take a ten
2 minute recess.

3 MR. SCHWARTZ: Thank you.

4 COURT CLERK: Court is in recess.

5 (Court takes recess.)

6 MR. STEIN: Your Honor may the parties address the court
7 briefly before we go to the next witness?

8 JUDGE JACKE: Yes.

9 MR. STEIN: Prior to the original hearing date the parties...

10 JUDGE JACKE: And could you move the microphone?
11 You tend to stray a little bit from the microphone and it is all being
12 recorded. So let's move that closer to the middle.

13 MR. STEIN: Thank you Your Honor, and I'll stop straying.

14 JUDGE JACKE: Or keep your voice up.

15 MR. STEIN: Thank you.

16 JUDGE JACKE: That would be great.

17 MR. STEIN: Prior to the originally scheduled date for this
18 hearing the parties entered into a stipulation that consisted essentially of
19 two parts. One, written stipulation signed by the three parties with regard
20 to basic facts of this defendant, Mr. Jagla's, breath testing history. The
21 date of the breath test. The BAC Datamaster used. The thermometer
22 employed and the simulator attached to that BAC, and the digital
23 reference thermometer used to attempt to certify that. So, that document,

1 and then also referred to a transcript of Department of Licensing versus
2 Randhawa in which Sergeant Gullberg and Mr. Bosman have previously
3 testified. And the parties also stipulated to that transcript being admitted
4 to the court to try and save time. I notice that didn't raise a smile on Your
5 Honor's face, but we are trying to save time.

6 JUDGE EILER: We'll see. The proof is in the pudding.

7 MR. STEIN: I understand Your Honor, but I am nothing if
8 not slow. And so at this time we just wanted to put on the record and ask
9 that those two documents be admitted for purposes that the parties intend
10 and they be marked because we should have done that at the outset so
11 they would be A and B, but now they are going to be...

12 MR. ROBBINS: F.

13 MR. STEIN: F and G.

14 MR. ROBBINS: Well, they are one document.

15 MR. STEIN: Or we can make them one document. One
16 document is fine. Whatever.

17 JUDGE JACKE: All right. Well, we will mark the
18 stipulation of the parties if you have a clean copy.

19 MR. ROBBINS: I actually have one for each if I may
20 approach.

21 JUDGE JACKE: We have—we have all those.

22 MR. ROBBINS: You do?

23 JUDGE EILER: I didn't bring mine out.

1 JUDGE JACKE: Okay. So that would be—Debbie what
2 is that?

3 COURT CLERK: F.

4 JUDGE JACKE: And then let's mark the transcript as G.

5 COURT CLERK: Does it matter whether it is plaintiff's of
6 defendant's?

7 JUDGE JACKE: It's a...

8 MR. STEIN: Joint.

9 JUDGE JACKE: ...joint.

10 JUDGE EILER: And the transcript is G?

11 MR. ROBBINS: G would be behind the stipulations Your
12 Honor.

13 JUDGE EILER: Thank you.

14 JUDGE CHAPMAN: This one?

15 MR. ROBBINS: That's correct.

16 JUDGE JACKE: All right. Those are admitted per
17 agreement of the party. All right, and how many other witnesses did you
18 have Mr. Schwartz?

19 MR. SCHWARTZ: The State has only one, Sergeant
20 Gullberg.

21 JUDGE JACKE: All right, and how many witnesses did
22 you have Mr. Stein?

23 MR. STEIN: Just Mister—Dr. Ashley Emery Your Honor.

1 JUDGE JACKE: Okay. Does anyone—does anyone
2 have a belief that we're going to finish by 11:30?

3 MR. STEIN: Did you want it a rational belief or...

4 JUDGE JACKE: And intelligent and informed belief.

5 MR. STEIN: I'm hoping that based on the fact that we
6 already have some of Sergeant Gullberg's testimony in that it will be pretty
7 quick and we'll start with Dr. Emery.

8 JUDGE JACKE: But we may not finish?

9 MR. STEIN: We may not Your Honor.

10 JUDGE JACKE: All right.

11 MR. STEIN: But we may get the testimony in, but no
12 closing.

13 JUDGE JACKE: All right. All right. Let's start.

14 MR. SCHWARTZ: Thank you. The State calls Sergeant
15 Rod Gullberg.

16 JUDGE JACKE: Raise your right hand. Do you swear
17 you'll testify truthfully in the matter before this court?

18 SERGEANT GULLBERG: I do Your Honor.

19

20 DIRECT EXAMINATION

21 (BY MR. SCHWARTZ)

22 Q. Good—good morning still.

23 A. Good morning.

1 Q. Could you please state your name and spell your last name for the
2 record?

3 A. My name is Rod Gullberg. Last name spelled G-U-L-L-B-E-R-G.

4 Q. And Sergeant how are you employed?

5 A. I'm a Sergeant with the Washington State Patrol assigned to the breath
6 alcohol test section in Seattle.

7 Q. And how long have you been employed in that capacity.

8 A. I've been in my present position about twenty years.

9 Q. And what are your duties with the Breath Test Section?

10 A. Generally they fall into about five categories. We maintain, test, repair the
11 breath test instruments used throughout the State of Washington.
12 Secondly, we train operators, other police officers in the use of that
13 equipment. Third, we maintain records regarding all the test procedures
14 and results on the instruments. Fourth, we provide expert court testimony
15 as I'm doing here. And finally, we manage what is called a database. The
16 instruments are computerized and collect data. We manage all that,
17 provide reports and summaries to police departments and other interested
18 agencies. And then I also supervise the Breath Test Technicians within
19 the program.

20 Q. And how many are there in the program?

21 A. I directly supervise three in the Seattle lab, and there is about eleven other
22 statewide that I provide technical supervision of.

1 Q. And Sergeant Gullberg what—I presume you went through the State
2 Patrol academy some time ago?

3 A. Yes. Yes I did.

4 Q. Did you have any subsequent training to prepare you for your duties in the
5 Breath Test Section?

6 A. Well, at that time I was trained as a breathalyzer operator. That was the
7 instrument we used in those days. Later I was trained as a Technician
8 regarding the breathalyzer instrument where I learned to maintain and
9 repair that instrument, and then I became an instructor regarding the
10 breathalyzer. This was in the 1970's. And it was in the 1980's we went to
11 the BAC Datamaster breath test instrument we currently use today. I also,
12 by way of formal education, have a Bachelor's of Science degree from
13 Washington State University and a Master's from Eastern Washington
14 University. I have attended many seminars, meetings on the subject of
15 breath alcohol measurement.

16 Q. And—so you've had ongoing training with regard to breath testing?

17 A. Yes.

18 Q. Are you familiar—you were present during the testimony of Dr. Logan?

19 A. Yes I was.

20 Q. Are you familiar with the time frame during which WAC provision 448-13-
21 035 was adopted?

22 A. Generally, but the general time frame.

23 Q. The time frame when the thermometers...

1 A. Yes.

2 Q. ...it was discovered that there was a problem with the thermometers?

3 A. Right. Yes.

4 Q. Okay. Were you involved in the development with Dr. Logan of the testing
5 protocols?

6 A. Yes.

7 Q. And as part of your duties is the—the actual application of the protocols
8 part of the area of your supervision?

9 A. Yes.

10 Q. Are you also—well, strike that. Are you familiar with the documentation
11 that the State Patrol obtains with—and maintains with regard to the testing
12 of the thermometers?

13 A. Yes.

14 Q. Would it be possible Sergeant for you to explain to the court the process,
15 prior to March 11th of 2003, that the thermometers—the chain that the
16 thermometers went through?

17 A. Okay. It was back in the year 2000 that we first purchased the digital
18 reference thermometers that we've been referring to here today. That was
19 in preparation to apply them to the testing of mercury in glass
20 thermometers used in simulators, and at that time a protocol was first
21 developed and training was provided to all of our technicians in June of
22 the year 2000 and the direction to begin to test these field mercury in
23 glass thermometers, and we were given a year to do that. We were then

1 also asked to establish this traceability at that time, and we submitted our
2 reference thermometers to a company called Bostec, Rich Bosman was
3 the president of that. He was to apply his protocol to the testing of those.
4 He would provide us documents. His standard reference thermometer
5 was tested against another higher level lab known as Guth Laboratories in
6 Harris...

7 MR. STEIN: Objection. We have no personal knowledge
8 established.

9 JUDGE JACKE: Can—do you want to establish that
10 foundation?

11 Q. Sergeant Gullberg are you familiar with the methods that the various
12 parties involved in the chain utilized in terms of certifying the various
13 thermometers?

14 A. I don't know their protocol in great detail. What I am aware of is the
15 paperwork I receive from them and conversation over the phone with both
16 Bostec and Guth Labs and the next higher lab.

17 Q. And what is that next higher lab?

18 A. That next higher lab above Guth Labs was ICL Laboratories in Florida,
19 and then from them it went to NIST.

20 Q. Let me—well, first I'm going to show what has been marked—what has
21 been marked as plaintiff's exhibit F.

22 MR. SCHWARTZ: May I approach the witness Your
23 Honor?

1 JUDGE JACKE: Yes.

2 Q. Sergeant, I'm going to show you what has been marked as plaintiff's
3 exhibit F, and I would ask that you review the first two pages to give you
4 the basis for the next several questions.

5 A. Okay.

6 Q. If I were—we will assume because the parties have agreed that these are
7 all truths. If I were to provide you with certain documentation would you
8 be able to tell whether it relates to Mr. Jagla's case?

9 A. Yes.

10 Q. And be able to explain it?

11 A. Yes.

12 COURT CLERK: Plaintiff's exhibit G through M marked
13 for ID.

14 JUDGE EILER: Should that be H? We have—we have
15 G and F that were admitted.

16 MR. SCHWARTZ: (Inaudible) marked as F.

17 COURT CLERK: Well, the one was...

18 MR. SCHWARTZ: It was marked...

19 MR. STEIN: Judge Jacke had indicated that it should be
20 broken down, but...

21 MR. ROBBINS: Judge Jacke (inaudible).

22 JUDGE JACKE: F and G have already been marked, the
23 stipulations.

1 MR. SCHWARTZ: (Inaudible).

2 JUDGE EILER: G is the depositions.

3 JUDGE JACKE: So start with H.

4 MR. STEIN: Mychal? Mychal?

5 MR. SCHWARTZ: Yeah.

6 MR. STEIN: It may be helpful—just a suggestion, if you
7 make a whole packet (inaudible).

8 MR. SCHWARTZ: (Inaudible).

9 COURT CLERK: Exhibits have been remarked as H
10 through P.

11 Q. Okay. Sergeant Gullberg, based on the stipulations can you tell what
12 thermometer was attached to the simulator on Datamaster 949221?

13 A. Yes.

14 Q. And what thermometer was that?

15 A. It's noted here that it was B951328.

16 Q. I'm going to show you what has been marked as plaintiff's H.

17 MR. STEIN: Thank you.

18 Q. Do you recognize that document?

19 A. Yes I do.

20 Q. What is that document?

21 A. This is an affidavit which a Technician fills out when they certify a
22 thermometer, a mercury in glass thermometer, according to the protocol

1 that was discussed earlier. This one was completed by Trooper Ken
2 Denton, a Technician whom I supervise in the Seattle lab.

3 Q. And when was that performed?

4 A. He completed this on July 30th, 2002 for the same thermometer I just
5 noted earlier.

6 MR. SCHWARTZ: I'd offer exhibit H.

7 JUDGE JACKE: Any objection?

8 MR. STEIN: I'm thinking for a moment. No objection.

9 JUDGE JACKE: H is admitted.

10 Q. I'm going to show you what has been marked as plaintiff's I. Can you
11 identify that for the record?

12 A. This is a record keeping form within our policy and procedure manual in
13 the breath test program. The form is number 482.BTS. This is a form that
14 is completed by the technician following the certification of a mercury in
15 glass thermometer that is associated with a certain Datamaster
16 instrument. This one was for Datamaster instrument 949221. It shows
17 the same record that I just testified in exhibit H that shows that on July
18 30th, 2002 Trooper Denton checked mercury thermometer B951328 using
19 digital reference thermometer 091800 and found it to be correct.

20 Q. Thank you.

21 MR. SCHWARTZ: Offer H—I'm sorry, I.

22 MR. STEIN: No objection.

23 JUDGE JACKE: I is admitted.

1 Q. I'm going to show you what has been marked as J, State's J.

2 A. This is a record that is received from Bostec Incorporated. It's where—it is
3 a record he generates where he tested our digital reference thermometer
4 number 091800 which was on this exhibit I, I just referred to. He tested
5 this on August 15th, 2002 at three different temperatures and found them
6 to be correct.

7 MR. SCHWARTZ: Offer J.

8 JUDGE JACKE: Any objection?

9 MR. STEIN: Voir dire?

10 JUDGE JACKE: Go ahead.

11

12 VOIR DIRE OF SERGEANT GULLBERG

13 (BY MR. STEIN)

14 Q. Sergeant Gullberg, exhibit J says the digital—could you refer to exhibit J
15 please? Do you see where it says the digital thermometer calibration was
16 verified at 33, 34 and 35 degrees by comparisons to standards to the
17 National Institute of Standards and Technology?

18 A. Yes I see that language there.

19 Q. All right, and it's signed by somebody. Do you recognize that signature?

20 A. It's an initial I've seen several times before.

21 Q. And do you know whose initial those are?

22 A. Rich Bosman.

1 Q. And are you now aware that Mr. Bosman has stated that he does not
2 follow the standards—the protocols of the National Institute of Standards
3 and Technology?

4 A. My understanding is that he doesn't follow their exact protocol, that's
5 correct.

6 Q. And so this statement that is was done by comparison to standard—to
7 temperature standards traceable to NIST, National Institute of Standards
8 and Technology, to your knowledge that would not be accurate?

9 A. I would say it would be. He's not stating that he has followed the specific
10 protocol. He is stating that he performed a measurement which can be
11 traced by to a standard maintained by NIST.

12 Q. All right. Are you aware that Mr. Bosman does not have any laboratory?

13 A. I don't know how you would define a laboratory. He has a facility.

14 Q. According to his definition he has indicated to you that he does not have a
15 laboratory facility is that correct?

16 A. He has said that, yes.

17 Q. And he does not use or rent any laboratory?

18 A. Not that I'm aware of.

19 Q. And he doesn't take multiple readings at the temperatures indicated?

20 A. That's right. That is my understanding. He does not.

21 Q. And that he indicates that he does not do a certification, correct? He does
22 not do a calibration?

23 A. Well, those are two different terms.

1 Q. All right. Well...

2 A. They have different meanings.

3 Q. ...let's talk about a report of calibration verification. Mr. Bosman has told
4 you he does not do a calibration, is that correct?

5 MR. SCHWARTZ: Objection. Currently it assumes that...

6 MR. STEIN: Well, I'm (inaudible) the document.

7 MR. SCHWARTZ: It assumes facts not in evidence.

8 MR. STEIN: It's being offered for the truth of the matter, and
9 I'm trying to establish for the court that this document—that this witness is
10 aware that this document is not truthful.

11 JUDGE JACKE: It's not relevant what this witness thinks
12 about that document. The document speaks for itself.

13 MR. STEIN: Okay.

14 JUDGE JACKE: Any other objection?

15 MR. STEIN: Well, no. Then I'll terminate voir dire and
16 indicate that there—there is no foundation. This is not a record produced
17 by—it is not a business record of the Washington State Patrol. It's not
18 produced by the Washington State Patrol. Mr. Bosman is not an
19 employee of the Washington State Patrol, and there is no foundation for
20 the record.

21 JUDGE JACKE: I'm sorry. I thought when you began
22 this you made the statement if the parties assume these exhibits are true,

1 and I assume that there had been some agreement here. What did that
2 refer to, that statement?

3 MR. SCHWARTZ: No. I was referring to the stipulation, the
4 facts that are contained in the stipulation.

5 JUDGE JACKE: All right. So, when you marked all these
6 exhibits you said if the parties assume—assume the exhibits are true, you
7 are not referring to any agreement between the parties here?

8 MR. SCHWARTZ: If I said exhibits I had misspoke. What I
9 meant to say was if the facts contained in the stipulation.

10 JUDGE JACKE: All right. And you recognize that as a
11 signature of the Director or President of Bostec?

12 SERGEANT GULLBERG: Yes.

13 JUDGE JACKE: All right. Objection overruled on
14 foundation.

15 MR. STEIN: All right then it is hearsay.

16 JUDGE JACKE: Evidence rule 11.01. Hearsay is
17 admissible in pretrial motions hearing.

18 MR. STEIN: Well, but—we're—the State has the burden of
19 going forward and the burden of proof here, and the level of proof is what
20 is at issue, and so if the court is going to say that because it is a pretrial
21 hearing they don't have to show competent evidence of meeting the
22 standard of 448-13-035, I believe that that is—that's an erroneous
23 analysis of what the State has to show here today.

1 JUDGE JACKE: The witness has testified that this is a
2 record from Bostec that he recognizes with the signature as being from
3 the Director of Bostec.

4 MR. STEIN: Yes.

5 JUDGE JACKE: It's admissible. Hearsay is admissible
6 under 11.01. He has established a sufficient foundation for the
7 admissibility of the document. Any further argument can go to the weight
8 of the document.

9 MR. STEIN: Thank you Your Honor.

10 JUDGE JACKE: Are you offering that one?

11 MR. SCHWARTZ: Yes I would be offering.

12 JUDGE JACKE: All right. J is admitted.

13 (Resume with direct examination by Mr. Schwartz.)

14 Q. I'm going to show you K.

15 MR. STEIN: It's the same document.

16 MR. SCHWARTZ: (Inaudible).

17 JUDGE EILER: Could we kind of move along a little.

18 MR. SCHWARTZ: I'm sorry Your Honor. We had some
19 confusion about J and K.

20 JUDGE JACKE: J is the one that you just identified that
21 we admitted.

22 MR. SCHWARTZ: Correct. Okay. I don't think I need K.

1 Q. I'm going to show you Sergeant what has been marked as plaintiff's L.
2 Can you identify what that document is?

3 A. Yes. This is a report we've received from Guth Laboratories Incorporated,
4 which is the their report of calibration and certification, and it refers to a—
5 where they tested the digital reference thermometer submitted to them by
6 Bostec on January 18th, 2002 at three different temperatures.

7 Q. And did it—according to that document did it test correctly?

8 MR. STEIN: Objection. It's hearsay. There is no
9 foundation the document, and if it is admitted it speaks for itself, but this
10 witness has established no personal knowledge or foundation.

11 MR. SCHWARTZ: I'll withdrawn that question.

12 JUDGE JACKE: All right.

13 Q. Sergeant I'm showing you what's been marked as plaintiff's M. Do you
14 recognize that document?

15 A. Yes.

16 Q. And what is that document?

17 A. This is report of test for digital thermometer that has been issued by ICL
18 Calibration Laboratories, Incorporate in Florida, and this represents the
19 results where they tested Guth Laboratory's reference thermometer on
20 July 13th, 2001.

21 JUDGE EILER: Could you repeat that date?

22 SERGEANT GULLBERG: They tested it on July 13th, 2001.

23 JUDGE EILER: Thank you.

1 SERGEANT GULLBERG: Again at three different
2 temperatures.

3 MR. SCHWARTZ: I'm sorry. I would offer exhibit L.

4 JUDGE JACKE: Mr. Stein?

5 MR. STEIN: Exhibit L is hearsay and there is no foundation
6 for it Your Honor.

7 JUDGE JACKE: Overruled on hearsay, 11.01. What is
8 the foundation established? I understand the foundation argument.
9 Counsel, sustained on foundation at this point.

10 MR. STEIN: Thank you.

11 MR. SCHWARTZ: Your Honor it's the State's position that
12 under ER 7.03 these documents are establishing—the testimony as I
13 noted—as I noted in my brief, the testimony that we would anticipate at a
14 trial would be to put on a BAC Tech who would say that in fact the
15 thermometer was certified. That—that would be our position is all we
16 would need to establish a prima facie—a prima facie case. For the
17 purposes of a pretrial hearing where the court is trying to determine what
18 all the facts are, the State is offering these exhibits, recognizing that they
19 are hearsay, but admissible under 11.01, to show the chain back to NIST.
20 These are documents that would form the foundation under 7.03 for the
21 expert's opinion. If the court is not...

1 JUDGE JACKE: Counselor, everything you say is true.

2 You need to establish from this witness that he knows it is from Guth and
3 from ICL. He just says I've got a piece of paper in front of me.

4 MR. SCHWARTZ: Thank you Your Honor.

5 Q. Sergeant Gullberg, referencing exhibit L, how is it—you identified that as a
6 document coming from Guth Laboratories. How—how is that you're—that
7 you believe or that you know that that is a document from Guth
8 Laboratories?

9 A. I believe I actually received it through Bostec Laboratories. He apparently
10 collects these from Guth, and then I received it from him.

11 MR. STEIN: Objection. Speculation. Move to strike.

12 JUDGE JACKE: Overruled. He received it from Bostec.
13 It's a statement of fact.

14 MR. STEIN: Bostec apparently receives from Guth and
15 gives it to me, that's...

16 JUDGE JACKE: It's not—not offered. Go ahead counsel.

17 Q. And Sergeant is that a—the type of document that you have regularly
18 received with regard to the Guth thermometers?

19 A. Yes. Actually, I'm not sure how many from Guth. I've received less from
20 them in this manner than from Bostec. Bostec checks ours annually, or
21 more frequently, so I have received many from him. I don't know how
22 many I've received from Guth. Not nearly as many.

23 Q. But you have received?

1 A. Yes. Well, this is one right here.

2 Q. And does the document indicate on it, on its face, where it is from?

3 A. Yes.

4 Q. Where does the document indicate it is from?

5 A. Guth Laboratories Incorporated.

6 Q. And are you familiar with that lab?

7 A. Yes.

8 Q. Are you familiar with paperwork that comes from that lab?

9 A. Yes.

10 Q. Are you familiar—do they have a particular, I guess form of letterhead?

11 A. I've received different types of paperwork from them. So, I don't know if
12 they reflect what they have always sent in years past. I don't know that.

13 Q. Okay. Is it inconsistent with the type of paperwork that you've received
14 from them in years past?

15 A. No.

16 MR. SCHWARTZ: Your Honor I'd offer, for the limited
17 purpose of this hearing of establishing the chain upon which this who
18 argument is based, I would offer L, I think that is.

19 JUDGE JACKE: Go ahead Mr. Stein.

20 MR. STEIN: Your Honor I just—to cut to the quick, and
21 perhaps this will make things easier. With regard to J and L the problem
22 is that we believe that testimony will establish that these are not the type
23 of documents generally relied on upon—relied upon by scientists in any

1 scientific community to establish calibration, certification, verification of a
2 thermometer. Okay? And what Mr. Schwartz has failed to do is to
3 establish that they are the type of documents relied upon by experts in the
4 field. That's why I continue to object to J and L. M if it is offered...

5 JUDGE JACKE: But J is admitted.

6 MR. STEIN: I understand that.

7 JUDGE JACKE: Okay.

8 MR. STEIN: But I'm just trying to be clear...

9 JUDGE JACKE: So it's a relevance objection.

10 MR. STEIN: It is a foundation objection because under
11 7.03, 7.04, you know, certain things will come into evidence which were
12 otherwise not—not admissible if they are the type of document generally
13 relied on by experts in the field to format an opinion. That foundation has
14 never been laid, and I believe it cannot be laid. If it is laid it will be
15 impeached and that's the basis for the additional objections to J and L.

16 JUDGE JACKE: All right. There is a hearsay objection.
17 There is a foundation objection, and there a relevance objection, and the
18 court overrules all three based on your most recent line of questioning.

19 MR. SCHWARTZ: Thank you Your Honor. The State
20 would then offer L, I don't think it has been admitted yet.

21 JUDGE JACKE: L is now admitted.

22 MR. SCHWARTZ: Thank you Your Honor.

1 Q. Now going back to M, Sergeant Gullberg do you recognize what plaintiff's
2 exhibit M is?

3 A. Yes.

4 Q. And what is that?

5 A. This is a report of test for digital thermometer issued by ICL Calibration
6 Laboratories, Incorporated in Florida.

7 Q. And are you familiar with ICL Calibration Labs?

8 A. Yes.

9 Q. What is your understanding? What is that—that laboratory?

10 A. It's basically that. They will evaluate, certify, calibrate test equipment
11 submitted to them by a variety of laboratories, and we have used their
12 services even more recently, directly, but this was one that they tested.
13 Now they are testing Guth's reference thermometer on July 13th, 2001.

14 Q. And are you—now you in fact do have—do you have personal knowledge
15 as to the type of documents that ICL sends out when they have done
16 testing such as that?

17 A. Yes.

18 Q. And is M that type of document?

19 A. Yes it is.

20 Q. And is that type of document relied upon by the scientific community?

21 A. Yes.

22 MR. STEIN: Objection. There is no foundation.

1 JUDGE JACKE: You can establish that foundation or you
2 can strike the question.

3 MR. SCHWARTZ: I'll strike the question. I'd offer M.

4 JUDGE JACKE: Mr. Stein?

5 MR. STEIN: No objection.

6 JUDGE JACKE: M is admitted.

7 Q. And I'm showing you now what's been marked as State's N. Do you
8 recognize that document?

9 A. Yes.

10 Q. And what is that document?

11 A. This is a report of test issued by the United States Department of
12 Commerce National Institute of Standards and Technology. This is where
13 they have tested ICL Laboratories reference thermometer and issued this
14 report on April 19th of the year 2000.

15 Q. And are you familiar with those—those documents coming from the
16 National Institute of Standards and Technology?

17 A. This is the only one of this type from them I've seen. So, this would be my
18 only reference.

19 MR. SCHWARTZ: I'd offer N.

20 MR. STEIN: No objection.

21 JUDGE JACKE: N is admitted.

22 Q. Now Sergeant you have a series of documents which have now all been
23 admitted, H through N, would you...

1 JUDGE JACKE: With the exception of K.

2 MR. SCHWARTZ: With the exception of K. Thank you
3 Your Honor.

4 Q. Would you be able to use the easel behind you and explain to the court
5 the timeline using those documents how—and actually put in the numbers
6 and the dates of when—when these tests occurred according to the
7 documents?

8 MR. STEIN: The documents speak for themselves. If the
9 court feels that the—a illustrative exhibit would be helpful I don't have any
10 further objection, but...

11 JUDGE JACKE: Is that what you're asking him to do?
12 Just simply...

13 MR. SCHWARTZ: I am.

14 JUDGE JACKE: ...to make an exhibit of the information?

15 MR. SCHWARTZ: It's just a timeline for illustrative
16 purposes.

17 JUDGE JACKE: Oh, well the court doesn't feel that it is
18 necessary.

19 MR. SCHWARTZ: Okay. I'll withdraw the question then.

20 Q. Sergeant Gullberg, are the documents H through N relied upon by your
21 office in any way?

22 A. Yes.

23 Q. In what way?

1 A. To establish this traceability from our mercury thermometers to NIST.

2 Q. And have you had any conversations with Dr. Logan related to those
3 documents?

4 A. Yes.

5 Q. And did—were you involved in discussions with Dr. Logan involving what
6 would be required for tracing back to NIST?

7 A. Yes.

8 Q. And in your opinion, based upon your discussions with Dr. Logan, do
9 those documents meet the requirements of the Breath Test Section?

10 A. Yes.

11 MR. STEIN: Objection. Relevance. Foundation.

12 JUDGE JACKE: Overruled.

13 A. Yes I believe they do.

14 Q. Thank you.

15 MR. STEIN: Yes, and that's (inaudible).

16 MR. SCHWARTZ: O.

17 MR. STEIN: That's O?

18 MR. SCHWARTZ: (Inaudible).

19 Q. Sergeant Gullberg in early March, I don't know exactly when, a decision—
20 was a decision made to alter the way that they thermometers were—that
21 the digital reference thermometers were certified?

22 JUDGE JACKE: Could you state the year for the record?

23 MR. SCHWARTZ: 2003. Thank you Your Honor.

1 A. Well, more how we would establish this traceability. We were—we
2 decided to submit them directly to ICL Laboratories and eliminate three—
3 two links in the chain.

4 Q. What two links were being eliminated?

5 A. Bostec and Guth to go to the next higher level, ICL directly with our digital
6 reference thermometers.

7 Q. And was—why—why was that decision made?

8 A. Well, these—these matters began to be discussed and issues raised over
9 a year ago, and so in our discussions and thought we have here about six
10 links in the chain and why not reduce that to three or so. So, that was the
11 decision to simplify the process.

12 Q. And when you say these matters came up? Literally the issues that we're
13 dealing with today?

14 A. Yes. Yes.

15 Q. I'm showing you what has been marked as exhibit O then. Do you
16 recognize that document?

17 A. Yes.

18 Q. And what is that document?

19 A. This is another report of test for digital thermometer issued by ICL
20 Calibration Laboratories Incorporated where they tested our digital
21 reference thermometer serial number 091800 and issued this report on
22 March 11th, 2003. They tested it at three different temperatures.

23 MR. SCHWARTZ: I'd offer O.

1 JUDGE JACKE: Any objection?

2 MR. STEIN: No objection.

3 JUDGE JACKE: O is admitted.

4 Q. And Sergeant I'm showing you what has been marked as exhibit P. Do
5 you recognize that document?

6 A. Yes.

7 Q. And what is that document?

8 A. This is the report of test issued by United States Department of
9 Commerce the National Institute of Standards and Technology where
10 they tested ICL Calibration Laboratory's reference thermometer and
11 issued the report on April 10th, 2002.

12 MR. SCHWARTZ: I would offer P.

13 MR. STEIN: No objection.

14 JUDGE JACKE: P is admitted.

15 Q. Sergeant, when—do you have personal knowledge about the report from
16 ICL in March of 2003?

17 A. Yes. I received the original they sent. When they returned the
18 thermometers to us they sent the original documents of which this is a
19 photocopy.

20 Q. To the best of your knowledge when the digital reference thermometers
21 came back to you had they had to have been recalibrated in any way?

22 A. No. This document indicates no adjustments were made to this
23 instrument.

1 Q. And is that document in any way inconsistent with the previous sets of
2 documents, H through N, I think?

3 A. No. It corresponds actually to exhibit M which was for an earlier date, and
4 on a different thermometer.

5 MR. SCHWARTZ: Nothing further at this time.

6 JUDGE JACKE: Mr. Stein?

7 MR. STEIN: Thank you Your Honor.

8

9 CROSS-EXAMINATION

10 (BY MR. STEIN)

11 Q. Sergeant Gullberg, one of the (inaudible)—one of the things that you've
12 referred to here during your direct testimony, I believe it was exhibit H,
13 that's the affidavit of simulator thermometer certification, correct?

14 A. Yes.

15 Q. All right. Now, this particular one is signed by Kenny—Kenneth Denton?

16 A. Yes.

17 Q. Correct? Now Mr. Denton is an employee of yours?

18 A. Yes. I supervise him.

19 Q. And Mr. Denton would have—is it true that Mr. Denton would have no
20 knowledge of what the process of certification of the digital reference
21 thermometer included?

22 A. Well, I'm sure that we've discussed this paperwork that we...

23 Q. Is Mr. Denton familiar with the processes and procedures used by Bostec?

1 A. To what extent I'm not sure of the detail.

2 Q. Would he be familiar with the processes and procedures used by Guth?

3 A. I don't know what he would know.

4 Q. All right. The bottom line that I'm trying to get at with regard to exhibit H is
5 this is—this—isn't this in your opinion a affidavit that goes to what Mr.
6 Denton did with the digital reference thermometer?

7 A. Yes that's right.

8 Q. Mr. Denton does not certify the digital reference thermometer?

9 A. That's right he does not.

10 Q. He would not have the capability of doing that as an individual would he?

11 A. Not at the present time, no.

12 Q. And so the Washington State Patrol has had to rely on third parties to
13 certify the calibration of the digital reference thermometer?

14 A. Yes.

15 Q. And up until quite recently one of the parties that you relied on was
16 Bostec, Inc.?

17 A. Yes.

18 Q. All right. Very good. With regard to these digital reference thermometers
19 that are employed by Washington State Patrol are they ever taken outside
20 the Washington State Patrol Breath Test Division offices?

21 A. Yes. The testing might be done in the field. We might loan a thermometer
22 to another Technician in another state. We send them, when they are
23 certified by Bostec earlier, or ICL we'll mail them.

1 Q. So they—are they driven around the county in automobiles?

2 A. They might be. They may or may not be.

3 Q. Used in the field?

4 A. They are used primarily in our lab, but there is no reason they could not be
5 used in the field.

6 Q. In addition to attempting to certify the mercury in glass simulator solution
7 thermometers are there other purposes to which the digital reference
8 thermometers are put?

9 A. No. Not within our program.

10 Q. They are not taken in the field to adjust the pentiometer, thermistor of the
11 simulator in the field?

12 A. A Technician might do that. Every Technician in the state is assigned
13 one, and one might use it for that purpose.

14 Q. All right. So, the digital reference thermometer is primarily used then for
15 certification of the thermometers in the simulator solutions?

16 A. That is its principle purpose, yes.

17 Q. And that includes the simulator solutions attached to the BAC machines in
18 the field?

19 A. Yes.

20 Q. And the ones also employed by the Breath Test Division in the QA
21 process?

22 A. Yes.

1 Q. All right. To your knowledge are they also used on occasion to adjust the
2 pentimeters in the field?

3 A. They might be. I...

4 Q. Okay.

5 A. If a Technician chose to do that on a certain occasion they may be.

6 MR. STEIN: Your Honors I would just indicate that the rest
7 of the testimony that we rely on from Sergeant Gullberg is contained in the
8 transcript of Randhawa versus Department of Licensing, previously
9 admitted by the court, and so rather than go over that and try to give you a
10 contextual presentation if it is satisfactory to the court I'll just rely on the
11 remainder of Sergeant Gullberg's former testimony.

12 JUDGE JACKE: All right. Thank you Mr. Stein. Did you
13 have any other questions?

14 MR. STEIN: No Your Honor.

15 JUDGE JACKE: All right. Mr. Schwartz.

16 MR. SCHWARTZ: I just briefly. I don't believe I have any
17 other questions. I'm just checking very quickly. I have no further
18 questions.

19 JUDGE JACKE: All right. Thank you. You may step
20 down.

21 SERGEANT GULLBERG: Thank you.

22 JUDGE JACKE: Thank you sir.

23 SERGEANT GULLBERG: Thank you.

1 JUDGE JACKE: Mr. Schwartz?

2 MR. SCHWARTZ: Your Honor the State has no further
3 witnesses.

4 JUDGE JACKE: Mr. Stein?

5 MR. STEIN: Your Honor if it please the court the defense
6 would call Dr. Ashley Emery to the stand.

7 MR. SCHWARTZ: And Your Honor purely for the record I
8 would object to taking Dr. Emery's testimony. The State's burden in a
9 foundational situation as we have here is prima facie. The standard is in
10 the light most favorable, and at this point it is the State's position that
11 anything goes to weight not admissibility from here on out. We believe
12 that we—based on the stipulations, based on the testimony, the State
13 believes that we have made our prima facie showing of compliance with
14 the WAC, and that we would be able to provide this testimony if required
15 at trial, and we feel that the time now is for argument based on what the
16 court has heard, and that the standard as I indicated is in the light most
17 favorable to the non-moving party.

18 JUDGE JACKE: Thank you Mr. Schwartz. Call your
19 witness.

20 MR. STEIN: Thank you Your Honor.

21 JUDGE JACKE: Overruled.

22 MR. STEIN: Dr. Emery would you stand and be sworn
23 please?

1 JUDGE JACKE: Please step forward sir. Raise your
2 right hand. Do you swear you'll testify truthfully?

3 DR. EMERY: I do.

4 JUDGE JACKE: Have a seat sir.

5 DR. EMERY: Thank you.

6
7 DIRECT EXAMINATION

8 (BY MR. STEIN)

9 Q. Sir, would you state your name and spell your last name for the record
10 please?

11 A. Ashley Emery. E-M-E-R-Y.

12 Q. What is your professional address sir?

13 A. The Department of Mechanical Engineering, University of Washington,
14 Seattle, Washington.

15 Q. And your current position?

16 A. Professor of Mechanical Engineering.

17 Q. How long have you been a professor?

18 JUDGE EILER: You're—you're going to have to speak
19 up. I'm having trouble hearing you. So, either kind of turn this way or
20 speak up.

21 DR. EMERY: Okay.

22 A. How long have I been? Since 1961.

1 Q. Could you give us just a summary of your educational background
2 please?

3 A. Bachelor's, Master's, and Ph.D. from the University of California at
4 Berkley. I came here in 1961 as an Assistant Professor.

5 Q. And the degrees were in?

6 A. Mechanical Engineering.

7 Q. Have you held any other positions at the University of Washington?

8 A. I have been Associate Dean for Academic Affairs. I have been Chairman
9 of the Mechanical Engineering Department.

10 Q. Do you belong to any professional or scientific societies?

11 A. I do.

12 Q. Can you give us a synopsis?

13 A. American Society of Mechanical Engineers. American Society of Heating
14 and Ventilating Engineers. The two that are most dear to me.

15 Q. And are you currently teaching at the University of Washington?

16 A. I am.

17 Q. What kinds of classes do you teach?

18 A. This quarter I am currently teaching the design and manufacture and
19 competing of a formula SAE racecar, and a graduate in the design of
20 experiments for heat transfer.

21 Q. Have you taught at the graduate level as well?

22 A. Yes.

23 Q. What kind of (inaudible) generally (inaudible).

1 A. This quarter I'm teaching a course in the design of experiments. I have
2 taught in heat transfer, radiation, viscal elasticity, thermal stresses,
3 plasticity, structures, fracture, bio-engineering.

4 Q. All right. Have you published in peer review journals?

5 A. Approximately 300 papers.

6 Q. And in what areas generally?

7 A. Heat and all the areas I have taught in.

8 Q. I'm going to hand you what has been marked as defense exhibit...

9 COURT CLERK: Q.

10 Q. ...Q, and if you could just briefly just review that and tell me if you know
11 what it is?

12 A. It appears to be my résumé.

13 Q. Is it a true and accurate copy of vitae résumé sir?

14 A. Since I wrote it I would believe it is a true and accurate reflection, including
15 spelling mistakes.

16 Q. All right. Very good.

17 MR. STEIN: Your Honor at this time we'd move to admit
18 exhibit Q.

19 JUDGE JACKE: Any objection?

20 MR. SCHWARTZ: No objection Your Honor.

21 JUDGE JACKE: Q is admitted.

22 Q. Sir, are you familiar with the principles of infrared spectroscopy?

23 A. Yes.

1 Q. Are you familiar with the area of science known as metrology—metrology?

2 A. Yes I am.

3 Q. All right, and can you describe for the court what metrology is?

4 A. It is the science of measurements. It is a design of measurement
5 systems, and their use, and the interpretation of the results obtained from
6 them.

7 Q. All right. When we talk about metrology is metrology a separate field from
8 every other field of science, or is it in some way related to the other fields
9 of science?

10 A. Every field of science has to use measurements, but there are a group of
11 people who term themselves metrologists who specialize in the design of
12 measurement systems and their—the reduction of the data gathered by
13 them.

14 Q. And in your opinion do the—do individuals within the various fields of
15 science then rely the science of metrology to obtain accurate
16 measurements?

17 A. Yes they do.

18 Q. All right. Do you individually keep abreast of scientific literature in various
19 fields of science?

20 A. Yes I do.

21 Q. Does that include the field of mechanical engineering?

22 A. Yes.

23 Q. Does it include the field of thermometry?

1 A. Yes.

2 Q. And what is the field of thermometry sir?

3 A. Measurement of temperature.

4 Q. Okay. That's succinct. Do you also keep abreast of the scientific
5 literature in the field of scientific measurements?

6 A. Yes I do.

7 Q. All right. Do you read scientific journals in these fields?

8 A. Yes I do.

9 Q. Do you attend lectures and symposiums in these fields?

10 A. Yes I do.

11 Q. Do you discuss issues with other scientists in these fields?

12 A. Yes I do.

13 Q. Are you familiar with the generally accepted opinions of scientists in these
14 fields?

15 A. Yes I am.

16 Q. Are you also familiar with the scientists who are generally recognized to
17 be experts in these various fields?

18 A. Yes I am.

19 Q. Okay. Are you familiar with these expert individual's publications?

20 A. In many cases, yes.

21 Q. Their opinions?

22 A. Yes unfortunately.

23 Q. And their reputations?

1 A. Yes.

2 Q. Okay. Do you maintain the current knowledge of the opinions of experts
3 in the fields of thermometry?

4 A. Yes I do.

5 Q. And mechanical engineering?

6 A. Yes.

7 Q. And scientific measurement?

8 A. Yes.

9 Q. All right. Have you also been retained to perform a study of the
10 Washington State Patrol Breath Test Division's use of thermometers in
11 their—in their breath test program?

12 A. Retained by?

13 Q. Yeah. Have you been retained to perform a study of the Washington
14 State Patrol Breath Test Division?

15 A. Yes.

16 Q. Can you tell us what you did in the course of that study?

17 MR. SCHWARTZ: May I voir dire the witness before we get
18 into...

19 JUDGE JACKE: Yes.

20 MR. SCHWARTZ: ...this inquiry.

21 JUDGE JACKE: Go ahead.

22

23

VOIR DIRE OF DR. EMERY

1 (BY MR. SCHWARTZ)

2 Q. Good morning Dr. Emery. Dr. Emery, do you have any training in the field
3 of toxicology?

4 A. No I do not.

5 Q. Do you have any training or experience in the field of breath testing...

6 A. No.

7 Q. ...for alcohol content?

8 A. No I do not.

9 Q. Would you agree then that if in fact breath testing includes measurement
10 it's included in metrology?

11 A. Please restate that.

12 Q. Well, if—if in testing the alcohol content of a person's breath some sort of
13 measurement is used, whether it is milliliter, centimeters, cubic
14 centimeters, any—any kind of measurement that subsumed by the word
15 metrology?

16 A. Yes I agree that measurements are made.

17 Q. So, you have vast experience in metrology, but there are certain
18 specialties in metrology that you have no experience in?

19 A. Oh, certainly.

20 Q. Okay, and are you—you are professor at the University of Washington
21 here, correct?

22 A. That is correct.

1 Q. Have you ever been authorized by the State legislature to write
2 administrative code?

3 A. No.

4 Q. Do any of your scholarly writings, your peer review paperwork carry the
5 weight of legal requirements?

6 A. No.

7 Q. Other than the work that you did when retained to do a study of the way
8 that the Washington State Patrol Breath Test Program utilizes
9 thermometers, do have any experience with, for example, the Datamaster
10 Verifier, the instrument used to test breath?

11 A. I understand its principles.

12 Q. Okay, but you're not specifically familiar with that instrument?

13 A. No I do not operate it.

14 Q. Okay, and the study that you performed on the Breath Test Program—
15 well, I'll save that.

16 MR. STEIN: I have no further questions.

17 JUDGE JACKE: Go ahead Mr. Stein.

18 MR. STEIN: There is no motion (inaudible).

19 (Resume with direct examination by Mr. Stein.)

20 Q. Dr. Emery just to follow up. Are you—did you discover or have you seen
21 how the Washington State Patrol Breath Test Division tests the
22 individual's breath for alcohol concentration?

23 A. I've seen it demonstrated.

1 Q. And what method of testing did they use?

2 A. They use a breathalyzer in which the subject is asked to breathe into a...

3 Q. Is there...

4 MR. SCHWARTZ: I guess at this time I'll make a motion...

5 A. (Inaudible) infrared spectroscopy.

6 JUDGE JACKE: Just a minute. Excuse me sir.

7 MR. SCHWARTZ: At this time I'm making a motion to

8 exclude the testimony of Dr. Emery at least on that issue because the

9 Washington State Patrol Breath Test Section has not used a breathalyzer

10 since I think about 1986.

11 JUDGE JACKE: Strike the question? Reword it?

12 MR. STEIN: Yes. Thank you.

13 JUDGE JACKE: Go ahead.

14 Q. What type of testing does the Washington State Patrol employ to

15 determine alcohol concentration?

16 A. My understanding is they have used infrared spectroscopy.

17 Q. All right, and is infrared spectroscopy testing a field that would be within

18 the definition of metrology?

19 A. Yes. It is a measurement of infrared radiation.

20 Q. And it is some special field, or is just a field that uses metrological

21 principles?

22 A. It falls in the field of radiation a-transference.

1 Q. Okay. In the breath test program are there, to your knowledge, does the
2 Washington State Patrol Breath Test Division employ the use of
3 thermometers?

4 A. Yes they do.

5 Q. Okay, and with regard to their use of thermometers in their program can
6 you tell us generally how they use them?

7 A. A mercury in glass thermometer is used in a Guth simulator to ascertain
8 the temperature of the simulator because the temperature of the simulator
9 fluid must be known to accurately use the simulator to test the...

10 MR. SCHWARTZ: I'm going to object as to foundation.

11 JUDGE JACKE: Do you want to voir dire?

12 MR. SCHWARTZ: Thank you Your Honor.

13

14 VOIR DIRE OF DR. EMERY

15 (BY MR. SCHWARTZ)

16 Q. Dr. Emery, you've previously stated you've—you've watched them
17 perform breath tests, but you've also stated that you have no specialized
18 training in toxicology, correct?

19 A. That is correct.

20 Q. You—the simulator and the thermometer, the Guth simulator and the
21 thermometer that is involved in it, that has nothing to do with infrared
22 spectroscopy does it?

23 A. Yes it does.

1 Q. Okay. I guess I'll cut to the point. What was your basis for answering Mr.
2 Stein's question with regard—you began a recitation of what the purpose
3 of the simulator is.

4 A. The purpose of the simulator...

5 Q. No. I'm asking you—I'm not asking you what the purpose is. I'm asking
6 you what is your basis for knowing what purpose of the simulator is?

7 A. Because I understand the chemical principles behind it, and why you need
8 to test the Datamaster, or other infrared spectroscopy devices to assure
9 that it is reading correctly.

10 Q. Well, let me ask you then if other states use the same...

11 MR. STEIN: Argumentative.

12 JUDGE JACKE: I don't—I haven't heard the question.

13 Q. If other states use the same instrumentality without using a simulator are
14 they wrong?

15 A. The only other state I have looked into is the Commonwealth of Virginia,
16 and they use a Guth simulator.

17 Q. Do they use it on every test?

18 A. Yes.

19 MR. STEIN: Your Honor I'm going to object to this line of
20 voir dire. I don't see that it is getting to any...

21 JUDGE JACKE: Do you have any other voir dire
22 questions?

23 MR. SCHWARTZ: No Your Honor.

1 JUDGE JACKE: Do you have any motion or objection?

2 MR. SCHWARTZ: I'll withhold any until...

3 JUDGE JACKE: Mr. Stein go ahead.

4 MR. SCHWARTZ: ...I hear a question and answer.

5 (Resume direct examination by Mr. Stein.)

6 Q. Let me approach this a different way Dr. Emery. Did you go to the
7 Washington State Patrol Breath Test Lab?

8 A. Yes I did.

9 Q. Did you meet with Sergeant Gullberg?

10 A. Yes I did.

11 Q. Did you interview him?

12 A. We had an extended conversation, yes.

13 Q. And did you also interview or have a conversation with a Breath Test
14 Technician or Technicians there?

15 A. Yes I did with one of them.

16 Q. Okay, and tell me what else you did at the Washington State Patrol Breath
17 Test Lab please?

18 A. Sergeant Gullberg demonstrated the device and described the Guth
19 simulator, showed us how they calibrated the mercury in glass
20 thermometer, demonstrated the use of a reference digital thermometer.

21 Q. Did you also go to the field and see the BAC Datamaster breath test
22 machine and the attached simulator solution in the—at a police station?

23 A. Yes I did.

1 Q. All right.

2 A. In Seattle.

3 Q. And did you perform any scientific studies regarding these issues?

4 A. Regarding the ability to read the thermometer, yes.

5 Q. And did you do scientific research as well?

6 A. Yes I did.

7 Q. Okay. Did you become familiar with the types of thermometers employed
8 by the Washington State Patrol Breath Test Division?

9 A. Yes.

10 Q. Did you also become familiar with their procedures regarding the use and
11 employment of those thermometers?

12 A. Yes.

13 Q. Okay. Did you review their protocols and procedures?

14 A. I have read them, yes.

15 Q. Now let me ask you to assume that there was a requirement that the
16 thermometers used in the program shall be certified on an annual basis to
17 have an accuracy within .1 degree centigrade and that such certification
18 shall be made using a reference thermometer traceable to standard
19 maintained by NIST, or the National Institute of Standards and
20 Technology. Do you have an understanding of what this—do you have an
21 opinion as to what this means?

22 A. As to what traceable means?

23 Q. Yes.

1 A. Traceable means...

2 Q. Well, I'm just asking if you have an opinion.

3 A. Oh, yes I have an opinion.

4 Q. And what is that opinion based on?

5 A. That opinion is based upon reading articles in the Journal of Research
6 published by NIST, by reading definitions in other textbooks, and by
7 reading definitions in ISO dictionary of terms calls the VIN.

8 Q. What is the ISO?

9 A. International Standards Organization.

10 Q. Okay. Now, before we get there can you give us an idea, is a reference
11 thermometer a particular type of thermometer?

12 A. A reference—the digital reference thermometer?

13 Q. No. Generally, is a reference thermometer somehow different than just
14 any other thermometer in use?

15 A. It is of higher precision.

16 Q. Okay, and are you familiar with the Washington—what the Washington
17 State Patrol uses as a reference thermometer?

18 A. That one is based upon a thermistor.

19 Q. Okay. Can you describe it for me more generally please?

20 A. It's a electronic device whose resistance is affected by the temperature,
21 and it contains the electronic circuitry which amplifies the signal and
22 makes use of a compensating circuit to determine the temperature.

23 Q. And have you done research with regard to that particular thermometer?

1 A. Yes. I've looked up the literature by the manufacturer.

2 Q. And do you know from your research what the manufacturer's stated
3 accuracy or precision—let me get the proper term—system accuracy is for
4 that thermometer?

5 A. It's .025 degrees C.

6 Q. Now, returning to the term traceable to standards maintained by NIST, is
7 that, in your opinion, a term of art or a scientific term?

8 A. Well, traceable by itself is a scientific term.

9 Q. All right. Can you tell us whether that scientific term has a generally
10 accepted meaning?

11 A. Traceable means that the results of a measurement can be...

12 MR. SCHWARTZ: Objection. Non-responsive.

13 MR. STEIN: Technically accurate. I'll re-ask the question.

14 JUDGE JACKE: All right.

15 Q. Just—Dr. Emery, the term traceable or traceability, in your opinion, does it
16 have a generally accepted meaning in the scientific community?

17 A. Yes it does.

18 MR. SCHWARTZ: Objection. What scientific—the question
19 is vague.

20 MR. STEIN: Just need to get there Your Honor if I could.

21 JUDGE JACKE: All right. Go ahead Mr. Stein.

22 MR. STEIN: Thank you.

1 Q. When we talk about the scientific community and we talk about the term
2 traceable, do you have an opinion as to which scientific communities use
3 the term traceable or traceability?

4 A. The general scientific community uses that term.

5 MR. SCHWARTZ: Objection. Foundation.

6 Q. What do you...

7 JUDGE JACKE: Can you clarify?

8 Q. What do you mean by the general scientific community?

9 A. Anybody involved in making measurements related to standards will use
10 the definition of traceable, and traceable is...

11 MR. SCHWARTZ: Objection. Foundation. There is no
12 evidence that Dr. Emery is a master of everything.

13 JUDGE JACKE: Mr. Stein. Go ahead and clarify it.

14 MR. STEIN: Do you want me to continue to clarify? Thank
15 you Your Honor.

16 Q. When you said the general scientific community can you describe who is
17 involved in the general scientific community?

18 A. Well let me say that people who are involved in making thermometer
19 measurements and heat transfer measurements know the definition of the
20 word traceable.

21 Q. All right. Are—how about the people within the field of mechanical
22 engineering?

1 A. People who measure length, volume, mass, current, force all know the
2 definition of traceable.

3 MR. SCHWARTZ: Objection. There is no evidence—I—
4 the answer that Dr. Emery has just provided is incredible. I measure
5 volume. I...

6 JUDGE JACKE: Mr. Stein continue with your clarification.

7 MR. STEIN: Thank you.

8 Q. We are now talking about generally about the scientific communities, is
9 that correct?

10 A. Those who make scientific measurements.

11 Q. Thank you.

12 MR. SCHWARTZ: Then I'll object to this—this testimony.

13 JUDGE JACKE: Your objection is noted. Go ahead Mr.
14 Stein.

15 MR. STEIN: Thank you Your Honor.

16 Q. Let's go and (inaudible) this out Dr. Emery. Do your students at college
17 make scientific measurements?

18 A. Do what?

19 Q. Do your students?

20 A. Yes they do.

21 Q. Okay, and do you teach them the term traceable and traceability?

22 A. I talk about it in class, yes.

1 Q. All right. Now, what you have indicated is that you are familiar with
2 science of infrared spectroscopy, is that correct?

3 A. That is correct.

4 Q. All right. Do you have an opinion about people within the fields, of which
5 you're familiar, thermometry, mechanical engineering and metrology,
6 people who use—are you familiar with people who use infrared
7 spectroscopy in those fields?

8 A. Yes I am.

9 Q. And do you have an opinion about whether the people who use infrared
10 spectroscopy within these various fields have a generally accepted
11 understanding of the term traceable or traceability?

12 MR. SCHWARTZ: Objection. Ask to voir dire.

13 JUDGE JACKE: Go ahead.

14
15 VOIR DIRE OF DR. EMERY

16 (BY MR. SCHWARTZ)

17 Q. Dr. Emery, you've testified that you are not a toxicologist, correct?

18 A. That is correct.

19 Q. And until you were—you went to the Roanoke station you had—have you
20 ever seen a Datamaster Verifier before?

21 A. No I had not.

22 Q. And you know that it works on infrared spectroscopy because you—how
23 did you learn that it works on infrared spectroscopy?

1 A. I looked at the literature.

2 Q. Okay.

3 A. Did you talk to either Dr. Logan or Sergeant Gullberg about—well, strike
4 that. Have you—are you familiar with the Breath Test Section use of
5 infrared spectroscopy?

6 A. Familiar in what sense?

7 Q. In any sense.

8 A. I know how it operates, yes.

9 Q. Okay, and would you include the types of measurements done by the
10 Breath Test Section in metrology?

11 A. The measurement of the radiation intensity, yes, that is transmitted
12 through the sample.

13 Q. And that is—well, infrared spectroscopy is certainly a subject that you are
14 familiar with.

15 A. Yes.

16 Q. But its use in breath testing for alcohol content isn't necessarily a specific
17 area that you are, is that a fair...

18 A. It's use in detecting other chemicals I am familiar with.

19 Q. Sure.

20 A. In the detection of ethanol alcohol, no I have never used it for that specific
21 purpose.

22 Q. Okay, and to the extent that you have not been exposed to that and not
23 been exposed to the Breath Test Section prior to being hired to evaluate it,

1 would you be able to give an opinion as to what their—or what even the
2 breath testing nationwide, what their definition of traceable is?

3 A. What a toxicologist's definition of traceable is?

4 Q. Yes.

5 A. I have not talked to any toxicologist.

6 Q. But a tox—toxicology would be a subject matter contained in metrology?

7 A. I think that any chemist or any chemical engineering being in infrared
8 spectroscopy would know the definition of traceable.

9 Q. I'm sorry. I don't mean to cut you off Dr. Emery, but that is not my
10 question. My question is very specific. You have had no contact with
11 toxicologists.

12 A. That is correct.

13 Q. So you could not testify as to what a toxicologist definition of traceable is?

14 A. That is correct.

15 MR. SCHWARTZ: I have no—no other voir dire.

16 JUDGE JACKE: Go ahead. Do you want to repeat the
17 question?

18 MR. STEIN: I don't remember what the question was, but
19 I'm going to start it—I'm going to start over again.

20 (Resume with direct examination of Dr. Emery.)

21 Q. Dr. Emery, are there certain scientific terms that in your opinion all
22 scientists agree upon, such as the term mass?

23 MR. SCHWARTZ: Objection. Foundation.

1 JUDGE JACKE: Mr. Stein?

2 MR. STEIN: Your Honor if we cannot get by...

3 JUDGE JACKE: Well, Mr. Stein he can't answer the
4 question about whether all scientists agree on certain definitions and
5 certain terms. It is a little broad.

6 MR. STEIN: Well, I—you know, I—my response is this Your
7 Honor. He is a professor of science. He has expertise in metrology which
8 is the science of all measurement. He is a mechanical engineer, a Ph.D.

9 JUDGE JACKE: Sir, do you know whether all scientists
10 on the face of this earth agree to certain definitions, to certain terms?

11 DR. EMERY: No I do not.

12 JUDGE JACKE: All right. Next question. All scientists is
13 too broad.

14 MR. STEIN: All right.

15 Q. Let us assume that the next series of questions applies to the areas of
16 science that you are familiar with including mechanical engineering,
17 metrology, and thermometry. Actually before I do that I'm going to strike
18 the question. Are you aware of any difference in the use of infrared
19 spectroscopy as it is used inside or outside the field of toxicology? Are
20 there any differences that you are aware of, the way that the Breath Test
21 Division uses infrared spectroscopy and the way that everyone else uses
22 it?

23 A. No I'm not.

1 Q. Are you aware of any difference between the way that (inaudible)?

2 A. The way that what?

3 Q. The way that the Washington State Patrol Breath Test Division determines
4 temperature and the way that the rest of the known world to you in the
5 scientific communities, define temperature? Let me rephrase the
6 question.

7 A. Temperature is a—has as very specific scientific definition. It is based
8 upon the second law of thermodynamics.

9 Q. And what is the definition?

10 JUDGE JACKE: We're going to have to notify you if you
11 get this wrong.

12 A. I don't want to give you a three hour lecture.

13 Q. All right. When we talk about temperature can—in your opinion, can
14 anyone who employs science use a different definition than the generally
15 accepted scientific definition of temperature in the field of mechanical
16 engineering, thermometry and metrology?

17 A. I gave you the answer I did because there is a theoretical definition and
18 then there is a practical...

19 Q. Okay.

20 A. ...approach to that, and the practical approach is embodied in the
21 international temperature scale of 1990 which is run by ISO, by NIST, by
22 the national laboratories and they tell you how to make measurements.
23 But most of us regard temperature as a sensation...

1 Q. Very good.

2 A. ...of hot and cold, and we use some sort of analog device, a digital
3 readout, a mercury thermometer or something to determine whether we're
4 hot or cold.

5 JUDGE JACKE: Mr. Stein I'm going to ask you to head
6 for a convenient cutting off point.

7 MR. STEIN: Okay. I'm going to do that because I'm am
8 also floundering in my approach.

9 Q. And so I'm going to ask—I'm going to (inaudible) around this and ask Dr.
10 Emery to just tell us are you familiar with the term NIST? N-I-S-T?

11 A. Yes I am.

12 Q. What does it stand for sir?

13 A. National Institute of Standards and Technology.

14 Q. And what is the National Institute of Standards and Technology sir?

15 A. Can I give you a moderately long answer?

16 JUDGE JACKE: Well, how many hours are we talking
17 about sir?

18 DR. EMERY: No, we're talking about five minutes or so.

19 MR. STEIN: I asked the question.

20 JUDGE JACKE: Do you want a five minute response, or
21 do you want a—do we need a five minute response to make an informed
22 decision here?

23 MR. STEIN: I think you do.

1 JUDGE JACKE: All right. All right, and then we're going
2 to cut it off.

3 A. Okay. Standards are voluntary measures that organizations and
4 businesses have adopted to make it possible to sell their products to
5 protect them in some sense from legal liabilities, and to make sure that the
6 customer knows what they are getting. And so when you go to buy a
7 helmet for your child on the bicycle you're told to by a (inaudible) approved
8 helmet. That is the standard. And people who—manufacturer's who build
9 that (inaudible) are telling you that they build it to a certain level of
10 performance, and so you know what you are getting. So when you buy 8-
11 ½ by 11 paper for your printer you know it is going to print in the printer
12 because the printer manufacturer said I'm going to build it to that. Now,
13 almost all standards are voluntary, but there are some standards which
14 are required by law. The FDA must approve medicine. Airplanes must be
15 certified by the FAA. USDA grades of beef are not required by law, but it
16 is good for advertising. States adopt certification of standards. So the
17 state will say that the gas pump must deliver gasoline with a certain level
18 of precision in order to be approved, and they put a certification on it there.
19 The United States has agreed that certain quantities will be standards and
20 will be controlled by national institutions, namely NIST, and those
21 standards are of length, and volume, and mass, and temperature, and
22 grain moisture and such so that we can be sure that everybody gets
23 exactly what they want. And so when you go to buy a toaster it is UL

1 approved. UL sets the standard. It also certifies that the manufacturer
2 meets those standards. ASTM is the largest standard body in the United
3 States, and they write standards for how you are to calibrate
4 thermometers for instance. So you've got certification involved in there,
5 and you've got the standards that go with it. NIST has the legal authority
6 and requirement to make sure that standards are defined by everybody.
7 And so when you buy something that is certified to be correct you know it
8 meets that standard. Certification in the State of Washington they say that
9 the thermometer in the simulator must read within plus or minus so much,
10 and if you do that, it is certified to do that. Now, who is going to tell you
11 when the standard has been met or not? Somebody has got to make the
12 measurement. So if you think of a meter stick 100 centimeters long, and
13 you say I don't know how good my meter stick is, you take it to a
14 laboratory and they come back and they say we have our own meter stick,
15 that is our standard, and that has been calibrated by NIST, and NIST has
16 told us that it reads 100 centimeters plus or minus .1. And I know that
17 your meter stick lengthens when it gets hot, shortens when it is cool,
18 lengthens when it gets humid, shortens when it dries out, and I compared
19 yours to mine and I say that the uncertainty in the measure (inaudible) 100
20 centimeters long, but I'm uncertain at plus or minus .2. And so I give that
21 information to you. I write it on a certificate, and on that certificate is what
22 we call the traceability of this. Where all of the measurements are there.
23 All of the uncertainties are there. The date is there. The serial number of

1 what we tested. Anything that we've observed is there, and I can take that
2 certificate to anybody and they can tell me yes, I understand how this was
3 done. And so that is where the standards come in. That is where the
4 certification comes in. That is where the traceability. Now, if I walked out
5 of the lab...

6 MR. SCHWARTZ: I'm going to object. I think the question
7 asked by Mr. Stein was what is NIST?

8 DR. EMERY: NIST.

9 JUDGE JACKE: Yes.

10 MR. SCHWARTZ: We haven't even gotten to that point.
11 So, I'm going to ask to strike as non-responsive.

12 JUDGE JACKE: What is NIST sir?

13 A. NIST is the governmental agency assigned by the United States to
14 guarantee that when people make a measurement of length, volume,
15 mass, force, etcetera that there are standards that they can appeal to and
16 say that yes my instrument is correct.

17 JUDGE JACKE: Thank you very much Dr. Emery.

18 MR. SCHWARTZ: Your Honor could I get a ruling on my
19 motion to strike that interesting, but non-responsive answer to the last
20 question, until that last sentence?

21 JUDGE JACKE: Counsel I don't think his explanation is
22 going to be critical to a ruling in this case.

23 MR. SCHWARTZ: Okay.

1 JUDGE JACKE: So, those various areas (inaudible).

2 MR. SCHWARTZ: Thank you.

3 JUDGE JACKE: Counsel I need to talk about how long
4 we anticipate the next hearing will take, and it is Dr. Emery and did you
5 have any other witnesses?

6 MR. STEIN: No Your Honor.

7 JUDGE JACKE: All right. What is your anticipated time
8 for Dr. Emery?

9 MR. STEIN: Well, I don't know what cross or voir dire is
10 going to take.

11 JUDGE JACKE: Your time.

12 MR. STEIN: I can tell you about an hour.

13 JUDGE JACKE: An hour?

14 MR. SCHWARTZ: My cross will be short.

15 JUDGE JACKE: All right.

16 MR. SCHWARTZ: Less than half an hour.

17 JUDGE JACKE: All right, and then we've got 20 minutes
18 for closing. So, if we take—two hours should do it in the next hearing?

19 MR. STEIN: Let me just rephrase—yes. Oh, I have
20 Gullberg in here too, so yeah I think about—I think an hour plus or minus.

21 JUDGE JACKE: Okay. Well, let's take two hours.

22 MR. STEIN: Very good.

1 JUDGE JACKE: The next question is do you want us to
2 set a date now looking at the master calendar or do you want Debbie to
3 contact you in your respective offices when we agree on a two hour time
4 period?

5 MR. STEIN: It seems most logical to me, although I know
6 Dr. Emery is here with his general schedule, but if we could do it by
7 conference call we're most likely—more likely to get something that is
8 convenient...

9 JUDGE JACKE: All right.

10 MR. STEIN: ...for Your Honors, Dr. Emery and myself.

11 JUDGE JACKE: All right. The court clerk will contact you
12 after we ascertain what dates are available with a choice of dates, and
13 then you can agree on which of the dates. So, we'll try to give you as
14 many as we can.

15 MR. SCHWARTZ: That would be great.

16 JUDGE JACKE: All right, and we need to check on
17 speedy trial expiration on this case.

18 COURT CLERK: June 30th.

19 JUDGE JACKE: All right. It's set for June jury or May
20 jury. We'll need a waiver of speedy trial if you want to move the jury date,
21 and it is probably going to require that.

22 MR. ROBBINS: Your Honor we can...

23 COURT CLERK: It's set for May right now.

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JUDGE JACKE: All right. Do you want to move it to June or July with a waiver one month beyond that?

MR. ROBBINS: Absolutely Your Honor. Mr. Jagla is present here. I also have the authority to waive.

JUDGE JACKE: All right. We'll set it for June jury. July 30th waiver, and we will contact you with a series of dates that are available, and we'll let the two of you select which dates work for you and for Dr. Emery.

MR. STEIN: Thank you Your Honor.

MR. SCHWARTZ: Thank you.

MR. STEIN: I appreciate Your Honor's patience this morning. I know we didn't get as far as we had hoped.

JUDGE JACKE: Thank you. Thank you.

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I certify under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct to the best of my skill and ability.

DATED this 7th day of May, 2003, in Bonney Lake, Washington.



Christine Killien