STATE OF WASHINGTON DEPARTMENT OF LICENSING

ERIC ARNTSON

Plaintiff,

v. Case No. [Redacted]

STATE OF WASHINGTON,
DEPARTMENT OF LICENSING,

Defendant.

_____

HEARING

OCTOBER 26, 2007

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BE IT REMEMBERED THAT, pursuant to the Washington Rules of Civil Procedure, this proceeding was taken before Valerie Allard, a Certified Court Reporter, No. 3040, on October 26, 2007, commencing at the hour of 1 p.m., the proceedings being reported at 320 North 85th Street, Seattle, Washington.

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EXAMINATION INDEX

EXHIBIT INDEX

Seattle,Washington
Friday, October 26, 2007,
1 p.m.,

HEARINGS OFFICER KOEHLER: This is an administrative proceeding before the Department of Licensing of the State of Washington. I'm Kathy Koehler, Hearing Officer. And today's date is October 26, 2007.

This is a reconvened hearing in the matter of Eric Arntson. Other hearings were held on September 18, October 5, October 12, October 16, October 17, as well. And this is a recorded proceeding. There is a court reporter present and also the proceeding is being recorded digitally and by tape.

As I indicated, the Petitioner is Eric Arntson. And Mr. Arntson is represented by George Bianchi and Ted Vosk. Mr. Vosk is present.

HEARINGS OFFICER KOEHLER: And is Mr. Arntson waiving his presence?

MR. VOSK: Yes, your Honor.

HEARINGS OFFICER KOEHLER: All right. And the Department of Licensing is represented by Moses Garcia who's also present. And to my right is Jerry Anderson, Assistant Attorney General with the State of Washington. And Mr. Anderson is legal advisor to the Hearing Officer on issues of procedure. And then to my left is Ellen Baron,

another Hearing Officer with the Department of Licensing.

And perhaps for the record, we can again go around the room and state your names so that we have a good identification of who's present.

MR. TROMBOLD: Good afternoon. Kevin Trombold.

DR. EMERY: Ashley Emery.

HEARINGS OFFICER KOEHLER: Mr. Vosk is present.

DR. EMERY: Ashley Emery.

CESAR VELASQUEZ: Cesar Velasquez.

MR. DAHLQUIST: James Dahlquist, Department of Licensing, not participating.

MR. GULLBERG: Mark Gullberg, Washington State Patrol.

MR. GARCIA: And Moses Garcia for the Department of Licensing.

HEARINGS OFFICER KOEHLER: All right. And we convened here today for further testimony in the Arntson matter. And Dr. Ashley Emery is present to testify; is that correct, Mr. Vosk?

MR. VOSK: That is correct, your Honor, yes.

HEARING OFFICER KOEHLER: Okay. And you're ready to proceed?

MR. VOSK: Yes, your Honor.

Can I get this marked real quick?

HEARINGS OFFICER KOEHLER: Okay. I believe that

we left off with Exhibit 62. So did you provide a copy to counsel for the Department.

MR. VOSK: That's what I'm trying to do right now, your Honor. I had two of them but somehow -- oh, we go. Okay.

HEARINGS OFFICER KOEHLER: And this appears to be Dr. Emery's CV?

MR. VOSK: Yeah. We'll go ahead and identify it through the -- I just wanted to get it marked first, so I could identify it for the record before I had him --

HEARINGS OFFICER KOEHLER: Okay. I'm marking it as Exhibit 63.

MR. VOSK: Thank you, your Honor.

ASHLEY EMERY was sworn by Hearings Officer Koehler.

HEARINGS OFFICER KOEHLER: You may proceed Mr. Vosk when you're ready.

MR. VOSK: Thank you, your Honor.

EXAMINATION

BY MR. VOSK:

Q Dr. Emery, can you please state your name, your full name for the record, please.

A Ashley Emery.

Q Where are you employed?

A The University of Washington.

Q And what is your position there?
A Professor of mechanical engineering.
Q And how long have you been a professor of mechanical engineering?
A 46 years.
Q Can you give us a summary of your educational background, please?
A Bachelor's, master's and PhD from the University of California at Berkeley in mechanical engineering.
Q Have you held any other positions at the University of Washington?
A Been associate dean, chair of the department, chair of the faculty senate, chair of the budget committee.
Q And do you belong to any professional or scientific societies?
A Currently, I belong to the American Society of Mechanical Engineers and the American Society for Heating and Ventilating and Refrigeration Engineers.
Q Okay. Are you also a member of the Society of Industrial and Applied Mathematics?
A No longer.
Q No loner. You were at one time?
A Yes, I was.
Q And what kind of classes do you teach?
A What?

Q What kind of classes to you teach?

A I teach Numerical Analysis. I teach laboratories. I teach Heat Transfer, Fluid Mechanics, thermal analysis, thermal stresses, fracture mechanics, bioengineering.

Q And have you taught statistics?

A Yes, I have.

Q And advanced math?

A Yes, I have.

Q And the Design of Experiments?

A Yes.

Q And have you published in peer review journals?

A Yes.

Q How many publications do you have?

A 250 -- 300 -- I don't know.

Q Okay. Did you write a chapter for a book entitled "The Effect of Uncertainties and Correlations on the Efficiency of Estimating and the Precision of Estimated Parameters"?

A Yes, I did.

Q And what book was that in -- or let me ask you this: Was that in the Inverse Engineering Handbook for CRC Press, 2002?

A Yes, it was. Thank you.

Q And did you write a paper, "The Use of Kriging and Nuisance Variables in Parameter Estimation" which was

submitted to Inverse Problems in Science and Engineering?

A Yes, I have.

Q Okay. And a paper named "Estimation of Errors in a Complex Simulation Model When Applied at Conditions Far From Where it was Calibrated"?

A Yes, I did.

Q Another article "Parameter Estimation for Noisy Data and Nuisance Variables using Bayesian Inference"?

A Yes, I did.

Q Another article "Some Thoughts on Solving the Radiative Transfer Equation in Media with Stochastic Properties using Polynomial Chaos and Wick Products"?

A Yes, I did.

Q Another paper "The Use of Spatial Statistics in Designing Experiments and Validating Models"?

A Yes, I did.

Q Another paper "Designing Optimal Heat Transfer Experiments"?

A Yes.

Q Another paper "Parameter Estimation in the Presence of Uncertain Parameters and with correlated data errors"?

A Yes.

Q Another paper entitled "An Overview of Stochastic Systems"?

A Yes.

Q Another one using "Using the Concept of Information to Optimally Design Experiments with Uncertain Parameters"?

A Yes.

Q Another one entitled "The Precision of Optimally Designed Experiments with Uncertain Parameters"?

A Yes.

Q Another one entitled "Optimal Experiment Design"?

A Yes.

Q Another one entitled "Computing the Variance using Different Approaches"?

A Yes.

Q Another one entitled "Parameter Estimation and Optimal Experiment Design with Uncertainties in a-prior Known Parameters"?

A Yes.

Q "Using the Modified Fisher Information Matrix to Design Experiments in the Presence of Uncertain Parameters"?

A Yes.

Q "Design of Experiments Using Uncertainty Information"?

A Yes.

Q And these -- the publications that these have been

transferred in range from the ASME Journal of Heat Transfer to Measurement Sciences and Technology referee journals?

A Yes.

Q Have you also done work for NASA?

A Yes.

Q And that was with respect to the space shuttle?

A Two different projects. One, radiative transfer from the space shuttle and large space structures, and one on the tiles.

Q Okay. And have you presented on the topics of statistics and experimental design internationally?

A Yes, I have.

Q Do some of your papers include, with respect to this, "Estimating Parameters using Griddy Markov Chain Monte Carlo"?

A Yes.

Q Another one "Accounting for Heat Losses Using Bayesian Inference"?

A Yes.

Q "The Use of Bayesian Inference, Monte Carlo, Markov Chain Monte Carlo, and Gaussian Processes in Designing Experiments and Analyzing Data"?

A Yes.

Q Did you in 2003 have one of your papers "Measured and Predicted Temperatures of Automotive Brakes" chosen as

one of the outstanding papers of the year?

A Yes.

Q Now, you said that you were a professor of mechanical engineering. Are you also a metrologist?

A Yes.

Q And what is a metrologist?

A Science and measurements. It's the study of the science and measurements.

Q Okay. And as part of that, you need to have an understanding of statistics, correct?

A Yes, I do.

Q A mastery of statistics?

A Yes.

Q But simply because someone knows statistics doesn't make them a metrologist, does it?

A No, it does not.

Q To be a metrologist, is one of the things you would have to know is an understanding of how to design measurements to measure specific quantities of interest?

A Yes.

Q How to properly read and record data?

A Yes.

Q How to interpret data?

A Yes.

Q How to subject that data to proper statistical

analysis?

A Yes.

Q How to properly report -- I'm sorry -- how to properly report the statistical characteristics of data?

A Yes.

Q I'm going to hand you what's been marked as Exhibit 63. Can you identify that for The Court, please?

A It looks like my biographical record.

Q Okay.

MR. VOSK: Your Honor, at this time, I would ask to have this admitted.

HEARINGS OFFICER KOEHLER: Mr. Garcia, any objection?

MR. GARCIA: No objection.

HEARINGS OFFICER KOEHLER: All right. Exhibit 63 is admitted.

MR. VOSK: Your Honor, at this time I would also like to ask The Court to take judicial notice of what the Supreme Court's comment in City of Seattle v. Clark-Munoz where I refer to Dr. Ashley Emery as an expert in the science of metrology, which is the science of measurements. And I'm going to ask this Court to allow him to testify as an expert witness.

HEARINGS OFFICER KOEHLER: Mr. Garcia, do you have any objections to Dr. Emery being qualified as an expert

witness in metrology?

MR. GARCIA: No.

HEARINGS OFFICER KOEHLER: All right. Dr. Emery is so qualified.

MR. VOSK: Okay. Thank you, your Honor.

Thank you, Counselor.

Q (By Mr. Vosk) Now, when we're calculating the mean of a set of numbers and we don't care about their origin or anything, we can just take all those numbers at one time and throw them in a pot and do it in a purely mathematical way -- add them all up and divide by the total number that are there.

A That's called the arithmetic mean and it's commonly used.

Q Okay. And is -- that's what a math student might use where you just walk into class and are given a set of numbers?

A Typically, yes.

Q Okay. And if we were to do measurements on a single instrument and over the period of that time the instrument was stable, we'd be able to use that method to determine the mean of the data generated, wouldn't we?

A Yes.

Q Now, if we try the same exercise and collect the data on multiple different instruments, can we necessarily

do that anymore?

A Well, you can do it. If you're asking me, is that the correct procedure --

Q Then let me ask you that: Is that the correct procedure?

A No.

Q Okay. And why is it different?

A Because different instruments have different levels of precision.

Q Okay.

A And so you would normally weight the data according to the precision of the instrument.

Q Okay. And is it -- is this important -- can it be important?

A Well, you should weight them first. Yes, you should always weight them.

Q Okay. How would one determine whether or not there was a difference in the precision between instruments?

A You look at their standard deviation of the measurements that come from each instrument. It's gathering the data -- assuming that the data has a set value. During the calibration procedure, you'd be looking at the precision of the instrument.

Q Okay. And so to be scientifically valid during

this process, we would have to take a look at that?

A Yes.

Q Okay. Now, is there a solution if the machines have or show a different variance?

A You mean if the different instruments have different levels of precision?

Q Correct.

A Then you would weight them and there is a formal method for weighting them, yes.

Q Okay. And if it came out that the precision on each was the same, we could again go back to the purely mathematical method, couldn't we, in calculating a mean?

A Go back to the arithmetic mean, yes.

Q Okay.

A You'd get the same answer.

Q And with the differing precisions, we've got to do this weighting?

A Yes.

Q So, in essence, using a purely mathematical approach without weighting, it might be right in a given context, it might be wrong, but you'd never know using different instruments unless you calculated the precision?

A That's correct.

Q Okay. So the determination of a mean would be scientifically invalid unless the precision across those

instruments was accounted for?

A It would -- the weight mean is the accepted way to do it. I don't know what you mean by a scientifically invalid.

Q Okay.

MR. VOSK: Your Honors, can we have this marked? And can we have that marked?

HEARINGS OFFICER KOEHLER: All right. I've marked the documents that you've given me as Exhibit 64 and Exhibit 65.

MR. VOSK: Okay. And your Honor, pursuant to the WAC, I would just ask The Court to take judicial notice off of the website that these are, in fact, the certificates from the Washington State Patrol website and I'd asked to have them admitted at this point.

HEARINGS OFFICER KOEHLER: And they are the documents off the website for what?

MR. VOSK: For the simulator solution 07007, and they are the corrected -- let the record show I am using quotation marks, the "corrected" simulator solution certificates done by Mr. Gullberg and Trooper Dunn.

HEARINGS OFFICER KOEHLER: And have these not been entered into evidence before?

MR. VOSK: I don't know that these particular ones have, no. These were sent to me by Mr. Gullberg, which is

why I'm using them.

HEARINGS OFFICER KOEHLER: Mr. Garcia, do you have any objection?

MR. GARCIA: Well, I guess my query is -- my understanding was that all exhibits were to have been disclosed by Monday so that I'd have an opportunity to review these with the witness. And my query is what the relevance of 07007 is to this proceeding, this was not the batch in this case.

MR. VOSK: We're using data -- if your Honors remember at the last hearing, we informed The Court that we had just been provided information by Mr. Gullberg and we had not had a chance to review it. The information he provided was on all this solution 07007.

And so we figured if we were going to address the issues that we had raised and they were trying to say weren't issues, we'd go ahead and use the numbers that Mr. Gullberg's already done calculations on to make it easier.

HEARINGS OFFICER KOEHLER: Are you going to have Dr. Emery testify about these documents?

MR. VOSK: He'll testify to calculations --

HEARINGS OFFICER KOEHLER: All right.

MR. VOSK: -- on these documents, yes.

HEARINGS OFFICER KOEHLER: Why weren't they disclosed on Monday?

MR. VOSK: We disclosed the plots that -- the plots that we disclose to The Court were based on this. And we indicated that we would use all certificates, either provided and hadn't been marked or were on the website. It was in that e-mail that Mr. Bianchi sent.

HEARINGS OFFICER KOEHLER: All right. That was indicated in your disclosure from Monday where you indicated documents relied upon simulator solution certification worksheets and associated gas chromatograms available on WSP website and/or already marked as Exhibits 2.

MR. VOSK: No, no, no. As exhibits, and then there's two.

HEARINGS OFFICER KOEHLER: Oh, I see it. Okay. I see. All right. I'll allow it.

MR. VOSK: Thank you, your Honor.

So we would move to admit Exhibit 64 at this point.

HEARINGS OFFICER KOEHLER: Exhibit 64 is admitted.

MR. VOSK: Okay. Did your Honors mark that?

HEARINGS OFFICER KOEHLER: 65.

MR. VOSK: I'm going to show this to the other side. I only have one but when he's done, he'll pass it to you. You'll see why there's only one.

Q (By Mr. Vosk) Dr. Emery, did I send you some

materials that I indicated had been sent to me by Mr. Gullberg?

A Yes, you did.

Q Okay. And did those materials related to Simulator Solution No. 07007?

A Yes.

Q And did I ask you to take a look at those -- at those solutions and do some calculations?

A Yes, you did.

Q Okay

MR. VOSK: Your Honors, I'm sorry. Can we mark this collectively as one exhibit?

HEARINGS OFFICER KOEHLER: And have you shown a copy of this to counsel?

MR. VOSK: Yes. This is what was -- these are the plots that were sent by Trooper Gullberg. So they've been e-mailed to everybody already.

HEARINGS OFFICER KOEHLER: All right. I'm marking the document that you handed me as Exhibit 66, and it includes five page.

MR. VOSK: Okay. Thank you.

Q (By Mr. Vosk) Okay. Dr. Emery, I'm going to hand you what's been marked as Exhibit 66. Are those materials that I also sent to you that I indicated had been provided by Trooper -- Mr. Gullberg?

A Yes.

Q Okay. And on page -- on Figure 1. Did you take a look at Figure 1?

A I'm looking at it.

Q Okay. Now, first off, it indicates that there are -- this is for three instruments. What does the plot actually indicate, three instruments or four?

A Four. I presume the numbers below refer to instruments, one, three, four, and five.

Q Okay. And on there it also refers to a reference value, does that appear to be the mean value?

A Yes, it does.

Q Okay. And, if I might --

MR. VOSK: Did your Honors print up the exhibits that we sent?

HEARINGS OFFICER BARTON: I did.

MR. VOSK: You did. Okay. Do you have the plots because I'll have him explain --

HEARINGS OFFICER BARTON: Does he have a copy?

MR. VOSK: Yes, he does.

Q (By Mr. Vosk) Now, when we look at that, what do the dots in that picture seem to indicate?

A They appear to indicate the average of a set of readings.

Q Okay. And what do those bars indicate?

A The bars are indicative of a standard deviation.

Q Okay. Now, some of the bars are smaller than others. What does that mean?

A That that instrument had less scatter in it's readings.

Q Okay. Now does that mean the measurements agree with each other more in those sets?

A Yes, it does, but at different -- less from the mean than others.

HEARINGS OFFICER KOEHLER: Counsel, because I don't want there to be any confusion --

MR. VOSK: Yes.

HEARINGS OFFICER KOEHLER: -- when people read this record, what I'd like to do is number the pages in Exhibit 66 --

MR. VOSK: Okay, your Honor, yes.

HEARINGS OFFICER KOEHLER: -- so you can refer to those on the record.

MR. VOSK: Certainly. Then I guess -- why don't we make the --

HEARINGS OFFICER KOEHLER: All right. The cover page is the narrative, that's page 1. And the graphs are numbered pages 2 through 5.

MR. VOSK: Thank you, your Honor.

HEARINGS OFFICER KOEHLER: So the graphs and the

narrative is Exhibit 66.

MR. VOSK: Correct.

HEARINGS OFFICER KOEHLER: All right.

MR. VOSK: I will try to pick it up a little bit, your Honor, I'm dragging a little bit.

Q (By Mr. Vosk) Taking a look at page 1, Figure 1 --

HEARINGS OFFICER KOEHLER: That's page 2.

Q (By Mr. Vosk) Page 2, Figure 1. Can you explain with respect to weighting when you look at that figure, how your discussion of weighting values applies?

A Instruments 4 and 5 have a larger standard deviation. It appears something in the order of three to four times the standard deviation for Instruments 1 and 3. Weighting is proportional to the square of a standard deviation, so if they were -- if experiment -- if Instrument 4 had three times the standard deviation of Instrument 1, it would be weighted 1/9 of the weight assigned in Instrument 1.

Q Okay. So when we're looking at that, in essence, what you're saying is the small bars representing greater precision are given more weight than the data sets with large bars which have less precision?

A That's correct.

Q Okay. Now, did I have you go through and -- on these four instruments that were identified here -- do

calculations -- calculate the mean based on a weighted average?

A Yes, you did.

Q And I'm going to hand you what has been marked as Exhibit 65. What do the numbers on Exhibit 65 represent at this point?

A Exhibit 65 lists the individual readings for Instruments 1, 3, 4, and 5. And then there are placeholders for calculational results.

Q Okay. And did you go through and do the calculations that you explained earlier for 07007?

A Yes, I did.

Q And did you bring those calculations with you?

A Yes, I did.

Q Can you fill in the spots on that blank indicating the calculations you made and then also provide The Court with a copy of your actual calculations?

A Yes, I can.

MR. VOSK: If we could just have a moment for him to do that, your Honor?

HEARINGS OFFICER KOEHLER: Yes.

THE WITNESS: And you want me to fill those numbers in --

MR. VOSK: Yes.

THE WITNESS: -- that's what you're asking me to

do.

MR. VOSK: And that's the weighting factor.

THE WITNESS: Yes.

HEARINGS OFFICER KOEHLER: Were you handing me a copy of 65?

MR. VOSK: I'm going to. As soon as he fills it out, I'm going to hand it to you to admit. This is the actual calculations he did. I'd like to have that marked.

HEARINGS OFFICER KOEHLER: Okay. I'm marking the document you just handed me as Exhibit 67. It's a three-page document.

THE WITNESS: And do you want the weighting factors associated with these?

MR. VOSK: Sure.

And your Honors, as soon as he's done doing these, I'm going to have him explain the calculations that he's doing so your Honors understand what it is he's done.

Q (By Mr. Vosk) Okay, Dr. Emery. Now, can you explain for The Court, what you just did, what those calculations mean?

A I calculated the average of the readings for each instrument, the standard deviation for each instrument -- the standard deviation being the square root of the variance for each one of the instruments -- for Instruments 1, 3, 4, and 5. And then I assigned a weight to the

average of each instrument being one over the variance. And I weighted the means by those weights and I obtained a weighted mean, and I obtained an arithmetic mean which assumes that all instruments have equal weight.

Q And what was the value for the weighted mean?

A The value for the weighted mean was .10198.

Q Okay. And if we round that to four digits, what is that?

A It would be 1020.

Q And what was the arithmetic mean rounded to four digits?

A Arithmetic mean rounded to four digits, 1018.

Q And was that the mean that was reported for solution 07007?

A I will have to double check. Yes, it is.

Q Okay.

A You're assuming -- I assume that you're asking off of the document that came from the website?

Q That's correct.

A Yes.

Q And what is the difference between the two?

A .0002.

Q Okay.

MR. VOSK: Now, your Honors, I would ask at this point to have Exhibit 65 and Exhibit 67 admitted, the

calculations.

HEARINGS OFFICER KOEHLER: Are 67 his handwritten calculations?

MR. VOSK: That's correct. So The Court will have the work before it so it can check to make sure he didn't do something wrong.

HEARINGS OFFICER KOEHLER: Mr. Garcia, do you have any objections?

MR. GARCIA: The objection would be that these were not disclosed in advance so that we could check them prior to the hearing. This is exactly the reason. This was supposed to be disclosed by Monday.

MR. VOSK: Well, your Honor, I didn't have Mr. Emery do this until last night, is the first point. The second point, when we came in last week, we had just been disclosed a bunch of documents by Mr. Gullberg. We had asked for some extra time so we could take a look at what they meant. The Court did not give us that time. At this time, these calculations are exactly what we needed the time to check.

When I called Ashley Emery yesterday, I requested -- I asked him if he could do the calculations so The Court would have them, and he said yes. There was no intent not to provide anybody -- I just thought it would be better to do this for The Court.

HEARINGS OFFICER KOEHLER: Has Mr. Gullberg been able to check the calculations? I see that he's sitting next to you, counsel.

MR. GARCIA: Yes, your Honor. I've asked him to go through them. And he's already identified one are two issues that we have with them. We'll have to discuss them outside. My problem is, that's exactly -- the fact that it causes problems for counsel, I don't think is relevant. The Court made an order, and I think The Court should enforce its order on the basis that counsel doesn't get to decide, well, I really need the information.

Obviously, this is prejudicial to our ability to cross examine Dr. Emery. I mean, we gave this information to him over a week ago. It's now two weeks ago that he received this information and last night he asked his expert to review the data. So we don't think that it's fair to suggest to The Court that somehow he need the additional time of this week, eliminating a couple of days.

But aside from that, your Honor, there's the issue of relevance. I still don't understand how Dr. Emery's examination of the solution that doesn't have anything to do with this case is relevant. So I guess ultimately when we're done and we ask Mr. Emery at the end, how are they going to be able to tie his theory to this case. And that's the difficulty I'm having. I mean, aside from his

calculations and whether they're wrong or right, how is he going to be able to say that this had any affect on the breath-test result in this case.

MR. VOSK: This is how we're going to tie it in, your Honor. A couple of things, first with respect to having provided us materials last week, it is very intellectually dishonest for counsel to try to put up any wall of defense based on that, because when we came in here last week and said, well, we'd like a little extra time to consider it, he was pushing to go forward and was unrelenting. So we've had a week for me to allow Mr. Emery to take a look at these. We got together over the weekend and spoke about them.

In your order -- what your order indicated was that we were supposed to supply all materials that he was going to be relying upon. He's relying upon the certifications, the plots, the data. What is here is the work that he produced in reliance upon these things. If you would like -- and the reason I had him do these last night was, I was going to have him come in here and do this right here in front of you, and he can, but it was going to take forever.

HEARINGS OFFICER KOEHLER: Okay. I'm holding up my hand. Now, do I understand that you used 0007 because those were -- that was the batch that Mr. Gullberg had

originally used when he was providing you information?

MR. VOSK: Correct. It was a batch provided by Mr. Gullberg. And what this is -- and we're going to tie this into specific batches in this case as well -- it was a demonstration that their calculation of the mean is not being done correctly.

I could have chosen any certification to do it; I chose to rely on Mr. Gullberg's, because I would assume that if he's sending me this this is his best example. So I figured, okay, let's see if his best example gets around the problems that we found. And when we did the calculations, it didn't. That's why we used it.

HEARINGS OFFICER KOEHLER: Okay.

MR. VOSK: So it was relied upon by their expert and provided to us.

HEARINGS OFFICER KOEHLER: All right. I am going to allow the testimony and when Dr. Emery's testimony is completed, I'll determine whether or not the exhibits will be admitted.

MR. VOSK: Okay.

HEARINGS OFFICER KOEHLER: And I'm referring to Exhibit 65 and 67.

MR. VOSK: I guess, your Honor, if that's going to be the ruling, then I'll have him -- I can just have him right now go through and do the calculations, but that's

going to -- I mean, it's going to bog us down for 20 to 25 minutes. I was honestly trying to facilitate the Court.

HEARINGS OFFICER KOEHLER: It is demonstrative evidence and he can rely on it during his testimony and then, as I indicated --

MR. VOSK: Well, let me ask this then, your Honor, the conclusions at least, because it is -- those are the written conclusions of our expert witness based on the material supplied by the State's expert witness -- the conclusions at least should be admissible. If you don't want to accept the calculations so that you can examine them, I guess that's your choice. But his opinions -- his expert opinion as he's written down on that paper -- you've already called him an expert -- that is admissible.

HEARINGS OFFICER KOEHLER: But he's going to testify to it.

MR. VOSK: Well, that -- well, he did just testify to the numbers. He's given those to you and now he's going to explain what they mean. If you want him to go through and indicate each number, I just thought this would be an easier way for you to have it right in front of you. I'm not trying to play games. I'm trying to make it easier for you.

HEARINGS OFFICER KOEHLER: Well, go ahead and have him testify --

MR. VOSK: Okay.

HEARINGS OFFICER KOEHLER: -- to what they mean.

Q (By Mr. Vosk) Can you go through this, Dr. Emery? For each instrument indicate which analysts were included for each instrument; read off each data figure that was there; then give us the number of measurements that were there, the mean, the standard deviation, and the weighting factor for each instrument, please.

A Yes, I can. Do you want me to?

Q The Court does want you to.

Mr. Garcia: And I'm going to object. And I'm going to indicate that it's a waste of The Court's time to have him indicate the data. It is sufficient that he gives The Court his opinion on the data. And we intend to cross examine him on the basis for his opinion. I don't think that it's necessary for The Court to hear each data point.

HEARINGS OFFICER KOEHLER: All right. I'm going to reverse myself on Exhibit 65. I'm going to allow that into evidence, because I do believe that it will be helpful to the trier of fact and it will eliminate a lot of time that we would otherwise have to spend. So 65 is admitted.

Q (By Mr. Vosk) Mr. Emery can you just then for each instrument indicate what mean you found, what the standard deviation was, and the weighting factor. Just those three numbers for each instrument.

A For Instrument 1, 20 readings. The mean was 0.10285; the standard deviation was 0.67082 times 10 to the minus third; the weighting factor was 2.222222.

MR. VOSK: And your Honors, do you want him to go through and read that or are you willing to just accept what's written.

HEARINGS OFFICER KOEHLER: Yes.

Q (By Mr. Vosk) Okay. Can you now -- did you -- after you calculated the means, did you divide those by 1.23? Did you do that calculation?

A No, I did not.

Q Would you be able to do that calculation for The Court here today?

A Yes.

Q Would you, please, using means rounded to four digits?

A You want me to take the weighted mean and divide it by 1.23?

Q Right. The weighted mean rounded to four digits.

A You want me to round it before dividing or after dividing?

Q Before dividing.

A The first reading would be -- for the weighted mean, it would be .08291.

Q Can you write that down?

A Yes, I can.

Q And what would the answer have been without rounding, without --

A .082911.

Q So just an extra one?

A Yes.

HEARINGS OFFICER BARTON: Counsel, can you just say -- what's he calculating right now?

MR. VOSK: What he's doing -- I'm not sure if the testimony was here or it was in Skagit -- when you take the -- and I think -- I believe it was in Skagit -- when you take the solution concentration, you divide it by 1.23 and that will give you the vapor concentration.

So the number that we're looking at, for instance, in the memo from August of 2007 where it talks about the breath-test readings either being bumped up or knocked down because there was an improper number in the fourth decimal place, it's the vapor concentration that's he's calculating now, which is that number.

HEARINGS OFFICER BARTON: Thank you.

Q (By Mr. Vosk) And so for the unweighted mean, what did you come up with?

A 0.08279.

Q Okay. And what is the difference between those two, the absolute difference?

A .0001.

Q So one ten-thousandth of -- one ten-thousandth?

A Yes.

Q Okay.

MR. VOSK: Your Honors, can I please mark this.

HEARINGS OFFICER KOEHLER: Okay. We're looking at Exhibit 21 and it looks like part of this other exhibit that you've handed me is in Exhibit 21. Is this the --

MR. VOSK: Does 21 include the chromatogram -- I didn't think -- so what this would be -- this is meant to be then -- if 21 is 07004, this is meant to include all of the chromatograms in addition to it.

This is -- Mr. Trombold printed this. Mr. Trombold printed this with two pages -- I mean, subsequent pages. So if it looks different, that's why.

HEARINGS OFFICER KOEHLER: All right. I'm marking this document as Exhibit 68.

MR. VOSK: Okay.

MR. TROMBOLD: Thank you, your Honors.

Q (By Mr. Vosk) Now, Dr. Emery, if you take a look at what's been marked as Exhibit 6.

A Yes.

Q Does it indicate what batch number that is for?

A This is not marked?

Q Oh, this is 68.

A Exhibit 68 indicates it's for batch 07004.

Q Okay. And for that batch, if you can take a look at the gas chromatograms as we go back, were three different instruments used?

A No, it was only one instrument.

Q Okay. What I'm talking about is a gas chromatogram for each separate analyst. If you can turn to page -- this first page for Sarah Swenson. What instrument does it indicate that she used?

A Instrument No. 5.

Q Okay. And if we turn further back to analyst Paige Long, what instrument does it indicate that she used?

A She used Instrument No. 4.

Q Okay. And if you can turn back to analyst Estuardo Miranda, what instrument does it indicate that he used?

A He used Instrument 1.

Q Okay. So each of these used a different instrument?

A That's correct.

Q Okay. Can you then -- since we've only got three, can you, for The Court, right now go ahead and do for this certificate what you did for the longer one, right now?

A Yes, I could. I've done -- I also did that last night.

Q Oh, you did that in advance. Okay. Can you report then for --

MR. VOSK: And at this point, your Honor, I would ask to admit Exhibit 68, again from the WAC. It's judicial notice extracted from the website.

HEARINGS OFFICER KOEHLER: Mr. Garcia, do you have any objection?

MR. GARCIA: No objection.

HEARINGS OFFICER KOEHLER: All right. Exhibit 68 is admitted.

Q (By Mr. Vosk) For Instrument 1, did you come up with a mean?

A Yes, I did. It's 0.1298.

Q And did you come up with a standard deviation?

A It's .4472 x 10 to the minus third.

Q Okay. And did you come up with a mean and a standard deviation for the other two instruments as well?

A Yes, I did.

Q And are those calculations there before you?

A Yes, they are.

Q Can you hand those to me, please.

MR. VOSK: Your Honors, can we get this marked?

HEARINGS OFFICER KOEHLER: I'm marking these hand-calculations regarding batch 07004 as Exhibit 69.

Q (By Mr. Vosk) And what's been marked as Exhibit

69, do they represent the same analysis on that solution as you did to the previous one?

A Yes, they do.

Q And did you come up with a weighted mean for that?

A Yes, I did.

Q And what was the weighted mean?

A 0.1287.

Q Okay. And what was -- did you come up with an arithmetic mean?

A Yes. And it was 0.1289.

Q Okay. And can you divide each of those numbers by 1.23?

A Yes, I can. The weighted mean divided by 1.23 is .104634.

Q And can you indicate -- can you put that down on your calculations?

A (Witness complies.)

And the arithmetic mean divided by 1.23 is 0.104821. And the difference, if that's what you'd look for --

Q I was going to ask you the difference.

A The difference is, rounded to four places, 0002.

Q Okay. So there the difference between the weighted mean and the arithmetic mean is twice as much as the last one, two ten-thousandths?

A Yes, it is.

Q Okay.

MR. VOSK: And your Honors, for the same reason as the first one, I'd simply ask to have Exhibit 69 admitted.

MR. GARCIA: Same objections as before.

HEARINGS OFFICER KOEHLER: All right. Exhibit 69 is admitted.

Q (By Mr. Vosk) And did you do a similar set of calculations for simulator solution batch 6012?

A Yes, I did.

Q And can you hand those to me, please.

MR. VOSK: Your Honors, we're handing you two exhibits to be marked.

HEARINGS OFFICER KOEHLER: All right. I'm marking some hand-calculations for batch 06012 as Exhibit 70. And I'm marking what appears to be the Washington State Patrol printouts for batch 06012 including chromatograms as Exhibit 71.

MR. VOSK: Thank you, your Honor.

Q (By Mr. Vosk) Looking at Exhibit 70, did you do the same calculations on that batch as you did on the prior two?

A Yes, I did.

Q And the mean, the standard deviations, and the weighting factors indicated there, they have the same

meaning that those done in your prior calculations did?

A Yes, they do.

Q And did you compute a arithmetic mean?

A Yes, I did.

Q And what was the arithmetic mean?

A 0.126667.

Q And did you compute a weighted mean?

A Yes, I did. That is 0.12702.

Q And did you calculate the equivalent vapor concentration for each of those?

A Yes, I did.

Q And what is that?

A .102981 for the arithmetic average; .103268 for the weighted mean.

Q So rounded to four digits?

A The absolute difference is .0003, rounded to four decimal places.

Q Okay. So now that's three times greater than the first one we saw. We're now up to three ten-thousandths?

A Yes.

Q Okay.

MR. VOSK: Your Honor, I would move to admit Exhibit 70 and 71.

HEARINGS OFFICER KOEHLER: Mr. Garcia?

MR. GARCIA: 71 is the calculations?

HEARINGS OFFICER KOEHLER: 71 is the hand-calculations for batch 06012.

MR. GARCIA: I'll just request standing objection to newly discovered, newly disclosed evidence that we haven't had an opportunity to review.

HEARINGS OFFICER KOEHLER: I'm sorry. Exhibit 70 is the hand-calculations. 71 is the documents from the Washington State breath-test site.

Did you have any objection to 71?

MR. GARCIA: I'd request a standing objection to any newly disclosed exhibits that Defense is offering. I understand The Court's intention is to admit them.

HEARINGS OFFICER KOEHLER: All right. Exhibits 70 and 71 are admitted.

MR. VOSK: And we have one outstanding exhibit, Your Honor, the calculations that Dr. Emery did for 07007. You've got the results in front of you, the three pages of actual calculations. I would move to admit. If your Honors wanted to examine them to see what the process is -- I think they are relevant if --

HEARINGS OFFICER KOEHLER: 67 was the hand-written calculations for batch 07007.

MR. VOSK: Yes. And you've got the results on a sheet on 65. And those are just what was used to calculate those.

HEARINGS OFFICER KOEHLER: All right. And exhibit -- same standing objection, Mr. Garcia?

MR. GARCIA: Yes.

HEARINGS OFFICER KOEHLER: All right. Exhibit 67 is admitted.

MR. VOSK: Thank you, your Honor.

Q (By Mr. Vosk) When we talked -- you were here last week, Dr. Emery. Did you hear Mr. Gullberg speak about consensus values?

A Yes, I did.

Q And the weighted means that you just calculated, are those consensus values?

A Yes.

Q And are those the correct way to calculate a consensus value?

A Yes.

Q And is it true that generally speaking, neither a grand average of all measurements nor the average of measurements of an individual set will necessarily be the same as the consensus value?

A A consensus value defined to be the weighted average, the arithmetic average, need not be the same as the weighted average.

Q Okay. Now when we make measurements --

MR. VOSK: I'm sorry, your Honors, just give me a

second.

Q (By Mr. Vosk) When we make measurements, do we often have a preconceived notion of what the value we're measuring should be?

A Yes, frequently but sometimes not.

Q Okay. Well, in those occasions when we know or we have this notion of what the value should be then, why do we do any measurements?

A Well, because typically you only have an approximate idea of what it should be. If I give an example, your heighth. I might guess that you're 5 foot nine or something like that, but I'm a pretty poor judge of heighth.

Q Okay. And so --

A So I measure you.

Q And so we do measurements because we might be wrong?

A Yes.

Q Okay.

A Because your preconceived ideas might be wrong.

Q Okay. Now, if we simply blindly reject any data that doesn't conform to those preconceived ideas, is that an appropriate scientific procedure methodology?

A Usually you establish a criterion by which you reject data.

Q Okay.

A It's probably the most difficult aspect of laboratory measurements.

Q Okay. And why -- why is that difficult?

A Well, because a data point which is far from the average or far out of your expectation can be the result of simply an inaccurate measurement, an instrument which is not precise enough, a mistake recording data, or it may actually be telling you something about the readings that you're making.

And so ignoring it, you may lose an opportunity to understand more fully what's happening; but on the other hand, there are statistical techniques for making a decision as to when to ignore something, but they all take risk that you're throwing away something that's valuable.

Q Okay. Now, if we don't utilize those statistical techniques, if we just throw it away -- if we just discard any number that disagrees with our initial preconceived ideas, don't we almost guarantee that we're going to get the answer we wanted to get in the first place?

A Well, if you carry it out long enough, yes, but then you might ask yourself, why do the experiment.

Q Okay. So then when we talk about throwing out data, are we talking about something called an outlier?

A Yes, that's the typical term used.

Q Okay. Now, in general terms, can you qualitatively tell us what an outlier is?

A An outlier is one or more -- outlier or outliers are one or more data points which on first inspection appear to be unusual and either the result of a transcribing error or a variation in the result.

Sort of like if you get up and weigh yourself in the morning, and you've been weighing yourself all week, and every morning you weigh within one pound and suddenly one time you stand up there and it weighs four pounds different. It may be that you're actually four pounds different weight or it may be you stood on the scales in a funny way. And so what you do is that you do the experiment again.

Q Okay. Now, just because the measurement deviates though, doesn't mean it's a bad measurement?

A No, it does not.

Q And so before discarding that measurement, how do we determine whether or not it is an outlier?

A Well, there are a number of different statistical criteria which are used. The one that's taught most often to students is Chauvenet's criteria. And that one says that you're willing to take a risk of one over two times the number of readings when you throw it out. So if you have 10 readings, 1/10 is 1/20 or 5 percent. So if you

throw -- if that one is judged to be an outlier by Chauvenet's criteria, you're taking a 5 percent risk of throwing away something that really matters.

Q Okay.

A Or, another way to look at it -- this way you're 95 percent sure it's an unusual reading that just occurred by accident.

Q Okay. And when you're computing that number, are you using any of the quantities that we've previously looked at -- a mean, a standard deviation?

A Yes. If you're looking at the distance from the mean, the deviation from the mean in terms of number of standard deviations. So if the standard deviation is one and the reading is three from the mean, that means it's three standard deviations. If the standard deviation were 1 1/2, it would be two standard deviations away from the mean. And then there are tables which tell you -- give different levels of probability when you can throw something out.

Q Okay. So then I'm going to try to -- I'm going to try to put this in a -- make this a little bit clearer. So if we've got a number that we think is an outlier, what you're saying is the first step in the process is, we'll take that number and determine the difference between it and the mean of all the measurements?

A Yes.

Q Okay. And then we divide that difference by the standard deviation?

A Yes.

Q And then depending on what kind of criteria we want to use, it's that ratio which is going to determine whether or not the value is an outlier?

A Yes.

Q Okay. Now, with respect to that ratio, could somebody use 1.5 as a criteria to throw something out as an outlier?

A Sure.

Q Could they use 2?

A Yes.

Q Could they use 2.5?

A Yes.

Q Could they use 4?

A Yes.

Q Essentially, when you're trying to establish the criteria then, you can define the criteria you want to use?

A Yes. You'll have to argue for its support, but...

Q Okay. And different authorities recommend different numbers?

A Yes. There are three. Three of the most common criteria are Naire's, Pierce's and Chauvenet's. And they

come up with slightly different criteria.

Q Okay.

A And they're all -- they're generally expressed in terms of what probability are you willing to accept that you're throwing something out which is really a good value.

Q Okay. But regardless of which one you're going to use for a set of measurements, we have got to ensure that we're always using the same criteria, correct?

A Yes. And you can only apply in once.

Q Okay.

HEARINGS OFFICER KOEHLER: We're looking for Exhibit 64.

MR. VOSK: I apologize to The Court.

Q (By Mr. Vosk) I'm going to hand you what's been admitted as Exhibit 64.

Can you look at the readings for analyst 14?

A Yes.

Q Can you report to The Court what those five readings are?

A In order they're .106, .100, .099, .100, and .099.

Q And would you be able to determine based on what you've just testified to whether or not the .106 in that set of data is an outlier or -- let me put it another way: Can you calculate the ratio?

A Yes, I could.

Q And will you please do that for The Court?
A So I have to calculate everything. Okay -- I guess I better turn it on.
Q And can you write your calculations down for The Court as well, please.
A The average is .1008. The standard deviation is 0.00295. And I just want to double check that, if you don't mind. Yes, the standard deviation is 0.00295.
And you're asking me how far the 106 is away?
Q Yes. I'm asking for that ratio you spoke about earlier, the ratio between the difference between the suspected outlier and the mean to the standard deviation.
A And the ratio is 1.763. And this is for analyst 14 and batch 07007. Okay.
Q Okay. Now I'm going to hand you what been marked as Exhibit 72. Can you identify what batch number that is?
A That's batch 07023.
Q And in that -- Kelly Gross, on the test that she discarded -- previously testified about -- can you tell The Court --
HEARINGS OFFICER KOEHLER: Counsel, what -- you said that she previously discarded. Are you referring to a particular exhibit?
MR. VOSK: This is batch number 07023. In Skagit County, I think the only thing that was admitted as the

initial spreadsheet and Ms. Gross' discarded data. We're just submitting the whole thing for completeness.

HEARINGS OFFICER KOEHLER: Okay. So when you're referring to what was previously discarded, that's what --

MR. VOSK: Yes, that's what I'm referring to. The values were .101, .101, .108, and .101, and .102.

HEARINGS OFFICER KOEHLER: Which analyst is she?

MR. VOSK: That's Kelly Gross. She is analyst 15.

HEARINGS OFFICER KOEHLER: Thank you.

MR. VOSK: And so it won't be the values that appear in the spreadsheet, they are actually the values that were discarded by her.

Oh, I'm sorry, your Honor. Previously, if you recall last week, we spoke about data that instead of being entered into the spreadsheet, they were stuck into a folder and not entered, and they would do a second run.

And if you read the Skagit County decision, this was where the -- this was one of the tests the Judges discussed that indicated it caused them some concern. We had testimony on it last week, and I'm just going to have Dr. Emery calculate the ratio for this one as well.

HEARINGS OFFICER BARTON: So I'm just seeing one that was discarded. Is there more than one?

MR. VOSK: Right. What she did was she discarded her data set and then reran a new five.

HEARINGS OFFICER BARTON: Well, just the one chromatogram. I see that she --

MR. VOSK: If you look, she's got two sets of five in here. And what the testimony showed in Skagit County was that when they get -- when they get something that they folder, they rerun the whole thing. And so when she crosses this out and says rejected because of the .108, what that means is she rejected all five data --

HEARINGS OFFICER BARTON: Aliquots?

MR. VOSK: All five aliquots that were collected at that time and redid it with a new five.

HEARINGS OFFICER BARTON: Okay. But you agree with me that just one has been crossed out?

MR. VOSK: That's correct, but the other one -- the rest of the batch wasn't included in her data here. What she did was she reran a new five and you have -- because you'll find ten actual aloquets measured in there.

HEARINGS OFFICER BARTON: In Exhibit 72, do we have 10 chromatograms?

MR. VOSK: Yes.

HEARINGS OFFICER BARTON: Okay.

MR. VOSK: Actually, I think you'll probably have 12 because they'll be a control and a blank.

HEARINGS OFFICER BARTON: Thank You.

MR. VOSK: They'll be 14, because they will be two

controls and two blanks for each one. Each time they run the five aloquets, there's a control that goes along with it to make sure that the -- they try to make sure the machine is reading the control properly and then a blank so it can try to get a zero.

HEARINGS OFFICER BARTON: Thank you.

Q (By Mr. Vosk) Now with those numbers, can you go ahead and do with this one -- I'm sorry. The numbers we have are .101 --

A Okay. 0.1 --

Q -- .101 --

A -- well, .101 --

Q .101.

A 101.

Q .108.

A 108.

Q .101.

A 101.

Q And .102.

A Okay.

HEARINGS OFFICER BARTON: And where do those numbers come from?

MR. VOSK: They come from the chromatograms that were discovered.

HEARINGS OFFICER BARTON: Where? Where do those

particular numbers come from?

MR. VOSK: Okay. If you'll notice, rejected due to a .108. Where that's crossed out that's the control, because at the top right-hand corner, you'll see a .10 control.

HEARINGS OFFICER BARTON: Okay.

MR. VOSK: The next one is a blank. Then you begin getting the aloquets -- .101 -- right down here, that's your measurement.

HEARINGS OFFICER BARTON: How do you know that those were not included?

MR. VOSK: They're not on the front and they're from Instrument 1 here, all run together. You can tell by the times and the instrument. The data that she collected that was included was from Instrument 3. And because of her testimony -- she didn't testify, no. So it's just from the chromatographs. These are from Instrument 1. These are from Instrument 3. The ones from Instrument 3 were the ones that were not discarded.

HEARINGS OFFICER BARTON: Thank you.

MR. VOSK: And that was, as a matter of fact, the testimony up in Skagit is that that entire set was discarded.

HEARINGS OFFICER BARTON: Did somebody else testify to that?

MR. VOSK: I believe it was Dr. Logan or somebody else because we spoke to them about it and they said yes, this is what happens and it was admitted in Skagit.

HEARINGS OFFICER BARTON: Okay. Thank you.

MR. VOSK: And we just moved to admit Exhibit 72.

HEARINGS OFFICER KOEHLER: Counsel, same objection?

MR. GARCIA: No, your Honor. I mean, this is on the website, so I'm assuming that this is complete and it is what it appears to be.

HEARINGS OFFICER KOEHLER: All right. Exhibit 72 is admitted.

Q Now, what did you get for a mean of those five measurements?

A .1026.

Q What did you get as a standard deviation?

A 0.00305.

Q And what did you get as the ratio of the difference between your suspected outlier and the mean to the standard deviation?

A 1.77.

Q Okay. And so the difference between those two when we're taking a look at it, just the ratio not as an absolute number, 1.76 to 1.77; is that correct?

A Yes.

Q Now, we've had testimony that the second set of data was discarded. Based on the number there, could somebody using appropriate criteria have decided to discard that set of data because the 108 was an outlier?

A Depending on what criterion they wanted, yes.

Q Okay. Now in the first number, with respect to 07007 that .106, that was not discarded. Now depending on what criteria somebody wanted to use, it would be appropriate not to discard that, wouldn't it be?

A Yes.

Q But in looking at the data, does there appear to be a uniform criteria that's been applied to these two tests?

A Well, first of all, I know nothing about the decision to accept or to reject. And I don't know if they apply any criteria to make this decision.

Q Would you have treated these numbers differently?

A That 176 and 177, I would probably have thought that they were the same --

Q Okay.

A -- but they're not substantially different from each other.

Q So then if one had been rejected, in your opinion, the other should have been rejected?

A If the criteria for rejection rejected one, the

other one, I would think so. If the criteria were to accept one, the other one should have been accepted.

Q Okay. And so from that, do you see apparent there any type of criteria that was utilized?

A I don't know if they utilized any criteria. I don't have any access to what they do in the lab. Plus there's no documentation that I was given that said that they evaluated this ratio.

Q Okay. Would it have been -- in order to determine whether or not it was an outlier however, the correct -- the scientifically accepted procedure would have been what you've just done.

A It would have been performed -- the ratio of the deviation from the mean to the standard deviation and then compare it to whatever criterion you want. Some criteria might be 1 1/2 standard deviations and they're both rejected, other criterions would be 2 and they'd both be accepted. You just have to justify the criterion that you want.

Q Okay. So just to quickly summarize what we've done today --

MR. GARCIA: Objection; cumulative.

MR. VOSK: I just want to make clear what he's testified to, because I think there's been a lot of techno-speaks and I just to try to make it clear for the

Judges.

HEARINGS OFFICER KOEHLER: Sustained.

Can you ask a question that's close to --

MR. VOSK: Yeah. That's what I'm going to do.

HEARINGS OFFICER KOEHLER: All right.

Q (By Mr. Vosk) With respect to the calculation of the mean, the scientifically appropriate method to use in this context, is to use a weighted mean?

A Yes, it is.

Q And with respect to the determination of an outlier, a scientifically appropriate method is to utilize an established criteria?

A Yes, it is.

MR. VOSK: No further questions, your Honor.

HEARINGS OFFICER KOEHLER: Mr. Garcia, cross examination?

MR. GARCIA: Yes, please, your Honor.

CROSS EXAMINATION

BY MR. GARCIA:

Q Dr. Emery, you said "in this context." What context were you talking about when you said in this context they should be using a weighted mean?

A Well, consensus value, as indicated by the document that Mr. Gullberg provided and by the standard and accepted practice, it is a weighted mean.

Q But my question was, you said "in this context."
A I cannot remember when I used the word context. I'm sorry.
Q Okay. You would agree that in different contexts, different methods of calculating the mean might be appropriate?
A No. I am saying that sometimes the arithmetic mean and the weighted mean will give you the same result.
Q Okay. Did you determine whether not the differences that you found between the arithmetic mean and the weighted mean made any difference in this context?
A I don't know. I can't speak to that. All I can do is report what the differences are. Somebody else has to make a judgment as to whether those differences are important or not.
Q So you can't offer an opinion as to whether or not the differences between using weighted mean and arithmetic mean had any significant affect upon the breath test in any case.
A No, I cannot.
Q Did you compare any of the values that were actually applicable in this case, the Arntson case?
A I don't know what you mean by "applicable".
Q Did you examine the batch number for the particular case in which we are involved 070 --

A I have the information one, yes. I was provided with information of this form, yes.

Q Okay. And you ran the calculation --

A Yes.

Q -- for a weighted mean?

A Yes, I did.

Q And what was the difference between -- in other words, what was the T value for --

MR. VOSK: I'm sorry, your Honors, can Counsel identify which solution we're discussing at this point because I did not identify -- I didn't tell Mr. Emery which solutions applied to which case.

HEARINGS OFFICER KOEHLER: Okay. You might be discussing apples and oranges here.

By this solution, Mr. Garcia, do you mean 07010, that batch number.

MR. GARCIA: Correct.

MR. VOSK: I don't believe I gave that -- provided that to Mr. Emery.

HEARINGS OFFICER KOEHLER: Okay.

MR. VOSK: The ones that I provided to him were the ones that he did the calculations on.

MR. GARCIA: All right. Well, my question was that he had performed calculations on the solution applicable to this case. He indicated he had.

Q (By Mr. Garcia) So you didn't perform any calculations on 0701. I apologize.

A You have me at a disadvantage. I don't know what this case is.

Q Yes, I understand.

A I performed the calculations on 07007.

Q Exhibit No. 64.

A And on 07004.

Q Yes.

A And on 06012.

MR. VOSK: And your Honors, for the record, I just want to indicated I purposely didn't let him know whether or not any specific solutions were applicable to this case because I didn't want to take the chance of biasing any results. So I just gave him the numbers and had him do the calculations.

HEARINGS OFFICER KOEHLER: Did he answer your question, Mr. Garcia?

MR. GARCIA: He did. He indicated that he had not done -- according to the numbers of the batch list that he identified, none of those was identified with this quality assurance test.

MR. VOSK: And your Honor, I would -- I'm going to make an objection that that's not what he indicated because one of the solution batches he tested does have to do with

this case, the QAP solution. What he said is he doesn't know and he read the numbers that he did.

HEARINGS OFFICER KOEHLER: Okay. I think the question is, did he look at the batch numbers for 07010.

Dr. Emery, did you look at the batch numbers for batch 07010?

THE WITNESS: No, I did not.

HEARINGS OFFICER KOEHLER: Okay.

Q (By Mr. Garcia) And you indicated previously that you had run your weighted average upon several of the solutions that counsel provided to you. And in each of those circumstances you ended up with differences between the arithmetic mean and the weighted mean in the fourth place --

A Yes.

Q -- the fourth digit?

A That is correct.

Q You also testified about outliers. One of the things you said was that this was a difficult area of lab management?

A It's one that almost all students have difficulty with, all people involved in making measurements. It's a judgment call. And it is probably the most contentious issue when making measurements, yes.

Q Would you agree it is wise to give trained

experienced personnel discretion in making these determinations?

A Well, let me say how I would approach it in class. I would say there are criteria that you may use to accept or reject an outlier. You perform the calculation according to those criteria and you make a decision based upon that criteria. You cannot just say a number looks bad, I'll throw it out. You have to justify doing it.

You have to state your criteria, you have to do the calculations, and then draw the conclusion.

Q And, again, do you have any idea if any outlier issue arises in this case, the Arntson case?

A I don't know what case we're talking about. I'm very sorry. So I have no idea.

Q Okay. So you can't offer an opinion as to whether that issue had any impact on any particular case?

A No, I cannot.

Q Do you have any idea how often that issue arises generally at the state toxicology lab?

A I have no idea.

Q Now, you indicated earlier that your area of specialty is mechanical engineering?

A That's correct.

Q And that's one of the reasons you're indicating that you can't give an opinion upon whether or not the

variations that you've described between mathematical mean and weighted mean have an impact on breath-test results is because this is not your field of study?

A Well, number one, breath testing is not my field of study. Number two, the differences appear to be judged on the basis of legal terms, and I'm not a lawyer.

Q You'd agree it would be important to look at the overall quality assurance program for any result before attributing significance to any one figure, specifically the mathematical mean versus the weighted mean that you describe?

A No. If you're asking me, is the difference important, I can't make a statement about that. But are you asking me, should you have done the weighted mean calculation, the answer is yes.

Q Are you aware if that statement is followed anywhere within the area of forensic science?

A It's followed in all forms of science.

Q I'm asking specifically about forensic science. Are you aware -- well, let me ask it a different way.

Have you ever had experience with a forensic science lab?

A Other than the state toxicology lab?

Q Correct.

A No.

Q Have you ever performed an audit on any kind of forensic lab?

A No.

Q Have you ever published any articles in any of the national or international organizations with specialized forms in either Forensic Toxicology or Forensic Laboratory Science?

A No, I have not.

Q Do you regularly read any of the journals or magazines related to -- specifically, Journal of Forensic Science Society, Forensic Science International, The Journal of Studies on Alcohol, The Journal of Analytical Toxicology, Medicine Science & the Law, Journal for Quality Comparability and Reliability in Chemical Measurement, Journal of Forensic Sciences, Journal of Traffic Medicine, Journal of the Alcohol Testing Alliance, Canadian Society of Forensic Sciences Journal.

A I read some of them sporadically, only because of my involvement here.

Q Are you a member of any of those organizations?

A No, I'm not.

Q Ever attended any of the forums?

A No.

Q Do you have any specialized knowledge in the operation of the DAC DataMaster?

A Definitely not.

Q Dr. Emery, in terms of your calculation of the weighted mean, did you use "N" in that calculation?

A Yes. I assume by "N," you mean the number of readings?

Q Correct.

A Yes.

MR. GARCIA: I have no further questions.

Thank you, your Honor.

HEARINGS OFFICER KOEHLER: And you don't need any time to consult with Mr. Gullberg regarding any additional questions?

MR. GARCIA: Not at this time.

MR. VOSK: I've got re-direct, your Honor.

HEARINGS OFFICER KOEHLER: All right, Mr. Vosk.

REDIRECT EXAMINATION

BY MR. VOSK:

Q Dr. Emery, are the laws of physical -- of physics applicable pretty much everywhere on the planet?

A Yes.

Q Do they change when we step into a forensic's lab?

A I would hope not.

Q So the principles that you were discussing earlier, you indicated that your specialty -- one of your areas of expertise was in metrology, you're a metrologist.

A Yes.

Q That relies on the physical principles related to measurement, correct?

A Yes.

Q And those physical principles, those physical laws are the same in every lab we walk into?

A Yes.

Q So you don't need to read a forensic's magazine to know whether or not gravity works in a forensic's lab, do you?

A No. No, I don't.

Q You don't need to read a forensic's magazine to know that the laws of electromagnetism apply to a forensic's lab, do you?

A No.

Q And do you need to enter a forensic's lab to understand how the measurement process works?

A No.

Q Like other physical laws, the rules with respect to the laws governing the science of metrology are uniform around the planet.

A Yes.

Q Now, Counsel asked you whether or not you used "N" in your calculation of the weighted means. When you determined the standard deviation, you used N minus 1 in

your calculation, correct?

A That's correct.

Q Okay. So "N" was just a way of keeping track of the total number of measurements we have?

A I wouldn't say that. It's an important ingredient in calculating the mean of each set of readings and in the standard deviation set of readings.

Q Okay. So we used "N" in determining the mean?

A Yes.

Q And -- of each set of readings, and N minus 1 to determine the standard deviation?

A Yes.

Q And it was the standard deviation that we used in determining our weighting factors, correct?

A That's correct.

Q Okay. Now, counsel also asked you about whether or not -- determining whether or not something was an outlier, it was a judgement call, was based on discretion.

The criteria you're talking about when you tell your students they can use it -- if it's an individual student working in your class, he could probably chose a criteria he wanted to rely upon, couldn't he, amongst those that are available?

A If he can justify, yes.

Q Okay. But now in your lab when you're trying to

measure a particular quantity, can each of the scientists use their own different method of determining what an outlier is?

A You mean in a classroom laboratory?

Q No, in your lab when you do real science.

A I think the students believe it's real science.

The two most common are Chauvenet's and Pierce's. Chauvenet is probably the one that is used most often, but Pierce's is a better one.

Q Okay.

A So I will typically tell them to use Chauvenet.

Q Okay. So when you're all working together to measure one specific quantity -- for instance in this case, we're talking about reading the value of a solution. Everybody needs to use the same criteria to make sure your results, each separate person's data are comparable?

A Yes.

Q Okay. So they can't just switch haphazardly back and forth?

A No, they can't.

Q Now --

MR. VOSK: No further answers, your Honor.

HEARINGS OFFICER KOEHLER: How about questions?

MR. VOSK: I'm sorry. No further questions. I'm sorry, your Honor.

HEARINGS OFFICER KOEHLER: Anything further from you?

MR. GARCIA: Just very briefly, your Honor.

REDIRECT EXAMINATION

BY MR. GARCIA:

Q Dr. Emery, could you tell me what equation did you use for the weight? Was it N over -- N over variance?

A No. It was just one over the variance.

Q Why not N?

A N's already embodied in the variance. If you look on the article by Paul and Mendel, the weights are listed right there under equation one as one over the variance.

Q So the number of times that I used an instrument in that circumstance wouldn't matter?

A I suppose what you're trying to lead me into or you are leading me into, is the question of whether I'm going to use the variance of the mean or variance of the readings?

Q Well, I guess I'm more concerned about -- there are different ways of making this calculation. The differences between them might be subtle, you'd agree?

A Yes, there are differences. I'd say you have to do the calculation and see the result. About the only thing I could say is that you've got to have a criteria and you've got to use it.

Q Okay. So you're just saying, pick a path and then apply that path?

A Yes, uh-hum.

Q Okay. You indicated earlier -- or counsel asked you a number of questions about the physical laws. And I'm assuming -- when he talks about the law of gravity, et cetera.

He then asked you a question saying, the laws governing measurement are uniform around the planet, and you said yes. It seemed like an overstatement. Do you agree that that statement is not entirely correct?

A (No audible response.)

Q Well, we just talked about some variations --

A Well, if you want to argue --

Q -- in ways of doing that.

A If you want to argue Einstein's theory of relativity versus Newtonian mechanics.

Q Well, we're talking about measurement.

A Uh-hum.

Q And counsel was trying to equate that to some form of law. Wouldn't you agree that the science of measurement is an evolving science, it has differences of opinion even among the scientists?

A All scientists disagree to a certain point.

Q Certainly.

A Otherwise, they wouldn't be doing research.
Q And you have been in courtrooms where there have been experts on the other side that disagreed with you on issues of measurement?
A Yes.
Q So, I mean, a more fair way of saying it, is there's a consensus, but it's not uniform?
A Yes.
Q All right. And it would be fair to say that you don't know what the consensus is among scientists in the alcohol-testing field?
A That's true.
Q All right.
MR. GARCIA: Thank you. No further questions.
MR. VOSK: I have just a couple follow-ups, your Honor.
HEARINGS OFFICER KOEHLER: All right.
REDIRECT EXAMINATION
BY MR. VOSK:
Q With respect to the laws of measurement, the physical principles involved in measurement, the base -- the way chemicals combine, the way electromagnetic forces work, the physical principles involved in measurement, those are the same in every lab anywhere on this planet, aren't they, the physical laws of the universe don't change

discounting relativity versus Newtonian mechanics?

A I would say yes.

Q Okay. And when counsel asked you, it's okay, as long as you pick a path and follow it, that's fine. You were referring to alternate methods of weighting data in determining a mean; is that correct?

A Yes.

Q You weren't saying that it was okay to go ahead and just use the arithmetic mean without choosing some weighting criteria?

A No, that's -- you've got to have a criteria.

Q Okay. So differences between methods of weighting is okay, but it's not okay to just jump in and use the arithmetic mean?

A That's true.

Q We've been talking about differences in the ten-thousandth place of these numbers. And these are things that we can detect in the lab. You mentioned the difference between Newtonian mechanics and general relativity.

Are the differences that would be present in a typical lab between those two theories going to be apparent --

A No.

Q -- at that level?

A No.

Q You'd need far more precise instruments for that?

A Yes.

Q So we don't need to worry about the distinction between classical gravity and relativistic?

A No.

MR. VOSK: No questions, your Honor.

HEARINGS OFFICER KOEHLER: Mr. Garcia?

MR. GARCIA: No.

HEARINGS OFFICER KOEHLER: In terms of measurement, Dr. Emery, is there a difference between the terms reliability and accuracy?

THE WITNESS: Between precision and accuracy?

HEARINGS OFFICER KOEHLER: No. Between reliability and accuracy.

THE WITNESS: Yeah, I thinks there's a fundamental difference. But in terms of measurement -- are you saying reliability in the sense that you can believe a measurement?

HEARINGS OFFICER KOEHLER: Well, I guess I'm asking you that question. How would you define that term?

THE WITNESS: Well, accuracy is the degree to which the average of a great number of readings agrees with the true value.

I don't know that there is a statistical

definition in terms of measurements as to reliability. I would assume that what you're thinking of is how confident am I in the results.

HEARINGS OFFICER BARTON: Since we're asking you to define terms, can you tell me what you mean by precision?

A Okay. It's easier to give you an example. If you were -- the one that we usually give students is we're shooting a bow and arrow at a target. Okay. After you got through all shooting, if you -- you have all of these points around your -- if you looked at the average, that distance of the average from the bull's-eye would be a measure of its accuracy. It's precision would be the size of a cloud of impact points that you have.

So something could be very precise, meaning that everytime you shot the arrow, you came to the same point on the target, but it could be terribly inaccurate. Okay. Or it could be very accurate, which means that on the average, you were hitting the bull's-eye every time; but each individual reading was all over the place. So precision is related to the spread of the data. Accuracy is related to how far the average of the data agree with the true value.

So you can have inaccurate precise measurements, you can have accurate and precise measurements. Inaccurate and precise and accurate and precise. That sort of covers

everything.

HEARINGS OFFICER BARTON: Right. And can you tell me what -- you talked about consensus value.

THE WITNESS: A weighted average.

HEARINGS OFFICER BARTON: Okay.

HEARINGS OFFICER KOEHLER: Mr. Vosk, do you have any follow-up questions based on the Hearing Officers' questions?

Mr. Vosk: Just real quick, your Honor, yes.

REDIRECT EXAMINATION

BY MR. VOSK:

Q The two qualities you were talking about, accuracy and precision, is that -- are those typically the two things, the primary two things you're worried about when you're reporting data, a scientific measurement?

A Yes.

Q And if a statute or a regulation or a Court used the term as accuracy and reliability, you don't know whether or not The Court's referring to your scientific terms or not, do you?

A No I don't.

Q And so if those terms were defined in a WAC, in a regulation, or in some administrative protocol, and they identified reliability with precision, then your definition of precision would apply to reliability?

A Yes.

Q Okay.

HEARINGS OFFICER KOEHLER: Mr. Garcia, do you have any other follow up questions?

Mr. Garcia: No, questions.

HEARINGS OFFICER KOEHLER: All right. Thank you very much for your testimony today, Dr. Emery.

THE WITNESS: Thank you, very much.

HEARINGS OFFICER KOEHLER: And you're excused and free to go.

Mr. Garcia, will you be calling any witnesses?

MR. GARCIA: Just briefly, your Honor.

HEARINGS OFFICER KOEHLER: Would you like to take a break?

MR. GARCIA: Please.

(Whereupon, a recess was taken.)

HEARINGS OFFICER KOEHLER: Mr. Vosk, do I understand correctly that you wanted to call Dr. Emery briefly?

MR. VOSK: Just very briefly to correct some testimony that he gave, your Honor.

HEARINGS OFFICER KOEHLER: All right.

MR. VOSK: But it will be very quick.

HEARINGS OFFICER KOEHLER: Just go ahead.

MR. VOSK: Can I hand this to The Court and get

this marked, please?

HEARINGS OFFICER KOEHLER: Has counsel seen this?

MR. VOSK: Oh, I'm sorry.

HEARINGS OFFICER KOEHLER: The only thing that looked like I was missing was the admitted copy of Exhibit 66.

So I remember correctly, there was no writing put on Exhibit 66.

THE WITNESS: Well, you numbered the pages afterwards.

HEARINGS OFFICER KOEHLER: All right. It's fine. All right. Was there some confusion about another exhibit?

MR. VOSK: No, no.

HEARINGS OFFICER KOEHLER: All right. Then I've marked the document that you just gave me. That will be Exhibit 73.

MR. VOSK: Okay.

FURTHER EXAMINATION

BY MR. VOSK:

Q (By Mr. Vosk) Dr. Emery, earlier you did some calculations of the weighted mean with respect to solution 07007.

A That's correct.

Q Were your calculations wrong?

A Yes.

Q Okay. Could you explain to The Court what you did?

A I used the variance of the -- let me back up a little.

Q Please.

A The correct variance is the variance in the mean, not the variance of the individual readings. And in the tests 07004 and 06012, the same number of readings were used for each test and so the number of readings didn't matter, it divided out.

But in 07007, they have -- we have a test with 20 readings and a test with 30 readings and a test with 10 readings and another test with 20. So a number does make a difference there.

Q Okay. And so in that case, what is your -- what is your weighting factor?

A The weighting factor should have been multiplied by the number of readings.

Q And over the standard deviation?

A The standard deviation of the mean -- the root and over the number -- over the standard deviation -- the standard deviation -- the variance of the mean is the variance of the individual readings divided by the number of readings.

Q Okay. And did you redo those calculations?

A Yes, I did.

Q And can you tell The Court what you got for your weighted mean?

A My weighted mean is now .1021.

Q Okay. And what did you get for the arithmetic mean?

A .1018.

Q And did you divide each of those by 1.23?

A Yes, I did.

Q What did you get for the weighted mean?

A For the weighted mean, .0830; and for the arithmetic mean, .0828.

Q Okay. Now, originally you said that the difference between the arithmetic and weighted mean was only one ten-thousandth, correct?

A Yes, I did.

Q And you were wrong, right?

A That's correct. I was wrong.

Q What is the difference between the two equivalent --

A .0002.

Q So two ten-thousandths --

A Yes.

Q -- greater than before.

MR. VOSK: Your Honor, at this point, I would ask

to admit Exhibit 73, the corrected calculations.

HEARINGS OFFICER KOEHLER: Mr. Garcia, do you have the same objection?

MR. GARCIA: No, your Honor. I think it was my cross that eliminated any problem with the calculation.

HEARINGS OFFICER KOEHLER: All right. Then Exhibit 73 is admitted.

MR. VOSK: No further questions, your Honor.

HEARINGS OFFICER KOEHLER: Mr. Garcia, do you have any questions based on the additional questions?

MR. GARCIA: I do not, your Honor.

HEARINGS OFFICER KOEHLER: All right. Thank you very much.

MR. GARCIA: And we'll recall Rod Gullberg. He's previously sworn.

HEARINGS OFFICER KOEHLER: Yes.

Mr. Gullberg, you were previously sworn last week and you're still under oath.

THE WITNESS: Yes, your Honor.

HEARINGS OFFICER KOEHLER: Mr. Garcia, you may proceed.

EXAMINATION BY

MR. GARCIA:

Q Mr. Gullberg, are you generally familiar with breath-test programs nationwide?

A Yes.

Q And how long have you been practicing in this area?

A Since about 1983.

Q And are you aware of any programs that perform mean calculations using Bayesian or other weighted techniques?

A No.

Q Have you examined the affect of the weighted mean technique proposed by Dr. Emery on various batches?

A Yes.

Q Have you found -- what were your results in that examination?

A Well, on one batch, which was the one in this case 07010, I have the calculations. The arithmetic mean was 0.1014. Now, there are two ways to calculate the weighted mean. I did the one recommended in the one article referred to earlier. That gave a weighted mean of 0.1015, so a difference of one in the ten-thousandth place.

And then another weighted mean, which is a little more standard, using "N" and the variance as Dr. Emery testified to today. It gave me a weighted mean of 0.1012. So that was two ten-thousandths difference.

Q And do you regard either one of the differences to be significant compared to the mathematical mean that you

had previously calculated?

A No.

Q Okay. Have you looked at weighted means as a technique in breath-testing programs previously?

A Yes.

Q Okay. And why did you decide not to incorporate those?

A I didn't feel that they generated significant enough differences to warrant a different method of approach.

MR. VOSK: Your Honor, at this point, I'm going to object. Mr. Gullberg is not a part of the tox lab and was not a part of the tox lab and took no part in determining what algorithms and statistical measures were going to be used in the tox lab.

He testified previously he's in the breath-test section and whatever is happening in the breath-test section with respect to their use of statistics is one question. What we're talking about here is what the toxicologists do in a tox lab. So Mr. Gullberg's opinion about what to do in the breath-test division would seem to be relevant.

HEARINGS OFFICER KOEHLER: It's overruled.

You may answer the question.

MR. GARCIA: Thank you. I think he did answer it,

your Honor.

Q (By Mr. Garcia) In the area of outliers, you indicated in the Skagit County testimony that you were performing --

MR. VOSK: Objection. Rod Gullberg didn't testify in Skagit County.

MR. GARCIA: I can't remember. Okay.

Q (By Mr. Garcia) In the Skagit County testimony, it was indicated that you were performing review of the data to determine whether any clerical or other errors arose in the worksheets, certifications, chromatograms, or other underlying documents. How far back have you completed your review to date?

A To 2005.

Q During your review of those documents, approximately how many times did you locate what appeared to be outliers where forensic toxicologists had discarded or not counted a run and retained the information?

A First of all --

MR. VOSK: Your Honor, I'm going to object at this point; asked and answered at the last hearing and is beyond the scope -- if he's being brought for rebuttal, we didn't talk about how many of these things had been done. We were simply talking about the mathematical techniques.

If counsel wants to try to rebut Dr. Emery's

testimony, he's got to go to the mathematical techniques. Dr. Emery said he couldn't testify about breath testing, and so we didn't go into it.

HEARINGS OFFICER KOEHLER: Overruled.

A Well, first of all, we didn't specifically look for outliers. We didn't have an established criteria for identifying outliers. I'm not aware there's one in the toxicology lab in their SOM manuals.

Secondly, where we found chromatograms lined out and discarded and not used, we didn't determine why that was the case -- whether it was an outlier, or the control wasn't right, or the blank was too high -- we didn't check further. We just included that in the file, kept it in there for full disclosure, and then confirmed that the run they did use was correctly recorded and on the data sheet.

Q (By Mr. Garcia) Thank you.

How often did you find that data was not used in a run but included in the folder?

A I would be making -- I would be speculating. We probably looked at 140 batches and maybe 15 times.

Q During the last two years?

A Yes. Yes --

Q Okay.

A -- where they were lined out. It might be an estimate.

Q Okay. And you can't give us an estimate of how many of those were outliers as opposed to some other reason?

A That's right. We didn't investigate the reasons why the analyst chose not to include it.

Q Okay.

MR. GARCIA: Thank you. I have no further questions.

HEARINGS OFFICER KOEHLER: Mr. Vosk?

MR. VOSK: Yes, your Honor.

CROSS EXAMINATION

BY MR. VOSK:

Q Were you -- you indicated that you didn't know of any programs in forensic breath testing that used weighted means.

A That's right.

Q Have you been involved in toxicological work during your career?

A Not in operating the instruments. I have a general familiarity with the field, but not in any practical bench-work level.

Q Okay. So you're not an expert in toxicology?

A No.

MR. GARCIA: Objection; calls for a legal conclusion.

HEARINGS OFFICER KOEHLER: Overruled.

MR. VOSK: Thank you, your Honor.

Q (By Mr. Vosk) And can you just repeat your answer?

A Well, breath alcohol being a field of forensic toxicology, I would consider myself in expert in that; but in gas chromatography, blood alcohol, drug analysis, biological fluids, no.

Q Okay. So in the breath-test lab, you're an expert?

A I believe so.

Q Well, I'll concede that.

A Okay.

Q I think we did. But in the toxicology lab, you're not?

A Not in the field of blood alcohol, drug analysis, and biological fluids, no.

Q Or gas chromatography?

A Gas chromatography, that's right, no.

Q Okay. Now, if we go back to the 1300s, everybody thought the world was flat pretty much, didn't they?

A I guess that's -- could be correct.

Q Okay. The fact that everybody thought the world was flat didn't make it so though, did it?

A No.

Q So the fact that other breath-test labs may not

use weighted means doesn't mean that that's correct, does it?

A I guess it's a matter of judgment and opinion, expert judgment and opinion. There's multiple methods in any scientific field and the scientist needs to select and make that judgment.

Q So just because every breath-test lab you've ever seen does it, doesn't mean that it's right, does it?

A I would agree.

Q Okay. They could all be wrong?

A I'd have to concede that's possible.

Q And simply because a breath-test lab might do it one way, certainly doesn't mean that a toxicology lab necessarily should?

A Not necessarily, that's right.

Q Now, you went back through and did the weighted mean calculation here. And you found differences both ways, correct?

A Yes.

Q That agrees with Dr. Emery?

A Yes. It was a different batch, but that's correct, to the fourth decimal place.

Q Okay. Now, you said that you didn't look for outliers in the data.

A That's right.

Q I'm going to hand you Exhibit 64 and ask you to take a look at Analyst 14.

Now, you heard Dr. Emery's testimony earlier about the ratio that he found for that set of data and the ratio he found for Ms. Gross in her --

A Yes.

Q -- in what we'll call discarded data. It was foldered, but just easier, discarded data.

A Yes.

Q Why did you treat those numbers differently than she treated hers?

A I wasn't in a position to know why the analyst discarded her set. It may have been -- I don't know the reason. It could have been a number of reasons. She chose to do that, I didn't question that.

Q Okay. And so on here you -- when you look at those numbers, those numbers look fine to you?

A Yes.

Q They should have been included?

A Yes.

Q So assuming that everything else -- and this is a hypothetical -- assuming everything else was fine with Ms. Gross', and the only reason she crossed it out was because that .108 was there, given the fact that her two ratios were almost spot-on the same, wouldn't you have included

hers, that run?

A Assuming there was no other reason why she discarded that?

Q Yes.

A Yes, then -- on the face of it, it appeared to be the same.

Q And should have been included?

A On the face of it, yes.

Q Now, you were asked how often data not utilized in the -- not utilized in a spreadsheet had been found in folders, and you said 15.

A That was my estimate.

Q An estimate.

A Right. Right.

Q How much data that wasn't used or wasn't put in the spreadsheet that was thrown in the garbage can did you find?

MR. GARCIA: Objection; argumentative.

HEARINGS OFFICER KOEHLER: Sustained. You can ask it differently, if you can.

Q (By Mr. Vosk) How much data that wasn't included in the worksheet did you find that had been put some place where you didn't look?

A I don't know.

Q Because you didn't look there, right?

A Yeah. I have no way of knowing.
Q So this thing about 15, the only way that's a good number is if everybody who discarded their data put it in some place that you would have looked and found?
A Yes.
Q Why didn't you look for outliers when you went back to analyze this data?
A It was probably because there was no criteria for that within Dr. Logan's SOM manual. That was not something that they required that be checked by the analyst or part of their date-evaluation process. So that's probably why. We weren't alerted to that and didn't therefore measure for that.
Q Okay. So when you came in, you pretty much used the methods that they told you they wanted you to use.
A It was more a matter of confirming correct data recording from the original chromatogram documents to the summary page.
Q Okay.
A Of course, we became familiar with their calculation algorithms and so forth. But we didn't question their -- why don't you do it this way or why didn't you do that, we didn't -- like outliers or --
Q You didn't question their methodologies?
A Yeah, that's correct, really did not.

Q Okay. Now, you indicated that you didn't think the differences in that ten-thousandth place were significant. And last week, I think there was some disagreement between you and Dr. Logan as to whether or not that was the case.

MR. GARCIA: Objection, mischaracterizes his testimony. I don't believe there was any difference.

MR. VOSK: I thought there was with respect to a memo. I obviously thought it was --

HEARINGS OFFICER KOEHLER: Can you ask the question again --

MR. VOSK: Yes.

HEARINGS OFFICER KOEHLER: -- or have the court reporter read it back.

MR. VOSK: I'm going to try to rephrase it in a more -- unless your Honor wants it read back?

HEARINGS OFFICER KOEHLER: Go ahead.

Q (By Mr. Vosk) Dr. Logan's responsible for determining, ultimately, the rules governing breath testing, isn't he?

A Yes.

Q And so if he were to determine that the value out in the ten-thousandth place was such that in his discretion was important, wouldn't that then make it important?

A It could.

Q Because we're mixing the law and science here, aren't we?

A Yes. To some extent, yes.

Q And it makes it a little messier to just give a straight scientific opinion all the time, doesn't it?

A I'm not sure I understand the question.

Q Well, when somebody asks you, is something important, don't you all of a sudden have to ask yourself, well, is he talking scientifically or is he talking legally?

A Yeah, I would --

MR. GARCIA: I'm going to object, your Honor. I have no idea what relevance this has to any question that was raised.

MR. VOSK: You asked him whether or not the differences were important. And I'm going to get down to exactly what he meant by that.

HEARINGS OFFICER KOEHLER: Overruled. You can ask the question.

Q (By Mr. Vosk) Okay. And so if a difference in the ten-thousandth place, according to the rules of the State toxicologist, had the effect of jeopardizing somebody's liberty, as a forensic scientist, as somebody who's got to consider both law and science, doesn't that suddenly become important?

A Yes.

MR. VOSK: No further questions.

HEARINGS OFFICER KOEHLER: Mr. Garcia?

REDIRECT EXAMINATION

BY MR. GARCIA:

Q Mr. Gullberg, are there rules governing when the mean is acceptable and unacceptable when testing batches?

A Well, the practice in the toxicology laboratory is to calculate the arithmetic mean and to round it to the fourth decimal place.

Q Yes. And my question was: Once you've made that calculation, is there a protocol or rule that tells the toxicologist whether or not that mean is acceptable to the state toxicologist or not?

A Yes.

Q Okay. And so when I asked you the question, was that important, did you understand that I meant did it significantly or materially affect the number such that it was now outside the requirements of the state toxicologist?

A I may not have understood the original question, not having been given these criteria, is it significant in view of these limits.

Q Okay. Let me ask it both ways then. First, was it mathematically significant that in the fourth digit the number changed in this context?

A Well -- okay. Mathematically or toxicology context because mathematically, it made a difference.

Q Objectively it made a difference?

A Computationally it made a difference.

Q Okay. Now, in this context within the limitations of the State toxicologist's protocol, did it make a difference?

A No.

Q Now, you are familiar with the use of the simulator solution in the breath-test program?

A Yes.

Q Okay. Counsel asked you some questions about the differences between toxicology and breath testing. Do you understand the use of the simulator solution in the breath-test program?

A Yes.

Q Okay. Given the differences that you have calculated yourself and heard here today, would any of those differences have any affect on the breath tests from any of the cases you have reviewed?

A No. I have not seen any yet. And I guess I should qualify that answer a bit. Where we have a plus or minus 5 percent bias or systematic error allowed, we have not seen where these calculations affects that -- throws it out.

But conceivably, if one were right on that, 4.99 percent, a fourth decimal place could throw it out. I have not see it yet.

Q Okay.

A So to answer could it ever make a difference, I couldn't say that it could not.

Q Okay. And if somebody wanted to determine whether or not it had an affect on an individual case, they would actually be able to go back into the documents that are posted on the website and challenge the methodology that you used?

A Yes.

Q Okay. And counsel asked you questions about your difference of opinion with Dr. Logan. Was that difference of opinion --

MR. VOSK: Strike -- your Honor, I'm going to object. He objected to the question. I withdrew it and asked a different question.

HEARINGS OFFICER KOEHLER: Sustained.

Q (By Mr. Garcia) Counsel asked you some questions about the outlier in 07007, Exhibit No. 64 --

A Yes.

Q -- by Kelly Gross. And it indicated -- counsel was querying you about the number that was included. I think it was .106.

A This was by Analyst Brian Capron --

Q I apologize.

A -- in Exhibit 64.

Q Okay. Now, does including or excluding that data point make any difference to the ultimate conclusion as to whether it is, or is outside the protocol requirements?

A I wouldn't -- no, I would doubt it very much. I have not done the calculation, but it's -- no, in my opinion, it would not.

Q All right.

MR. GARCIA: Thank you. No further questions.

HEARINGS OFFICER KOEHLER: Mr. Vosk?

MR. VOSK: Yes, your Honor.

REDIRECT EXAMINATION

BY MR. VOSK:

Q Counsel asked whether that within limits of the protocol these differences meant anything, and you said no. And that's just based on the fact that you're talking about in the precise confined context of the protocol when you answered that question?

A Yes.

Q Because you've indicated that out in the field we've seen that depending on how the State toxicologist is going to interpret the rules, it can make a difference?

A Yes.

Q You also talked about a difference of one ten-thousandth in these readings and not finding anyplace where it made a difference. Earlier, Dr. Emery went through these calculations on a couple of QAP solutions and showed differences of three ten-thousandths.

Given that a difference of one ten-thousandth was a basis for that August 2007 memo that changes that jeopardized individual's liberties, aren't differences of three ten-thousandths even more likely to jeopardize somebody's liberty.

A One has to do the calculation in a particular case to see if it makes a difference or not. We never saw where it did. But you'd have to redo it in each case to see -- to confirm that.

Q Sure. Sure. And since the error is bigger -- three ten thousandths is bigger than one ten-thousandth -- doesn't that pose an even greater possibility of an individual's jeopardy being in peril?

A Yes.

Q Now when you went through this data, how many individual breath tests did you look at?

A No breath tests. We were confirming the correctness of the reference values as produced by the toxicology lab, which we used then to calibrate and certify breath-test instruments. And we wanted to be sure that the

QAP standards of plus or minus 5 percent were not affected.

Q So you didn't actually look at anybody's breath test in conjunction with this?

A No.

Q So you don't actually know whether or not any of these changes may have had an effect according to the way Dr. Logan interpreted his rules in that August 2007 memo, do you?

A Well we were concerned with an effect on the bias --

Q That's not the question I'm asking you. You don't know whether or not the errors that you found there or the errors that Dr. Emery identified, you don't know whether or not they affected any particular breath test utilizing Dr. Logan's interpretation in the August 2007 memo, do you?

A No, I'm not sure what his interpretation was, again, in that memo that you're referring to --

Q Well, if you recall --

MR. GARCIA: Objection --

HEARINGS OFFICER KOEHLER: Counsel --

Mr. Vosk: I'm sorry, your Honor.

HEARINGS OFFICER KOEHLER: -- can you please allow the witness to answer the question.

MR. VOSK: Yes, your Honor. I apologize to both The Court and to the witness.

Q (By Mr. Vosk) please continue.
A Yeah, I'm not familiar, again, throughly with what his opinion was in that August memo. I know I've seen it before.
Q Can I try to refresh your memory?
A Yes. Yes.
Q Do you recall there, we had a difference of one ten-thousandth with the AC percent in a solution that was supposed to be used for QAPs.
A Okay.
Q And based on that difference, Dr. Logan had indicated that individuals who should have been deemed under an 08 were found to be over an 08.
A Okay. Yeah. Yeah.
Q Is this correct?
A Yeah. Yeah, yeah. I believe so.
Q And individuals who should have been under a one five were deemed to be over a one five.
A Okay. On that specific instrument, I think?
Q Yes.
A Yeah. Yeah.
Q And so you're agreeing then?
A Yes.
Q Okay.
A I think it was a Spokane instrument.

Q Okay. Now, given that interpretation of the way -- Barry Logan's interpretation that that's the way things should be done, you can't tell us or -- I'm sorry -- argumentative -- objection.

Can you tell us -- given that interpretation and the fact that you haven't looked at a single breath test, you can't tell us whether or not any of these changes, or a difference as indicated by a Dr. Emery, affected any breath test, can you?

A No, that's correct.

Q Council also asked if you took out that one point, that .106, whether it would make a difference, and you said no.

What about if removed all five readings?

A I don't know why we'd want to but, yeah, that would make more of a difference. Five out of -- is there 80 measurements -- then one out of 80.

Q And so that might, in fact, have an affect out in the ten-thousandth place for the mean?

A It might. It might.

Q Now, if that's an outlier, what have we seen that people do? They don't throw just one measurement, do they?

A I can't answer that, because I don't know why they'd throw out any at all.

Q Okay.

A I'm not judging their decision --
Q Okay. Let me ask --
A -- why they did that.
Q I'm sorry. Let me ask you a hypothetical. Let's assume that the reason Kelly Gross discarded her data with the 108 was because the 108 was an outlier. She didn't just discard the 108, did she?
A No, that's right.
Q She discarded all five values?
A Yes.
MR. VOSK: No further questions.
HEARINGS OFFICER KOEHLER: Mr. Garcia?
MR. GARCIA: Yes.
REDIRECT EXAMINATION
BY MR. GARCIA:
Q Mr. Gullberg, what are the differences between the circumstance in Spokane where the breath-test result was affected and all the other tests where breath tests were not affected?
MR. VOSK: Your Honor, I'm going to object. He's already said he didn't check any of the breath tests. There's no basis for knowledge.
HEARINGS OFFICER KOEHLER: Overruled.
A I'm not sure I understand the question.
Q (By Mr. Garcia) Certainly. You previously

testified and counsel just asked you about the circumstance where someone's liberty affected, and that it concerns the August 9th memo attributed to Dr. Logan.

In that circumstance there were four individuals who were apparently reported at .080. And Dr. Logan calculated that the difference from clerical errors could have put them --

MR. VOSK: I'm going to object, your Honor. That's not what's said in that memo. Counsel's misrepresenting that.

MR. GARCIA: I'm going to go ahead and show him the August 9th memo rather than characterize it.

MR. VOSK: Please.

Q (By Mr. Garcia) Showing you what's been marked as Exhibit No. 14 --

MR. VOSK: And your Honors, at this point, I just want to make a brief objection. If counsel can remove the document from the rest of his notebook and hand it to the witness, that would be okay. I don't want the witness being contaminated by anything else that may be in that notebook.

HEARINGS OFFICER KOEHLER: I -- from what I can see, only the -- oh, there might be a sticky on the exhibit. Is that what you're referring to?

MR. VOSK: Well, no. There are other documents in

there. I would just like him to hand the witness --

MR. GARCIA: I'm not, your Honor, although we've been doing it this way for some days now.

MR. VOSK: I'm not sure that I have.

A (The witness was handed the document)

Okay.

Q (By Mr. Garcia) Have you reviewed this document before?

A Yes.

Q And in light of the information in this document, can you tell us what the differences are between the circumstance in Spokane where the change in the reference value of the simulator solution resulted in a change in the recorded breath-test result?

A I'm not sure. Either I don't understand the question or no, I cannot.

Q How would the reference value of the simulator solution affect a breath-test result?

A Well, one -- what we --

MR. VOSK: Your Honor, at this point, I'm going to object. This has been asked and answered a number of times in the past and it's way beyond the scope of Dr. Emery's testimony.

HEARINGS OFFICER KOEHLER: Well, I think that it has been asked and answered; however, you brought it up

today and started asking the question. So I think it's fair for Mr. Garcia to be able to redirect.

MR. VOSK: I withdraw my objection.

HEARINGS OFFICER KOEHLER: You may answer the question.

A Well, we use the reference value that the toxicology lab provides to us to determine bias when we perform 10 measurements on an instrument during a QAP. And our limits are plus or minus 5 percent. So the mean of our 10 must be within 5 percent of that reference value.

If the reference value is wrong, of course our bias is wrong and we must re-estimate that, am I near 5 percent or over or under. If it's 1 or 2 percent, a difference in the fourth decimal place might make it 1.2 percent instead of 1.1 percent. So it's harmless, but we want to be sure of that. So that's what was done where those reference values changed.

But that's what we use that reference value for. It's very important to ensure accuracy of the breath-alcohol instruments during the QAP and also in the field test when they prepare their field solutions for us that we use in the field.

MR. GARCIA: I have no further questions. Thank you.

MR. VOSK: I've got two quick follow-ups, your

Honor.

HEARINGS OFFICER KOEHLER: One -- I'm counting them. Go ahead.

MR. VOSK: Well, follow-up lines, but I'll try to keep them short.

REDIRECT EXAMINATION

BY MR. VOSK:

Q With respect to whether or not or -- strike that.

With respect to how the results are going to be interpreted, that's up to Dr. Logan, isn't it?

A Yes, I would agree.

Q So you may have an opinion, yes they do matter, not they don't, but it's his opinion that counts?

A I would agree with that, yes.

Q And so if he says they matter, then they matter?

A Yes.

Q With respect to bias, you talked about how careful you guys are on the QAP process. Last week we spoke, and you said that you don't subtract out of bias, bias shouldn't necessarily be subtracted out in the field when you find it.

A Right. Not as a routine practice. We could, we don't.

Q You testified for me in a case before, didn't you, as my expert?

A I may have.
Q Okay. I'm going to try to jog your memory a little bit. A case involving an 080 and an 081.
A Okay.
Q Two tests that were over the legal limit. And we went in and we took a look at the bias --
A Okay.
Q -- involved in the DataMaster. Just a small bias that we're talking about with respect to the lab. And didn't you conclude that even though both of those values were over an 08, that there was approximately a 57 percent probability that the true value was under an 08?
A Yeah, I could have.
Q Okay.
A Yeah. That's one of the things I look at is the bias in the test results.
Q Okay. Do you --
A Yeah, I've done that several times. In your case -- I know I've done them for you before -- conference interval calculations.
Q Okay. And so even if you don't remember the specific numbers, you remember testifying in cases where you've had both values over an 08; but because of the bias, the true value was more likely than not below an 08?
A That's always a possibility and, yes, that has

occurred. Yes.

MR. VOSK: No further questions, your Honor.

MR. GARCIA: Nothing further.

HEARINGS OFFICER BARTON: Just one question. The CV -- the reference value, is that the same as the CV?

THE WITNESS: No. The reference value is -- well, there's two on Exhibit 64 on the front page. The average solution concentration here is 0.1018 is a reference value, in units of grams per hundred milliliters. We divide that by 1.23, knowing it's heated in a simulator to 34 degrees Celsius, and we get another reference value that's more relevant to the breath-test instrument, 0.0828. Both of those are reference values in this certified reference material.

The CV is a measure of precision or repeatability. It's the standard deviation divided by the mean times 100, you get a percent CV. So that measures precision, repeatability, dispersion of measurements.

HEARINGS OFFICER BARTON: And that's the one that has to be plus or minus 5 percent?

THE WITNESS: That's right -- not plus or minus -- five percent or less. It will be a positive number.

HEARINGS OFFICER BARTON: So when you say the reference value has to be plus or minus five percent, what are you referring to?

THE WITNESS: That's when we use this solution on the DataMaster and run 10 tests.

HEARINGS OFFICER BARTON: So you're talking when you do a QAP?

THE WITNESS: Yes, QAP, that's right.

HEARINGS OFFICER BARTON: Okay. So we're looking at a QAP, it happens to be Exhibit 55. I can hand it to you if need to look at it again. So which one is the reference value.

THE WITNESS: Okay. At the top of each column you'll see reference value and the batch number.

HEARINGS OFFICER BARTON: Okay.

THE WITNESS: So that reference value comes from one of these -- this exhibit, like 64. The equivalent vapor concentration, that's the reference value we will put on that page for this batch number which we use during the QAP.

HEARINGS OFFICER BARTON: I understand. Thank you.

And what role do you have or did you have in determining how the methods were going to be performed, any methods that were going to be preformed at the State toxicologist's office?

THE WITNESS: None. I had no involvement.

HEARINGS OFFICER BARTON: So when you were talking

earlier about considering weighted means and deciding not to use those, are you referring to when you were doing the recalculations?

THE WITNESS: That was my opinion.

HEARINGS OFFICER BARTON: Oh.

THE WITNESS: Just in the few times I've looked at the two, arithmetic means or weighted means. I didn't feel they were significantly different enough to approach Dr. Logan and argue that he should do the weighted mean.

So that was strictly my opinion. I had no influence on SOP procedures there.

HEARINGS OFFICER BARTON: Thank you. I don't have anything further.

HEARINGS OFFICER KOEHLER: I just have one question, Mr. Gullberg.

I might have been a little bit confused by the testimony. But it is my understanding that you looked at other toxicology laboratories to determine what -- whether they used a weighted mean for the average?

THE WITNESS: No. Breath-test programs, I think is how the question was asked. And I'm more familiar with breath-testing programs throughout the country, not toxicology laboratories. In the breath-testing programs, I'm not aware that anyone does a weighted mean.

HEARINGS OFFICER KOEHLER: And because in this

case we're talking about simulator solutions. When you talk about in breath-test programs, is that what you're talking about?

THE WITNESS: Well, it's where we are the end-users of this solution. And we take this reference value and we do replica tests on a breath-test instrument and there we simply calculate the arithmetic mean. On the QAP form you'll see at the bottom of each column a mean. It's a mean of 10 measurements. That's strictly the arithmetic mean. I'm not aware that anyone measuring breath-testing instruments, calibrating, certifying, uses a weighted mean. That's what my answer was earlier.

HEARINGS OFFICER KOEHLER: All right. So you -- your testimony was not about whether in different laboratories --

THE WITNESS: That's right.

HEARINGS OFFICER KOEHLER: -- they use a weighted mean in terms of comparing a simulator solution to what machine it's tested on.

THE WITNESS: That's right. I was not testifying regarding toxicology labs, where I'm not familiar. It was on the breath-testing side of the field where we use these solutions to test breath-test instruments. That's the area that I'm not aware of weighted means being employed.

HEARINGS OFFICER KOEHLER: All right. Thank you

very much.

Mr. Garcia, do you have any follow-up based on the Hearing Officer's questions?

MR. GARCIA: No, I don't. Thank you.

HEARINGS OFFICER KOEHLER: Mr. Vosk:

MR. VOSK: I'll try to be very brief.

HEARINGS OFFICER KOEHLER: Based on our questions?

MR. VOSK: Yes, based on your questions.

REDIRECT EXAMINATION

BY MR. VOSK:

Q You were asked about the QAPs and the parameters of the QAPs. You're very careful when you do the QAP, right?

A I believe so.

Q You're not going to just shove any solution out there if it fails the QAP?

A Well, it's not a matter of shoving solutions out there, it's the instrument.

Q Okay.

A The solution is the standard.

Q Okay.

A That's the reference control value based on toxicology lab --

Q Okay.

A -- results by independent gas chromatography. So

they establish the reference value. If it doesn't meet that, something's wrong with the instrument -- is typically the first thing we look at, mis-calibrated, electronics, some optical problem so -- and then we'll correct that and then run it again.

Q Okay. But you're not going to just approve any machine for use?

A That's true. Right.

Q The only machines approved are the ones that pass the QAPs?

A That's right.

Q So in these examples we spoke about earlier of tests where both were over an 80, but there was actually a greater likelihood than not that they were under an 080 --

A Yes.

Q -- those machines passed the QAPs, didn't they?

A Yes.

MR. VOSK: Nothing further, your Honor. I can't understand my notes.

MR. GARCIA: Nothing.

HEARINGS OFFICER KOEHLER: Then the record in this case, in the Arntson case, relative to exhibits and witnesses is closed.

Before we close, the record is now closed for exhibits and witnesses. I will accept briefing and

memoranda, if you want to do them for this case, no later than next Friday, November 2, at 5 p.m. All right. And they need to be filed with me here in the Greenwood office.

MR. VOSK: Your Honor, when I write that up, can I refer to the -- am I free to refer to all of the exhibits and transcripts from Skagit?

HEARINGS OFFICER KOEHLER: You are. And I will make a ruling in my final order as to whether I am ruling differently on the admissibility of evidence in the Skagit case. But you are free to refer to those Exhibits, 1 through 53.

MR. VOSK: Thank you, your Honor.

HEARINGS OFFICER KOEHLER: Anything further?

MR. GARCIA: Nothing further.

HEARINGS OFFICER KOEHLER: All right. Mr. Gullberg, thank you very much for your testimony today.

MR. VOSK: And does that include the Olson -- the September 10 as well? I thought that it had been from George Bianchi, but I don't know since I haven't been privied?

HEARINGS OFFICER KOEHLER: I don't recall offhand. I have those notes in my office. If you want to wait for a moment or did you want to admit those if they haven't already been admitted.

MR. VOSK: I would move to admit if they're not

already admitted.

HEARING OFFICE KOEHLER: And you're asking to admit the transcripts from the Olson case that were taken on September 10, 2007.

MR. VOSK: The transcripts and the exhibits in the Olson case, yes, your Honor.

HEARINGS OFFICER KOEHLER: All right. Mr. Garcia, do you have any objections -- they may have already been admitted.

MR. GARCIA: In this case?

HEARINGS OFFICER KOEHLER: In this case before you were involved.

MR. GARCIA: All right. If they haven't been, I would object because the whole -- my understanding of the purpose of this proceeding was to create a record where both parties had an opportunity to examine and cross examine the witnesses.

So Olson, obviously, my understanding is that is not what happened which was what led to the problem of testimony without a rebuttal. And from my review of the opinions that was admitted by the Hearing Examiner saying this is what I understand to be the case, but there is no prosecutor, there is no contrary examination -- cross examination --

MR. VOSK: Are you speaking about this Hearing

Officer or that Hearing Officer because that Hearing Office said nothing about that.

MR. GARCIA: All right. It's my understanding of the opinions, so that would be my concern with admitting testimony where I didn't have an opportunity to examine the person and elicit responses or --

HEARINGS OFFICER KOEHLER: So you are concerned about the actual testimony?

MR. GARCIA: Yes.

MR. VOSK: And your honor --

HEARINGS OFFICER KOEHLER: Let me just make sure that I understand where we're at. The Olson testimony may have been admitted in this case before Mr. Garcia was involved. As you know, in these Department of Licensing cases, the hearings generally are not conducted with anyone coming in person to represent the Department. It's done by submitting exhibits from the Department website or from their image records.

So I can't recall offhand, I have those notes in my office. And there would be a record on that. But my understanding is that if they haven't been admitted, Mr. Vosk, you're moving to admit them, you're asking that they be admitted. And Mr. Garcia, you're objecting for the reasons stated.

MR. GARCIA: Yes.

HEARINGS OFFICER KOEHLER: All right then. I will reserve ruling on that until I have an opportunity to review my notes and I will address that in my -- or if you prefer that I let you know by Monday, I'll do that.

MR. VOSK: If you could, and just because when I write the brief, I'm going to need to know what I can use.

And what I wanted to ask, your Honor, is if you are going to decide, whichever way you're going to decide, will we have an opportunity to at least via the phone the way hearings are usually done, can we at least present arguments in a 20 minute, half-hour session with respect to that.

My concern is that the testimony was all sworn to, it was all under oath, it was pursuant to the Department of Licensing's wishes, it wasn't pursuant to the Defendant's wishes so nobody dragged these people in. And the Department did say that those transcripts would be used -- would be posted and made available for everybody to use and would be binding in hearings thereafter. And the AG was there in fact. And the AG's the one who finally -- the AG could have participated at anytime. She could have participated at any time, and as a matter of fact when she wanted to, she did participate and that's why this -- those proceedings have all been dismissed.

HEARINGS OFFICER KOEHLER: Are you requesting an

oral argument on this hearing altogether or on the issue of the Olson transcripts?

MR. VOSK: Just on the issue of the transcripts and the exhibits from Olson. I understand you want briefing, you'll accept briefing.

HEARINGS OFFICER KOEHLER: For the Arntson case overall?

MR. VOSK: Yeah, yeah.

HEARINGS OFFICER KOEHLER: I don't believe that I need to hear any oral argument on the Olson transcripts. I'm going to review my records, and I'll have to review the record from that initial hearing to determine whether or not those were incorporated or not.

I understand what your arguments both are. And I will let you know before the end of the day on Monday so that you will know.

MR. VOSK: Thank you, your Honor.

MR. GARCIA: I want The Court to be clear. My objection is with the reservations I've stated. I think if the Hearing Examiner's would find it helpful, then it should be admitted with the understanding that, of course, that there was nobody on other side. And that's the reservation I have there. So I have not reviewed it, I did read it once approximately three weeks ago when I became involved.

MR. VOSK: And, your Honor, if it will make counsel feel any better, I'm willing to stipulate that nobody rebutted us at that hearing.

HEARINGS OFFICER BARTON: Didn't both of those analysts testify again in Gilbert?

MR. VOSK: They did both testify again, neither of them contradicted anything they said. Because we had the transcripts on Olson, however, there were certain questions I did not ask because I just thought they'd be repetitive and I was assuming The Court had looked at them, which was my mistake.

HEARINGS OFFICER BARTON: Were they admitted in Gilbert?

MR. VOSK: They were not, no. And that was my mistake. I had assumed they were. And so I asked them a fair number of questions, but some of the ones I asked them in DOL, I did not ask them at Skagit. It was an oversight on my part.

HEARINGS OFFICER BARTON: I thought you covered it pretty well in Skagit.

HEARINGS OFFICER KOEHLER: All right. Then this hearing is concluded. Thank you. And thank you very much for your presentations.

(Whereupon, at 4:06 p.m., the hearing was concluded.)

CERTIFICATE

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I, Valerie Allard, do hereby certify that pursuant to the Rules of Civil Procedure, the witness named herein appeared before me at the time and place set forth in the caption herein; that at the said time and place, I reported in stenotype all testimony adduced and other oral proceedings had in the foregoing matter; and that the foregoing transcript pages constitute a full, true and correct record of such testimony adduced and oral proceeding had and of the whole thereof.

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IN WITNESS HEREOF, I have hereunto set my hand this 29th day of October, 2007.

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Signature Expiration Date

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